NAME

Image::ExifTool::TagNames − ExifTool tag name documentation

DESCRIPTION

This document contains a complete list of ExifTool tag names, organized into tables based on information type. Tag names are used to reference specific meta information extracted from or written to a file.

TAG TABLES

The tables listed below give the names of all tags recognized by ExifTool. They contain a total of 33706 tags, with 21511 unique tag names.

Tag ID, **Index#** or **Sequence** is given in the first column of each table. A **Tag ID** is the computer-readable equivalent of a tag name, and is the identifier that is actually stored in the file. **Index#** refers to the of fset of a value when found at a fixed position within a data block (**#** is the multiplier for calculating a byte offset: **1**, **2**, **4** or **8**). These offsets may have a decimal part which is used only to differentiate tags with values stored at the same position. (Note that writable tags within binary data blocks are not individually deletable, and the usual alternative is to set them to a value of zero.) **Sequence** gi ves the order of values for a serial data stream.

A **Tag Name** is the handle by which the information is accessed in ExifTool. In some instances, more than one name may correspond to a single tag ID. In these cases, the actual name used depends on the context in which the information is found. Valid characters in a tag name are A−Z, a−z, 0−9, hyphen (−) and underline (_). Case is not significant. A question mark (?) after a tag name indicates that the information is either not understood, not verified, or not very useful — these tags are not extracted by ExifTool unless the Unknown (−u) option is enabled. Be aware that some tag names are different than the descriptions printed out by default when extracting information with exiftool. To see the tag names instead of the descriptions, use `exiftool -s`.

The **Writable** column indicates whether the tag is writable by ExifTool. Anything but a `no` in this column means the tag is writable. A `yes` indicates writable information that is either unformatted or written using the existing format. Other expressions give details about the format of the stored value, and vary depending on the general type of information. The format name may be followed by a number in square brackets to indicate the number of values written, or the number of characters in a fixed-length string (including a null terminator which is added if required).

A plus sign (+) after an entry in the **Writable** column indicates a *List* tag which supports multiple values and allows individual values to be added and deleted. A slash (/) indicates a tag that ExifTool will *Avoid* when writing. These will be edited but not created if another same-named tag may be created instead. To create these tags, the group should be specified. A tilde (~) indicates a tag this is writable only when the print conversion is disabled (by setting PrintConv to 0, using the −n option, or suffixing the tag name with a # character). An exclamation point (!) indicates a tag that is considered *Unsafe* to write under normal circumstances. These tags are not written unless specified explicitly (ie. not when wildcards or ''all'' are used), and care should be taken when editing them manually since they may affect the way an image is rendered. An asterisk (*) indicates a *Protected* tag which is not writable directly, but is written automatically by ExifTool (often when a corresponding Composite or Extra tag is written). A colon (:) indicates a *Mandatory* tag which may be added automatically when writing (use the API NoMandatory option to avoid creating mandatory EXIF tags). Normally MakerNotes tags may not be deleted individually, but a caret (^) indicates a *Deletable* MakerNotes tag.

The HTML version of these tables also lists possible **Values** for discrete-valued tags, as well as **Notes** for some tags. The **Values** are listed with the computer-readable values on the left of the equals sign (=), and the human-readable values on the right. The human-readable values are used by default when reading and writing, but the computer-readable values may be accessed by disabling the value conversion with the −n option on the command line, by setting the PrintConv option to 0 in the API, or or on a per-tag basis by adding a hash (#) after the tag name.

Note: If you are familiar with common meta-information tag names, you may find that some ExifTool tag names are different than expected. The usual reason for this is to make the tag names more consistent across different types of meta information. To determine a tag name, either consult this documentation or

run `exiftool -s` on a file containing the information in question.

(This documentation is the result of decades of research, testing and reverse engineering, and is the most complete metadata tag list available anywhere on the internet. It is provided not only for ExifTool users, but more importantly as a public service to help augment the collective knowledge, and is often used as a primary source of information in the development of other metadata software. Please help keep this documentation as accurate and complete as possible, and feed any new discoveries back to ExifTool. A big thanks to everyone who has helped with this so far!)

JPEG Tags

This table lists information extracted by ExifTool from JPEG images. See <https://www.w3.org/Graphics/JPEG/jfif3.pdf> for the JPEG specification.

Tag ID	Tag Name	Writable
'APP0'	JFIF	JFIF
	JFXX	JFIF Extension
	CIFF	CanonRaw
	AVI1	JPEG AVI1
	Ocad	JPEG Ocad
'APP1'	EXIF	EXIF
	ExtendedXMP	XMP
	XMP	XMP
	QVCI	Casio QVCI
	FLIR	FLIR FFF
	RawThermalImage	no
'APP2'	ICC_Profile	ICC_Profile
	FPXR	FlashPix
	MPF	MPF
	InfiRayVersion	InfiRay Version
	UniformResourceName	no
	PreviewImage	no
'APP3'	Meta	Kodak Meta
	Stim	Stim
	JPS	JPEG JPS
	ThermalData	no
	ImagingData	no
	PreviewImage	no
'APP4'	Scalado	Scalado
	FPXR	FlashPix
	QualcommDualCamera	Qualcomm DualCamera
	InfiRayFactory	InfiRay Factory
	ThermalParams	DJI ThermalParams
	ThermalParams2	DJI ThermalParams2
	ThermalParams3	DJI ThermalParams3
	PreviewImage	no
'APP5'	RMETA	Ricoh RMETA
	SamsungUniqueID	Samsung APP5
	InfiRayPicture	InfiRay Picture
	ThermalCalibration	no
	PreviewImage	no
'APP6'	EPPIM	JPEG EPPIM
	NITF	JPEG NITF
	HP_TDHD	HP TDHD
	GoPro	GoPro GPMF
	InfiRayMixMode	InfiRay MixMode

	DJI_DTAT	no
'APP7'	Pentax	Pentax
	Ricoh	Pentax
	Huawei	Unknown
	Qualcomm	Qualcomm
	InfiRayOpMode	InfiRay OpMode
	DJI-DBG	DJI Info
'APP8'	SPIFF	JPEG SPIFF
	InfiRayIsothermal	InfiRay Isothermal
	SEAL	XMP SEAL
'APP9'	MediaJukebox	JPEG MediaJukebox
	InfiRaySensor	InfiRay Sensor
	SEAL	XMP SEAL
'APP10'	Comment	no
	HDRGainInfo	-
'APP11'	JPEG-HDR	JPEG HDR
	JUMBF	Jpeg2000
'APP12'	PictureInfo	APP12 PictureInfo
	Ducky	APP12 Ducky
'APP13'	Photoshop	Photoshop
	Adobe_CM	JPEG AdobeCM
'APP14'	Adobe	JPEG Adobe
'APP15'	GraphicConverter	JPEG GraphConv
'COM'	Comment	yes
'DQT'	DefineQuantizationTable	no
'SOF'	StartOfFrame	JPEG SOF
'Trailer'	AFCP	AFCP
	CanonVRD	CanonVRD
	FotoStation	FotoStation
	PhotoMechanic	PhotoMechanic
	MIE	MIE
	MPF	MPF
	Samsung	Samsung Trailer
	Vivo	Trailer Vivo
	OnePlus	Trailer OnePlus
	Google	Trailer Google
	EmbeddedVideo	no
	Insta360	no
	NikonApp	no
	SonyHiddenData	no
	PreviewImage	yes

JPEG AVI1 Tags

This information may be found in APP0 of JPEG image data from AVI videos.

Index1	Tag Name	Writable
0	InterleavedField	no

JPEG Ocad Tags

Tags extracted from the JPEG APP0 ‘‘Ocad’’ segment (found in Photobucket images).

Tag ID	Tag Name	Writable
'Rev'	OcadRevision	no

JPEG JPS Tags

Tags found in JPEG Stereo (JPS) images.

Index1	Tag Name	Writable
10	JPSSeparation	no
11	JPSFlags	no
12	JPSLayout	no
13	JPSType	no
16	JPSComment	no

JPEG EPPIM Tags

APP6 is used in by the Toshiba PDR−M700 to store a TIFF structure containing PrintIM information.

Tag ID	Tag Name	Writable
0xc4a5	PrintIM	PrintIM

JPEG NITF Tags

Information in APP6 used by the National Imagery Transmission Format. See <http://www.gwg.nga.mil/ntb/baseline/docs/n010697/bwcguide25aug98.pdf> for the official specification.

Index1	Tag Name	Writable
0	NITFVersion	no
2	ImageFormat	no
3	BlocksPerRow	no
5	BlocksPerColumn	no
7	ImageColor	no
8	BitDepth	no
9	ImageClass	no
10	JPEGProcess	no
11	Quality	no
12	StreamColor	no
13	StreamBitDepth	no
14	Flags	no

JPEG SPIFF Tags

This information is found in APP8 of SPIFF-style JPEG images (the ‘‘official’’ yet rarely used JPEG file format standard: Still Picture Interchange File Format). See <http://www.jpeg.org/public/spiff.pdf> for the official specification.

Index1	Tag Name	Writable
0	SPIFFVersion	no
2	ProfileID	no
3	ColorComponents	no
6	ImageHeight	no
10	ImageWidth	no
14	ColorSpace	no
15	BitsPerSample	no
16	Compression	no
17	ResolutionUnit	no
18	YResolution	no
22	XResolution	no

JPEG MediaJukebox Tags

Tags found in the XML metadata of the APP9 ‘‘Media Jukebox’’ segment.

Tag Name	Writable
Album	no
Caption	no
Date	no
Keywords	no
Name	no
People	no
Places	no
Tool_Name	no
Tool_Version	no

JPEG HDRGainInfo Tags

Index1	Tag Name	Writable
6	HDRGainCurveSize	no
10	HDRGainCurve	no

JPEG HDR Tags

Information extracted from APP11 of a JPEG-HDR image.

Tag ID	Tag Name	Writable
'RatioImage'	RatioImage	no
'alp'	Alpha	no
'bet'	Beta	no
'cor'	CorrectionMethod	no
'ln0'	Ln0	no
'ln1'	Ln1	no
's2n'	S2n	no
'ver'	JPEG-HDRVersion	no

JPEG AdobeCM Tags

The APP13 ‘‘Adobe_CM’’ segment presumably contains color management information, but the meaning of the data is currently unknown. If anyone has an idea about what this means, please let me know.

Index2	Tag Name	Writable
0	AdobeCMType	no

JPEG Adobe Tags

The APP14 ‘‘Adobe’’ segment stores image encoding information for DCT filters. This segment may be copied or deleted as a block using the Extra ‘‘Adobe’’ tag, but note that it is not deleted by default when deleting all metadata because it may affect the appearance of the image.

Index2	Tag Name	Writable
0	DCTEncodeVersion	no
1	APP14Flags0	no
2	APP14Flags1	no
3	ColorTransform	no

JPEG GraphConv Tags

APP15 is used by GraphicConverter to store JPEG quality.

Tag ID	Tag Name	Writable
'Q'	Quality	no

JPEG SOF Tags

This information is extracted from the JPEG Start Of Frame segment.

Tag Name	Writable
BitsPerSample	no
ColorComponents	no
EncodingProcess	no
ImageHeight	no
ImageWidth	no
YCbCrSubSampling	no

EXIF Tags

EXIF stands for ''Exchangeable Image File Format''. This type of information is formatted according to the TIFF specification, and may be found in JPG, TIFF, PNG, JP2, PGF, MIFF, HDP, PSP and XCF images, as well as many TIFF-based RAW images, and even some AVI and MOV videos.

The EXIF meta information is organized into different Image File Directories (IFD's) within an image. The names of these IFD's correspond to the ExifTool family 1 group names. When writing EXIF information, the default **Group** listed below is used unless another group is specified.

Mandatory tags (indicated by a colon after the **Writable** type) may be added automatically with default values when creating a new IFD, and the IFD is removed automatically when deleting tags if only default-valued mandatory tags remain.

The table below lists all EXIF tags. Also listed are TIFF, DNG, HDP and other tags which are not part of the EXIF specification, but may co-exist with EXIF tags in some images. Tags which are part of the EXIF 3.1 specification have an underlined **Tag Name** in the HTML version of this documentation. See <https://www.cipa.jp/std/documents/download_e.html?CIPA_DC-008-2026-E> for the official EXIF 3.1 specification.

Tag ID	Tag Name	Group	Writable
0x0001	InteropIndex	InteropIFD	string!
0x0002	InteropVersion	InteropIFD	undef!:
0x000b	ProcessingSoftware	IFD0	string
0x00fe	SubfileType	IFD0	int32u!
0x00ff	OldSubfileType	IFD0	int16u!
0x0100	ImageWidth	IFD0	int32u!
0x0101	ImageHeight	IFD0	int32u!
0x0102	BitsPerSample	IFD0	int16u[n]!
0x0103	Compression	IFD0	int16u!:
0x0106	PhotometricInterpretation	IFD0	int16u!
0x0107	Thresholding	IFD0	int16u!
0x0108	CellWidth	IFD0	int16u!
0x0109	CellLength	IFD0	int16u!
0x010a	FillOrder	IFD0	int16u!
0x010d	DocumentName	IFD0	string
0x010e	ImageDescription	IFD0	string
0x010f	Make	IFD0	string
0x0110	Model	IFD0	string
0x0111	StripOffsets	-	no
	OtherImageStart	-	no
	PreviewJXLStart	-	no

	StripOffsets	−	no
	PreviewImageStart	IFD0	int32u*
	PreviewImageStart	All	int32u*
	JpgFromRawStart	SubIFD2	int32u*
0x0112	Orientation	IFD0	int16u
0x0115	SamplesPerPixel	IFD0	int16u!
0x0116	RowsPerStrip	IFD0	int32u!
0x0117	StripByteCounts	−	no
	OtherImageLength	−	no
	PreviewJXLLength	−	no
	StripByteCounts	−	no
	PreviewImageLength	IFD0	int32u*
	PreviewImageLength	All	int32u*
	JpgFromRawLength	SubIFD2	int32u*
0x0118	MinSampleValue	IFD0	int16u
0x0119	MaxSampleValue	IFD0	int16u
0x011a	XResolution	IFD0	rational64u:
0x011b	YResolution	IFD0	rational64u:
0x011c	PlanarConfiguration	IFD0	int16u!
0x011d	PageName	IFD0	string
0x011e	XPosition	IFD0	rational64u
0x011f	YPosition	IFD0	rational64u
0x0120	FreeOffsets	−	no
0x0121	FreeByteCounts	−	no
0x0122	GrayResponseUnit	IFD0	int16u
0x0123	GrayResponseCurve	−	no
0x0124	T4Options	−	no
0x0125	T6Options	−	no
0x0128	ResolutionUnit	IFD0	int16u:
0x0129	PageNumber	IFD0	int16u[2]
0x012c	ColorResponseUnit	−	no
0x012d	TransferFunction	IFD0	int16u[768]!
0x0131	Software	IFD0	string
0x0132	ModifyDate	IFD0	string
0x013b	Artist	IFD0	string
0x013c	HostComputer	IFD0	string
0x013d	Predictor	IFD0	int16u!
0x013e	WhitePoint	IFD0	rational64u[2]
0x013f	PrimaryChromaticities	IFD0	rational64u[6]
0x0140	ColorMap	−	no
0x0141	HalftoneHints	IFD0	int16u[2]
0x0142	TileWidth	IFD0	int32u!
0x0143	TileLength	IFD0	int32u!
0x0144	TileOffsets	−	no
0x0145	TileByteCounts	−	no
0x0146	BadFaxLines	−	no
0x0147	CleanFaxData	−	no
0x0148	ConsecutiveBadFaxLines	−	no
0x014a	SubIFD	−	EXIF
	A100DataOffset	IFD0	no
0x014c	InkSet	IFD0	int16u
0x014d	InkNames	−	no
0x014e	NumberofInks	−	no
0x0150	DotRange	−	no

0x0151	TargetPrinter	IFD0	string
0x0152	ExtraSamples	–	no
0x0153	SampleFormat	SubIFD	no
0x0154	SMinSampleValue	–	no
0x0155	SMaxSampleValue	–	no
0x0156	TransferRange	–	no
0x0157	ClipPath	–	no
0x0158	XClipPathUnits	–	no
0x0159	YClipPathUnits	–	no
0x015a	Indexed	–	no
0x015b	JPEGTables	–	no
0x015f	OPIProxy	–	no
0x0190	GlobalParametersIFD	–	EXIF
0x0191	ProfileType	–	no
0x0192	FaxProfile	–	no
0x0193	CodingMethods	–	no
0x0194	VersionYear	–	no
0x0195	ModeNumber	–	no
0x01b1	Decode	–	no
0x01b2	DefaultImageColor	–	no
0x01b3	T82Options	–	no
0x01b5	JPEGTables	–	no
0x0200	JPEGProc	–	no
0x0201	ThumbnailOffset	IFD1	int32u*
	ThumbnailOffset	IFD0	int32u*
	ThumbnailOffset	SubIFD	int32u*
	PreviewImageStart	MakerNotes	int32u*
	PreviewImageStart	IFD0	int32u*
	JpgFromRawStart	SubIFD	int32u*
	JpgFromRawStart	IFD2	int32u*
	OtherImageStart	SubIFD1	int32u*
	OtherImageStart	SubIFD2	int32u*
	OtherImageStart	–	no
0x0202	ThumbnailLength	IFD1	int32u*
	ThumbnailLength	IFD0	int32u*
	ThumbnailLength	SubIFD	int32u*
	PreviewImageLength	MakerNotes	int32u*
	PreviewImageLength	IFD0	int32u*
	JpgFromRawLength	SubIFD	int32u*
	JpgFromRawLength	IFD2	int32u*
	OtherImageLength	SubIFD1	int32u*
	OtherImageLength	SubIFD2	int32u*
	OtherImageLength	–	no
0x0203	JPEGRestartInterval	–	no
0x0205	JPEGLosslessPredictors	–	no
0x0206	JPEGPointTransforms	–	no
0x0207	JPEGQTables	–	no
0x0208	JPEGDCTables	–	no
0x0209	JPEGACTables	–	no
0x0211	YCbCrCoefficients	IFD0	rational64u[3]!
0x0212	YCbCrSubSampling	IFD0	int16u[2]!
0x0213	YCbCrPositioning	IFD0	int16u!:
0x0214	ReferenceBlackWhite	IFD0	rational64u[6]
0x022f	StripRowCounts	–	no

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0x02bc   ApplicationNotes          IFD0       XMP
0x0303   RenderingIntent           -          no
0x03e7   USPTOMiscellaneous        -          no
0x1000   RelatedImageFileFormat    InteropIFD string!
0x1001   RelatedImageWidth         InteropIFD int16u!
0x1002   RelatedImageHeight        InteropIFD int16u!
0x4746   Rating                    IFD0       int16u/
0x4747   XP_DIP_XML                -          no
0x4748   StitchInfo                -          Microsoft Stitch
0x4749   RatingPercent             IFD0       int16u/
0x5001   ResolutionXUnit           -          no
0x5002   ResolutionYUnit           -          no
0x5003   ResolutionXLengthUnit     -          no
0x5004   ResolutionYLengthUnit     -          no
0x5005   PrintFlags                -          no
0x5006   PrintFlagsVersion         -          no
0x5007   PrintFlagsCrop            -          no
0x5008   PrintFlagsBleedWidth      -          no
0x5009   PrintFlagsBleedWidthScale -          no
0x500a   HalftoneLPI               -          no
0x500b   HalftoneLPIUnit           -          no
0x500c   HalftoneDegree            -          no
0x500d   HalftoneShape             -          no
0x500e   HalftoneMisc              -          no
0x500f   HalftoneScreen            -          no
0x5010   JPEGQuality               -          no
0x5011   GridSize                  -          no
0x5012   ThumbnailFormat           -          no
0x5013   ThumbnailWidth            -          no
0x5014   ThumbnailHeight           -          no
0x5015   ThumbnailColorDepth       -          no
0x5016   ThumbnailPlanes           -          no
0x5017   ThumbnailRawBytes         -          no
0x5018   ThumbnailLength           -          no
0x5019   ThumbnailCompressedSize   -          no
0x501a   ColorTransferFunction     -          no
0x501b   ThumbnailData             -          no
0x5020   ThumbnailImageWidth       -          no
0x5021   ThumbnailImageHeight      -          no
0x5022   ThumbnailBitsPerSample    -          no
0x5023   ThumbnailCompression      -          no
0x5024   ThumbnailPhotometricInterp -          no
0x5025   ThumbnailDescription      -          no
0x5026   ThumbnailEquipMake        -          no
0x5027   ThumbnailEquipModel       -          no
0x5028   ThumbnailStripOffsets     -          no
0x5029   ThumbnailOrientation      -          no
0x502a   ThumbnailSamplesPerPixel  -          no
0x502b   ThumbnailRowsPerStrip     -          no
0x502c   ThumbnailStripByteCounts  -          no
0x502d   ThumbnailResolutionX      -          no
0x502e   ThumbnailResolutionY      -          no
0x502f   ThumbnailPlanarConfig     -          no
0x5030   ThumbnailResolutionUnit   -          no
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0x5031   ThumbnailTransferFunction -          no
0x5032   ThumbnailSoftware         -          no
0x5033   ThumbnailDateTime         -          no
0x5034   ThumbnailArtist           -          no
0x5035   ThumbnailWhitePoint       -          no
0x5036   ThumbnailPrimaryChromaticities -     no
0x5037   ThumbnailYCbCrCoefficients -         no
0x5038   ThumbnailYCbCrSubsampling -          no
0x5039   ThumbnailYCbCrPositioning -          no
0x503a   ThumbnailRefBlackWhite    -          no
0x503b   ThumbnailCopyright        -          no
0x5090   LuminanceTable            -          no
0x5091   ChrominanceTable          -          no
0x5100   FrameDelay                -          no
0x5101   LoopCount                 -          no
0x5102   GlobalPalette             -          no
0x5103   IndexBackground           -          no
0x5104   IndexTransparent          -          no
0x5110   PixelUnits                -          no
0x5111   PixelsPerUnitX            -          no
0x5112   PixelsPerUnitY            -          no
0x5113   PaletteHistogram          -          no
0x7000   SonyRawFileType           -          no
0x7010   SonyToneCurve             -          no
0x7031   VignettingCorrection      SubIFD     int16s!
0x7032   VignettingCorrParams      SubIFD     int16s[17]!
0x7034   ChromaticAberrationCorrection SubIFD int16s!
0x7035   ChromaticAberrationCorrParams SubIFD int16s[33]!
0x7036   DistortionCorrection      SubIFD     int16s!
0x7037   DistortionCorrParams      SubIFD     int16s[17]!
0x7038   SonyRawImageSize          SubIFD     int32u[2]!
0x7310   BlackLevel                SubIFD     int16u[4]!
0x7313   WB_RGGBLevels             SubIFD     int16s[4]!
0x74c7   SonyCropTopLeft           SubIFD     int32u[2]!
0x74c8   SonyCropSize              SubIFD     int32u[2]!
0x800d   ImageID                   -          no
0x80a3   WangTag1                  -          no
0x80a4   WangAnnotation            -          no
0x80a5   WangTag3                  -          no
0x80a6   WangTag4                  -          no
0x80b9   ImageReferencePoints      -          no
0x80ba   RegionXformTackPoint      -          no
0x80bb   WarpQuadrilateral         -          no
0x80bc   AffineTransformMat        -          no
0x80e3   Matteing                  -          no
0x80e4   DataType                  -          no
0x80e5   ImageDepth                -          no
0x80e6   TileDepth                 -          no
0x8214   ImageFullWidth            -          no
0x8215   ImageFullHeight           -          no
0x8216   TextureFormat             -          no
0x8217   WrapModes                 -          no
0x8218   FovCot                    -          no
0x8219   MatrixWorldToScreen       -          no
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0x821a	MatrixWorldToCamera	-	no
0x827d	Model2	-	no
0x828d	CFARepeatPatternDim	SubIFD	int16u[2]!
0x828e	CFAPattern2	SubIFD	int8u[n]!
0x828f	BatteryLevel	-	no
0x8290	KodakIFD	-	Kodak IFD
0x8298	Copyright	IFD0	string
0x829a	ExposureTime	ExifIFD	rational64u
0x829d	FNumber	ExifIFD	rational64u
0x82a5	MDFileTag	-	no
0x82a6	MDScalePixel	-	no
0x82a7	MDColorTable	-	no
0x82a8	MDLabName	-	no
0x82a9	MDSampleInfo	-	no
0x82aa	MDPrepDate	-	no
0x82ab	MDPrepTime	-	no
0x82ac	MDFileUnits	-	no
0x830e	PixelScale	IFD0	double[3]
0x8335	AdventScale	-	no
0x8336	AdventRevision	-	no
0x835c	UIC1Tag	-	no
0x835d	UIC2Tag	-	no
0x835e	UIC3Tag	-	no
0x835f	UIC4Tag	-	no
0x83bb	IPTC-NAA	IFD0	IPTC
0x847e	IntergraphPacketData	-	no
0x847f	IntergraphFlagRegisters	-	no
0x8480	IntergraphMatrix	IFD0	double[n]
0x8481	INGRReserved	-	no
0x8482	ModelTiePoint	IFD0	double[n]
0x84e0	Site	-	no
0x84e1	ColorSequence	-	no
0x84e2	IT8Header	-	no
0x84e3	RasterPadding	-	no
0x84e4	BitsPerRunLength	-	no
0x84e5	BitsPerExtendedRunLength	-	no
0x84e6	ColorTable	-	no
0x84e7	ImageColorIndicator	-	no
0x84e8	BackgroundColorIndicator	-	no
0x84e9	ImageColorValue	-	no
0x84ea	BackgroundColorValue	-	no
0x84eb	PixelIntensityRange	-	no
0x84ec	TransparencyIndicator	-	no
0x84ed	ColorCharacterization	-	no
0x84ee	HCUsage	-	no
0x84ef	TrapIndicator	-	no
0x84f0	CMYKEquivalent	-	no
0x8546	SEMInfo	IFD0	string
0x8568	AFCP_IPTC	-	IPTC
0x85b8	PixelMagicJBIGOptions	-	no
0x85d7	JPLCartoIFD	-	no
0x85d8	ModelTransform	IFD0	double[16]
0x8602	WB_GRGBLevels	-	no
0x8606	LeafData	-	Leaf

```
0x8649   PhotoshopSettings          IFD0       Photoshop
0x8769   ExifOffset                 IFD0       EXIF
0x8773   ICC_Profile                IFD0       ICC_Profile
0x877f   TIFF_FXExtensions          -          no
0x8780   MultiProfiles              -          no
0x8781   SharedData                -          no
0x8782   T88Options                -          no
0x87ac   ImageLayer                 -          no
0x87af   GeoTiffDirectory           IFD0       int16u[0.5]
0x87b0   GeoTiffDoubleParams        IFD0       double[0.125]
0x87b1   GeoTiffAsciiParams         IFD0       string
0x87be   JBIGOptions                -          no
0x8822   ExposureProgram           ExifIFD    int16u
0x8824   SpectralSensitivity       ExifIFD    string
0x8825   GPSInfo                   IFD0       GPS
0x8827   ISO                       ExifIFD    int16u[n]
0x8828   Opto-ElectricConvFactor    -          no
0x8829   Interlace                  -          no
0x882a   TimeZoneOffset             ExifIFD    int16s[n]
0x882b   SelfTimerMode              ExifIFD    int16u
0x8830   SensitivityType            ExifIFD    int16u
0x8831   StandardOutputSensitivity ExifIFD    int32u
0x8832   RecommendedExposureIndex  ExifIFD    int32u
0x8833   ISOSpeed                  ExifIFD    int32u
0x8834   ISOSpeedLatitudeyyy       ExifIFD    int32u
0x8835   ISOSpeedLatitudezzz       ExifIFD    int32u
0x885c   FaxRecvParams              -          no
0x885d   FaxSubAddress              -          no
0x885e   FaxRecvTime                -          no
0x8871   FedexEDR                   -          no
0x888a   LeafSubIFD                 -          Leaf SubIFD
0x9000   ExifVersion                ExifIFD    undef:
0x9003   DateTimeOriginal           ExifIFD    string
0x9004   CreateDate                 ExifIFD    string
0x9009   GooglePlusUploadCode       ExifIFD    undef[n]
0x9010   OffsetTime                 ExifIFD    string
0x9011   OffsetTimeOriginal         ExifIFD    string
0x9012   OffsetTimeDigitized        ExifIFD    string
0x9101   ComponentsConfiguration    ExifIFD    undef[4]!:
0x9102   CompressedBitsPerPixel     ExifIFD    rational64u!
0x9201   ShutterSpeedValue          ExifIFD    rational64s
0x9202   ApertureValue              ExifIFD    rational64u
0x9203   BrightnessValue           ExifIFD    rational64s
0x9204   ExposureCompensation      ExifIFD    rational64s
0x9205   MaxApertureValue          ExifIFD    rational64u
0x9206   SubjectDistance           ExifIFD    rational64u
0x9207   MeteringMode              ExifIFD    int16u
0x9208   LightSource               ExifIFD    int16u
0x9209   Flash                     ExifIFD    int16u
0x920a   FocalLength               ExifIFD    rational64u
0x920b   FlashEnergy               -          no
0x920c   SpatialFrequencyResponse  -          no
0x920d   Noise                     -          no
0x920e   FocalPlaneXResolution     -          no
```

0x920f	FocalPlaneYResolution	-	no
0x9210	FocalPlaneResolutionUnit	-	no
0x9211	ImageNumber	ExifIFD	int32u
0x9212	SecurityClassification	ExifIFD	string
0x9213	ImageHistory	ExifIFD	string
0x9214	SubjectArea	ExifIFD	int16u[n]
0x9215	ExposureIndex	-	no
0x9216	TIFF-EPStandardID	-	no
0x9217	SensingMethod	-	no
0x923a	CIP3DataFile	-	no
0x923b	CIP3Sheet	-	no
0x923c	CIP3Side	-	no
0x923f	StoNits	-	no
0x927c	MakerNoteApple	ExifIFD	Apple
	MakerNoteNikon	ExifIFD	Nikon
	MakerNoteCanon	ExifIFD	Canon
	MakerNoteCasio	ExifIFD	Casio
	MakerNoteCasio2	ExifIFD	Casio Type2
	MakerNoteDJIInfo	ExifIFD	DJI Info
	MakerNoteDJI	ExifIFD	DJI
	MakerNoteFLIR	ExifIFD	FLIR
	MakerNoteFujiFilm	ExifIFD	FujiFilm
	MakerNoteGE	ExifIFD	GE
	MakerNoteGE2	ExifIFD	FujiFilm
	MakerNoteGoogle	ExifIFD	Google HDRPlusMakerNote
	MakerNoteHasselblad	ExifIFD	Unknown
	MakerNoteHP	ExifIFD	HP
	MakerNoteHP2	ExifIFD	HP Type2
	MakerNoteHP4	ExifIFD	HP Type4
	MakerNoteHP6	ExifIFD	HP Type6
	MakerNoteISL	ExifIFD	Unknown
	MakerNoteJVC	ExifIFD	JVC
	MakerNoteJVCText	ExifIFD	JVC Text
	MakerNoteKodak1a	ExifIFD	Kodak
	MakerNoteKodak1b	ExifIFD	Kodak
	MakerNoteKodak2	ExifIFD	Kodak Type2
	MakerNoteKodak3	ExifIFD	Kodak Type3
	MakerNoteKodak4	ExifIFD	Kodak Type4
	MakerNoteKodak5	ExifIFD	Kodak Type5
	MakerNoteKodak6a	ExifIFD	Kodak Type6
	MakerNoteKodak6b	ExifIFD	Kodak Type6
	MakerNoteKodak7	ExifIFD	Kodak Type7
	MakerNoteKodak8a	ExifIFD	Kodak Type8
	MakerNoteKodak8b	ExifIFD	Kodak Type8
	MakerNoteKodak8c	ExifIFD	Kodak Type8
	MakerNoteKodak9	ExifIFD	Kodak Type9
	MakerNoteKodak10	ExifIFD	Kodak Type10
	MakerNoteKodak11	ExifIFD	Kodak Type11
	MakerNoteKodak12	ExifIFD	Kodak Type11
	MakerNoteKodakUnknown	ExifIFD	Kodak Unknown
	MakerNoteKyocera	ExifIFD	Unknown
	MakerNoteMinolta	ExifIFD	Minolta
	MakerNoteMinolta2	ExifIFD	Olympus
	MakerNoteMinolta3	ExifIFD	undef

```
                MakerNoteMotorola         ExifIFD    Motorola
                MakerNoteNikon2           ExifIFD    Nikon Type2
                MakerNoteNikon3           ExifIFD    Nikon
                MakerNoteNintendo         ExifIFD    Nintendo
                MakerNoteOlympus          ExifIFD    Olympus
                MakerNoteOlympus2         ExifIFD    Olympus
                MakerNoteOlympus3         ExifIFD    Olympus
                MakerNoteLeica            ExifIFD    Panasonic
                MakerNoteLeica2           ExifIFD    Panasonic Leica2
                MakerNoteLeica3           ExifIFD    Panasonic Leica3
                MakerNoteLeica4           ExifIFD    Panasonic Leica4
                MakerNoteLeica5           ExifIFD    Panasonic Leica5
                MakerNoteLeica6           ExifIFD    Panasonic Leica6
                MakerNoteLeica7           ExifIFD    Panasonic Leica6
                MakerNoteLeica8           ExifIFD    Panasonic Leica5
                MakerNoteLeica9           ExifIFD    Panasonic Leica9
                MakerNoteLeica10          ExifIFD    Panasonic
                MakerNotePanasonic        ExifIFD    Panasonic
                MakerNotePanasonic2       ExifIFD    Panasonic Type2
                MakerNotePanasonic3       ExifIFD    Panasonic
                MakerNotePentax           ExifIFD    Pentax
                MakerNotePentax2          ExifIFD    Pentax Type2
                MakerNotePentax3          ExifIFD    Casio Type2
                MakerNotePentax4          ExifIFD    Pentax Type4
                MakerNotePentax5          ExifIFD    Pentax
                MakerNotePentax6          ExifIFD    Pentax S1
                MakerNotePhaseOne         ExifIFD    PhaseOne
                MakerNoteReconyxHyperFire ExifIFD    Reconyx HyperFire
                MakerNoteReconyxUltraFire ExifIFD    Reconyx UltraFire
                MakerNoteReconyxHyperFire2 ExifIFD    Reconyx HyperFire2
                MakerNoteReconyxMicroFire ExifIFD    Reconyx MicroFire
                MakerNoteReconyxHyperFire4K ExifIFD    Reconyx HyperFire4K
                MakerNoteRicohPentax      ExifIFD    Pentax
                MakerNoteRicoh            ExifIFD    Ricoh
                MakerNoteRicoh2           ExifIFD    Ricoh Type2
                MakerNoteRicohText        ExifIFD    Ricoh Text
                MakerNoteSamsung1a        ExifIFD    undef
                MakerNoteSamsung1b        ExifIFD    Samsung
                MakerNoteSamsung2         ExifIFD    Samsung Type2
                MakerNoteSanyo            ExifIFD    Sanyo
                MakerNoteSanyoC4          ExifIFD    Sanyo
                MakerNoteSanyoPatch       ExifIFD    Sanyo
                MakerNoteSigma            ExifIFD    Sigma
                MakerNoteSony             ExifIFD    Sony
                MakerNoteSony2            ExifIFD    Olympus
                MakerNoteSony3            ExifIFD    Olympus
                MakerNoteSony4            ExifIFD    Sony PIC
                MakerNoteSony5            ExifIFD    Sony
                MakerNoteSonyEricsson     ExifIFD    Sony Ericsson
                MakerNoteSonySRF          ExifIFD    Sony SRF
                MakerNoteUnknownText      ExifIFD    undef
                MakerNoteUnknownBinary    ExifIFD    undef
                MakerNoteUnknown          ExifIFD    Unknown
        0x9286  UserComment               ExifIFD    undef
```

0x9287	LearningOptOutIn	ExifIFD	undef[n]
0x9290	SubSecTime	ExifIFD	string
0x9291	SubSecTimeOriginal	ExifIFD	string
0x9292	SubSecTimeDigitized	ExifIFD	string
0x932f	MSDocumentText	-	no
0x9330	MSPropertySetStorage	-	no
0x9331	MSDocumentTextPosition	-	no
0x935c	ImageSourceData	IFD0	Photoshop DocumentData
0x9400	AmbientTemperature	ExifIFD	rational64s
0x9401	Humidity	ExifIFD	rational64u
0x9402	Pressure	ExifIFD	rational64u
0x9403	WaterDepth	ExifIFD	rational64s
0x9404	Acceleration	ExifIFD	rational64u
0x9405	CameraElevationAngle	ExifIFD	rational64s
0x9999	XiaomiSettings	ExifIFD	JSON
0x9a00	XiaomiModel	ExifIFD	string!
0x9c9b	XPTitle	IFD0	int8u
0x9c9c	XPComment	IFD0	int8u
0x9c9d	XPAuthor	IFD0	int8u
0x9c9e	XPKeywords	IFD0	int8u
0x9c9f	XPSubject	IFD0	int8u
0xa000	FlashpixVersion	ExifIFD	undef:
0xa001	ColorSpace	ExifIFD	int16u:
0xa002	ExifImageWidth	ExifIFD	int16u:
0xa003	ExifImageHeight	ExifIFD	int16u:
0xa004	RelatedSoundFile	ExifIFD	string
0xa005	InteropOffset	-	EXIF
0xa010	SamsungRawPointersOffset	-	no
0xa011	SamsungRawPointersLength	-	no
0xa101	SamsungRawByteOrder	-	no
0xa102	SamsungRawUnknown?	-	no
0xa20b	FlashEnergy	ExifIFD	rational64u
0xa20c	SpatialFrequencyResponse	-	no
0xa20d	Noise	-	no
0xa20e	FocalPlaneXResolution	ExifIFD	rational64u
0xa20f	FocalPlaneYResolution	ExifIFD	rational64u
0xa210	FocalPlaneResolutionUnit	ExifIFD	int16u
0xa211	ImageNumber	-	no
0xa212	SecurityClassification	-	no
0xa213	ImageHistory	-	no
0xa214	SubjectLocation	ExifIFD	int16u[2]
0xa215	ExposureIndex	ExifIFD	rational64u
0xa216	TIFF-EPStandardID	-	no
0xa217	SensingMethod	ExifIFD	int16u
0xa300	FileSource	ExifIFD	undef
0xa301	SceneType	ExifIFD	undef
0xa302	CFAPattern	ExifIFD	undef
0xa401	CustomRendered	ExifIFD	int16u
0xa402	ExposureMode	ExifIFD	int16u
0xa403	WhiteBalance	ExifIFD	int16u
0xa404	DigitalZoomRatio	ExifIFD	rational64u
0xa405	FocalLengthIn35mmFormat	ExifIFD	int16u
0xa406	SceneCaptureType	ExifIFD	int16u
0xa407	GainControl	ExifIFD	int16u

```
0xa408   Contrast                  ExifIFD    int16u
0xa409   Saturation                ExifIFD    int16u
0xa40a   Sharpness                 ExifIFD    int16u
0xa40b   DeviceSettingDescription  -          no
0xa40c   SubjectDistanceRange      ExifIFD    int16u
0xa40d   DevelopmentType           ExifIFD    int16u
0xa40e   DevelopmentTypeDescription ExifIFD   string
0xa40f   DistortionCorrection      ExifIFD    int16u
0xa410   ChromaticAberrationCorrection ExifIFD int16u
0xa411   ShadingCorrection         ExifIFD    int16u
0xa412   NoiseReduction            ExifIFD    int16u
0xa420   ImageUniqueID             ExifIFD    string
0xa430   OwnerName                 ExifIFD    string
0xa431   SerialNumber              ExifIFD    string
0xa432   LensInfo                  ExifIFD    rational64u[4]
0xa433   LensMake                   ExifIFD    string
0xa434   LensModel                  ExifIFD    string
0xa435   LensSerialNumber          ExifIFD    string
0xa436   ImageTitle                 ExifIFD    string
0xa437   Photographer              ExifIFD    string
0xa438   ImageEditor                ExifIFD    string
0xa439   CameraFirmware            ExifIFD    string
0xa43a   RAWDevelopingSoftware     ExifIFD    string
0xa43b   ImageEditingSoftware      ExifIFD    string
0xa43c   MetadataEditingSoftware   ExifIFD    string
0xa460   CompositeImage            ExifIFD    int16u
0xa461   CompositeImageCount       ExifIFD    int16u[2]
0xa462   CompositeImageExposureTimes ExifIFD  undef
0xa480   GDALMetadata              IFD0       string
0xa481   GDALNoData                IFD0       string
0xa500   Gamma                     ExifIFD    rational64u
0xafc0   ExpandSoftware            -          no
0xafc1   ExpandLens                -          no
0xafc2   ExpandFilm                -          no
0xafc3   ExpandFilterLens          -          no
0xafc4   ExpandScanner             -          no
0xafc5   ExpandFlashLamp           -          no
0xb4c3   HasselbladRawImage        -          no
0xbc01   PixelFormat               -          no
0xbc02   Transformation            -          no
0xbc03   Uncompressed              -          no
0xbc04   ImageType                 -          no
0xbc80   ImageWidth                -          no
0xbc81   ImageHeight               -          no
0xbc82   WidthResolution           -          no
0xbc83   HeightResolution          -          no
0xbcc0   ImageOffset               -          no
0xbcc1   ImageByteCount            -          no
0xbcc2   AlphaOffset               -          no
0xbcc3   AlphaByteCount            -          no
0xbcc4   ImageDataDiscard          -          no
0xbcc5   AlphaDataDiscard          -          no
0xc427   OceScanjobDesc            -          no
0xc428   OceApplicationSelector    -          no
```

0xc429	OceIDNumber	–	no
0xc42a	OceImageLogic	–	no
0xc44f	Annotations	–	no
0xc4a5	PrintIM	IFD0	PrintIM
0xc519	HasselbladXML	–	PLIST
0xc51b	HasselbladExif	–	EXIF
0xc573	OriginalFileName	–	no
0xc580	USPTOOriginalContentType	–	no
0xc5e0	CR2CFAPattern	–	no
0xc612	DNGVersion	IFD0	int8u[4]!
0xc613	DNGBackwardVersion	IFD0	int8u[4]!
0xc614	UniqueCameraModel	IFD0	string
0xc615	LocalizedCameraModel	IFD0	string
0xc616	CFAPlaneColor	SubIFD	no
0xc617	CFALayout	SubIFD	no
0xc618	LinearizationTable	SubIFD	int16u[n]!
0xc619	BlackLevelRepeatDim	SubIFD	int16u[2]!
0xc61a	BlackLevel	SubIFD	rational64u[n]!
0xc61b	BlackLevelDeltaH	SubIFD	rational64s[n]!
0xc61c	BlackLevelDeltaV	SubIFD	rational64s[n]!
0xc61d	WhiteLevel	SubIFD	int32u[n]!
0xc61e	DefaultScale	SubIFD	rational64u[2]!
0xc61f	DefaultCropOrigin	SubIFD	int32u[2]!
0xc620	DefaultCropSize	SubIFD	int32u[2]!
0xc621	ColorMatrix1	IFD0	rational64s[n]!
0xc622	ColorMatrix2	IFD0	rational64s[n]!
0xc623	CameraCalibration1	IFD0	rational64s[n]!
0xc624	CameraCalibration2	IFD0	rational64s[n]!
0xc625	ReductionMatrix1	IFD0	rational64s[n]!
0xc626	ReductionMatrix2	IFD0	rational64s[n]!
0xc627	AnalogBalance	IFD0	rational64u[n]!
0xc628	AsShotNeutral	IFD0	rational64u[n]!
0xc629	AsShotWhiteXY	IFD0	rational64u[2]!
0xc62a	BaselineExposure	IFD0	rational64s!
0xc62b	BaselineNoise	IFD0	rational64u!
0xc62c	BaselineSharpness	IFD0	rational64u!
0xc62d	BayerGreenSplit	SubIFD	int32u!
0xc62e	LinearResponseLimit	IFD0	rational64u!
0xc62f	CameraSerialNumber	IFD0	string
0xc630	DNGLensInfo	IFD0	rational64u[4]
0xc631	ChromaBlurRadius	SubIFD	rational64u!
0xc632	AntiAliasStrength	SubIFD	rational64u!
0xc633	ShadowScale	IFD0	rational64u!
0xc634	SR2Private	IFD0	Sony SR2Private
	DNGAdobeData	IFD0	DNG AdobeData
	MakerNotePentax	IFD0	Pentax
	MakerNotePentax5	IFD0	Pentax
	MakerNoteRicohPentax	IFD0	Pentax
	MakerNoteDJIInfo	IFD0	DJI Info
	DNGPrivateData	IFD0	int8u!
0xc635	MakerNoteSafety	IFD0	int16u
0xc640	RawImageSegmentation	–	no
0xc65a	CalibrationIlluminant1	IFD0	int16u!
0xc65b	CalibrationIlluminant2	IFD0	int16u!

```
0xc65c   BestQualityScale          SubIFD     rational64u!
0xc65d   RawDataUniqueID           IFD0       int8u[16]!
0xc660   AliasLayerMetadata        -          no
0xc68b   OriginalRawFileName       IFD0       string!
0xc68c   OriginalRawFileData       IFD0       DNG OriginalRaw
0xc68d   ActiveArea                SubIFD     int32u[4]!
0xc68e   MaskedAreas               SubIFD     int32u[n]!
0xc68f   AsShotICCProfile          IFD0       ICC_Profile
0xc690   AsShotPreProfileMatrix    IFD0       rational64s[n]!
0xc691   CurrentICCProfile         IFD0       ICC_Profile
0xc692   CurrentPreProfileMatrix   IFD0       rational64s[n]!
0xc6bf   ColorimetricReference     IFD0       int16u!
0xc6c5   SRawType                  IFD0       no
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0xc6d3   PanasonicTitle2           IFD0       undef
0xc6f3   CameraCalibrationSig      IFD0       string!
0xc6f4   ProfileCalibrationSig     IFD0       string!
0xc6f5   ProfileIFD                IFD0       EXIF
0xc6f6   AsShotProfileName         IFD0       string!
0xc6f7   NoiseReductionApplied     SubIFD     rational64u!
0xc6f8   ProfileName               IFD0       string!
0xc6f9   ProfileHueSatMapDims      IFD0       int32u[3]!
0xc6fa   ProfileHueSatMapData1     IFD0       float[n]!
0xc6fb   ProfileHueSatMapData2     IFD0       float[n]!
0xc6fc   ProfileToneCurve          IFD0       float[n]!
0xc6fd   ProfileEmbedPolicy        IFD0       int32u!
0xc6fe   ProfileCopyright          IFD0       string!
0xc714   ForwardMatrix1            IFD0       rational64s[n]!
0xc715   ForwardMatrix2            IFD0       rational64s[n]!
0xc716   PreviewApplicationName    IFD0       string!
0xc717   PreviewApplicationVersion IFD0       string!
0xc718   PreviewSettingsName       IFD0       string!
0xc719   PreviewSettingsDigest     IFD0       int8u!
0xc71a   PreviewColorSpace         IFD0       int32u!
0xc71b   PreviewDateTime           IFD0       string!
0xc71c   RawImageDigest            IFD0       int8u[16]!
0xc71d   OriginalRawFileDigest     IFD0       int8u[16]!
0xc71e   SubTileBlockSize          -          no
0xc71f   RowInterleaveFactor       -          no
0xc725   ProfileLookTableDims      IFD0       int32u[3]!
0xc726   ProfileLookTableData      IFD0       float[n]!
0xc740   OpcodeList1               SubIFD     undef~!
0xc741   OpcodeList2               SubIFD     undef~!
0xc74e   OpcodeList3               SubIFD     undef~!
0xc761   NoiseProfile              SubIFD     double[n]!
0xc763   TimeCodes                 IFD0       int8u[n]
0xc764   FrameRate                 IFD0       rational64s
0xc772   TStop                     IFD0       rational64u[n]
0xc789   ReelName                  IFD0       string
0xc791   OriginalDefaultFinalSize  IFD0       int32u[2]!
0xc792   OriginalBestQualitySize   IFD0       int32u[2]!
0xc793   OriginalDefaultCropSize   IFD0       rational64u[2]!
0xc7a1   CameraLabel               IFD0       string
0xc7a3   ProfileHueSatMapEncoding  IFD0       int32u!
```

0xc7a4	ProfileLookTableEncoding	IFD0	int32u!
0xc7a5	BaselineExposureOffset	IFD0	rational64s!
0xc7a6	DefaultBlackRender	IFD0	int32u!
0xc7a7	NewRawImageDigest	IFD0	int8u[16]!
0xc7a8	RawToPreviewGain	IFD0	double!
0xc7aa	CacheVersion	SubIFD2	int32u!
0xc7b5	DefaultUserCrop	SubIFD	rational64u[4]!
0xc7d5	NikonNEFInfo	-	Nikon NEFInfo
0xc7d7	ZIFMetadata	-	no
0xc7d8	ZIFAnnotations	-	no
0xc7e9	DepthFormat	IFD0	int16u!
0xc7ea	DepthNear	IFD0	rational64u!
0xc7eb	DepthFar	IFD0	rational64u!
0xc7ec	DepthUnits	IFD0	int16u!
0xc7ed	DepthMeasureType	IFD0	int16u!
0xc7ee	EnhanceParams	IFD0	string!
0xcd2d	ProfileGainTableMap	SubIFD	undef!
0xcd2e	SemanticName	SubIFD	no
0xcd30	SemanticInstanceID	SubIFD	no
0xcd31	CalibrationIlluminant3	IFD0	int16u!
0xcd32	CameraCalibration3	IFD0	rational64s[n]!
0xcd33	ColorMatrix3	IFD0	rational64s[n]!
0xcd34	ForwardMatrix3	IFD0	rational64s[n]!
0xcd35	IlluminantData1	IFD0	undef!
0xcd36	IlluminantData2	IFD0	undef!
0xcd37	IlluminantData3	IFD0	undef!
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0xcd3f	RGBTables	IFD0	undef!
0xcd40	ProfileGainTableMap2	IFD0	undef!
0xcd41	JUMBF	-	Jpeg2000
0xcd43	ColumnInterleaveFactor	SubIFD	int32u!
0xcd44	ImageSequenceInfo	IFD0	DNG ImageSeq
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0xcd48	ProfileGroupName	IFD0	string!
0xcd49	JXLDistance	IFD0	float
0xcd4a	JXLEffort	IFD0	int32u
0xcd4b	JXLDecodeSpeed	IFD0	int32u
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0xea1c	Padding	ExifIFD	undef!
0xea1d	OffsetSchema	ExifIFD	int32s!
0xfde8	OwnerName	ExifIFD	string/
0xfde9	SerialNumber	ExifIFD	string/
0xfdea	Lens	ExifIFD	string/
0xfe00	KDC_IFD	-	Kodak KDC_IFD
0xfe4c	RawFile	ExifIFD	string/
0xfe4d	Converter	ExifIFD	string/
0xfe4e	WhiteBalance	ExifIFD	string/
0xfe51	Exposure	ExifIFD	string/
0xfe52	Shadows	ExifIFD	string/
0xfe53	Brightness	ExifIFD	string/
0xfe54	Contrast	ExifIFD	string/

0xfe55	Saturation	ExifIFD	string/
0xfe56	Sharpness	ExifIFD	string/
0xfe57	Smoothness	ExifIFD	string/
0xfe58	MoireFilter	ExifIFD	string/

IPTC Tags

The tags listed below are part of the International Press Telecommunications Council (IPTC) and the Newspaper Association of America (NAA) Information Interchange Model (IIM). This is an older meta information format, slowly being phased out in favor of XMP — the newer IPTCCore specification uses XMP format. IPTC information may be found in JPG, TIFF, PNG, MIFF, PS, PDF, PSD, XCF and DNG images.

IPTC information is separated into different records, each of which has its own set of tags. See <http://www.iptc.org/std/IIM/4.1/specification/IIMV4.1.pdf> for the official IPTC IIM specification.

This specification dictates a length for ASCII (`string` or `digits`) and binary (`undef`) values. These lengths are given in square brackets after the **Writable** format name. For tags where a range of lengths is allowed, the minimum and maximum lengths are separated by a comma within the brackets. When writing, ExifTool issues a minor warning and truncates the value if it is longer than allowed by the IPTC specification. Minor errors may be ignored with the IgnoreMinorErrors (−m) option, allowing longer values to be written, but beware that values like this may cause problems for some other IPTC readers. ExifTool will happily read IPTC values of any length.

Separate IPTC date and time tags may be written with a combined date/time value and ExifTool automagically takes the appropriate part of the date/time string depending on whether a date or time tag is being written. This is very useful when copying date/time values to IPTC from other metadata formats.

IPTC time values include a timezone offset. If written with a value which doesn't include a timezone then the current local timezone offset is used (unless written with a combined date/time, in which case the local timezone offset at the specified date/time is used, which may be different due to changes in daylight savings time).

Note that it is not uncommon for IPTC to be found in non-standard locations in JPEG and TIFF-based images. When reading, the family 1 group name has a number added for non-standard IPTC (''IPTC2'', ''IPTC3'', etc), but when writing only ''IPTC'' may be specified as the group. To keep the IPTC consistent, ExifTool updates tags in all existing IPTC locations, but will create a new IPTC group only in the standard location.

Record	Tag Name	Writable
1	IPTCEnvelope	IPTC EnvelopeRecord
2	IPTCApplication	IPTC ApplicationRecord
3	IPTCNewsPhoto	IPTC NewsPhoto
7	IPTCPreObjectData	IPTC PreObjectData
8	IPTCObjectData	IPTC ObjectData
9	IPTCPostObjectData	IPTC PostObjectData
240	IPTCFotoStation	IPTC FotoStation

IPTC EnvelopeRecord Tags

Tag ID	Tag Name	Writable
0	EnvelopeRecordVersion	int16u:
5	Destination	string[0,1024]+
20	FileFormat	int16u
22	FileVersion	int16u
30	ServiceIdentifier	string[0,10]
40	EnvelopeNumber	digits[8]
50	ProductID	string[0,32]+
60	EnvelopePriority	digits[1]
70	DateSent	digits[8]

80	TimeSent	string[11]
90	CodedCharacterSet	string[0,32]!
100	UniqueObjectName	string[14,80]
120	ARMIdentifier	int16u
122	ARMVersion	int16u

IPTC ApplicationRecord Tags

Tag ID	Tag Name	Writable
0	ApplicationRecordVersion	int16u:
3	ObjectTypeReference	string[3,67]
4	ObjectAttributeReference	string[4,68]+
5	ObjectName	string[0,64]
7	EditStatus	string[0,64]
8	EditorialUpdate	digits[2]
10	Urgency	digits[1]
12	SubjectReference	string[13,236]+
15	Category	string[0,3]
20	SupplementalCategories	string[0,32]+
22	FixtureIdentifier	string[0,32]
25	Keywords	string[0,64]+
26	ContentLocationCode	string[3]+
27	ContentLocationName	string[0,64]+
30	ReleaseDate	digits[8]
35	ReleaseTime	string[11]
37	ExpirationDate	digits[8]
38	ExpirationTime	string[11]
40	SpecialInstructions	string[0,256]
42	ActionAdvised	digits[2]
45	ReferenceService	string[0,10]+
47	ReferenceDate	digits[8]+
50	ReferenceNumber	digits[8]+
55	DateCreated	digits[8]
60	TimeCreated	string[11]
62	DigitalCreationDate	digits[8]
63	DigitalCreationTime	string[11]
65	OriginatingProgram	string[0,32]
70	ProgramVersion	string[0,10]
75	ObjectCycle	string[1]
80	By-line	string[0,32]+
85	By-lineTitle	string[0,32]+
90	City	string[0,32]
92	Sub-location	string[0,32]
95	Province-State	string[0,32]
100	Country-PrimaryLocationCode	string[3]
101	Country-PrimaryLocationName	string[0,64]
103	OriginalTransmissionReference	string[0,32]
105	Headline	string[0,256]
110	Credit	string[0,32]
115	Source	string[0,32]
116	CopyrightNotice	string[0,128]
118	Contact	string[0,128]+
120	Caption-Abstract	string[0,2000]
121	LocalCaption	string[0,256]
122	Writer-Editor	string[0,32]+

125	RasterizedCaption	undef[7360]
130	ImageType	string[2]
131	ImageOrientation	string[1]
135	LanguageIdentifier	string[2,3]
150	AudioType	string[2]
151	AudioSamplingRate	digits[6]
152	AudioSamplingResolution	digits[2]
153	AudioDuration	digits[6]
154	AudioOutcue	string[0,64]
184	JobID	string[0,64]
185	MasterDocumentID	string[0,256]
186	ShortDocumentID	string[0,64]
187	UniqueDocumentID	string[0,128]
188	OwnerID	string[0,128]
200	ObjectPreviewFileFormat	int16u
201	ObjectPreviewFileVersion	int16u
202	ObjectPreviewData	undef[0,256000]
221	Prefs	string[0,64]
225	ClassifyState	string[0,64]
228	SimilarityIndex	string[0,32]
230	DocumentNotes	string[0,1024]
231	DocumentHistory	string[0,256]
232	ExifCameraInfo	string[0,4096]
255	CatalogSets	string[0,256]+

IPTC NewsPhoto Tags

Tag ID	Tag Name	Writable
0	NewsPhotoVersion	int16u:
10	IPTCPictureNumber	string[16]
20	IPTCImageWidth	int16u
30	IPTCImageHeight	int16u
40	IPTCPixelWidth	int16u
50	IPTCPixelHeight	int16u
55	SupplementalType	int8u
60	ColorRepresentation	int16u
64	InterchangeColorSpace	int8u
65	ColorSequence	int8u
66	ICC_Profile	no
70	ColorCalibrationMatrix	no
80	LookupTable	no
84	NumIndexEntries	int16u
85	ColorPalette	no
86	IPTCBitsPerSample	int8u
90	SampleStructure	int8u
100	ScanningDirection	int8u
102	IPTCImageRotation	int8u
110	DataCompressionMethod	int32u
120	QuantizationMethod	int8u
125	EndPoints	no
130	ExcursionTolerance	int8u
135	BitsPerComponent	int8u
140	MaximumDensityRange	int16u
145	GammaCompensatedValue	int16u

IPTC PreObjectData Tags

Tag ID	Tag Name	Writable
10	SizeMode	no
20	MaxSubfileSize	no
90	ObjectSizeAnnounced	no
95	MaximumObjectSize	no

IPTC ObjectData Tags

Tag ID	Tag Name	Writable
10	SubFile	no+

IPTC PostObjectData Tags

Tag ID	Tag Name	Writable
10	ConfirmedObjectSize	no

IPTC FotoStation Tags

Tag ID	Tag Name	Writable

[no tags known]

XMP Tags

XMP stands for ‘‘Extensible Metadata Platform’’, an XML/RDF−based metadata format which is being pushed by Adobe. Information in this format can be embedded in many different image file types including JPG, JP2, TIFF, GIF, EPS, PDF, PSD, IND, INX, PNG, DJVU, SVG, PGF, MIFF, XCF, CRW, DNG and a variety of proprietary TIFF-based RAW images, as well as MOV, AVI, ASF, WMV, FLV, SWF and MP4 videos, and WMA and audio formats supporting ID3v2 information.

The XMP **Tag ID**’s aren’t listed because in most cases they are identical to the **Tag Name** (aside from differences in case). Tags with different ID’s are mentioned in the **Notes** column of the HTML version of this document.

All XMP information is stored as character strings. The **Writable** column specifies the information format: `string` is an unformatted string, `integer` is a string of digits (possibly beginning with a ’+’ or ’−’), `real` is a floating point number, `rational` is entered as a floating point number but stored as two `integer` strings separated by a ’/’ character, `date` is a date/time string entered in the format ‘‘YYYY:mm:dd HH:MM:SS[.ss][+/−HH:MM]’’ but some partial date/time formats are also accepted (see <https://exiftool.org/faq.html#Q5>), `boolean` is either ‘‘True’’ or ‘‘False’’ (but ‘‘true’’ and ‘‘false’’ may be written as a ValueConv value for compatibility with non-conforming applications), `struct` indicates a structured tag, and `lang−alt` is a tag that supports alternate languages.

When reading, `struct` tags are extracted only if the Struct (−struct) option is used. Otherwise the corresponding *Flattened* tags, indicated by an underline (_) after the **Writable** type, are extracted. When copying, by default both structured and flattened tags are available, but the flattened tags are considered ‘‘unsafe’’ so they aren’t copied unless specified explicitly. The Struct option may be disabled by setting Struct to 0 via the API or with −−struct on the command line to copy only flattened tags, or enabled by setting Struct to 1 via the API or with −struct on the command line to copy only as structures. When writing, the Struct option has no effect, and both structured and flattened tags may be written. See <https://exiftool.org/struct.html> for more details.

Individual languages for `lang−alt` tags are accessed by suffixing the tag name with a ’−’, followed by an RFC 3066 language code (eg. ‘‘XMP:Title−fr’’, or ‘‘Rights-en-US’’). (See <http://www.ietf.org/rfc/rfc3066.txt> for the RFC 3066 specification.) A `lang−alt` tag with no language code accesses the ‘‘x−default’’ language, but causes other languages for this tag to be deleted when writing. The ‘‘x−default’’ language code may be specified when writing to preserve other existing languages (eg. ‘‘XMP−dc:Description−x−default’’). When reading, ‘‘x−default’’ is not specified.

The XMP tags are organized according to schema **Namespace** in the following tables. The ExifTool family 1 group names are derived from the namespace prefixes by adding a leading ''XMP-'' (eg. ''XMP-dc''). A few of the longer prefixes have been shortened (as mentioned in the documentation below) to avoid excessively long ExifTool group names. The tags of any namespace may be deleted as a group by specifying the family 1 group name (eg. ''-XMP-dc:all='' on the command line). This includes namespaces which are not pre-defined by ExifTool.

In cases where a tag name exists in more than one namespace, less common namespaces are avoided when writing. However, a specific namespace may be written by providing a family 1 group name for the tag (eg. XMP-crs:Contrast or XMP-exif:Contrast). When deciding on which tags to add to an image, using standard schemas such as dc, xmp, iptcCore and iptcExt is recommended if possible.

For structures, the heading of the first column is **Field Name**. Field names are very similar to tag names, except they are used to identify fields inside structures instead of stand-alone tags. See <https://exiftool.org/struct.html#Fields> for more details.

ExifTool will extract XMP information even if it is not listed in these tables, but other tags are not writable unless added as user-defined tags in the ExifTool config file. For example, the `pdfx` namespace doesn't have a predefined set of tag names because it is used to store application-defined PDF information, so although this information will be extracted, it is only writable if the corresponding user-defined tags have been created.

The tables below list tags from the official XMP specification (with an underlined **Namespace** in the HTML version of this documentation), as well as extensions from various other sources. See <http://www.adobe.com/devnet/xmp/> for the official XMP specification.

Namespace	Writable
aas	XMP aas
acdsee	XMP acdsee
acdsee-rs	XMP ACDSeeRegions
album	XMP Album
apdi	XMP apdi
apple-fi	XMP apple_fi
ast	Nikon ast
aux	XMP aux
cc	XMP cc
cell	XMP cell
crd	XMP crd
creatorAtom	XMP creatorAtom
crs	XMP crs
dc	XMP dc
Device	Google Device
dex	XMP dex
DICOM	XMP DICOM
digiKam	XMP digiKam
drone-dji	DJI XMP
dwc	DarwinCore
et	XMP ExifTool
exif	XMP exif
exifEX	XMP exifEX
expressionmedia	XMP ExpressionMedia
extensis	XMP extensis
fpv	XMP fpv
GAudio	Google GAudio
GCamera	Google GCamera
GContainer	Google GContainer

GCreations	Google GCreations
GDepth	Google GDepth
getty	XMP GettyImages
GFocus	Google GFocus
GImage	Google GImage
GPano	Google GPano
GSpherical	Google GSpherical
hdr	XMP hdr
HDRGainMap	XMP HDRGainMap
hdrgm	XMP hdrgm
ics	XMP ics
iptcCore	XMP iptcCore
iptcExt	XMP iptcExt
LImage	XMP LImage
lr	XMP Lightroom
mediapro	XMP MediaPro
microsoft	Microsoft XMP
MP	Microsoft MP
MP1	Microsoft MP1
mwg-coll	MWG Collections
mwg-kw	MWG Keywords
mwg-rs	MWG Regions
nine	Nikon nine
panorama	XMP panorama
pdf	XMP pdf
pdfx	XMP pdfx
photomech	PhotoMechanic XMP
photoshop	XMP photoshop
PixelLive	XMP PixelLive
plus	PLUS XMP
pmi	XMP pmi
prism	XMP prism
prl	XMP prl
prm	XMP prm
pur	XMP pur
rdf	XMP rdf
sdc	Nikon sdc
seal	XMP seal
swf	XMP swf
tiff	XMP tiff
x	XMP x
xmp	XMP xmp
xmpBJ	XMP xmpBJ
xmpDM	XMP xmpDM
xmpDSA	Panasonic DSA
xmpMM	XMP xmpMM
xmpNote	XMP xmpNote
xmpPLUS	XMP xmpPLUS
xmpRights	XMP xmpRights
xmpTPg	XMP xmpTPg

XMP aas Tags

Apple Adjustment Settings used by iPhone/iPad.

These tags belong to the ExifTool XMP-aas family 1 group.

Tag Name	Writable
AffineA	real
AffineB	real
AffineC	real
AffineD	real
AffineX	real
AffineY	real
CropH	integer/
CropW	integer/
CropX	integer/
CropY	integer/
Curve0x	real
Curve0y	real
Curve1x	real
Curve1y	real
Curve2x	real
Curve2y	real
Curve3x	real
Curve3y	real
Curve4x	real
Curve4y	real
FaceBalanceOrigI	real
FaceBalanceOrigQ	real
FaceBalanceStrength	real
FaceBalanceWarmth	real
Highlights	real/
Shadows	real/
Vibrance	real/

XMP acdsee Tags

ACD Systems ACDSee namespace tags.

(A note to software developers: Re-inventing your own private tags instead of using the equivalent tags in standard XMP namespaces defeats one of the most valuable features of metadata: interoperability. Your applications mumble to themselves instead of speaking out for the rest of the world to hear.)

These tags belong to the ExifTool XMP-acdsee family 1 group.

Tag Name	Writable
Author	string/
Caption	string/
Categories	string/
Collections	string/
DateTime	date/
DPP	lang-alt/
EditStatus	string/
FixtureIdentifier	string/
Keywords	string/+
Notes	string/
ObjectCycle	string/
OriginatingProgram	string/
Rating	real/
Rawrppused	boolean/
ReleaseDate	string/

ReleaseTime	string/
RPP	lang-alt/
Snapshots	string/+
Tagged	boolean/

XMP ACDSeeRegions Tags

These tags belong to the ExifTool XMP-acdsee-rs family 1 group.

Tag Name	Writable
RegionInfoACDSee	ACDSeeRegionInfo Struct
ACDSeeRegionAppliedToDimensions	ACDSeeDimensions Struct_
ACDSeeRegionAppliedToDimensionsH	real/_
ACDSeeRegionAppliedToDimensionsUnit	string/_
ACDSeeRegionAppliedToDimensionsW	real/_
ACDSeeRegion	ACDSeeRegion Struct_+
ACDSeeRegionALGArea	ACDSeeArea Struct_+
ACDSeeRegionALGAreaH	real/_+
ACDSeeRegionALGAreaW	real/_+
ACDSeeRegionALGAreaX	real/_+
ACDSeeRegionALGAreaY	real/_+
ACDSeeRegionDLYArea	ACDSeeArea Struct_+
ACDSeeRegionDLYAreaH	real/_+
ACDSeeRegionDLYAreaW	real/_+
ACDSeeRegionDLYAreaX	real/_+
ACDSeeRegionDLYAreaY	real/_+
ACDSeeRegionName	string/_+
ACDSeeRegionNameAssignType	string/_+
ACDSeeRegionType	string/_+

XMP ACDSeeRegionInfo Struct

Field Name	Writable
AppliedToDimensions	ACDSeeDimensions Struct
RegionList	ACDSeeRegion Struct+

XMP ACDSeeDimensions Struct

Field Name	Writable
H	real
Unit	string
W	real

XMP ACDSeeRegion Struct

Field Name	Writable
ALGArea	ACDSeeArea Struct
DLYArea	ACDSeeArea Struct
Name	string
NameAssignType	string
Type	string

XMP ACDSeeArea Struct

Field Name	Writable
H	real
W	real
X	real
Y	real

XMP Album Tags

Adobe Album namespace tags.

These tags belong to the ExifTool XMP-album family 1 group.

Tag Name	Writable
Notes	string

XMP apdi Tags

Used in Apple HDR GainMap images.

These tags belong to the ExifTool XMP-apdi family 1 group.

Tag Name	Writable
AuxiliaryImageType	string
NativeFormat	string
StoredFormat	string

XMP apple_fi Tags

Face information tags written by the Apple iPhone 5 inside the mwg-rs RegionExtensions.

These tags belong to the ExifTool XMP-apple-fi family 1 group.

Tag Name	Writable
AngleInfoRoll	integer
AngleInfoYaw	integer
ConfidenceLevel	integer
FaceID	integer
TimeStamp	integer

XMP aux Tags

Adobe-defined auxiliary EXIF tags. This namespace existed in the XMP specification until it was dropped in 2012, presumably due to the introduction of the EXIF 2.3 for XMP specification and the exifEX namespace at this time. For this reason, tags below with equivalents in the exifEX namespace are avoided when writing.

These tags belong to the ExifTool XMP-aux family 1 group.

Tag Name	Writable
ApproximateFocusDistance	rational
DistortionCorrectionAlreadyApplied	boolean
EnhanceDenoiseAlreadyApplied	boolean
EnhanceDenoiseLumaAmount	string
EnhanceDenoiseVersion	string
EnhanceDetailsAlreadyApplied	boolean
EnhanceDetailsVersion	string
EnhanceSuperResolutionAlreadyApplied	boolean
EnhanceSuperResolutionScale	rational
EnhanceSuperResolutionVersion	string

```
  Firmware                                              string
  FlashCompensation                                     rational
  FujiRatingAlreadyApplied                              boolean
  ImageNumber                                           string
  IsMergedHDR                                           boolean
  IsMergedPanorama                                      boolean
  LateralChromaticAberrationCorrectionAlreadyApplied boolean
  Lens                                                  string
  LensDistortInfo                                       string
  LensID                                                string
  LensInfo                                              string/
  LensSerialNumber                                      string/
  NeutralDensityFactor                                  string
  OwnerName                                             string/
  SerialNumber                                          string/
  VignetteCorrectionAlreadyApplied                      boolean
```

XMP cc Tags

Creative Commons namespace tags. Note that the CC specification for XMP is non-existent, so ExifTool must make some assumptions about the format of the specific properties in XMP (see <http://creativecommons.org/ns>).

These tags belong to the ExifTool XMP-cc family 1 group.

```
  Tag Name                                              Writable
  --------                                              --------
  AttributionName                                       string
  AttributionURL                                        string
  DeprecatedOn                                          date
  Jurisdiction                                          string
  LegalCode                                             string
  License                                               string
  MorePermissions                                       string
  Permits                                               string+
  Prohibits                                             string+
  Requires                                              string+
  UseGuidelines                                         string
```

XMP cell Tags

Location tags written by some Sony Ericsson phones.

These tags belong to the ExifTool XMP-cell family 1 group.

```
  Tag Name                                              Writable
  --------                                              --------
  CellTowerID                                           string
  CellGlobalID                                          string
  LocationAreaCode                                      string
  MobileCountryCode                                     string
  MobileNetworkCode                                     string
  CellR                                                 string
```

XMP crd Tags

Adobe Camera Raw Defaults tags.

These tags belong to the ExifTool XMP-crd family 1 group.

Tag Name	Writable
AlreadyApplied	boolean/
AutoBrightness	boolean/
AutoContrast	boolean/
AutoExposure	boolean/
AutoLateralCA	integer/
AutoShadows	boolean/
AutoTone	boolean/
AutoToneDigest	string/
AutoToneDigestNoSat	string/
AutoWhiteVersion	integer/
Blacks2012	integer/
BlueHue	integer/
BlueSaturation	integer/
Brightness	integer/
CameraModelRestriction	string/
CameraProfile	string/
CameraProfileDigest	string/
ChromaticAberrationB	integer/
ChromaticAberrationR	integer/
CircularGradientBasedCorrections	Correction Struct+
CircGradBasedCorrActive	boolean/_
CircGradBasedCorrAmount	real/_
CircGradBasedCorrMasks	CorrectionMask Struct_+
CircGradBasedCorrMaskAlpha	real/_
CircGradBasedCorrMaskAngle	real/_
CircGradBasedCorrMaskBottom	real/_
CircGradBasedCorrMaskCenterValue	real/_
CircGradBasedCorrMaskCenterWeight	real/_
CircGradBasedCorrMaskRange	CorrRangeMask Struct_+
CircGradBasedCorrMaskRangeAreaModels	AreaModels Struct_+
CircGradBasedCorrMaskRangeAreaModelsComponents	string/_+
CircGradBasedCorrMaskRangeAreaModelsColorSampleInfo	string/_+
CircGradBasedCorrMaskRangeColorAmount	real/_+
CircGradBasedCorrMaskRangeDepthFeather	real/_+
CircGradBasedCorrMaskRangeDepthMax	real/_+
CircGradBasedCorrMaskRangeDepthMin	real/_+
CircGradBasedCorrMaskRangeInvert	boolean/_+
CircGradBasedCorrMaskRangeLumFeather	real/_+
CircGradBasedCorrMaskRangeLuminanceDepthSampleInfo	string/_+
CircGradBasedCorrMaskRangeLumMax	real/_+
CircGradBasedCorrMaskRangeLumMin	real/_+
CircGradBasedCorrMaskRangeLumRange	string/_+
CircGradBasedCorrMaskRangeSampleType	integer/_+
CircGradBasedCorrMaskRangeType	string/_+
CircGradBasedCorrMaskRangeVersion	string/_+
CircGradBasedCorrMaskDabs	string/_
CircGradBasedCorrMaskFeather	real/_
CircGradBasedCorrMaskFlipped	boolean/_
CircGradBasedCorrMaskFlow	real/_
CircGradBasedCorrMaskFullX	real/_
CircGradBasedCorrMaskFullY	real/_
CircGradBasedCorrMaskInputDigest	string/_

```
CircGradBasedCorrMaskLeft                   real/_
CircGradBasedCorrMaskMaskActive             boolean/_
CircGradBasedCorrMaskMaskBlendMode          integer/_
CircGradBasedCorrMaskMaskDigest             string/_
CircGradBasedCorrMaskMaskInverted           boolean/_
CircGradBasedCorrMaskMaskName               string/_
CircGradBasedCorrMaskMasks                  CorrectionMask Struct_+
CircGradBasedCorrMaskMasksAlpha             real/_
CircGradBasedCorrMaskMasksAngle             real/_
CircGradBasedCorrMaskMasksBottom            real/_
CircGradBasedCorrMaskMasksCenterValue       real/_
CircGradBasedCorrMaskMasksCenterWeight      real/_
CircGradBasedCorrMaskMasksDabs              string/_+
CircGradBasedCorrMaskMasksFeather           real/_
CircGradBasedCorrMaskMasksFlipped           boolean/_
CircGradBasedCorrMaskMasksFlow              real/_
CircGradBasedCorrMaskMasksFullX             real/_
CircGradBasedCorrMaskMasksFullY             real/_
CircGradBasedCorrMaskMasksInputDigest       string/_
CircGradBasedCorrMaskMasksLeft              real/_
CircGradBasedCorrMaskMasksMaskActive        boolean/_
CircGradBasedCorrMaskMasksMaskBlendMode     integer/_
CircGradBasedCorrMaskMasksMaskDigest        string/_
CircGradBasedCorrMaskMasksMaskInverted      boolean/_
CircGradBasedCorrMaskMasksMaskName          string/_
CircGradBasedCorrMaskMasksMaskSubType       string/_
CircGradBasedCorrMaskMasksMaskSyncID        string/_
CircGradBasedCorrMaskMasksValue             real/_
CircGradBasedCorrMaskMasksMaskVersion       string/_
CircGradBasedCorrMaskMasksMidpoint          real/_
CircGradBasedCorrMaskMasksOrigin            string/_
CircGradBasedCorrMaskMasksPerimeterValue    real/_
CircGradBasedCorrMaskMasksRadius            real/_
CircGradBasedCorrMaskMasksReferencePoint    string/_
CircGradBasedCorrMaskMasksRight             real/_
CircGradBasedCorrMaskMasksRoundness         real/_
CircGradBasedCorrMaskMasksSizeX             real/_
CircGradBasedCorrMaskMasksSizeY             real/_
CircGradBasedCorrMaskMasksTop               real/_
CircGradBasedCorrMaskMaskSubType            string/_
CircGradBasedCorrMaskMasksVersion           integer/_
CircGradBasedCorrMaskMasksWhat              string/_
CircGradBasedCorrMaskMasksWholeImageArea    string/_
CircGradBasedCorrMaskMasksX                 real/_
CircGradBasedCorrMaskMasksY                 real/_
CircGradBasedCorrMaskMaskSyncID             string/_
CircGradBasedCorrMaskMasksZeroX             real/_
CircGradBasedCorrMaskMasksZeroY             real/_
CircGradBasedCorrMaskValue                  real/_
CircGradBasedCorrMaskMaskVersion            string/_
CircGradBasedCorrMaskMidpoint               real/_
CircGradBasedCorrMaskOrigin                 string/_
CircGradBasedCorrMaskPerimeterValue         real/_
CircGradBasedCorrMaskRadius                 real/_
```

```
    CircGradBasedCorrMaskReferencePoint           string/_
    CircGradBasedCorrMaskRight                    real/_
    CircGradBasedCorrMaskRoundness                real/_
    CircGradBasedCorrMaskSizeX                    real/_
    CircGradBasedCorrMaskSizeY                    real/_
    CircGradBasedCorrMaskTop                      real/_
    CircGradBasedCorrMaskVersion                  integer/_
    CircGradBasedCorrMaskWhat                     string/_
    CircGradBasedCorrMaskWholeImageArea           string/_
    CircGradBasedCorrMaskX                        real/_
    CircGradBasedCorrMaskY                        real/_
    CircGradBasedCorrMaskZeroX                    real/_
    CircGradBasedCorrMaskZeroY                    real/_
    CircGradBasedCorrCorrectionName               string/_+
    CircGradBasedCorrRangeMask                    CorrRangeMask Struct_+
    CircGradBasedCorrRangeMaskAreaModels          AreaModels Struct_+
    CircGradBasedCorrRangeMaskAreaModelsComponents string/_+
    CircGradBasedCorrRangeMaskAreaModelsColorSampleInfo string/_+
    CircGradBasedCorrRangeMaskColorAmount         real/_+
    CircGradBasedCorrRangeMaskDepthFeather        real/_+
    CircGradBasedCorrRangeMaskDepthMax            real/_+
    CircGradBasedCorrRangeMaskDepthMin            real/_+
    CircGradBasedCorrRangeMaskInvert              boolean/_+
    CircGradBasedCorrRangeMaskLumFeather          real/_+
    CircGradBasedCorrRangeMaskLuminanceDepthSampleInfo string/_+
    CircGradBasedCorrRangeMaskLumMax              real/_+
    CircGradBasedCorrRangeMaskLumMin              real/_+
    CircGradBasedCorrRangeMaskLumRange            string/_+
    CircGradBasedCorrRangeMaskSampleType          integer/_+
    CircGradBasedCorrRangeMaskType                string/_+
    CircGradBasedCorrRangeMaskVersion             string/_+
    CircGradBasedCorrCorrectionSyncID             string/_+
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    CircGradBasedCorrBrightness                   real/_
    CircGradBasedCorrClarity                      real/_
    CircGradBasedCorrClarity2012                  real/_
    CircGradBasedCorrContrast                     real/_
    CircGradBasedCorrContrast2012                 real/_
    CircGradBasedCorrDefringe                     real/_
    CircGradBasedCorrDehaze                       real/_
    CircGradBasedCorrExposure                     real/_
    CircGradBasedCorrExposure2012                 real/_
    CircGradBasedCorrHighlights2012               real/_
    CircGradBasedCorrHue                          real/_
    CircGradBasedCorrLuminanceNoise               real/_
    CircGradBasedCorrMoire                        real/_
    CircGradBasedCorrSaturation                   real/_
    CircGradBasedCorrShadows2012                  real/_
    CircGradBasedCorrSharpness                    real/_
    CircGradBasedCorrTemperature                  real/_
    CircGradBasedCorrTexture                      real/_
    CircGradBasedCorrTint                         real/_
    CircGradBasedCorrToningHue                    real/_
    CircGradBasedCorrToningSaturation             real/_
```

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CircGradBasedCorrWhites2012                real/_
CircGradBasedCorrWhat                      string/_
Clarity                                    integer/
Clarity2012                                integer/
ClipboardAspectRatio                       integer/
ClipboardOrientation                       integer/
Cluster                                    string/
ColorGradeBlending                         integer/
ColorGradeGlobalHue                        integer/
ColorGradeGlobalLum                        integer/
ColorGradeGlobalSat                        integer/
ColorGradeHighlightLum                     integer/
ColorGradeMidtoneHue                       integer/
ColorGradeMidtoneLum                       integer/
ColorGradeMidtoneSat                       integer/
ColorGradeShadowLum                        integer/
ColorNoiseReduction                        integer/
ColorNoiseReductionDetail                  integer/
ColorNoiseReductionSmoothness              integer/
ColorVariance                              real/+
CompatibleVersion                          string/
ContactInfo                                string/
Contrast                                   integer/
Contrast2012                               integer/
Converter                                  string/
ConvertToGrayscale                         boolean/
Copyright                                  string/
CropAngle                                  real/
CropBottom                                 real/
CropConstrainToUnitSquare                  integer/
CropConstrainToWarp                        integer/
CropHeight                                 real/
CropLeft                                   real/
CropRight                                  real/
CropTop                                    real/
CropUnit                                   integer/
CropUnits                                  integer/
CropWidth                                  real/
DefaultAutoGray                            boolean/
DefaultAutoTone                            boolean/
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DefaultsSpecificToSerial                   boolean/
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DefringeGreenAmount                        integer/
DefringeGreenHueHi                         integer/
DefringeGreenHueLo                         integer/
DefringePurpleAmount                       integer/
DefringePurpleHueHi                        integer/
DefringePurpleHueLo                        integer/
Dehaze                                     real/
DepthBasedCorrections                      DepthBasedCorr Struct+
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DepthBasedCorrCorrectionAmount             real/_+
DepthBasedCorrMask                         CorrectionMask Struct_+
```

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DepthBasedCorrMaskAlpha                          real/_
DepthBasedCorrMaskAngle                          real/_
DepthBasedCorrMaskBottom                         real/_
DepthBasedCorrMaskCenterValue                    real/_
DepthBasedCorrMaskCenterWeight                   real/_
DepthBasedCorrMaskRange                          CorrRangeMask Struct_+
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DepthBasedCorrMaskRangeAreaModelsColorSampleInfo string/_+
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DepthBasedCorrMaskRangeDepthMax                  real/_+
DepthBasedCorrMaskRangeDepthMin                  real/_+
DepthBasedCorrMaskRangeInvert                    boolean/_+
DepthBasedCorrMaskRangeLumFeather                real/_+
DepthBasedCorrMaskRangeLuminanceDepthSampleInfo string/_+
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DepthBasedCorrMaskRangeLumMin                    real/_+
DepthBasedCorrMaskRangeLumRange                  string/_+
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DepthBasedCorrMaskFeather                        real/_
DepthBasedCorrMaskFlipped                        boolean/_
DepthBasedCorrMaskFlow                           real/_
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DepthBasedCorrMaskFullY                          real/_
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DepthBasedCorrMaskMaskActive                     boolean/_
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DepthBasedCorrMaskMaskDigest                     string/_
DepthBasedCorrMaskMaskInverted                   boolean/_
DepthBasedCorrMaskMaskName                       string/_
DepthBasedCorrMaskMasks                          CorrectionMask Struct_+
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DepthBasedCorrMaskMasksAngle                     real/_
DepthBasedCorrMaskMasksBottom                    real/_
DepthBasedCorrMaskMasksCenterValue               real/_
DepthBasedCorrMaskMasksCenterWeight              real/_
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DepthBasedCorrMaskMasksFeather                   real/_
DepthBasedCorrMaskMasksFlipped                   boolean/_
DepthBasedCorrMaskMasksFlow                      real/_
DepthBasedCorrMaskMasksFullX                     real/_
DepthBasedCorrMaskMasksFullY                     real/_
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DepthBasedCorrMaskMasksMaskDigest                string/_
DepthBasedCorrMaskMasksMaskInverted              boolean/_
DepthBasedCorrMaskMasksMaskName                  string/_
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DepthBasedCorrMaskMasksMaskSubType          string/_
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DepthBasedCorrMaskMasksMaskVersion          string/_
DepthBasedCorrMaskMasksMidpoint             real/_
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DepthBasedCorrMaskMasksRadius               real/_
DepthBasedCorrMaskMasksReferencePoint       string/_
DepthBasedCorrMaskMasksRight                real/_
DepthBasedCorrMaskMasksRoundness            real/_
DepthBasedCorrMaskMasksSizeX                real/_
DepthBasedCorrMaskMasksSizeY                real/_
DepthBasedCorrMaskMasksTop                  real/_
DepthBasedCorrMaskMaskSubType               string/_
DepthBasedCorrMaskMasksVersion              integer/_
DepthBasedCorrMaskMasksWhat                 string/_
DepthBasedCorrMaskMasksWholeImageArea       string/_
DepthBasedCorrMaskMasksX                    real/_
DepthBasedCorrMaskMasksY                    real/_
DepthBasedCorrMaskMaskSyncID                string/_
DepthBasedCorrMaskMasksZeroX                real/_
DepthBasedCorrMaskMasksZeroY                real/_
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DepthBasedCorrMaskRoundness                 real/_
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DepthBasedCorrMaskSizeY                     real/_
DepthBasedCorrMaskTop                       real/_
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DepthBasedCorrMaskWholeImageArea            string/_
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DepthBasedCorrMaskY                         real/_
DepthBasedCorrMaskZeroX                     real/_
DepthBasedCorrMaskZeroY                     real/_
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GradientBasedCorrMaskCenterWeight             real/_
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GradientBasedCorrMaskRangeAreaModelsColorSampleInfo string/_+
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GradientBasedCorrMaskRangeDepthMin            real/_+
GradientBasedCorrMaskRangeInvert              boolean/_+
GradientBasedCorrMaskRangeLumFeather          real/_+
GradientBasedCorrMaskRangeLuminanceDepthSampleInfo string/_+
GradientBasedCorrMaskRangeLumMax              real/_+
GradientBasedCorrMaskRangeLumMin              real/_+
GradientBasedCorrMaskRangeLumRange            string/_+
GradientBasedCorrMaskRangeSampleType          integer/_+
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GradientBasedCorrMaskFlow                     real/_
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GradientBasedCorrMaskFullY                    real/_
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GradientBasedCorrMaskMaskActive               boolean/_
GradientBasedCorrMaskMaskBlendMode            integer/_
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GradientBasedCorrMaskMaskInverted             boolean/_
GradientBasedCorrMaskMaskName                 string/_
GradientBasedCorrMaskMasks                    CorrectionMask Struct_+
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GradientBasedCorrMaskMasksAngle               real/_
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GradientBasedCorrMaskMasksCenterValue         real/_
GradientBasedCorrMaskMasksCenterWeight        real/_
GradientBasedCorrMaskMasksDabs                string/_+
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GradientBasedCorrMaskMasksFullY             real/_
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GradientBasedCorrMaskMasksMaskBlendMode     integer/_
GradientBasedCorrMaskMasksMaskDigest        string/_
GradientBasedCorrMaskMasksMaskInverted      boolean/_
GradientBasedCorrMaskMasksMaskName          string/_
GradientBasedCorrMaskMasksMaskSubType       string/_
GradientBasedCorrMaskMasksMaskSyncID        string/_
GradientBasedCorrMaskMasksValue             real/_
GradientBasedCorrMaskMasksMaskVersion       string/_
GradientBasedCorrMaskMasksMidpoint          real/_
GradientBasedCorrMaskMasksOrigin            string/_
GradientBasedCorrMaskMasksPerimeterValue    real/_
GradientBasedCorrMaskMasksRadius            real/_
GradientBasedCorrMaskMasksReferencePoint    string/_
GradientBasedCorrMaskMasksRight             real/_
GradientBasedCorrMaskMasksRoundness         real/_
GradientBasedCorrMaskMasksSizeX             real/_
GradientBasedCorrMaskMasksSizeY             real/_
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GradientBasedCorrMaskMasksVersion           integer/_
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GradientBasedCorrMaskMasksWholeImageArea    string/_
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GradientBasedCorrMaskMasksY                 real/_
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GradientBasedCorrMaskMasksZeroX             real/_
GradientBasedCorrMaskMasksZeroY             real/_
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GradientBasedCorrMaskReferencePoint         string/_
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GradientBasedCorrMaskRoundness              real/_
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GradientBasedCorrMaskSizeY                  real/_
GradientBasedCorrMaskTop                    real/_
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GradientBasedCorrMaskY                      real/_
GradientBasedCorrMaskZeroX                  real/_
GradientBasedCorrMaskZeroY                  real/_
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GradientBasedCorrRangeMaskDepthMin            real/_+
GradientBasedCorrRangeMaskInvert              boolean/_+
GradientBasedCorrRangeMaskLumFeather          real/_+
GradientBasedCorrRangeMaskLuminanceDepthSampleInfo string/_+
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GradientBasedCorrRangeMaskLumMin              real/_+
GradientBasedCorrRangeMaskLumRange            string/_+
GradientBasedCorrRangeMaskSampleType          integer/_+
GradientBasedCorrRangeMaskType                string/_+
GradientBasedCorrRangeMaskVersion             string/_+
GradientBasedCorrCorrectionSyncID             string/_+
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GradientBasedCorrBrightness                   real/_
GradientBasedCorrClarity                      real/_
GradientBasedCorrClarity2012                  real/_
GradientBasedCorrContrast                     real/_
GradientBasedCorrContrast2012                 real/_
GradientBasedCorrDefringe                     real/_
GradientBasedCorrDehaze                       real/_
GradientBasedCorrExposure                     real/_
GradientBasedCorrExposure2012                 real/_
GradientBasedCorrHighlights2012               real/_
GradientBasedCorrHue                          real/_
GradientBasedCorrLuminanceNoise               real/_
GradientBasedCorrMoire                        real/_
GradientBasedCorrSaturation                   real/_
GradientBasedCorrShadows2012                  real/_
GradientBasedCorrSharpness                    real/_
GradientBasedCorrTemperature                  real/_
GradientBasedCorrTexture                      real/_
GradientBasedCorrTint                         real/_
GradientBasedCorrToningHue                    real/_
GradientBasedCorrToningSaturation             real/_
GradientBasedCorrWhites2012                   real/_
GradientBasedCorrWhat                         string/_
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GrainFrequency                                integer/
GrainSeed                                     integer/
GrainSize                                     integer/
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GrayMixerBlue                                 integer/
GrayMixerGreen                                integer/
GrayMixerMagenta                              integer/
GrayMixerOrange                               integer/
GrayMixerPurple                               integer/
GrayMixerRed                                  integer/
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GrayMixerYellow                          integer/
GreenHue                                 integer/
GreenSaturation                          integer/
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HDREditMode                              integer/
HDRMaxValue                              real/
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HighlightRecovery                        integer/
Highlights2012                           integer/
HueAdjustmentAqua                        integer/
HueAdjustmentBlue                        integer/
HueAdjustmentGreen                       integer/
HueAdjustmentMagenta                     integer/
HueAdjustmentOrange                      integer/
HueAdjustmentPurple                      integer/
HueAdjustmentRed                         integer/
HueAdjustmentYellow                      integer/
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IncrementalTint                          integer/
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LensBlurAmount                           real/_
LensBlurBokehAspect                      real/_
LensBlurBokehRotation                    real/_
LensBlurBokehShape                       real/_
LensBlurBokehShapeDetail                 real/_
LensBlurCatEyeAmount                     real/_
LensBlurCatEyeScale                      real/_
LensBlurFocalRange                       string/_
LensBlurFocalRangeSource                 real/_
LensBlurHighlightsBoost                  real/_
LensBlurHighlightsThreshold              real/_
LensBlurSampledArea                      string/_
LensBlurSampledRange                     string/_
LensBlurSphericalAberration              real/_
LensBlurSubjectRange                     string/_
LensBlurVersion                          string/_
LensManualDistortionAmount               integer/
LensProfileChromaticAberrationScale      integer/
LensProfileDigest                        string/
LensProfileDistortionScale               integer/
LensProfileEnable                        integer/
LensProfileFilename                      string/
LensProfileIsEmbedded                    boolean/
LensProfileMatchKeyCameraModelName       string/
LensProfileMatchKeyExifMake              string/
LensProfileMatchKeyExifModel             string/
LensProfileMatchKeyIsRaw                 boolean/
LensProfileMatchKeyLensID                string/
LensProfileMatchKeyLensInfo              string/
LensProfileMatchKeyLensName              string/
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LensProfileName                               string/
LensProfileSetup                              string/
LensProfileVignettingScale                    integer/
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LookAmount                                    string/_
LookCluster                                   string/_
LookCopyright                                 string/_
LookGroup                                     lang-alt/_
LookName                                      string/
LookParameters                                LookParms Struct_
LookParametersCameraProfile                   string/_
LookParametersClarity2012                     string/_
LookParametersConvertToGrayscale              string/_
LookParametersHighlights2012                  string/_
LookParametersLookTable                       string/_
LookParametersProcessVersion                  string/_
LookParametersShadows2012                     string/_
LookParametersToneCurvePV2012                 string/_+
LookParametersToneCurvePV2012Blue             string/_+
LookParametersToneCurvePV2012Green            string/_+
LookParametersToneCurvePV2012Red              string/_+
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LookSupportsMonochrome                        string/_
LookSupportsOutputReferred                    string/_
LookUUID                                      string/_
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LuminanceAdjustmentBlue                       integer/
LuminanceAdjustmentGreen                      integer/
LuminanceAdjustmentMagenta                    integer/
LuminanceAdjustmentOrange                     integer/
LuminanceAdjustmentPurple                     integer/
LuminanceAdjustmentRed                        integer/
LuminanceAdjustmentYellow                     integer/
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LuminanceNoiseReductionDetail                 integer/
LuminanceSmoothing                            integer/
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MaskGroupBasedCorrMaskCenterWeight            real/_
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MaskGroupBasedCorrMaskRangeDepthMax           real/_+
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MaskGroupBasedCorrMaskRangeLumMin             real/_+
MaskGroupBasedCorrMaskRangeLumRange           string/_+
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MaskGroupBasedCorrMaskFeather                 real/_
MaskGroupBasedCorrMaskFlipped                 boolean/_
MaskGroupBasedCorrMaskFlow                    real/_
MaskGroupBasedCorrMaskFullX                   real/_
MaskGroupBasedCorrMaskFullY                   real/_
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MaskGroupBasedCorrMaskMaskActive              boolean/_
MaskGroupBasedCorrMaskMaskBlendMode           integer/_
MaskGroupBasedCorrMaskMaskDigest              string/_
MaskGroupBasedCorrMaskMaskInverted            boolean/_
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MaskGroupBasedCorrMaskMasksCenterWeight       real/_
MaskGroupBasedCorrMaskMasksDabs               string/_+
MaskGroupBasedCorrMaskMasksFeather            real/_
MaskGroupBasedCorrMaskMasksFlipped            boolean/_
MaskGroupBasedCorrMaskMasksFlow               real/_
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MaskGroupBasedCorrMaskMasksFullY              real/_
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MaskGroupBasedCorrMaskMasksMaskSyncID         string/_
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MaskGroupBasedCorrMaskMasksMaskVersion        string/_
MaskGroupBasedCorrMaskMasksMidpoint           real/_
MaskGroupBasedCorrMaskMasksOrigin             string/_
MaskGroupBasedCorrMaskMasksPerimeterValue     real/_
MaskGroupBasedCorrMaskMasksRadius             real/_
MaskGroupBasedCorrMaskMasksReferencePoint     string/_
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MaskGroupBasedCorrMaskMasksRoundness          real/_
MaskGroupBasedCorrMaskMasksSizeX              real/_
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MaskGroupBasedCorrMaskMasksWhat               string/_
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MaskGroupBasedCorrMaskMasksY                  real/_
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MaskGroupBasedCorrMaskMasksZeroX              real/_
MaskGroupBasedCorrMaskMasksZeroY              real/_
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MaskGroupBasedCorrMaskOrigin                  string/_
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MaskGroupBasedCorrMaskRadius                  real/_
MaskGroupBasedCorrMaskReferencePoint          string/_
MaskGroupBasedCorrMaskRight                   real/_
MaskGroupBasedCorrMaskRoundness               real/_
MaskGroupBasedCorrMaskSizeX                   real/_
MaskGroupBasedCorrMaskSizeY                   real/_
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MaskGroupBasedCorrMaskY                       real/_
MaskGroupBasedCorrMaskZeroX                   real/_
MaskGroupBasedCorrMaskZeroY                   real/_
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MaskGroupBasedCorrRangeMaskAreaModelsColorSampleInfo string/_+
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MaskGroupBasedCorrRangeMaskDepthMin           real/_+
MaskGroupBasedCorrRangeMaskInvert             boolean/_+
MaskGroupBasedCorrRangeMaskLumFeather         real/_+
MaskGroupBasedCorrRangeMaskLuminanceDepthSampleInfo string/_+
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MaskGroupBasedCorrRangeMaskLumMin             real/_+
MaskGroupBasedCorrRangeMaskLumRange           string/_+
MaskGroupBasedCorrRangeMaskSampleType         integer/_+
MaskGroupBasedCorrRangeMaskType               string/_+
MaskGroupBasedCorrRangeMaskVersion            string/_+
MaskGroupBasedCorrCorrectionSyncID            string/_+
MaskGroupBasedCorrBlacks2012                  real/_
MaskGroupBasedCorrBrightness                  real/_
MaskGroupBasedCorrClarity                     real/_
MaskGroupBasedCorrClarity2012                 real/_
MaskGroupBasedCorrContrast                    real/_
```

```
MaskGroupBasedCorrContrast2012               real/_
MaskGroupBasedCorrDefringe                   real/_
MaskGroupBasedCorrDehaze                     real/_
MaskGroupBasedCorrExposure                   real/_
MaskGroupBasedCorrExposure2012               real/_
MaskGroupBasedCorrHighlights2012             real/_
MaskGroupBasedCorrHue                        real/_
MaskGroupBasedCorrLuminanceNoise             real/_
MaskGroupBasedCorrMoire                      real/_
MaskGroupBasedCorrSaturation                 real/_
MaskGroupBasedCorrShadows2012                real/_
MaskGroupBasedCorrSharpness                  real/_
MaskGroupBasedCorrTemperature                real/_
MaskGroupBasedCorrTexture                    real/_
MaskGroupBasedCorrTint                       real/_
MaskGroupBasedCorrToningHue                  real/_
MaskGroupBasedCorrToningSaturation           real/_
MaskGroupBasedCorrWhites2012                 real/_
MaskGroupBasedCorrWhat                       string/_
MoireFilter                                  string/
Name                                         lang-alt/
NegativeCacheLargePreviewSize                integer/
NegativeCacheMaximumSize                     real/
NegativeCachePath                            string/
OverrideLookVignette                         boolean/
PaintBasedCorrections                        Correction Struct+
PaintCorrectionActive                        boolean/_
PaintCorrectionAmount                        real/_
PaintBasedCorrectionMasks                    CorrectionMask Struct_+
PaintCorrectionMaskAlpha                     real/_
PaintCorrectionMaskAngle                     real/_
PaintCorrectionMaskBottom                    real/_
PaintCorrectionMaskCenterValue               real/_
PaintCorrectionMaskCenterWeight              real/_
PaintCorrectionMaskRange                     CorrRangeMask Struct_+
PaintCorrectionMaskRangeAreaModels           AreaModels Struct_+
PaintCorrectionMaskRangeAreaModelsComponents  string/_+
PaintCorrectionMaskRangeAreaModelsColorSampleInfo string/_+
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PaintCorrectionMaskRangeDepthFeather         real/_+
PaintCorrectionMaskRangeDepthMax             real/_+
PaintCorrectionMaskRangeDepthMin             real/_+
PaintCorrectionMaskRangeInvert               boolean/_+
PaintCorrectionMaskRangeLumFeather           real/_+
PaintCorrectionMaskRangeLuminanceDepthSampleInfo string/_+
PaintCorrectionMaskRangeLumMax               real/_+
PaintCorrectionMaskRangeLumMin               real/_+
PaintCorrectionMaskRangeLumRange             string/_+
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PaintCorrectionMaskRangeType                 string/_+
PaintCorrectionMaskRangeVersion              string/_+
PaintCorrectionMaskDabs                      string/_
PaintCorrectionMaskFeather                   real/_
PaintCorrectionMaskFlipped                   boolean/_
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PaintCorrectionMaskFlow                     real/_
PaintCorrectionMaskFullX                    real/_
PaintCorrectionMaskFullY                    real/_
PaintCorrectionMaskInputDigest              string/_
PaintCorrectionMaskLeft                     real/_
PaintCorrectionMaskMaskActive               boolean/_
PaintCorrectionMaskMaskBlendMode            integer/_
PaintCorrectionMaskMaskDigest               string/_
PaintCorrectionMaskMaskInverted             boolean/_
PaintCorrectionMaskMaskName                 string/_
PaintCorrectionMaskMasks                    CorrectionMask Struct_+
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PaintCorrectionMaskMasksAngle               real/_
PaintCorrectionMaskMasksBottom              real/_
PaintCorrectionMaskMasksCenterValue         real/_
PaintCorrectionMaskMasksCenterWeight        real/_
PaintCorrectionMaskMasksDabs                string/_+
PaintCorrectionMaskMasksFeather             real/_
PaintCorrectionMaskMasksFlipped             boolean/_
PaintCorrectionMaskMasksFlow                real/_
PaintCorrectionMaskMasksFullX               real/_
PaintCorrectionMaskMasksFullY               real/_
PaintCorrectionMaskMasksInputDigest         string/_
PaintCorrectionMaskMasksLeft                real/_
PaintCorrectionMaskMasksMaskActive          boolean/_
PaintCorrectionMaskMasksMaskBlendMode       integer/_
PaintCorrectionMaskMasksMaskDigest          string/_
PaintCorrectionMaskMasksMaskInverted        boolean/_
PaintCorrectionMaskMasksMaskName            string/_
PaintCorrectionMaskMasksMaskSubType         string/_
PaintCorrectionMaskMasksMaskSyncID          string/_
PaintCorrectionMaskMasksValue               real/_
PaintCorrectionMaskMasksMaskVersion         string/_
PaintCorrectionMaskMasksMidpoint            real/_
PaintCorrectionMaskMasksOrigin              string/_
PaintCorrectionMaskMasksPerimeterValue      real/_
PaintCorrectionMaskMasksRadius              real/_
PaintCorrectionMaskMasksReferencePoint      string/_
PaintCorrectionMaskMasksRight               real/_
PaintCorrectionMaskMasksRoundness           real/_
PaintCorrectionMaskMasksSizeX               real/_
PaintCorrectionMaskMasksSizeY               real/_
PaintCorrectionMaskMasksTop                 real/_
PaintCorrectionMaskMaskSubType              string/_
PaintCorrectionMaskMasksVersion             integer/_
PaintCorrectionMaskMasksWhat                string/_
PaintCorrectionMaskMasksWholeImageArea      string/_
PaintCorrectionMaskMasksX                   real/_
PaintCorrectionMaskMasksY                   real/_
PaintCorrectionMaskMaskSyncID               string/_
PaintCorrectionMaskMasksZeroX               real/_
PaintCorrectionMaskMasksZeroY               real/_
PaintCorrectionMaskValue                    real/_
PaintCorrectionMaskMaskVersion              string/_
```

```
    PaintCorrectionMaskMidpoint                  real/_
    PaintCorrectionMaskOrigin                    string/_
    PaintCorrectionMaskPerimeterValue            real/_
    PaintCorrectionMaskRadius                    real/_
    PaintCorrectionMaskReferencePoint            string/_
    PaintCorrectionMaskRight                     real/_
    PaintCorrectionMaskRoundness                 real/_
    PaintCorrectionMaskSizeX                     real/_
    PaintCorrectionMaskSizeY                     real/_
    PaintCorrectionMaskTop                       real/_
    PaintCorrectionMaskVersion                   integer/_
    PaintCorrectionMaskWhat                      string/_
    PaintCorrectionMaskWholeImageArea            string/_
    PaintCorrectionMaskX                         real/_
    PaintCorrectionMaskY                         real/_
    PaintCorrectionMaskZeroX                     real/_
    PaintCorrectionMaskZeroY                     real/_
    PaintCorrectionCorrectionName                string/_+
    PaintCorrectionRangeMask                     CorrRangeMask Struct_+
    PaintCorrectionRangeMaskAreaModels           AreaModels Struct_+
    PaintCorrectionRangeMaskAreaModelsComponents  string/_+
    PaintCorrectionRangeMaskAreaModelsColorSampleInfo string/_+
    PaintCorrectionRangeMaskColorAmount          real/_+
    PaintCorrectionRangeMaskDepthFeather         real/_+
    PaintCorrectionRangeMaskDepthMax             real/_+
    PaintCorrectionRangeMaskDepthMin             real/_+
    PaintCorrectionRangeMaskInvert               boolean/_+
    PaintCorrectionRangeMaskLumFeather           real/_+
    PaintCorrectionRangeMaskLuminanceDepthSampleInfo string/_+
    PaintCorrectionRangeMaskLumMax               real/_+
    PaintCorrectionRangeMaskLumMin               real/_+
    PaintCorrectionRangeMaskLumRange             string/_+
    PaintCorrectionRangeMaskSampleType           integer/_+
    PaintCorrectionRangeMaskType                 string/_+
    PaintCorrectionRangeMaskVersion              string/_+
    PaintCorrectionCorrectionSyncID              string/_+
    PaintCorrectionBlacks2012                    real/_
    PaintCorrectionBrightness                    real/_
    PaintCorrectionClarity                       real/_
    PaintCorrectionClarity2012                   real/_
    PaintCorrectionContrast                      real/_
    PaintCorrectionContrast2012                  real/_
    PaintCorrectionDefringe                      real/_
    PaintCorrectionDehaze                        real/_
    PaintCorrectionExposure                      real/_
    PaintCorrectionExposure2012                  real/_
    PaintCorrectionHighlights2012                real/_
    PaintCorrectionHue                           real/_
    PaintCorrectionLuminanceNoise                real/_
    PaintCorrectionMoire                         real/_
    PaintCorrectionSaturation                    real/_
    PaintCorrectionShadows2012                   real/_
    PaintCorrectionSharpness                     real/_
    PaintCorrectionTemperature                   real/_
```

```
PaintCorrectionTexture                          real/_
PaintCorrectionTint                             real/_
PaintCorrectionToningHue                        real/_
PaintCorrectionToningSaturation                 real/_
PaintCorrectionWhites2012                       real/_
PaintCorrectionWhat                             string/_
ParametricDarks                                 integer/
ParametricHighlights                            integer/
ParametricHighlightSplit                        integer/
ParametricLights                                integer/
ParametricMidtoneSplit                          integer/
ParametricShadows                               integer/
ParametricShadowSplit                           integer/
PerspectiveAspect                               integer/
PerspectiveHorizontal                           integer/
PerspectiveRotate                               real/
PerspectiveScale                                integer/
PerspectiveUpright                              integer/
PerspectiveVertical                             integer/
PerspectiveX                                    real/
PerspectiveY                                    real/
PointColors                                     string/+
PostCropVignetteAmount                          integer/
PostCropVignetteFeather                         integer/
PostCropVignetteHighlightContrast               integer/
PostCropVignetteMidpoint                        integer/
PostCropVignetteRoundness                       integer/
PostCropVignetteStyle                           integer/
PresetType                                      string/
ProcessVersion                                  string/
RangeMask                                       RangeMask Struct
RangeMaskMapInfo                                MapInfo Struct_
RangeMaskMapInfoLabMax                          string/_
RangeMaskMapInfoLabMin                          string/_
RangeMaskMapInfoLumEq                           string/_+
RangeMaskMapInfoRGBMax                          string/_
RangeMaskMapInfoRGBMin                          string/_
RawFileName                                     string/
RedEyeInfo                                      string/+
RedHue                                          integer/
RedSaturation                                   integer/
RetouchAreas                                    RetouchArea Struct+
RetouchAreaFeather                              real/_
RetouchAreaMasks                                CorrectionMask Struct_+
RetouchAreaMaskAlpha                            real/_
RetouchAreaMaskAngle                            real/_
RetouchAreaMaskBottom                           real/_
RetouchAreaMaskCenterValue                      real/_
RetouchAreaMaskCenterWeight                     real/_
RetouchAreaMaskRange                            CorrRangeMask Struct_+
RetouchAreaMaskRangeAreaModels                  AreaModels Struct_+
RetouchAreaMaskRangeAreaModelsComponents        string/_+
RetouchAreaMaskRangeAreaModelsColorSampleInfo string/_+
RetouchAreaMaskRangeColorAmount                 real/_+
```

```
RetouchAreaMaskRangeDepthFeather              real/_+
RetouchAreaMaskRangeDepthMax                  real/_+
RetouchAreaMaskRangeDepthMin                  real/_+
RetouchAreaMaskRangeInvert                    boolean/_+
RetouchAreaMaskRangeLumFeather                real/_+
RetouchAreaMaskRangeLuminanceDepthSampleInfo  string/_+
RetouchAreaMaskRangeLumMax                    real/_+
RetouchAreaMaskRangeLumMin                    real/_+
RetouchAreaMaskRangeLumRange                  string/_+
RetouchAreaMaskRangeSampleType                integer/_+
RetouchAreaMaskRangeType                      string/_+
RetouchAreaMaskRangeVersion                   string/_+
RetouchAreaMaskDabs                           string/_
RetouchAreaMaskFeather                        real/_
RetouchAreaMaskFlipped                        boolean/_
RetouchAreaMaskFlow                           real/_
RetouchAreaMaskFullX                          real/_
RetouchAreaMaskFullY                          real/_
RetouchAreaMaskInputDigest                    string/_
RetouchAreaMaskLeft                           real/_
RetouchAreaMaskMaskActive                     boolean/_
RetouchAreaMaskMaskBlendMode                  integer/_
RetouchAreaMaskMaskDigest                     string/_
RetouchAreaMaskMaskInverted                   boolean/_
RetouchAreaMaskMaskName                       string/_
RetouchAreaMaskMasks                          CorrectionMask Struct_+
RetouchAreaMaskMasksAlpha                     real/_
RetouchAreaMaskMasksAngle                     real/_
RetouchAreaMaskMasksBottom                    real/_
RetouchAreaMaskMasksCenterValue               real/_
RetouchAreaMaskMasksCenterWeight              real/_
RetouchAreaMaskMasksDabs                      string/_+
RetouchAreaMaskMasksFeather                   real/_
RetouchAreaMaskMasksFlipped                   boolean/_
RetouchAreaMaskMasksFlow                      real/_
RetouchAreaMaskMasksFullX                     real/_
RetouchAreaMaskMasksFullY                     real/_
RetouchAreaMaskMasksInputDigest               string/_
RetouchAreaMaskMasksLeft                      real/_
RetouchAreaMaskMasksMaskActive                boolean/_
RetouchAreaMaskMasksMaskBlendMode             integer/_
RetouchAreaMaskMasksMaskDigest                string/_
RetouchAreaMaskMasksMaskInverted              boolean/_
RetouchAreaMaskMasksMaskName                  string/_
RetouchAreaMaskMasksMaskSubType               string/_
RetouchAreaMaskMasksMaskSyncID                string/_
RetouchAreaMaskMasksValue                     real/_
RetouchAreaMaskMasksMaskVersion               string/_
RetouchAreaMaskMasksMidpoint                  real/_
RetouchAreaMaskMasksOrigin                    string/_
RetouchAreaMaskMasksPerimeterValue            real/_
RetouchAreaMaskMasksRadius                    real/_
RetouchAreaMaskMasksReferencePoint            string/_
RetouchAreaMaskMasksRight                     real/_
```

```
RetouchAreaMaskMasksRoundness                real/_
RetouchAreaMaskMasksSizeX                    real/_
RetouchAreaMaskMasksSizeY                    real/_
RetouchAreaMaskMasksTop                      real/_
RetouchAreaMaskMaskSubType                   string/_
RetouchAreaMaskMasksVersion                  integer/_
RetouchAreaMaskMasksWhat                     string/_
RetouchAreaMaskMasksWholeImageArea           string/_
RetouchAreaMaskMasksX                        real/_
RetouchAreaMaskMasksY                        real/_
RetouchAreaMaskMaskSyncID                    string/_
RetouchAreaMaskMasksZeroX                    real/_
RetouchAreaMaskMasksZeroY                    real/_
RetouchAreaMaskValue                         real/_
RetouchAreaMaskMaskVersion                   string/_
RetouchAreaMaskMidpoint                      real/_
RetouchAreaMaskOrigin                        string/_
RetouchAreaMaskPerimeterValue                real/_
RetouchAreaMaskRadius                        real/_
RetouchAreaMaskReferencePoint                string/_
RetouchAreaMaskRight                         real/_
RetouchAreaMaskRoundness                     real/_
RetouchAreaMaskSizeX                         real/_
RetouchAreaMaskSizeY                         real/_
RetouchAreaMaskTop                           real/_
RetouchAreaMaskVersion                       integer/_
RetouchAreaMaskWhat                          string/_
RetouchAreaMaskWholeImageArea                string/_
RetouchAreaMaskX                             real/_
RetouchAreaMaskY                             real/_
RetouchAreaMaskZeroX                         real/_
RetouchAreaMaskZeroY                         real/_
RetouchAreaMethod                            string/_
RetouchAreaOffsetY                           real/_
RetouchAreaOpacity                           real/_
RetouchAreaSeed                              integer/_
RetouchAreaSourceState                       string/_
RetouchAreaSourceX                           real/_
RetouchAreaSpotType                          string/_
RetouchInfo                                  string/+
Saturation                                   integer/
SaturationAdjustmentAqua                     integer/
SaturationAdjustmentBlue                     integer/
SaturationAdjustmentGreen                    integer/
SaturationAdjustmentMagenta                  integer/
SaturationAdjustmentOrange                   integer/
SaturationAdjustmentPurple                   integer/
SaturationAdjustmentRed                      integer/
SaturationAdjustmentYellow                   integer/
SDRBlend                                     real/
SDRBrightness                                real/
SDRContrast                                  real/
SDRHighlights                                real/
SDRShadows                                   real/
```

```
SDRWhites                                real/
Shadows                                  integer/
Shadows2012                              integer/
ShadowTint                               integer/
SharpenDetail                            integer/
SharpenEdgeMasking                       integer/
SharpenRadius                            real/
Sharpness                                integer/
ShortName                                lang-alt/
Smoothness                               integer/
SortName                                 lang-alt/
SplitToningBalance                       integer/
SplitToningHighlightHue                  integer/
SplitToningHighlightSaturation           integer/
SplitToningShadowHue                     integer/
SplitToningShadowSaturation              integer/
SupportsAmount                           boolean/
SupportsColor                            boolean/
SupportsHighDynamicRange                 boolean/
SupportsMonochrome                       boolean/
SupportsNormalDynamicRange               boolean/
SupportsOutputReferred                   boolean/
SupportsSceneReferred                    boolean/
ColorTemperature                         integer/
Texture                                  integer/
TIFFHandling                             string/
Tint                                     integer/
ToggleStyleAmount                        integer/
ToggleStyleDigest                        string/
ToneCurve                                string/+
ToneCurveBlue                            string/+
ToneCurveGreen                           string/+
ToneCurveName                            string/
ToneCurveName2012                        string/
ToneCurvePV2012                          string/+
ToneCurvePV2012Blue                      string/+
ToneCurvePV2012Green                     string/+
ToneCurvePV2012Red                       string/+
ToneCurveRed                             string/+
ToneMapStrength                          real/
UprightCenterMode                        integer/
UprightCenterNormX                       real/
UprightCenterNormY                       real/
UprightDependentDigest                   string/
UprightFocalLength35mm                   real/
UprightFocalMode                         integer/
UprightFourSegments_0                    string/
UprightFourSegments_1                    string/
UprightFourSegments_2                    string/
UprightFourSegments_3                    string/
UprightFourSegmentsCount                 integer/
UprightGuidedDependentDigest             string/
UprightPreview                           boolean/
UprightTransform_0                       string/
```

UprightTransform_1	string/
UprightTransform_2	string/
UprightTransform_3	string/
UprightTransform_4	string/
UprightTransform_5	string/
UprightTransformCount	integer/
UprightVersion	integer/
UUID	string/
Version	string/
Vibrance	integer/
VignetteAmount	integer/
VignetteMidpoint	integer/
What	string/
WhiteBalance	string/
Whites2012	integer/

XMP Correction Struct

Field Name	Writable
CorrectionActive	boolean
CorrectionAmount	real
CorrectionMasks	CorrectionMask Struct+
CorrectionName	string
CorrRangeMask	CorrRangeMask Struct –
CorrectionSyncID	string
LocalBlacks2012	real
LocalBrightness	real
LocalClarity	real
LocalClarity2012	real
LocalContrast	real
LocalContrast2012	real
LocalDefringe	real
LocalDehaze	real
LocalExposure	real
LocalExposure2012	real
LocalHighlights2012	real
LocalHue	real
LocalLuminanceNoise	real
LocalMoire	real
LocalSaturation	real
LocalShadows2012	real
LocalSharpness	real
LocalTemperature	real
LocalTexture	real
LocalTint	real
LocalToningHue	real
LocalToningSaturation	real
LocalWhites2012	real
What	string

XMP CorrectionMask Struct

Field Name	Writable
Alpha	real
Angle	real
Bottom	real
CenterValue	real
CenterWeight	real
CorrRangeMask	CorrRangeMask Struct
Dabs	string+
Feather	real
Flipped	boolean
Flow	real
FullX	real
FullY	real
InputDigest	string
Left	real
MaskActive	boolean
MaskBlendMode	integer
MaskDigest	string
MaskInverted	boolean
MaskName	string
MaskSubType	string
MaskSyncID	string
MaskValue	real
MaskVersion	string
Masks	CorrectionMask Struct
Midpoint	real
Origin	string
PerimeterValue	real
Radius	real
ReferencePoint	string
Right	real
Roundness	real
SizeX	real
SizeY	real
Top	real
Version	integer
What	string
WholeImageArea	string
X	real
Y	real
ZeroX	real
ZeroY	real

XMP CorrRangeMask Struct

Called CorrectionRangeMask by the spec.

Field Name	Writable
AreaModels	AreaModels Struct+
ColorAmount	real
DepthFeather	real
DepthMax	real
DepthMin	real
Invert	boolean
LumFeather	real
LumMax	real
LumMin	real
LumRange	string
LuminanceDepthSampleInfo	string
SampleType	integer
Type	string
Version	string

XMP AreaModels Struct

Field Name	Writable
AreaComponents	string+
ColorRangeMaskAreaSampleInfo	string

XMP DepthBasedCorr Struct

Field Name	Writable
CorrectionActive	boolean
CorrectionAmount	real
CorrectionMasks	CorrectionMask Struct+
CorrectionSyncID	string
LocalCorrectedDepth	real
LocalCurveRefineSaturation	real
What	string

XMP DepthMapInfo Struct

Field Name	Writable
BaseHighlightGuideInputDigest	string
BaseHighlightGuideTable	string
BaseHighlightGuideVersion	string
BaseLayeredDepthInputDigest	string
BaseLayeredDepthTable	string
BaseLayeredDepthVersion	string
BaseRawDepthInputDigest	string
BaseRawDepthTable	string
BaseRawDepthVersion	string
DepthSource	string

XMP LensBlur Struct

Field Name	Writable
Active	boolean
BlurAmount	real
BokehAspect	real
BokehRotation	real
BokehShape	real
BokehShapeDetail	real
CatEyeAmount	real
CatEyeScale	real
FocalRange	string
FocalRangeSource	real
HighlightsBoost	real
HighlightsThreshold	real
SampledArea	string
SampledRange	string
SphericalAberration	real
SubjectRange	string
Version	string

XMP Look Struct

Field Name	Writable
Amount	string
Cluster	string
Copyright	string
Group	lang-alt
Name	string
Parameters	LookParms Struct
SupportsAmount	string
SupportsMonochrome	string
SupportsOutputReferred	string
UUID	string

XMP LookParms Struct

Field Name	Writable
CameraProfile	string
Clarity2012	string
ConvertToGrayscale	string
Highlights2012	string
LookTable	string
ProcessVersion	string
Shadows2012	string
ToneCurvePV2012	string+
ToneCurvePV2012Blue	string+
ToneCurvePV2012Green	string+
ToneCurvePV2012Red	string+
Version	string

XMP RangeMask Struct

This structure is actually called RangeMaskMapInfo, but it only contains one element which is a RangeMaskMapInfo structure (Yes, really!). So these are renamed to RangeMask and MapInfo respectively to avoid confusion and redundancy in the tag names.

Field Name	Writable
RangeMaskMapInfo	MapInfo Struct

XMP MapInfo Struct

Called RangeMaskMapInfo by the specification, the same as the containing structure.

Field Name	Writable
LabMax	string
LabMin	string
LumEq	string+
RGBMax	string
RGBMin	string

XMP RetouchArea Struct

Field Name	Writable
Feather	real
Masks	CorrectionMask Struct+
Method	string
OffsetY	real
Opacity	real
Seed	integer
SourceState	string
SourceX	real
SpotType	string

XMP creatorAtom Tags

Adobe creatorAtom tags, written by After Effects.

These tags belong to the ExifTool XMP-creatorAtom family 1 group.

Tag Name	Writable
AeProjectLink	AEProjectLink Struct
AeProjectLinkCompositionID	string_
AeProjectLinkFullPath	string_
AeProjectLinkRenderOutputModuleIndex	string_
AeProjectLinkRenderQueueItemID	string_
AeProjectLinkRenderTimeStamp	integer_
MacAtom	MacAtom Struct
MacAtomApplicationCode	string_
MacAtomInvocationAppleEvent	string_
MacAtomPosixProjectPath	string_
WindowsAtom	WindowsAtom Struct
WindowsAtomExtension	string_
WindowsAtomInvocationFlags	string_
WindowsAtomUncProjectPath	string_

XMP AEProjectLink Struct

Field Name	Writable
CompositionID	string
FullPath	string
RenderOutputModuleIndex	string
RenderQueueItemID	string
RenderTimeStamp	integer

XMP MacAtom Struct

Field Name	Writable
ApplicationCode	string
InvocationAppleEvent	string
PosixProjectPath	string

XMP WindowsAtom Struct

Field Name	Writable
Extension	string
InvocationFlags	string
UncProjectPath	string

XMP crs Tags

Photoshop Camera Raw namespace tags. It is a shame that Adobe pollutes the metadata space with these incredibly bulky image editing parameters.

These tags belong to the ExifTool XMP-crs family 1 group.

Tag Name	Writable
AlreadyApplied	boolean
AutoBrightness	boolean
AutoContrast	boolean
AutoExposure	boolean
AutoLateralCA	integer
AutoShadows	boolean
AutoTone	boolean
AutoToneDigest	string
AutoToneDigestNoSat	string
AutoWhiteVersion	integer
Blacks2012	integer
BlueHue	integer
BlueSaturation	integer
Brightness	integer
CameraModelRestriction	string
CameraProfile	string
CameraProfileDigest	string
ChromaticAberrationB	integer
ChromaticAberrationR	integer
CircularGradientBasedCorrections	Correction Struct+
CircGradBasedCorrActive	boolean_
CircGradBasedCorrAmount	real_
CircGradBasedCorrMasks	CorrectionMask Struct_+
CircGradBasedCorrMaskAlpha	real_
CircGradBasedCorrMaskAngle	real_
CircGradBasedCorrMaskBottom	real_

```
CircGradBasedCorrMaskCenterValue              real_
CircGradBasedCorrMaskCenterWeight             real_
CircGradBasedCorrMaskRange                    CorrRangeMask Struct_+
CircGradBasedCorrMaskRangeAreaModels          AreaModels Struct_+
CircGradBasedCorrMaskRangeAreaModelsComponents string_+
CircGradBasedCorrMaskRangeAreaModelsColorSampleInfo string_+
CircGradBasedCorrMaskRangeColorAmount         real_+
CircGradBasedCorrMaskRangeDepthFeather        real_+
CircGradBasedCorrMaskRangeDepthMax            real_+
CircGradBasedCorrMaskRangeDepthMin            real_+
CircGradBasedCorrMaskRangeInvert              boolean_+
CircGradBasedCorrMaskRangeLumFeather          real_+
CircGradBasedCorrMaskRangeLuminanceDepthSampleInfo string_+
CircGradBasedCorrMaskRangeLumMax              real_+
CircGradBasedCorrMaskRangeLumMin              real_+
CircGradBasedCorrMaskRangeLumRange            string_+
CircGradBasedCorrMaskRangeSampleType          integer_+
CircGradBasedCorrMaskRangeType                string_+
CircGradBasedCorrMaskRangeVersion             string_+
CircGradBasedCorrMaskDabs                     string_
CircGradBasedCorrMaskFeather                  real_
CircGradBasedCorrMaskFlipped                  boolean_
CircGradBasedCorrMaskFlow                     real_
CircGradBasedCorrMaskFullX                    real_
CircGradBasedCorrMaskFullY                    real_
CircGradBasedCorrMaskInputDigest              string_
CircGradBasedCorrMaskLeft                     real_
CircGradBasedCorrMaskMaskActive               boolean_
CircGradBasedCorrMaskMaskBlendMode            integer_
CircGradBasedCorrMaskMaskDigest               string_
CircGradBasedCorrMaskMaskInverted             boolean_
CircGradBasedCorrMaskMaskName                 string_
CircGradBasedCorrMaskMasks                    CorrectionMask Struct_+
CircGradBasedCorrMaskMasksAlpha               real_
CircGradBasedCorrMaskMasksAngle               real_
CircGradBasedCorrMaskMasksBottom              real_
CircGradBasedCorrMaskMasksCenterValue         real_
CircGradBasedCorrMaskMasksCenterWeight        real_
CircGradBasedCorrMaskMasksDabs                string_+
CircGradBasedCorrMaskMasksFeather             real_
CircGradBasedCorrMaskMasksFlipped             boolean_
CircGradBasedCorrMaskMasksFlow                real_
CircGradBasedCorrMaskMasksFullX               real_
CircGradBasedCorrMaskMasksFullY               real_
CircGradBasedCorrMaskMasksInputDigest         string_
CircGradBasedCorrMaskMasksLeft                real_
CircGradBasedCorrMaskMasksMaskActive          boolean_
CircGradBasedCorrMaskMasksMaskBlendMode       integer_
CircGradBasedCorrMaskMasksMaskDigest          string_
CircGradBasedCorrMaskMasksMaskInverted        boolean_
CircGradBasedCorrMaskMasksMaskName            string_
CircGradBasedCorrMaskMasksMaskSubType         string_
CircGradBasedCorrMaskMasksMaskSyncID          string_
CircGradBasedCorrMaskMasksValue               real_
```

```
CircGradBasedCorrMaskMasksMaskVersion         string_
CircGradBasedCorrMaskMasksMidpoint            real_
CircGradBasedCorrMaskMasksOrigin              string_
CircGradBasedCorrMaskMasksPerimeterValue      real_
CircGradBasedCorrMaskMasksRadius              real_
CircGradBasedCorrMaskMasksReferencePoint      string_
CircGradBasedCorrMaskMasksRight               real_
CircGradBasedCorrMaskMasksRoundness           real_
CircGradBasedCorrMaskMasksSizeX               real_
CircGradBasedCorrMaskMasksSizeY               real_
CircGradBasedCorrMaskMasksTop                 real_
CircGradBasedCorrMaskMaskSubType              string_
CircGradBasedCorrMaskMasksVersion             integer_
CircGradBasedCorrMaskMasksWhat                string_
CircGradBasedCorrMaskMasksWholeImageArea      string_
CircGradBasedCorrMaskMasksX                   real_
CircGradBasedCorrMaskMasksY                   real_
CircGradBasedCorrMaskMaskSyncID               string_
CircGradBasedCorrMaskMasksZeroX               real_
CircGradBasedCorrMaskMasksZeroY               real_
CircGradBasedCorrMaskValue                    real_
CircGradBasedCorrMaskMaskVersion              string_
CircGradBasedCorrMaskMidpoint                 real_
CircGradBasedCorrMaskOrigin                   string_
CircGradBasedCorrMaskPerimeterValue           real_
CircGradBasedCorrMaskRadius                   real_
CircGradBasedCorrMaskReferencePoint           string_
CircGradBasedCorrMaskRight                    real_
CircGradBasedCorrMaskRoundness                real_
CircGradBasedCorrMaskSizeX                    real_
CircGradBasedCorrMaskSizeY                    real_
CircGradBasedCorrMaskTop                      real_
CircGradBasedCorrMaskVersion                  integer_
CircGradBasedCorrMaskWhat                     string_
CircGradBasedCorrMaskWholeImageArea           string_
CircGradBasedCorrMaskX                        real_
CircGradBasedCorrMaskY                        real_
CircGradBasedCorrMaskZeroX                    real_
CircGradBasedCorrMaskZeroY                    real_
CircGradBasedCorrCorrectionName               string_+
CircGradBasedCorrRangeMask                    CorrRangeMask Struct_+
CircGradBasedCorrRangeMaskAreaModels          AreaModels Struct_+
CircGradBasedCorrRangeMaskAreaModelsComponents string_+
CircGradBasedCorrRangeMaskAreaModelsColorSampleInfo string_+
CircGradBasedCorrRangeMaskColorAmount         real_+
CircGradBasedCorrRangeMaskDepthFeather        real_+
CircGradBasedCorrRangeMaskDepthMax            real_+
CircGradBasedCorrRangeMaskDepthMin            real_+
CircGradBasedCorrRangeMaskInvert              boolean_+
CircGradBasedCorrRangeMaskLumFeather          real_+
CircGradBasedCorrRangeMaskLuminanceDepthSampleInfo string_+
CircGradBasedCorrRangeMaskLumMax              real_+
CircGradBasedCorrRangeMaskLumMin              real_+
CircGradBasedCorrRangeMaskLumRange            string_+
```

```
CircGradBasedCorrRangeMaskSampleType        integer_+
CircGradBasedCorrRangeMaskType              string_+
CircGradBasedCorrRangeMaskVersion           string_+
CircGradBasedCorrCorrectionSyncID           string_+
CircGradBasedCorrBlacks2012                 real_
CircGradBasedCorrBrightness                 real_
CircGradBasedCorrClarity                    real_
CircGradBasedCorrClarity2012                real_
CircGradBasedCorrContrast                   real_
CircGradBasedCorrContrast2012               real_
CircGradBasedCorrDefringe                   real_
CircGradBasedCorrDehaze                     real_
CircGradBasedCorrExposure                   real_
CircGradBasedCorrExposure2012               real_
CircGradBasedCorrHighlights2012             real_
CircGradBasedCorrHue                        real_
CircGradBasedCorrLuminanceNoise             real_
CircGradBasedCorrMoire                      real_
CircGradBasedCorrSaturation                 real_
CircGradBasedCorrShadows2012                real_
CircGradBasedCorrSharpness                  real_
CircGradBasedCorrTemperature                real_
CircGradBasedCorrTexture                    real_
CircGradBasedCorrTint                       real_
CircGradBasedCorrToningHue                  real_
CircGradBasedCorrToningSaturation           real_
CircGradBasedCorrWhites2012                 real_
CircGradBasedCorrWhat                       string_
Clarity                                     integer
Clarity2012                                 integer
ClipboardAspectRatio                        integer
ClipboardOrientation                        integer
Cluster                                     string
ColorGradeBlending                          integer
ColorGradeGlobalHue                         integer
ColorGradeGlobalLum                         integer
ColorGradeGlobalSat                         integer
ColorGradeHighlightLum                      integer
ColorGradeMidtoneHue                        integer
ColorGradeMidtoneLum                        integer
ColorGradeMidtoneSat                        integer
ColorGradeShadowLum                         integer
ColorNoiseReduction                         integer
ColorNoiseReductionDetail                   integer
ColorNoiseReductionSmoothness               integer
ColorVariance                               real+
CompatibleVersion                           string
ContactInfo                                 string
Contrast                                    integer/
Contrast2012                                integer
Converter                                   string
ConvertToGrayscale                          boolean
Copyright                                   string/
CropAngle                                   real
```

```
CropBottom                                      real
CropConstrainToUnitSquare                       integer
CropConstrainToWarp                             integer
CropHeight                                      real
CropLeft                                        real
CropRight                                       real
CropTop                                         real
CropUnit                                        integer
CropUnits                                       integer
CropWidth                                       real
DefaultAutoGray                                 boolean
DefaultAutoTone                                 boolean
DefaultsSpecificToISO                           boolean
DefaultsSpecificToSerial                        boolean
Defringe                                        integer
DefringeGreenAmount                             integer
DefringeGreenHueHi                              integer
DefringeGreenHueLo                              integer
DefringePurpleAmount                            integer
DefringePurpleHueHi                             integer
DefringePurpleHueLo                             integer
Dehaze                                          real
DepthBasedCorrections                           DepthBasedCorr Struct+
DepthBasedCorrCorrectionActive                  boolean_+
DepthBasedCorrCorrectionAmount                  real_+
DepthBasedCorrMask                              CorrectionMask Struct_+
DepthBasedCorrMaskAlpha                         real_
DepthBasedCorrMaskAngle                         real_
DepthBasedCorrMaskBottom                        real_
DepthBasedCorrMaskCenterValue                   real_
DepthBasedCorrMaskCenterWeight                  real_
DepthBasedCorrMaskRange                         CorrRangeMask Struct_+
DepthBasedCorrMaskRangeAreaModels               AreaModels Struct_+
DepthBasedCorrMaskRangeAreaModelsComponents     string_+
DepthBasedCorrMaskRangeAreaModelsColorSampleInfo string_+
DepthBasedCorrMaskRangeColorAmount              real_+
DepthBasedCorrMaskRangeDepthFeather             real_+
DepthBasedCorrMaskRangeDepthMax                 real_+
DepthBasedCorrMaskRangeDepthMin                 real_+
DepthBasedCorrMaskRangeInvert                   boolean_+
DepthBasedCorrMaskRangeLumFeather               real_+
DepthBasedCorrMaskRangeLuminanceDepthSampleInfo string_+
DepthBasedCorrMaskRangeLumMax                   real_+
DepthBasedCorrMaskRangeLumMin                   real_+
DepthBasedCorrMaskRangeLumRange                 string_+
DepthBasedCorrMaskRangeSampleType               integer_+
DepthBasedCorrMaskRangeType                     string_+
DepthBasedCorrMaskRangeVersion                  string_+
DepthBasedCorrMaskDabs                          string_+
DepthBasedCorrMaskFeather                       real_
DepthBasedCorrMaskFlipped                       boolean_
DepthBasedCorrMaskFlow                          real_
DepthBasedCorrMaskFullX                         real_
DepthBasedCorrMaskFullY                         real_
```

```
DepthBasedCorrMaskInputDigest               string_
DepthBasedCorrMaskLeft                      real_
DepthBasedCorrMaskMaskActive                boolean_
DepthBasedCorrMaskMaskBlendMode             integer_
DepthBasedCorrMaskMaskDigest                string_
DepthBasedCorrMaskMaskInverted              boolean_
DepthBasedCorrMaskMaskName                  string_
DepthBasedCorrMaskMasks                     CorrectionMask Struct_+
DepthBasedCorrMaskMasksAlpha                real_
DepthBasedCorrMaskMasksAngle                real_
DepthBasedCorrMaskMasksBottom               real_
DepthBasedCorrMaskMasksCenterValue          real_
DepthBasedCorrMaskMasksCenterWeight         real_
DepthBasedCorrMaskMasksDabs                 string_+
DepthBasedCorrMaskMasksFeather              real_
DepthBasedCorrMaskMasksFlipped              boolean_
DepthBasedCorrMaskMasksFlow                 real_
DepthBasedCorrMaskMasksFullX                real_
DepthBasedCorrMaskMasksFullY                real_
DepthBasedCorrMaskMasksInputDigest          string_
DepthBasedCorrMaskMasksLeft                 real_
DepthBasedCorrMaskMasksMaskActive           boolean_
DepthBasedCorrMaskMasksMaskBlendMode        integer_
DepthBasedCorrMaskMasksMaskDigest           string_
DepthBasedCorrMaskMasksMaskInverted         boolean_
DepthBasedCorrMaskMasksMaskName             string_
DepthBasedCorrMaskMasksMaskSubType          string_
DepthBasedCorrMaskMasksMaskSyncID           string_
DepthBasedCorrMaskMasksValue                real_
DepthBasedCorrMaskMasksMaskVersion          string_
DepthBasedCorrMaskMasksMidpoint             real_
DepthBasedCorrMaskMasksOrigin               string_
DepthBasedCorrMaskMasksPerimeterValue       real_
DepthBasedCorrMaskMasksRadius               real_
DepthBasedCorrMaskMasksReferencePoint       string_
DepthBasedCorrMaskMasksRight                real_
DepthBasedCorrMaskMasksRoundness            real_
DepthBasedCorrMaskMasksSizeX                real_
DepthBasedCorrMaskMasksSizeY                real_
DepthBasedCorrMaskMasksTop                  real_
DepthBasedCorrMaskMaskSubType               string_
DepthBasedCorrMaskMasksVersion              integer_
DepthBasedCorrMaskMasksWhat                 string_
DepthBasedCorrMaskMasksWholeImageArea       string_
DepthBasedCorrMaskMasksX                    real_
DepthBasedCorrMaskMasksY                    real_
DepthBasedCorrMaskMaskSyncID                string_
DepthBasedCorrMaskMasksZeroX                real_
DepthBasedCorrMaskMasksZeroY                real_
DepthBasedCorrMaskValue                     real_
DepthBasedCorrMaskMaskVersion               string_
DepthBasedCorrMaskMidpoint                  real_
DepthBasedCorrMaskOrigin                    string_
DepthBasedCorrMaskPerimeterValue            real_
```

```
DepthBasedCorrMaskRadius                        real_
DepthBasedCorrMaskReferencePoint                string_
DepthBasedCorrMaskRight                         real_
DepthBasedCorrMaskRoundness                     real_
DepthBasedCorrMaskSizeX                         real_
DepthBasedCorrMaskSizeY                         real_
DepthBasedCorrMaskTop                           real_
DepthBasedCorrMaskVersion                       integer_
DepthBasedCorrMaskWhat                          string_
DepthBasedCorrMaskWholeImageArea                string_
DepthBasedCorrMaskX                             real_
DepthBasedCorrMaskY                             real_
DepthBasedCorrMaskZeroX                         real_
DepthBasedCorrMaskZeroY                         real_
DepthBasedCorrCorrectionSyncID                  string_+
DepthBasedCorrLocalCorrectedDepth               real_+
DepthBasedCorrLocalCurveRefineSaturation        real_+
DepthBasedCorrWhat                              string_+
DepthMapInfo                                    DepthMapInfo Struct
DepthMapInfoBaseHighlightGuideInputDigest       string_
DepthMapInfoBaseHighlightGuideTable             string_
DepthMapInfoBaseHighlightGuideVersion           string_
DepthMapInfoBaseLayeredDepthInputDigest         string_
DepthMapInfoBaseLayeredDepthTable               string_
DepthMapInfoBaseLayeredDepthVersion             string_
DepthMapInfoBaseRawDepthInputDigest             string_
DepthMapInfoBaseRawDepthTable                   string_
DepthMapInfoBaseRawDepthVersion                 string_
DepthMapInfoDepthSource                         string_
Description                                     lang-alt/
DNGIgnoreSidecars                               boolean
Exposure                                        real
Exposure2012                                    real
FillLight                                       integer
GradientBasedCorrections                        Correction Struct+
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GradientBasedCorrAmount                         real_
GradientBasedCorrMasks                          CorrectionMask Struct_+
GradientBasedCorrMaskAlpha                      real_
GradientBasedCorrMaskAngle                      real_
GradientBasedCorrMaskBottom                     real_
GradientBasedCorrMaskCenterValue                real_
GradientBasedCorrMaskCenterWeight               real_
GradientBasedCorrMaskRange                      CorrRangeMask Struct_+
GradientBasedCorrMaskRangeAreaModels            AreaModels Struct_+
GradientBasedCorrMaskRangeAreaModelsComponents string_+
GradientBasedCorrMaskRangeAreaModelsColorSampleInfo string_+
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GradientBasedCorrMaskRangeDepthFeather          real_+
GradientBasedCorrMaskRangeDepthMax              real_+
GradientBasedCorrMaskRangeDepthMin              real_+
GradientBasedCorrMaskRangeInvert                boolean_+
GradientBasedCorrMaskRangeLumFeather            real_+
GradientBasedCorrMaskRangeLuminanceDepthSampleInfo string_+
```

```
GradientBasedCorrMaskRangeLumMax            real_+
GradientBasedCorrMaskRangeLumMin            real_+
GradientBasedCorrMaskRangeLumRange          string_+
GradientBasedCorrMaskRangeSampleType        integer_+
GradientBasedCorrMaskRangeType              string_+
GradientBasedCorrMaskRangeVersion           string_+
GradientBasedCorrMaskDabs                   string_
GradientBasedCorrMaskFeather                real_
GradientBasedCorrMaskFlipped                boolean_
GradientBasedCorrMaskFlow                   real_
GradientBasedCorrMaskFullX                  real_
GradientBasedCorrMaskFullY                  real_
GradientBasedCorrMaskInputDigest            string_
GradientBasedCorrMaskLeft                   real_
GradientBasedCorrMaskMaskActive             boolean_
GradientBasedCorrMaskMaskBlendMode          integer_
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GradientBasedCorrMaskMaskInverted           boolean_
GradientBasedCorrMaskMaskName               string_
GradientBasedCorrMaskMasks                  CorrectionMask Struct_+
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GradientBasedCorrMaskMasksAngle             real_
GradientBasedCorrMaskMasksBottom            real_
GradientBasedCorrMaskMasksCenterValue       real_
GradientBasedCorrMaskMasksCenterWeight      real_
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GradientBasedCorrMaskMasksFeather           real_
GradientBasedCorrMaskMasksFlipped           boolean_
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GradientBasedCorrMaskMasksFullX             real_
GradientBasedCorrMaskMasksFullY             real_
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GradientBasedCorrMaskMasksMaskDigest        string_
GradientBasedCorrMaskMasksMaskInverted      boolean_
GradientBasedCorrMaskMasksMaskName          string_
GradientBasedCorrMaskMasksMaskSubType       string_
GradientBasedCorrMaskMasksMaskSyncID        string_
GradientBasedCorrMaskMasksValue             real_
GradientBasedCorrMaskMasksMaskVersion       string_
GradientBasedCorrMaskMasksMidpoint          real_
GradientBasedCorrMaskMasksOrigin            string_
GradientBasedCorrMaskMasksPerimeterValue    real_
GradientBasedCorrMaskMasksRadius            real_
GradientBasedCorrMaskMasksReferencePoint    string_
GradientBasedCorrMaskMasksRight             real_
GradientBasedCorrMaskMasksRoundness         real_
GradientBasedCorrMaskMasksSizeX             real_
GradientBasedCorrMaskMasksSizeY             real_
GradientBasedCorrMaskMasksTop               real_
GradientBasedCorrMaskMaskSubType            string_
GradientBasedCorrMaskMasksVersion           integer_
```

```
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    GradientBasedCorrMaskMasksY                   real_
    GradientBasedCorrMaskMaskSyncID               string_
    GradientBasedCorrMaskMasksZeroX               real_
    GradientBasedCorrMaskMasksZeroY               real_
    GradientBasedCorrMaskValue                    real_
    GradientBasedCorrMaskMaskVersion              string_
    GradientBasedCorrMaskMidpoint                 real_
    GradientBasedCorrMaskOrigin                   string_
    GradientBasedCorrMaskPerimeterValue           real_
    GradientBasedCorrMaskRadius                   real_
    GradientBasedCorrMaskReferencePoint           string_
    GradientBasedCorrMaskRight                    real_
    GradientBasedCorrMaskRoundness                real_
    GradientBasedCorrMaskSizeX                    real_
    GradientBasedCorrMaskSizeY                    real_
    GradientBasedCorrMaskTop                      real_
    GradientBasedCorrMaskVersion                  integer_
    GradientBasedCorrMaskWhat                     string_
    GradientBasedCorrMaskWholeImageArea           string_
    GradientBasedCorrMaskX                        real_
    GradientBasedCorrMaskY                        real_
    GradientBasedCorrMaskZeroX                    real_
    GradientBasedCorrMaskZeroY                    real_
    GradientBasedCorrCorrectionName               string_+
    GradientBasedCorrRangeMask                    CorrRangeMask Struct_+
    GradientBasedCorrRangeMaskAreaModels          AreaModels Struct_+
    GradientBasedCorrRangeMaskAreaModelsComponents string_+
    GradientBasedCorrRangeMaskAreaModelsColorSampleInfo string_+
    GradientBasedCorrRangeMaskColorAmount         real_+
    GradientBasedCorrRangeMaskDepthFeather        real_+
    GradientBasedCorrRangeMaskDepthMax            real_+
    GradientBasedCorrRangeMaskDepthMin            real_+
    GradientBasedCorrRangeMaskInvert              boolean_+
    GradientBasedCorrRangeMaskLumFeather          real_+
    GradientBasedCorrRangeMaskLuminanceDepthSampleInfo string_+
    GradientBasedCorrRangeMaskLumMax              real_+
    GradientBasedCorrRangeMaskLumMin              real_+
    GradientBasedCorrRangeMaskLumRange            string_+
    GradientBasedCorrRangeMaskSampleType          integer_+
    GradientBasedCorrRangeMaskType                string_+
    GradientBasedCorrRangeMaskVersion             string_+
    GradientBasedCorrCorrectionSyncID             string_+
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    GradientBasedCorrBrightness                   real_
    GradientBasedCorrClarity                      real_
    GradientBasedCorrClarity2012                  real_
    GradientBasedCorrContrast                     real_
    GradientBasedCorrContrast2012                 real_
    GradientBasedCorrDefringe                     real_
    GradientBasedCorrDehaze                       real_
    GradientBasedCorrExposure                     real_
```

```
GradientBasedCorrExposure2012                real_
GradientBasedCorrHighlights2012              real_
GradientBasedCorrHue                         real_
GradientBasedCorrLuminanceNoise              real_
GradientBasedCorrMoire                       real_
GradientBasedCorrSaturation                  real_
GradientBasedCorrShadows2012                 real_
GradientBasedCorrSharpness                   real_
GradientBasedCorrTemperature                 real_
GradientBasedCorrTexture                     real_
GradientBasedCorrTint                        real_
GradientBasedCorrToningHue                   real_
GradientBasedCorrToningSaturation            real_
GradientBasedCorrWhites2012                  real_
GradientBasedCorrWhat                        string_
GrainAmount                                  integer
GrainFrequency                               integer
GrainSeed                                    integer
GrainSize                                    integer
GrayMixerAqua                                integer
GrayMixerBlue                                integer
GrayMixerGreen                               integer
GrayMixerMagenta                             integer
GrayMixerOrange                              integer
GrayMixerPurple                              integer
GrayMixerRed                                 integer
GrayMixerYellow                              integer
GreenHue                                     integer
GreenSaturation                              integer
Group                                        lang-alt/
HasCrop                                      boolean
HasSettings                                  boolean
HDREditMode                                  integer
HDRMaxValue                                  real
Highlight2012                                integer
HighlightRecovery                            integer
Highlights2012                               integer
HueAdjustmentAqua                            integer
HueAdjustmentBlue                            integer
HueAdjustmentGreen                           integer
HueAdjustmentMagenta                         integer
HueAdjustmentOrange                          integer
HueAdjustmentPurple                          integer
HueAdjustmentRed                             integer
HueAdjustmentYellow                          integer
IncrementalTemperature                       integer
IncrementalTint                              integer
JPEGHandling                                 string
LensBlur                                     LensBlur Struct
LensBlurActive                               boolean_
LensBlurAmount                               real_
LensBlurBokehAspect                          real_
LensBlurBokehRotation                        real_
LensBlurBokehShape                           real_
```

LensBlurBokehShapeDetail	real_
LensBlurCatEyeAmount	real_
LensBlurCatEyeScale	real_
LensBlurFocalRange	string_
LensBlurFocalRangeSource	real_
LensBlurHighlightsBoost	real_
LensBlurHighlightsThreshold	real_
LensBlurSampledArea	string_
LensBlurSampledRange	string_
LensBlurSphericalAberration	real_
LensBlurSubjectRange	string_
LensBlurVersion	string_
LensManualDistortionAmount	integer
LensProfileChromaticAberrationScale	integer
LensProfileDigest	string
LensProfileDistortionScale	integer
LensProfileEnable	integer
LensProfileFilename	string
LensProfileIsEmbedded	boolean
LensProfileMatchKeyCameraModelName	string
LensProfileMatchKeyExifMake	string
LensProfileMatchKeyExifModel	string
LensProfileMatchKeyIsRaw	boolean
LensProfileMatchKeyLensID	string
LensProfileMatchKeyLensInfo	string
LensProfileMatchKeyLensName	string
LensProfileMatchKeySensorFormatFactor	real
LensProfileName	string
LensProfileSetup	string
LensProfileVignettingScale	integer
Look	Look Struct
LookAmount	string_
LookCluster	string_
LookCopyright	string_
LookGroup	lang-alt_
LookName	string
LookParameters	LookParms Struct_
LookParametersCameraProfile	string_
LookParametersClarity2012	string_
LookParametersConvertToGrayscale	string_
LookParametersHighlights2012	string_
LookParametersLookTable	string_
LookParametersProcessVersion	string_
LookParametersShadows2012	string_
LookParametersToneCurvePV2012	string_+
LookParametersToneCurvePV2012Blue	string_+
LookParametersToneCurvePV2012Green	string_+
LookParametersToneCurvePV2012Red	string_+
LookParametersVersion	string_
LookSupportsAmount	string_
LookSupportsMonochrome	string_
LookSupportsOutputReferred	string_
LookUUID	string_
LuminanceAdjustmentAqua	integer

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LuminanceAdjustmentBlue                          integer
LuminanceAdjustmentGreen                         integer
LuminanceAdjustmentMagenta                       integer
LuminanceAdjustmentOrange                        integer
LuminanceAdjustmentPurple                        integer
LuminanceAdjustmentRed                           integer
LuminanceAdjustmentYellow                        integer
LuminanceNoiseReductionContrast                  integer
LuminanceNoiseReductionDetail                    integer
LuminanceSmoothing                               integer
MaskGroupBasedCorrections                        Correction Struct+
MaskGroupBasedCorrActive                         boolean_
MaskGroupBasedCorrAmount                         real_
MaskGroupBasedCorrMask                           CorrectionMask Struct_+
MaskGroupBasedCorrMaskAlpha                      real_
MaskGroupBasedCorrMaskAngle                      real_
MaskGroupBasedCorrMaskBottom                     real_
MaskGroupBasedCorrMaskCenterValue                real_
MaskGroupBasedCorrMaskCenterWeight               real_
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MaskGroupBasedCorrMaskRangeAreaModelsColorSampleInfo string_+
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MaskGroupBasedCorrMaskRangeDepthFeather          real_+
MaskGroupBasedCorrMaskRangeDepthMax              real_+
MaskGroupBasedCorrMaskRangeDepthMin              real_+
MaskGroupBasedCorrMaskRangeInvert                boolean_+
MaskGroupBasedCorrMaskRangeLumFeather            real_+
MaskGroupBasedCorrMaskRangeLuminanceDepthSampleInfo string_+
MaskGroupBasedCorrMaskRangeLumMax                real_+
MaskGroupBasedCorrMaskRangeLumMin                real_+
MaskGroupBasedCorrMaskRangeLumRange              string_+
MaskGroupBasedCorrMaskRangeSampleType            integer_+
MaskGroupBasedCorrMaskRangeType                  string_+
MaskGroupBasedCorrMaskRangeVersion               string_+
MaskGroupBasedCorrMaskDabs                       string_+
MaskGroupBasedCorrMaskFeather                    real_
MaskGroupBasedCorrMaskFlipped                    boolean_
MaskGroupBasedCorrMaskFlow                       real_
MaskGroupBasedCorrMaskFullX                      real_
MaskGroupBasedCorrMaskFullY                      real_
MaskGroupBasedCorrMaskInputDigest                string_
MaskGroupBasedCorrMaskLeft                       real_
MaskGroupBasedCorrMaskMaskActive                 boolean_
MaskGroupBasedCorrMaskMaskBlendMode              integer_
MaskGroupBasedCorrMaskMaskDigest                 string_
MaskGroupBasedCorrMaskMaskInverted               boolean_
MaskGroupBasedCorrMaskMaskName                   string_
MaskGroupBasedCorrMaskMasks                      CorrectionMask Struct_+
MaskGroupBasedCorrMaskMasksAlpha                 real_
MaskGroupBasedCorrMaskMasksAngle                 real_
MaskGroupBasedCorrMaskMasksBottom                real_
MaskGroupBasedCorrMaskMasksCenterValue           real_
```

```
MaskGroupBasedCorrMaskMasksCenterWeight       real_
MaskGroupBasedCorrMaskMasksDabs               string_+
MaskGroupBasedCorrMaskMasksFeather            real_
MaskGroupBasedCorrMaskMasksFlipped            boolean_
MaskGroupBasedCorrMaskMasksFlow               real_
MaskGroupBasedCorrMaskMasksFullX              real_
MaskGroupBasedCorrMaskMasksFullY              real_
MaskGroupBasedCorrMaskMasksInputDigest        string_
MaskGroupBasedCorrMaskMasksLeft               real_
MaskGroupBasedCorrMaskMasksMaskActive         boolean_
MaskGroupBasedCorrMaskMasksMaskBlendMode      integer_
MaskGroupBasedCorrMaskMasksMaskDigest         string_
MaskGroupBasedCorrMaskMasksMaskInverted       boolean_
MaskGroupBasedCorrMaskMasksMaskName           string_
MaskGroupBasedCorrMaskMasksMaskSubType        string_
MaskGroupBasedCorrMaskMasksMaskSyncID         string_
MaskGroupBasedCorrMaskMasksValue              real_
MaskGroupBasedCorrMaskMasksMaskVersion        string_
MaskGroupBasedCorrMaskMasksMidpoint           real_
MaskGroupBasedCorrMaskMasksOrigin             string_
MaskGroupBasedCorrMaskMasksPerimeterValue     real_
MaskGroupBasedCorrMaskMasksRadius             real_
MaskGroupBasedCorrMaskMasksReferencePoint     string_
MaskGroupBasedCorrMaskMasksRight              real_
MaskGroupBasedCorrMaskMasksRoundness          real_
MaskGroupBasedCorrMaskMasksSizeX              real_
MaskGroupBasedCorrMaskMasksSizeY              real_
MaskGroupBasedCorrMaskMasksTop                real_
MaskGroupBasedCorrMaskMaskSubType             string_
MaskGroupBasedCorrMaskMasksVersion            integer_
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MaskGroupBasedCorrMaskMasksWholeImageArea     string_
MaskGroupBasedCorrMaskMasksX                  real_
MaskGroupBasedCorrMaskMasksY                  real_
MaskGroupBasedCorrMaskMaskSyncID              string_
MaskGroupBasedCorrMaskMasksZeroX              real_
MaskGroupBasedCorrMaskMasksZeroY              real_
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MaskGroupBasedCorrMaskMaskVersion             string_
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MaskGroupBasedCorrMaskOrigin                  string_
MaskGroupBasedCorrMaskPerimeterValue          real_
MaskGroupBasedCorrMaskRadius                  real_
MaskGroupBasedCorrMaskReferencePoint          string_
MaskGroupBasedCorrMaskRight                   real_
MaskGroupBasedCorrMaskRoundness               real_
MaskGroupBasedCorrMaskSizeX                   real_
MaskGroupBasedCorrMaskSizeY                   real_
MaskGroupBasedCorrMaskTop                     real_
MaskGroupBasedCorrMaskVersion                 integer_
MaskGroupBasedCorrMaskWhat                    string_
MaskGroupBasedCorrMaskWholeImageArea          string_
MaskGroupBasedCorrMaskX                       real_
MaskGroupBasedCorrMaskY                       real_
```

```
MaskGroupBasedCorrMaskZeroX                   real_
MaskGroupBasedCorrMaskZeroY                   real_
MaskGroupBasedCorrCorrectionName              string_+
MaskGroupBasedCorrRangeMask                   CorrRangeMask Struct_+
MaskGroupBasedCorrRangeMaskAreaModels         AreaModels Struct_+
MaskGroupBasedCorrRangeMaskAreaModelsComponents string_+
MaskGroupBasedCorrRangeMaskAreaModelsColorSampleInfo string_+
MaskGroupBasedCorrRangeMaskColorAmount        real_+
MaskGroupBasedCorrRangeMaskDepthFeather       real_+
MaskGroupBasedCorrRangeMaskDepthMax           real_+
MaskGroupBasedCorrRangeMaskDepthMin           real_+
MaskGroupBasedCorrRangeMaskInvert             boolean_+
MaskGroupBasedCorrRangeMaskLumFeather         real_+
MaskGroupBasedCorrRangeMaskLuminanceDepthSampleInfo string_+
MaskGroupBasedCorrRangeMaskLumMax             real_+
MaskGroupBasedCorrRangeMaskLumMin             real_+
MaskGroupBasedCorrRangeMaskLumRange           string_+
MaskGroupBasedCorrRangeMaskSampleType         integer_+
MaskGroupBasedCorrRangeMaskType               string_+
MaskGroupBasedCorrRangeMaskVersion            string_+
MaskGroupBasedCorrCorrectionSyncID            string_+
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MaskGroupBasedCorrBrightness                  real_
MaskGroupBasedCorrClarity                     real_
MaskGroupBasedCorrClarity2012                 real_
MaskGroupBasedCorrContrast                    real_
MaskGroupBasedCorrContrast2012                real_
MaskGroupBasedCorrDefringe                    real_
MaskGroupBasedCorrDehaze                      real_
MaskGroupBasedCorrExposure                    real_
MaskGroupBasedCorrExposure2012                real_
MaskGroupBasedCorrHighlights2012              real_
MaskGroupBasedCorrHue                         real_
MaskGroupBasedCorrLuminanceNoise              real_
MaskGroupBasedCorrMoire                       real_
MaskGroupBasedCorrSaturation                  real_
MaskGroupBasedCorrShadows2012                 real_
MaskGroupBasedCorrSharpness                   real_
MaskGroupBasedCorrTemperature                 real_
MaskGroupBasedCorrTexture                     real_
MaskGroupBasedCorrTint                        real_
MaskGroupBasedCorrToningHue                   real_
MaskGroupBasedCorrToningSaturation            real_
MaskGroupBasedCorrWhites2012                  real_
MaskGroupBasedCorrWhat                        string_
MoireFilter                                   string
Name                                          lang-alt/
NegativeCacheLargePreviewSize                 integer
NegativeCacheMaximumSize                      real
NegativeCachePath                             string
OverrideLookVignette                          boolean
PaintBasedCorrections                         Correction Struct+
PaintCorrectionActive                         boolean_
PaintCorrectionAmount                         real_
```

```
PaintBasedCorrectionMasks                       CorrectionMask Struct_+
PaintCorrectionMaskAlpha                        real_
PaintCorrectionMaskAngle                        real_
PaintCorrectionMaskBottom                       real_
PaintCorrectionMaskCenterValue                  real_
PaintCorrectionMaskCenterWeight                 real_
PaintCorrectionMaskRange                        CorrRangeMask Struct_+
PaintCorrectionMaskRangeAreaModels              AreaModels Struct_+
PaintCorrectionMaskRangeAreaModelsComponents    string_+
PaintCorrectionMaskRangeAreaModelsColorSampleInfo string_+
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PaintCorrectionMaskRangeDepthFeather            real_+
PaintCorrectionMaskRangeDepthMax                real_+
PaintCorrectionMaskRangeDepthMin                real_+
PaintCorrectionMaskRangeInvert                  boolean_+
PaintCorrectionMaskRangeLumFeather              real_+
PaintCorrectionMaskRangeLuminanceDepthSampleInfo string_+
PaintCorrectionMaskRangeLumMax                  real_+
PaintCorrectionMaskRangeLumMin                  real_+
PaintCorrectionMaskRangeLumRange                string_+
PaintCorrectionMaskRangeSampleType              integer_+
PaintCorrectionMaskRangeType                    string_+
PaintCorrectionMaskRangeVersion                 string_+
PaintCorrectionMaskDabs                         string_
PaintCorrectionMaskFeather                      real_
PaintCorrectionMaskFlipped                      boolean_
PaintCorrectionMaskFlow                         real_
PaintCorrectionMaskFullX                        real_
PaintCorrectionMaskFullY                        real_
PaintCorrectionMaskInputDigest                  string_
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PaintCorrectionMaskMasks                        CorrectionMask Struct_+
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PaintCorrectionMaskMasksAngle                   real_
PaintCorrectionMaskMasksBottom                  real_
PaintCorrectionMaskMasksCenterValue             real_
PaintCorrectionMaskMasksCenterWeight            real_
PaintCorrectionMaskMasksDabs                    string_+
PaintCorrectionMaskMasksFeather                 real_
PaintCorrectionMaskMasksFlipped                 boolean_
PaintCorrectionMaskMasksFlow                    real_
PaintCorrectionMaskMasksFullX                   real_
PaintCorrectionMaskMasksFullY                   real_
PaintCorrectionMaskMasksInputDigest             string_
PaintCorrectionMaskMasksLeft                    real_
PaintCorrectionMaskMasksMaskActive              boolean_
PaintCorrectionMaskMasksMaskBlendMode           integer_
PaintCorrectionMaskMasksMaskDigest              string_
PaintCorrectionMaskMasksMaskInverted            boolean_
```

```
PaintCorrectionMaskMasksMaskName             string_
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PaintCorrectionMaskMasksMidpoint             real_
PaintCorrectionMaskMasksOrigin               string_
PaintCorrectionMaskMasksPerimeterValue       real_
PaintCorrectionMaskMasksRadius               real_
PaintCorrectionMaskMasksReferencePoint       string_
PaintCorrectionMaskMasksRight                real_
PaintCorrectionMaskMasksRoundness            real_
PaintCorrectionMaskMasksSizeX                real_
PaintCorrectionMaskMasksSizeY                real_
PaintCorrectionMaskMasksTop                  real_
PaintCorrectionMaskMaskSubType               string_
PaintCorrectionMaskMasksVersion              integer_
PaintCorrectionMaskMasksWhat                 string_
PaintCorrectionMaskMasksWholeImageArea       string_
PaintCorrectionMaskMasksX                    real_
PaintCorrectionMaskMasksY                    real_
PaintCorrectionMaskMaskSyncID                string_
PaintCorrectionMaskMasksZeroX                real_
PaintCorrectionMaskMasksZeroY                real_
PaintCorrectionMaskValue                     real_
PaintCorrectionMaskMaskVersion               string_
PaintCorrectionMaskMidpoint                  real_
PaintCorrectionMaskOrigin                    string_
PaintCorrectionMaskPerimeterValue            real_
PaintCorrectionMaskRadius                    real_
PaintCorrectionMaskReferencePoint            string_
PaintCorrectionMaskRight                     real_
PaintCorrectionMaskRoundness                 real_
PaintCorrectionMaskSizeX                     real_
PaintCorrectionMaskSizeY                     real_
PaintCorrectionMaskTop                       real_
PaintCorrectionMaskVersion                   integer_
PaintCorrectionMaskWhat                      string_
PaintCorrectionMaskWholeImageArea            string_
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PaintCorrectionMaskY                         real_
PaintCorrectionMaskZeroX                     real_
PaintCorrectionMaskZeroY                     real_
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PaintCorrectionRangeMaskAreaModelsColorSampleInfo string_+
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PaintCorrectionRangeMaskDepthMax             real_+
PaintCorrectionRangeMaskDepthMin             real_+
PaintCorrectionRangeMaskInvert               boolean_+
PaintCorrectionRangeMaskLumFeather           real_+
```

```
PaintCorrectionRangeMaskLuminanceDepthSampleInfo string_+
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PaintCorrectionRangeMaskType                     string_+
PaintCorrectionRangeMaskVersion                  string_+
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PaintCorrectionBrightness                        real_
PaintCorrectionClarity                           real_
PaintCorrectionClarity2012                       real_
PaintCorrectionContrast                          real_
PaintCorrectionContrast2012                      real_
PaintCorrectionDefringe                          real_
PaintCorrectionDehaze                            real_
PaintCorrectionExposure                          real_
PaintCorrectionExposure2012                      real_
PaintCorrectionHighlights2012                    real_
PaintCorrectionHue                               real_
PaintCorrectionLuminanceNoise                    real_
PaintCorrectionMoire                             real_
PaintCorrectionSaturation                        real_
PaintCorrectionShadows2012                       real_
PaintCorrectionSharpness                         real_
PaintCorrectionTemperature                       real_
PaintCorrectionTexture                           real_
PaintCorrectionTint                              real_
PaintCorrectionToningHue                         real_
PaintCorrectionToningSaturation                  real_
PaintCorrectionWhites2012                        real_
PaintCorrectionWhat                              string_
ParametricDarks                                  integer
ParametricHighlights                             integer
ParametricHighlightSplit                         integer
ParametricLights                                 integer
ParametricMidtoneSplit                           integer
ParametricShadows                                integer
ParametricShadowSplit                            integer
PerspectiveAspect                                integer
PerspectiveHorizontal                            integer
PerspectiveRotate                                real
PerspectiveScale                                 integer
PerspectiveUpright                               integer
PerspectiveVertical                              integer
PerspectiveX                                     real
PerspectiveY                                     real
PointColors                                      string+
PostCropVignetteAmount                           integer
PostCropVignetteFeather                          integer
PostCropVignetteHighlightContrast                integer
PostCropVignetteMidpoint                         integer
PostCropVignetteRoundness                        integer
PostCropVignetteStyle                            integer
```

```
PresetType                                    string
ProcessVersion                                string
RangeMask                                     RangeMask Struct
RangeMaskMapInfo                              MapInfo Struct_
RangeMaskMapInfoLabMax                        string_
RangeMaskMapInfoLabMin                        string_
RangeMaskMapInfoLumEq                         string_+
RangeMaskMapInfoRGBMax                        string_
RangeMaskMapInfoRGBMin                        string_
RawFileName                                   string
RedEyeInfo                                    string+
RedHue                                        integer
RedSaturation                                 integer
RetouchAreas                                  RetouchArea Struct+
RetouchAreaFeather                            real_
RetouchAreaMasks                              CorrectionMask Struct_+
RetouchAreaMaskAlpha                          real_
RetouchAreaMaskAngle                          real_
RetouchAreaMaskBottom                         real_
RetouchAreaMaskCenterValue                    real_
RetouchAreaMaskCenterWeight                   real_
RetouchAreaMaskRange                          CorrRangeMask Struct_+
RetouchAreaMaskRangeAreaModels                AreaModels Struct_+
RetouchAreaMaskRangeAreaModelsComponents      string_+
RetouchAreaMaskRangeAreaModelsColorSampleInfo string_+
RetouchAreaMaskRangeColorAmount               real_+
RetouchAreaMaskRangeDepthFeather              real_+
RetouchAreaMaskRangeDepthMax                  real_+
RetouchAreaMaskRangeDepthMin                  real_+
RetouchAreaMaskRangeInvert                    boolean_+
RetouchAreaMaskRangeLumFeather                real_+
RetouchAreaMaskRangeLuminanceDepthSampleInfo  string_+
RetouchAreaMaskRangeLumMax                    real_+
RetouchAreaMaskRangeLumMin                    real_+
RetouchAreaMaskRangeLumRange                  string_+
RetouchAreaMaskRangeSampleType                integer_+
RetouchAreaMaskRangeType                      string_+
RetouchAreaMaskRangeVersion                   string_+
RetouchAreaMaskDabs                           string_
RetouchAreaMaskFeather                        real_
RetouchAreaMaskFlipped                        boolean_
RetouchAreaMaskFlow                           real_
RetouchAreaMaskFullX                          real_
RetouchAreaMaskFullY                          real_
RetouchAreaMaskInputDigest                    string_
RetouchAreaMaskLeft                           real_
RetouchAreaMaskMaskActive                     boolean_
RetouchAreaMaskMaskBlendMode                  integer_
RetouchAreaMaskMaskDigest                     string_
RetouchAreaMaskMaskInverted                   boolean_
RetouchAreaMaskMaskName                       string_
RetouchAreaMaskMasks                          CorrectionMask Struct_+
RetouchAreaMaskMasksAlpha                     real_
RetouchAreaMaskMasksAngle                     real_
```

```
RetouchAreaMaskMasksBottom                  real_
RetouchAreaMaskMasksCenterValue             real_
RetouchAreaMaskMasksCenterWeight            real_
RetouchAreaMaskMasksDabs                    string_+
RetouchAreaMaskMasksFeather                 real_
RetouchAreaMaskMasksFlipped                 boolean_
RetouchAreaMaskMasksFlow                    real_
RetouchAreaMaskMasksFullX                   real_
RetouchAreaMaskMasksFullY                   real_
RetouchAreaMaskMasksInputDigest             string_
RetouchAreaMaskMasksLeft                    real_
RetouchAreaMaskMasksMaskActive              boolean_
RetouchAreaMaskMasksMaskBlendMode           integer_
RetouchAreaMaskMasksMaskDigest              string_
RetouchAreaMaskMasksMaskInverted            boolean_
RetouchAreaMaskMasksMaskName                string_
RetouchAreaMaskMasksMaskSubType             string_
RetouchAreaMaskMasksMaskSyncID              string_
RetouchAreaMaskMasksValue                   real_
RetouchAreaMaskMasksMaskVersion             string_
RetouchAreaMaskMasksMidpoint                real_
RetouchAreaMaskMasksOrigin                  string_
RetouchAreaMaskMasksPerimeterValue          real_
RetouchAreaMaskMasksRadius                  real_
RetouchAreaMaskMasksReferencePoint          string_
RetouchAreaMaskMasksRight                   real_
RetouchAreaMaskMasksRoundness               real_
RetouchAreaMaskMasksSizeX                   real_
RetouchAreaMaskMasksSizeY                   real_
RetouchAreaMaskMasksTop                     real_
RetouchAreaMaskMaskSubType                  string_
RetouchAreaMaskMasksVersion                 integer_
RetouchAreaMaskMasksWhat                    string_
RetouchAreaMaskMasksWholeImageArea          string_
RetouchAreaMaskMasksX                       real_
RetouchAreaMaskMasksY                       real_
RetouchAreaMaskMaskSyncID                   string_
RetouchAreaMaskMasksZeroX                   real_
RetouchAreaMaskMasksZeroY                   real_
RetouchAreaMaskValue                        real_
RetouchAreaMaskMaskVersion                  string_
RetouchAreaMaskMidpoint                     real_
RetouchAreaMaskOrigin                       string_
RetouchAreaMaskPerimeterValue               real_
RetouchAreaMaskRadius                       real_
RetouchAreaMaskReferencePoint               string_
RetouchAreaMaskRight                        real_
RetouchAreaMaskRoundness                    real_
RetouchAreaMaskSizeX                        real_
RetouchAreaMaskSizeY                        real_
RetouchAreaMaskTop                          real_
RetouchAreaMaskVersion                      integer_
RetouchAreaMaskWhat                         string_
RetouchAreaMaskWholeImageArea               string_
```

```
RetouchAreaMaskX                        real_
RetouchAreaMaskY                        real_
RetouchAreaMaskZeroX                    real_
RetouchAreaMaskZeroY                    real_
RetouchAreaMethod                       string_
RetouchAreaOffsetY                      real_
RetouchAreaOpacity                      real_
RetouchAreaSeed                         integer_
RetouchAreaSourceState                  string_
RetouchAreaSourceX                      real_
RetouchAreaSpotType                     string_
RetouchInfo                             string+
Saturation                              integer/
SaturationAdjustmentAqua                integer
SaturationAdjustmentBlue                integer
SaturationAdjustmentGreen               integer
SaturationAdjustmentMagenta             integer
SaturationAdjustmentOrange              integer
SaturationAdjustmentPurple              integer
SaturationAdjustmentRed                 integer
SaturationAdjustmentYellow              integer
SDRBlend                                real
SDRBrightness                           real
SDRContrast                             real
SDRHighlights                           real
SDRShadows                              real
SDRWhites                               real
Shadows                                 integer
Shadows2012                             integer
ShadowTint                              integer
SharpenDetail                           integer
SharpenEdgeMasking                      integer
SharpenRadius                           real
Sharpness                               integer/
ShortName                               lang-alt
Smoothness                              integer
SortName                                lang-alt
SplitToningBalance                      integer
SplitToningHighlightHue                 integer
SplitToningHighlightSaturation          integer
SplitToningShadowHue                    integer
SplitToningShadowSaturation             integer
SupportsAmount                          boolean
SupportsColor                           boolean
SupportsHighDynamicRange                boolean
SupportsMonochrome                      boolean
SupportsNormalDynamicRange              boolean
SupportsOutputReferred                  boolean
SupportsSceneReferred                   boolean
ColorTemperature                        integer
Texture                                 integer
TIFFHandling                            string
Tint                                    integer
ToggleStyleAmount                       integer
```

```
  ToggleStyleDigest                    string
  ToneCurve                            string+
  ToneCurveBlue                        string+
  ToneCurveGreen                       string+
  ToneCurveName                        string
  ToneCurveName2012                    string
  ToneCurvePV2012                      string+
  ToneCurvePV2012Blue                  string+
  ToneCurvePV2012Green                 string+
  ToneCurvePV2012Red                   string+
  ToneCurveRed                         string+
  ToneMapStrength                      real
  UprightCenterMode                    integer
  UprightCenterNormX                   real
  UprightCenterNormY                   real
  UprightDependentDigest               string
  UprightFocalLength35mm               real
  UprightFocalMode                     integer
  UprightFourSegments_0                string
  UprightFourSegments_1                string
  UprightFourSegments_2                string
  UprightFourSegments_3                string
  UprightFourSegmentsCount             integer
  UprightGuidedDependentDigest         string
  UprightPreview                       boolean
  UprightTransform_0                   string
  UprightTransform_1                   string
  UprightTransform_2                   string
  UprightTransform_3                   string
  UprightTransform_4                   string
  UprightTransform_5                   string
  UprightTransformCount                integer
  UprightVersion                       integer
  UUID                                 string/
  Version                              string
  Vibrance                             integer
  VignetteAmount                       integer
  VignetteMidpoint                     integer
  What                                 string
  WhiteBalance                         string/
  Whites2012                           integer
```

XMP dc Tags

Dublin Core namespace tags.

These tags belong to the ExifTool XMP-dc family 1 group.

Tag Name	Writable
Contributor	string+
Coverage	string
Creator	string+
Date	date+
Description	lang-alt
Format	string
Identifier	string
Language	string+
Publisher	string+
Relation	string+
Rights	lang-alt
Source	string/
Subject	string+
Title	lang-alt
Type	string+

XMP dex Tags

Description Explorer namespace tags. These tags are not very common. The Source and Rating tags are avoided when writing due to name conflicts with other XMP tags. (see <http://www.optimasc.com/products/fileid/>)

These tags belong to the ExifTool XMP-dex family 1 group.

Tag Name	Writable
CRC32	integer
FFID	string
LicenseType	string
OS	integer
Rating	string/
Revision	string
ShortDescription	lang-alt
Source	string/

XMP DICOM Tags

DICOM namespace tags. These XMP tags allow some DICOM information to be stored in files of other than DICOM format. See the DICOM Tags documentation for a list of tags available in DICOM-format files.

These tags belong to the ExifTool XMP-DICOM family 1 group.

Tag Name	Writable
EquipmentInstitution	string
EquipmentManufacturer	string
PatientBirthDate	date
PatientID	string
PatientName	string
PatientSex	string
SeriesDateTime	date
SeriesDescription	string
SeriesModality	string
SeriesNumber	string
StudyDateTime	date
StudyDescription	string
StudyID	string

StudyPhysician	string

XMP digiKam Tags

DigiKam namespace tags.

These tags belong to the ExifTool XMP-digiKam family 1 group.

Tag Name	Writable
CaptionsAuthorNames	lang-alt
CaptionsDateTimeStamps	lang-alt
ColorLabel	string
ImageHistory	string/
ImageUniqueID	string/
LensCorrectionSettings	string
PicasawebGPhotoId	string
PickLabel	string
TagsList	string+

XMP ExifTool Tags

These tags belong to the ExifTool XMP-et family 1 group.

Tag Name	Writable
OriginalImageHash	string
OriginalImageHashType	string
OriginalImageMD5	string

XMP exif Tags

EXIF namespace for EXIF tags. See <https://web.archive.org/web/20180921145139if_/http://www.cipa.jp:80/std/documents/e/DC-010-2017_E.pdf> for the specification.

These tags belong to the ExifTool XMP-exif family 1 group.

Tag Name	Writable
ApertureValue	rational
BrightnessValue	rational
CFAPattern	CFAPattern Struct
CFAPatternColumns	integer_
CFAPatternRows	integer_
CFAPatternValues	integer_+
ColorSpace	integer
ComponentsConfiguration	integer+
CompressedBitsPerPixel	rational
Contrast	integer
CustomRendered	integer
DateTimeDigitized	date
DateTimeOriginal	date
DeviceSettingDescription	DeviceSettings Struct
DeviceSettingDescriptionColumns	integer_
DeviceSettingDescriptionRows	integer_
DeviceSettingDescriptionSettings	string_+
DigitalZoomRatio	rational
ExifVersion	string
ExposureCompensation	rational
ExposureIndex	rational

```
ExposureMode                    integer
ExposureProgram                 integer
ExposureTime                    rational
FileSource                      integer
Flash                           Flash Struct
FlashEnergy                     rational
FlashFired                      boolean_
FlashFunction                   boolean_
FlashMode                       integer_
FlashpixVersion                 string
FlashRedEyeMode                 boolean_
FlashReturn                     integer_
FNumber                         rational
FocalLength                     rational
FocalLengthIn35mmFormat         integer
FocalPlaneResolutionUnit        integer
FocalPlaneXResolution           rational
FocalPlaneYResolution           rational
GainControl                     integer
GPSAltitude                     rational
GPSAltitudeRef                  integer
GPSAreaInformation              string
GPSDestBearing                  rational
GPSDestBearingRef               string
GPSDestDistance                 rational
GPSDestDistanceRef              string
GPSDestLatitude                 string
GPSDestLongitude                string
GPSDifferential                 integer
GPSDOP                          rational
GPSHPositioningError            rational
GPSImgDirection                 rational
GPSImgDirectionRef              string
GPSLatitude                     string
GPSLongitude                    string
GPSMapDatum                     string
GPSMeasureMode                  integer
GPSProcessingMethod             string
GPSSatellites                   string
GPSSpeed                        rational
GPSSpeedRef                     string
GPSStatus                       string
GPSDateTime                     date
GPSTrack                        rational
GPSTrackRef                     string
GPSVersionID                    string
ImageUniqueID                   string/
ISO                             integer+
LightSource                     string
MakerNote                       string
MaxApertureValue                rational
MeteringMode                    integer
NativeDigest                    string
Opto-ElectricConvFactor         OECF Struct
```

OECFColumns	integer_
OECFNames	string_+
OECFRows	integer_
OECFValues	rational_+
ExifImageWidth	integer
ExifImageHeight	integer
RelatedSoundFile	string
Saturation	integer
SceneCaptureType	integer
SceneType	integer
SensingMethod	integer
Sharpness	integer
ShutterSpeedValue	rational
SpatialFrequencyResponse	OECF Struct
SpatialFrequencyResponseColumns	integer_
SpatialFrequencyResponseNames	string_+
SpatialFrequencyResponseRows	integer_
SpatialFrequencyResponseValues	rational_+
SpectralSensitivity	string
SubjectArea	integer+
SubjectDistance	rational
SubjectDistanceRange	integer
SubjectLocation	integer+
UserComment	lang-alt
WhiteBalance	integer

XMP CFAPattern Struct

Field Name	Writable
Columns	integer
Rows	integer
Values	integer+

XMP DeviceSettings Struct

Field Name	Writable
Columns	integer
Rows	integer
Settings	string+

XMP Flash Struct

Field Name	Writable
Fired	boolean
Function	boolean
Mode	integer
RedEyeMode	boolean
Return	integer

XMP OECF Struct

Field Name	Writable
Columns	integer
Names	string+
Rows	integer
Values	rational+

XMP exifEX Tags

EXIF tags added by the EXIF 2.32 for XMP specification (see <https://cipa.jp/std/documents/download_e.html?DC−010−2020_E>).

These tags belong to the ExifTool XMP-exifEX family 1 group.

Tag Name	Writable
Acceleration	rational
SerialNumber	string
CameraElevationAngle	rational
CameraFirmware	string
OwnerName	string
ChromaticAberrationCorrection	integer
CompositeImage	integer
CompositeImageCount	integer+
CompositeImageExposureTimes	CompImageExp Struct
CompImageMaxExposureAll	rational_
CompImageMaxExposureUsed	rational_
CompImageMinExposureAll	rational_
CompImageMinExposureUsed	rational_
CompImageImagesPerSequence	integer_
CompImageNumSequences	integer_
CompImageSumExposureAll	rational_
CompImageSumExposureUsed	rational_
CompImageTotalExposurePeriod	rational_
CompImageValues	rational_+
DevelopmentType	DevelopmentType Struct
DevelopmentTypeDescription	string
DevelopmentTypeCharacteristic	integer_
DevelopmentTypeFactoryDefault	integer_
DistortionCorrection	integer
Gamma	rational
GPSAltitudeRef	integer/
Humidity	rational
ImageEditingSoftware	string
ImageEditor	string
ImageTitle	string
ImageUniqueID	string
InteropIndex	string
ISOSpeed	integer
ISOSpeedLatitudeyyy	integer
ISOSpeedLatitudezzz	integer
LearningOptOutIn	LearningOptOutIn Struct
LearningOptOutInNumberOfSets	integer_
LearningOptOutInValues	integer_+
LensMake	string
LensModel	string
LensSerialNumber	string

LensInfo	rational+
LightSource	string/
MetadataEditingSoftware	string
NoiseReduction	integer
Photographer	string
PhotographicSensitivity	integer
Pressure	rational
RAWDevelopingSoftware	string
RecommendedExposureIndex	integer
SensitivityType	integer
ShadingCorrection	integer
StandardOutputSensitivity	integer
AmbientTemperature	rational
WaterDepth	rational

XMP CompImageExp Struct

Field Name	Writable
MaxExposureTimesOfAll	rational
MaxExposureTimesOfUsed	rational
MinExposureTimesOfAll	rational
MinExposureTimesOfUsed	rational
NumberOfImagesInSequences	integer
NumberOfSequences	integer
SumOfExposureTimesOfAll	rational
SumOfExposureTimesOfUsed	rational
TotalExposurePeriod	rational
Values	rational+

XMP DevelopmentType Struct

Field Name	Writable
DevelopmentCharacteristic	integer
FactoryDefault	integer

XMP LearningOptOutIn Struct

Field Name	Writable
NumberOfSets	integer
Values	integer+

XMP ExpressionMedia Tags

Microsoft Expression Media namespace tags. These tags are avoided when writing due to name conflicts with tags in other schemas.

These tags belong to the ExifTool XMP-expressionmedia family 1 group.

Tag Name	Writable
CatalogSets	string/+
Event	string/
People	string/+
Status	string/

XMP extensis Tags

Tags used by Extensis Portfolio.

These tags belong to the ExifTool XMP-extensis family 1 group.

Tag Name	Writable
Approved	boolean
ApprovedBy	string
ClientName	string
JobName	string
JobStatus	string
RoutedTo	string
RoutingNotes	string
WorkToDo	string

XMP fpv Tags

Fast Picture Viewer tags (see <http://www.fastpictureviewer.com/help/#rtfcomments>).

These tags belong to the ExifTool XMP-fpv family 1 group.

Tag Name	Writable
RichTextComment	string

XMP GettyImages Tags

The actual Getty Images namespace prefix is ‘‘GettyImagesGIFT’’, which is the prefix recorded in the file, but ExifTool shortens this for the family 1 group name.

These tags belong to the ExifTool XMP-getty family 1 group.

Tag Name	Writable
AssetID	string
CallForImage	string
CameraFilename	string
CameraMakeModel	string/
CameraSerialNumber	string/
Composition	string
ExclusiveCoverage	string
GIFTFtpPriority	string
ImageRank	string
MediaEventIdDate	string
OriginalCreateDateTime	date/
OriginalFileName	string
ParentMediaEventID	string
ParentMEID	string
Personality	string+
PrimaryFTP	string+
RoutingDestinations	string+
RoutingExclusions	string+
SecondaryFTP	string+
TimeShot	string

XMP hdr Tags

HDR metadata namespace tags written by ACR 15.1. The actual namespace prefix is ‘‘hdr_metadata’’, which is the prefix recorded in the file, but ExifTool shortens this for the family 1 group name.

These tags belong to the ExifTool XMP-hdr family 1 group.

Tag Name	Writable
CCVAvgLuminanceNits	real
CCVMaxLuminanceNits	real
CCVMinLuminanceNits	real
CCVPrimariesXY	string
CCVWhiteXY	string
SceneReferred	boolean

XMP HDRGainMap Tags

Used in Apple HDR GainMap images.

These tags belong to the ExifTool XMP-HDRGainMap family 1 group.

Tag Name	Writable
HDRGainMapVersion	string

XMP hdrgm Tags

Tags used in Adobe gain map images.

These tags belong to the ExifTool XMP-hdrgm family 1 group.

Tag Name	Writable
BaseRenditionIsHDR	boolean
GainMapMax	real+
GainMapMin	real+
Gamma	real/+
HDRCapacityMax	real
HDRCapacityMin	real
OffsetHDR	real+
OffsetSDR	real+
Version	string/

XMP ics Tags

Tags used by IDimager. Nested TagStructure structures are unrolled to an arbitrary depth of 6 to avoid infinite recursion.

These tags belong to the ExifTool XMP-ics family 1 group.

Tag Name	Writable
AppVersion	string/
ImageRef	string
SubVersions	SubVersion Struct+
SubVersionFileName	string_+
SubVersionReference	string_+
TagStructure	TagStructure Struct+
LabelName1	string_+
ParentReference1	string_+
Reference1	string_+
SubLabels1	TagStructure Struct_+
LabelName2	string_+
ParentReference2	string_+
Reference2	string_+
SubLabels2	TagStructure Struct_+
LabelName3	string_+
ParentReference3	string_+

Reference3	string_+
SubLabels3	TagStructure Struct_+
LabelName4	string_+
ParentReference4	string_+
Reference4	string_+
SubLabels4	TagStructure Struct_+
LabelName5	string_+
ParentReference5	string_+
Reference5	string_+
SubLabels5	TagStructure Struct_+
LabelName6	string_+
ParentReference6	string_+
Reference6	string_+
TimeStamp	date/

XMP SubVersion Struct

Field Name	Writable
FileName	string
VersRef	string

XMP TagStructure Struct

Field Name	Writable
LabelName	string
ParentReference	string
Reference	string
SubLabels	TagStructure Struct+

XMP iptcCore Tags

IPTC Core namespace tags. The actual IPTC Core namespace prefix is ‘‘Iptc4xmpCore’’, which is the prefix recorded in the file, but ExifTool shortens this for the family 1 group name. (see <http://www.iptc.org/IPTC4XMP/>)

These tags belong to the ExifTool XMP-iptcCore family 1 group.

Tag Name	Writable
AltTextAccessibility	lang-alt
CountryCode	string
CreatorContactInfo	ContactInfo Struct
CreatorCity	string_
CreatorCountry	string_
CreatorAddress	string_
CreatorPostalCode	string_
CreatorRegion	string_
CreatorWorkEmail	string_
CreatorWorkTelephone	string_
CreatorWorkURL	string_
ExtDescrAccessibility	lang-alt
IntellectualGenre	string
Location	string
Scene	string+
SubjectCode	string+

XMP ContactInfo Struct

Field Name	Writable
CiAdrCity	string
CiAdrCtry	string
CiAdrExtadr	string
CiAdrPcode	string
CiAdrRegion	string
CiEmailWork	string
CiTelWork	string
CiUrlWork	string

XMP iptcExt Tags

This table contains tags defined by the IPTC Extension schema version 1.7 and IPTC Video Metadata version 1.3, plus the AI additions. The actual namespace prefix is ‘‘Iptc4xmpExt’’, but ExifTool shortens this for the family 1 group name. (See <http://www.iptc.org/standards/photo−metadata/iptc−standard/> and <https://iptc.org/standards/video−metadata−hub/>.)

These tags belong to the ExifTool XMP-iptcExt family 1 group.

Tag Name	Writable
AboutCvTerm	CVTermDetails Struct+
AboutCvTermCvId	string_+
AboutCvTermId	string_+
AboutCvTermName	lang−alt_+
AboutCvTermRefinedAbout	string_+
AdditionalModelInformation	string
AIPromptInformation	string
AIPromptWriterName	string
AISystemUsed	string
AISystemVersionUsed	string
ArtworkOrObject	ArtworkOrObjectDetails Struct+
ArtworkCircaDateCreated	string!_+
ArtworkContentDescription	lang−alt_+
ArtworkContributionDescription	lang−alt_+
ArtworkCopyrightNotice	string_+
ArtworkCreator	string_+
ArtworkCreatorID	string_+
ArtworkCopyrightOwnerID	string_+
ArtworkCopyrightOwnerName	string_+
ArtworkLicensorID	string_+
ArtworkLicensorName	string_+
ArtworkDateCreated	date_+
ArtworkPhysicalDescription	lang−alt_+
ArtworkSource	string_+
ArtworkSourceInventoryNo	string_+
ArtworkSourceInvURL	string_+
ArtworkStylePeriod	string_+
ArtworkTitle	lang−alt_+
AudioBitrate	integer
AudioBitrateMode	string
AudioBitsPerSample	integer
AudioChannelCount	integer
CircaDateCreated	string
ContainerFormat	Entity Struct
ContainerFormatIdentifier	string_+

```
ContainerFormatName                 lang-alt_
Contributor                         EntityWithRole Struct+
ContributorIdentifier               string_+
ContributorName                     lang-alt_+
ContributorRole                     string_+
CopyrightYear                       integer
Creator                             EntityWithRole Struct+
CreatorIdentifier                   string_+
CreatorName                         lang-alt_+
CreatorRole                         string_+
ControlledVocabularyTerm            string+
DataOnScreen                        TextRegion Struct+
DataOnScreenRegion                  Area Struct_+
DataOnScreenRegionD                 real_+
DataOnScreenRegionH                 real_+
DataOnScreenRegionText              string_+
DataOnScreenRegionUnit              string_+
DataOnScreenRegionW                 real_+
DataOnScreenRegionX                 real_+
DataOnScreenRegionY                 real_+
DigitalImageGUID                    string
DigitalSourceFileType               string
DigitalSourceType                   string
Dopesheet                           lang-alt
DopesheetLink                       QualifiedLink Struct+
DopesheetLinkLink                   string_+
DopesheetLinkLinkQualifier          string_+
EmbdEncRightsExpr                   EEREDetails Struct+
EmbeddedEncodedRightsExpr           string_+
EmbeddedEncodedRightsExprType       string_+
EmbeddedEncodedRightsExprLangID     string_+
Episode                             EpisodeOrSeason Struct
EpisodeIdentifier                   string_
EpisodeName                         string_
EpisodeNumber                       string_
Event                               lang-alt
ShownEvent                          Entity Struct+
ShownEventIdentifier                string_+
ShownEventName                      lang-alt_+
EventID                             string+
ExternalMetadataLink                string+
FeedIdentifier                      string
Genre                               CVTermDetails Struct+
GenreCvId                           string_+
GenreCvTermId                       string_+
GenreCvTermName                     lang-alt_+
GenreCvTermRefinedAbout             string_+
Headline                            lang-alt/
ImageRegion                         ImageRegion Struct+
ImageRegionName                     lang-alt_+
ImageRegionCtype                    Entity Struct_+
ImageRegionCtypeIdentifier          string_+
ImageRegionCtypeName                lang-alt_+
ImageRegionBoundary                 RegionBoundary Struct_+
```

```
ImageRegionBoundaryH                    real_+
ImageRegionBoundaryRx                   real_+
ImageRegionBoundaryShape                string_+
ImageRegionBoundaryUnit                 string_+
ImageRegionBoundaryVertices             BoundaryPoint Struct_+
ImageRegionBoundaryVerticesX            real_+
ImageRegionBoundaryVerticesY            real_+
ImageRegionBoundaryW                    real_+
ImageRegionBoundaryX                    real_+
ImageRegionBoundaryY                    real_+
ImageRegionID                           string_+
ImageRegionRole                         Entity Struct_+
ImageRegionRoleIdentifier               string_+
ImageRegionRoleName                     lang-alt_+
IPTCLastEdited                          date
LinkedEncRightsExpr                     LEREDetails Struct+
LinkedEncodedRightsExpr                 string_+
LinkedEncodedRightsExprType             string_+
LinkedEncodedRightsExprLangID           string_+
LocationCreated                         LocationDetails Struct+
LocationCreatedCity                     string_+
LocationCreatedCountryCode              string_+
LocationCreatedCountryName              string_+
LocationCreatedGPSAltitude              rational_+
LocationCreatedGPSAltitudeRef           integer_+
LocationCreatedGPSLatitude              string_+
LocationCreatedGPSLongitude             string_+
LocationCreatedIdentifier               string_+
LocationCreatedLocationId               string_+
LocationCreatedLocationName             lang-alt_+
LocationCreatedProvinceState            string_+
LocationCreatedSublocation              string_+
LocationCreatedWorldRegion              string_+
LocationShown                           LocationDetails Struct+
LocationShownCity                       string_+
LocationShownCountryCode                string_+
LocationShownCountryName                string_+
LocationShownGPSAltitude                rational_+
LocationShownGPSAltitudeRef             integer_+
LocationShownGPSLatitude                string_+
LocationShownGPSLongitude               string_+
LocationShownIdentifier                 string_+
LocationShownLocationId                 string_+
LocationShownLocationName               lang-alt_+
LocationShownProvinceState              string_+
LocationShownSublocation                string_+
LocationShownWorldRegion                string_+
MaxAvailHeight                          integer
MaxAvailWidth                           integer
MetadataAuthority                       Entity Struct
MetadataAuthorityIdentifier             string_+
MetadataAuthorityName                   lang-alt_
MetadataLastEdited                      date
MetadataLastEditor                      Entity Struct
```

```
MetadataLastEditorIdentifier                string_+
MetadataLastEditorName                      lang-alt_
ModelAge                                    integer+
OrganisationInImageCode                     string+
OrganisationInImageName                     string+
ParentID                                    string
PersonHeard                                 Entity Struct+
PersonHeardIdentifier                       string_+
PersonHeardName                             lang-alt_+
PersonInImage                               string+
PersonInImageWDetails                       PersonDetails Struct+
PersonInImageCharacteristic                 CVTermDetails Struct_+
PersonInImageCvTermCvId                     string_+
PersonInImageCvTermId                       string_+
PersonInImageCvTermName                     lang-alt_+
PersonInImageCvTermRefinedAbout             string_+
PersonInImageDescription                    lang-alt_+
PersonInImageId                             string_+
PersonInImageName                           lang-alt_+
PlanningRef                                 EntityWithRole Struct+
PlanningRefIdentifier                       string_+
PlanningRefName                             lang-alt_+
PlanningRefRole                             string_+
ProductInImage                              ProductDetails Struct+
ProductInImageDescription                   lang-alt_+
ProductInImageGTIN                          string_+
ProductInImageProductId                     string_+
ProductInImageName                          lang-alt_+
PublicationEvent                            PublicationEvent Struct+
PublicationEventDate                        date_+
PublicationEventIdentifier                  string_+
PublicationEventName                        string_+
Rating                                      Rating Struct+
RatingRegion                                LocationDetails Struct_+
RatingRegionCity                            string_+
RatingRegionCountryCode                     string_+
RatingRegionCountryName                     string_+
RatingRegionGPSAltitude                     rational_+
RatingRegionGPSAltitudeRef                  integer_+
RatingRegionGPSLatitude                     string_+
RatingRegionGPSLongitude                    string_+
RatingRegionIdentifier                      string_+
RatingRegionLocationId                      string_+
RatingRegionLocationName                    lang-alt_+
RatingRegionProvinceState                   string_+
RatingRegionSublocation                     string_+
RatingRegionWorldRegion                     string_+
RatingScaleMaxValue                         string_+
RatingScaleMinValue                         string_+
RatingSourceLink                            string_+
RatingValue                                 string_+
RatingValueLogoLink                         string_+
RecDevice                                   Device Struct
RecDeviceAttLensDescription                 string_
```

```
RecDeviceManufacturer                   string_
RecDeviceModelName                      string_
RecDeviceOwnersDeviceId                 string_
RecDeviceSerialNumber                   string_
RegistryID                              RegistryEntryDetails Struct+
RegistryEntryRole                       string_+
RegistryItemID                          string_+
RegistryOrganisationID                  string_+
ReleaseReady                            boolean
Season                                  EpisodeOrSeason Struct
SeasonIdentifier                        string_
SeasonName                              string_
SeasonNumber                            string_
Series                                  Series Struct
SeriesIdentifier                        string_
SeriesName                              string_
Snapshot                                LinkedImage Struct+
SnapshotFormat                          string_+
SnapshotHeightPixels                    integer_+
SnapshotImageRole                       string_+
SnapshotLink                            string_+
SnapshotLinkQualifier                   string_+
SnapshotUsedVideoFrame                  Timecode Struct_+
SnapshotUsedVideoFrameTimeFormat        string_+
SnapshotUsedVideoFrameTimeValue         string_+
SnapshotUsedVideoFrameValue             integer_+
SnapshotWidthPixels                     integer_+
StorylineIdentifier                     string+
StreamReady                             string
StylePeriod                             string
SupplyChainSource                       Entity Struct+
SupplyChainSourceIdentifier             string_+
SupplyChainSourceName                   lang-alt_+
TemporalCoverage                        TemporalCoverage Struct
TemporalCoverageFrom                    date_
TemporalCoverageTo                      date_
Transcript                              lang-alt
TranscriptLink                          QualifiedLink Struct+
TranscriptLinkLink                      string_+
TranscriptLinkLinkQualifier             string_+
VideoBitrate                            integer
VideoBitrateMode                        string
VideoDisplayAspectRatio                 rational
VideoEncodingProfile                    string
VideoShotType                           Entity Struct+
VideoShotTypeIdentifier                 string_+
VideoShotTypeName                       lang-alt_+
VideoStreamsCount                       integer
VisualColor                             string
WorkflowTag                             CVTermDetails Struct
WorkflowTagCvId                         string_
WorkflowTagCvTermId                     string_
WorkflowTagCvTermName                   lang-alt_
WorkflowTagCvTermRefinedAbout           string_
```

XMP CVTermDetails Struct

Field Name	Writable
CvId	string
CvTermId	string
CvTermName	lang-alt
CvTermRefinedAbout	string

XMP ArtworkOrObjectDetails Struct

Field Name	Writable
AOCircaDateCreated	string
AOContentDescription	lang-alt
AOContributionDescription	lang-alt
AOCopyrightNotice	string
AOCreator	string+
AOCreatorId	string+
AOCurrentCopyrightOwnerId	string
AOCurrentCopyrightOwnerName	string
AOCurrentLicensorId	string
AOCurrentLicensorName	string
AODateCreated	date
AOPhysicalDescription	lang-alt
AOSource	string
AOSourceInvNo	string
AOSourceInvURL	string
AOStylePeriod	string+
AOTitle	lang-alt

XMP Entity Struct

Field Name	Writable
Identifier	string+
Name	lang-alt

XMP EntityWithRole Struct

Field Name	Writable
Identifier	string+
Name	lang-alt
Role	string+

XMP TextRegion Struct

Field Name	Writable
Region	Area Struct
RegionText	string

XMP Area Struct

Field Name	Writable
D	real
H	real
Unit	string
W	real
X	real
Y	real

XMP QualifiedLink Struct

Field Name	Writable
Link	string
LinkQualifier	string

XMP EEREDetails Struct

Field Name	Writable
EncRightsExpr	string
RightsExprEncType	string
RightsExprLangId	string

XMP EpisodeOrSeason Struct

Field Name	Writable
Identifier	string
Name	string
Number	string

XMP ImageRegion Struct

This structure is new in the IPTC Extension version 1.5 specification. As well as the fields defined below, this structure may contain any top-level XMP tags, but since they aren't pre-defined the only way to add these tags is to write ImageRegion as a structure with these tags as new fields.

Field Name	Writable
Name	lang-alt
RegionBoundary	RegionBoundary Struct
RCtype	Entity Struct+
RId	string
RRole	Entity Struct+

XMP RegionBoundary Struct

Field Name	Writable
RbH	real
RbRx	real
RbShape	string
RbUnit	string
RbVertices	BoundaryPoint Struct+
RbW	real
RbX	real
RbY	real

XMP BoundaryPoint Struct

Field Name	Writable
RbX	real
RbY	real

XMP LEREDetails Struct

Field Name	Writable
LinkedRightsExpr	string
RightsExprEncType	string
RightsExprLangId	string

XMP LocationDetails Struct

Note that the GPS elements of this structure are in the ‘‘exif’’ namespace.

Field Name	Writable
City	string
CountryCode	string
CountryName	string
GPSAltitude	rational
GPSAltitudeRef	integer
GPSLatitude	string
GPSLongitude	string
Identifier	string+
LocationId	string+
LocationName	lang-alt
ProvinceState	string
Sublocation	string
WorldRegion	string

XMP PersonDetails Struct

Field Name	Writable
PersonCharacteristic	CVTermDetails Struct+
PersonDescription	lang-alt
PersonId	string+
PersonName	lang-alt

XMP ProductDetails Struct

Field Name	Writable
ProductDescription	lang-alt
ProductGTIN	string
ProductId	string
ProductName	lang-alt

XMP PublicationEvent Struct

Field Name	Writable
Date	date
Identifier	string
Name	string

XMP Rating Struct

Field Name	Writable
RatingRegion	LocationDetails Struct+
RatingScaleMaxValue	string
RatingScaleMinValue	string
RatingSourceLink	string
RatingValue	string
RatingValueLogoLink	string

XMP Device Struct

Field Name	Writable
AttLensDescription	string
Manufacturer	string
ModelName	string
OwnersDeviceId	string
SerialNumber	string

XMP RegistryEntryDetails Struct

Field Name	Writable
RegEntryRole	string
RegItemId	string
RegOrgId	string

XMP Series Struct

Field Name	Writable
Identifier	string
Name	string

XMP LinkedImage Struct

Field Name	Writable
HeightPixels	integer
ImageRole	string
Link	string
LinkQualifier	string+
UsedVideoFrame	Timecode Struct
WidthPixels	integer
Format	string

XMP Timecode Struct

Field Name	Writable
TimeFormat	string
TimeValue	string
Value	integer

XMP TemporalCoverage Struct

Field Name	Writable
TempCoverageFrom	date
TempCoverageTo	date

XMP LImage Tags

Tags written by RED smartphones.

These tags belong to the ExifTool XMP-LIImage family 1 group.

Tag Name	Writable
MajorVersion	string
MinorVersion	string
RightAlbedo	string

XMP Lightroom Tags

Adobe Lightroom ‘‘lr’’ namespace tags.

These tags belong to the ExifTool XMP-lr family 1 group.

Tag Name	Writable
HierarchicalSubject	string+
PrivateRTKInfo	string
WeightedFlatSubject	string+

XMP MediaPro Tags

iView MediaPro namespace tags.

These tags belong to the ExifTool XMP-mediapro family 1 group.

Tag Name	Writable
CatalogSets	string+
Event	string/
Location	string/
People	string+
Status	string
UserFields	string+

XMP panorama Tags

Adobe Photoshop Panorama-profile tags.

These tags belong to the ExifTool XMP-panorama family 1 group.

Tag Name	Writable
Transformation	string
VirtualFocalLength	real
VirtualImageXCenter	real
VirtualImageYCenter	real

XMP pdf Tags

Adobe PDF namespace tags. The official XMP specification defines only Keywords, PDFVersion, Producer and Trapped. The other tags are included because they have been observed in PDF files, but some are avoided when writing due to name conflicts with other XMP namespaces.

These tags belong to the ExifTool XMP-pdf family 1 group.

Tag Name	Writable
Author	string
Copyright	string/
CreationDate	date
Creator	string/
Keywords	string
Marked	boolean/
ModDate	date
PDFVersion	string
Producer	string
Subject	string/
Title	string/
Trapped	string

XMP pdfx Tags

PDF extension tags. This namespace is used to store application-defined PDF information, so there are few pre-defined tags. User-defined tags must be created to enable writing of other XMP-pdfx information.

These tags belong to the ExifTool XMP-pdfx family 1 group.

Tag Name	Writable
SourceModified	string

XMP photoshop Tags

Adobe Photoshop namespace tags.

These tags belong to the ExifTool XMP-photoshop family 1 group.

Tag Name	Writable
AuthorsPosition	string
CameraProfiles	Camera Struct+
CameraProfilesApertureValue	real_+
CameraProfilesAuthor	string_+
CameraProfilesAutoScale	boolean_+
CameraProfilesCameraPrettyName	string_+
CameraProfilesCameraRawProfile	boolean_+
CameraProfilesFocalLength	real_+
CameraProfilesFocusDistance	real_+
CameraProfilesLens	string_+
CameraProfilesLensPrettyName	string_+
CameraProfilesMake	string_+
CameraProfilesModel	string_+
CameraProfilesPerspectiveModel	PerspectiveModel Struct_+
CameraProfilesPerspectiveModelImageXCenter	real_+
CameraProfilesPerspectiveModelImageYCenter	real_+
CameraProfilesPerspectiveModelRadialDistortParam1	real_+
CameraProfilesPerspectiveModelRadialDistortParam2	real_+
CameraProfilesPerspectiveModelRadialDistortParam3	real_+
CameraProfilesPerspectiveModelScaleFactor	real_+
CameraProfilesPerspectiveModelVersion	string_+
CameraProfilesPerspectiveModelVignetteModel	VignetteModel Struct_+
CameraProfilesPerspectiveModelVignetteModelImageXCenter	real_+
CameraProfilesPerspectiveModelVignetteModelImageYCenter	real_+
CameraProfilesPerspectiveModelVignetteModelParam1	real_+

CameraProfilesPerspectiveModelVignetteModelPiecewiseParam	string_+
CameraProfilesProfileName	string_+
CameraProfilesSensorFormatFactor	real_+
CameraProfilesUniqueCameraModel	string_+
CaptionWriter	string
Category	string
City	string
ColorMode	integer
Country	string
Credit	string
DateCreated	date
DocumentAncestors	string+
EmbeddedXMPDigest	string
Headline	string
History	string
ICCProfileName	string
Instructions	string
LabelColor	string
LegacyIPTCDigest	string
SidecarForExtension	string
Source	string
State	string
SupplementalCategories	string+
TextLayers	Layer Struct+
TextLayerName	string_+
TextLayerText	string_+
TransmissionReference	string
Urgency	integer

XMP Camera Struct

Field Name	Writable
ApertureValue	real
Author	string
AutoScale	boolean
CameraPrettyName	string
CameraRawProfile	boolean
FocalLength	real
FocusDistance	real
Lens	string
LensPrettyName	string
Make	string
Model	string
PerspectiveModel	PerspectiveModel Struct
ProfileName	string
SensorFormatFactor	real
UniqueCameraModel	string

XMP PerspectiveModel Struct

Field Name	Writable
ImageXCenter	real
ImageYCenter	real
RadialDistortParam1	real
RadialDistortParam2	real
RadialDistortParam3	real
ScaleFactor	real
Version	string
VignetteModel	VignetteModel Struct

XMP VignetteModel Struct

Field Name	Writable
ImageXCenter	real
ImageYCenter	real
VignetteModelParam1	real
VignetteModelPiecewiseParam	string+

XMP Layer Struct

Field Name	Writable
LayerName	string
LayerText	string

XMP PixelLive Tags

PixelLive namespace tags. These tags are not writable because they are very uncommon and I haven't been able to locate a reference which gives the namespace URI.

These tags belong to the ExifTool XMP-PixelLive family 1 group.

Tag Name	Writable
Author	no
Comments	no
Copyright	no
Date	no
Genre	no
Title	no

XMP pmi Tags

PRISM Metadata for Images 3.0 namespace tags. (see <http://www.prismstandard.org/>)

These tags belong to the ExifTool XMP-pmi family 1 group.

Tag Name	Writable
Color	string/
ContactInfo	string/
DisplayName	string/
DistributorProductID	string/
EventAlias	string/
EventEnd	string/
EventStart	string/
EventSubtype	string/
EventType	string/
Field	string/
Framing	string/

Location	string/
Make	string/
Manufacturer	string/
Model	string/
ModelYear	string/
ObjectDescription	string/
ObjectSubtype	string/
ObjectType	string/
Orientation	string/
PositionDescriptor	string/
ProductID	string/
ProductIDType	string/
Season	string/
SequenceName	string/
SequenceNumber	string/
SequenceTotalNumber	string/
Setting	string/
ShootID	string/
SlideshowName	string/
SlideshowNumber	integer/
SlideshowTotalNumber	integer/
Viewpoint	string/
VisualTechnique	string/

XMP prism Tags

Publishing Requirements for Industry Standard Metadata 3.0 namespace tags. (see <https://www.w3.org/Submission/2020/SUBM-prism-20200910/prism-basic.html>)

These tags belong to the ExifTool XMP-prism family 1 group.

Tag Name	Writable
AcademicField	string/
AggregateIssueNumber	integer/
AggregationType	string/+
AlternateTitle	prismAlternateTitle Struct+
AlternateTitleA-lang	string/_+
AlternateTitleA-platform	string/_+
AlternateTitleText	string/_+
BlogTitle	string/
BlogURL	string/
BookEdition	string/
ByteCount	integer/
Channel	prismChannel Struct+
ChannelA-lang	string/_+
ChannelChannel	string/_+
ChannelSubchannel1	string/_+
ChannelSubchannel2	string/_+
ChannelSubchannel3	string/_+
ChannelSubchannel4	string/_+
ComplianceProfile	string/
ContentType	string/
CopyrightYear	string/
CorporateEntity	string/+
CoverDate	date/
CoverDisplayDate	string/

```
CreationDate                    date/
DateRecieved                    date/
Device                          string/
Distributor                     string/
DOI                             string/
Edition                         string/
EIssn                           string/
EndingPage                      string/
Event                           string/+
Genre                           string/+
HasAlternative                  string/+
HasCorrection                   prismHasCorrection Struct
HasCorrectionA-lang             string/_
HasCorrectionA-platform         string/_
HasCorrectionText               string/_
HasTranslation                  string/+
Industry                        string/+
IsAlternativeOf                 string/+
ISBN                            string/+
IsCorrectionOf                  string/+
ISSN                            string/
IssueIdentifier                 string/
IssueName                       string/
IssueTeaser                     string/
IssueType                       string/
IsTranslationOf                 string/
Keyword                         string/+
KillDate                        prismKillDate Struct
KillDateA-platform              string/_
KillDateDate                    date/_
Link                            string/+
Location                        string/+
ModificationDate                date/
NationalCatalogNumber           string/
Number                          string/
Object                          string/+
OffSaleDate                     prismOffSaleDate Struct+
OffSaleDateA-platform           string/_+
OffSaleDateDate                 date/_+
OnSaleDate                      prismOnSaleDate Struct+
OnSaleDateA-platform            string/_+
OnSaleDateDate                  date/_+
OnSaleDay                       prismOnSaleDay Struct+
OnSaleDayA-platform             string/_+
OnSaleDayDay                    string/_+
Organization                    string/+
OriginPlatform                  string/+
PageCount                       integer/
PageProgressionDirection        string/
PageRange                       string/+
Person                          string/
Platform                        string/
ProductCode                     string/
Profession                      string/
```

PublicationDate	prismPublicationDate Struct+
PublicationDateA-platform	string/_+
PublicationDateDate	date/_+
PublicationDisplayDate	prismPublicationDate Struct+
PublicationDisplayDateA-platform	string/_+
PublicationDisplayDateDate	date/_+
PublicationName	string/
PublishingFrequency	string/
Rating	string/
SamplePageRange	string/
Section	string/
SellingAgency	string/
SeriesNumber	integer/
SeriesTitle	string/
Sport	string/
StartingPage	string/
Subsection1	string/
Subsection2	string/
Subsection3	string/
Subsection4	string/
Subtitle	string/
SupplementDisplayID	string/
SupplementStartingPage	string/
SupplementTitle	string/
Teaser	string/+
Ticker	string/+
TimePeriod	string/
URL	prismUrl Struct+
URLA-platform	string/_+
URLUrl	string/_+
UspsNumber	string/
VersionIdentifier	string/
Volume	string/
WordCount	integer/

XMP prismAlternateTitle Struct

Field Name	Writable
A-lang	string
A-platform	string
Text	string

XMP prismChannel Struct

Field Name	Writable
A-lang	string
Channel	string
Subchannel1	string
Subchannel2	string
Subchannel3	string
Subchannel4	string

XMP prismHasCorrection Struct

Field Name	Writable
A-lang	string
A-platform	string
Text	string

XMP prismKillDate Struct

Field Name	Writable
A-platform	string
Date	date

XMP prismOffSaleDate Struct

Field Name	Writable
A-platform	string
Date	date

XMP prismOnSaleDate Struct

Field Name	Writable
A-platform	string
Date	date

XMP prismOnSaleDay Struct

Field Name	Writable
A-platform	string
Day	string

XMP prismPublicationDate Struct

Field Name	Writable
A-platform	string
Date	date

XMP prismUrl Struct

Field Name	Writable
A-platform	string
Url	string

XMP prl Tags

PRISM Rights Language 2.1 namespace tags. These tags have been deprecated since the release of the PRISM Usage Rights 3.0. (see <https://www.w3.org/submissions/2020/SUBM-prism-20200910/prism-image.html>)

These tags belong to the ExifTool XMP-prl family 1 group.

Tag Name	Writable
Geography	string/+
Industry	string/+
Usage	string/+

XMP prm Tags

PRISM Recipe Metadata 3.0 namespace tags. (see <http://www.prismstandard.org/>)

These tags belong to the ExifTool XMP-prm family 1 group.

Tag Name	Writable
CookingEquipment	string/
CookingMethod	string/
Course	string/
Cuisine	string/
DietaryNeeds	string/
DishType	string/
Duration	string/
IngredientExclusion	string/
MainIngredient	string/
Meal	string/
RecipeEndingPage	string/
RecipePageRange	string/
RecipeSource	string/
RecipeStartingPage	string/
RecipeTitle	string/
ServingSize	string/
SkillLevel	string/
SpecialOccasion	string/
Yield	string/

XMP pur Tags

PRISM Usage Rights 3.0 namespace tags. (see <http://www.prismstandard.org/>)

These tags belong to the ExifTool XMP-pur family 1 group.

Tag Name	Writable
AdultContentWarning	string/+
Agreement	string/+
Copyright	lang-alt/
CreditLine	string/+
EmbargoDate	date/+
ExclusivityEndDate	date/+
ExpirationDate	date/+
ImageSizeRestriction	string/
OptionEndDate	date/+
Permissions	string/+
Restrictions	string/+
ReuseProhibited	boolean/
RightsAgent	string/
RightsOwner	string/

XMP rdf Tags

Most RDF attributes are handled internally, but the ‘‘about’’ attribute is treated specially to allow it to be set to a specific value if required.

These tags belong to the ExifTool XMP-rdf family 1 group.

Tag Name	Writable
About	string!

XMP seal Tags

SEAL embedded in XMP.

These tags belong to the ExifTool XMP-seal family 1 group.

Tag Name	Writable
Seal	XMP SEAL

XMP SEAL Tags

These tags are used in SEAL (Secure Evidence Attribution Label) content authentification, which is actually XML format, not XMP. ExifTool has read/delete support for SEAL information in JPG, TIFF, XMP, PNG, WEBP, HEIC, PPM, MOV and MP4 files, and read-only support in PDF, MKV and WAV. Use `-seal:all=` on the command line to delete SEAL information in supported formats. See <https://github.com/hackerfactor/SEAL> for the specification.

Tag ID	Tag Name	Writable
'b'	ByteRange	no
'copyright'	Copyright	no
'd'	Domain	no
'da'	DigestAlgorithm	no
'id'	Identifier	no
'info'	SEALComment	no
'ka'	KeyAlgorithm	no
'kv'	KeyVersion	no
's'	Signature	no
'seal'	SEALVersion	no
'sf'	SignatureFormat	no
'sl'	SignatureLength	no
'uid'	UniqueIdentifier	no

XMP swf Tags

Adobe SWF namespace tags.

These tags belong to the ExifTool XMP-swf family 1 group.

Tag Name	Writable
BackgroundAlpha	integer
ForwardLock	boolean
MaxStorage	integer
Type	string/

XMP tiff Tags

EXIF namespace for TIFF tags. See <https://web.archive.org/web/20180921145139if_/http://www.cipa.jp:80/std/documents/e/DC-010-2017_E.pdf> for the specification.

These tags belong to the ExifTool XMP-tiff family 1 group.

Tag Name	Writable
Artist	string
BitsPerSample	integer+
Compression	integer
Copyright	lang-alt
DateTime	date
ImageDescription	lang-alt
ImageHeight	integer
ImageWidth	integer
Make	string

Model	string
NativeDigest	string/
Orientation	integer
PhotometricInterpretation	integer
PlanarConfiguration	integer
PrimaryChromaticities	rational+
ReferenceBlackWhite	rational+
ResolutionUnit	integer
SamplesPerPixel	integer
Software	string
TransferFunction	integer+
WhitePoint	rational+
XResolution	rational
YCbCrCoefficients	rational+
YCbCrPositioning	integer
YCbCrSubSampling	integer+
YResolution	rational

XMP x Tags

The ‘‘x’’ namespace is used for the ‘‘xmpmeta’’ wrapper, and may contain an ‘‘xmptk’’ attribute that is extracted as the XMPToolkit tag. When writing, the XMPToolkit tag is generated automatically by ExifTool unless specifically set to another value.

These tags belong to the ExifTool XMP-x family 1 group.

Tag Name	Writable
XMPToolkit	string!

XMP xmp Tags

XMP namespace tags. If the older ‘‘xap’’, ‘‘xapBJ’’, ‘‘xapMM’’ or ‘‘xapRights’’ namespace prefixes are found, they are translated to the newer ‘‘xmp’’, ‘‘xmpBJ’’, ‘‘xmpMM’’ and ‘‘xmpRights’’ prefixes for use in family 1 group names.

These tags belong to the ExifTool XMP-xmp family 1 group.

Tag Name	Writable
Advisory	string+
Author	string/
BaseURL	string
CreateDate	date
CreatorTool	string
Description	lang-alt/
Format	string/
Identifier	string/+
Keywords	string/
Label	string
MetadataDate	date
ModifyDate	date
Nickname	string
PageInfo	PageInfo Struct+
PageImageFormat	string_+
PageImageHeight	integer_+
PageImage	string_+
PageImagePageNumber	integer_+
PageImageWidth	integer_+

Rating	real
RatingPercent	real/
Thumbnails	Thumbnail Struct+
ThumbnailFormat	string_+
ThumbnailHeight	integer_+
ThumbnailImage	string/_+
ThumbnailWidth	integer_+
Title	lang-alt/

XMP PageInfo Struct

Field Name	Writable
PageNumber	integer
Format	string
Height	integer
Image	string
Width	integer

XMP Thumbnail Struct

Field Name	Writable
Format	string
Height	integer
Image	string
Width	integer

XMP xmpBJ Tags

XMP Basic Job Ticket namespace tags.

These tags belong to the ExifTool XMP-xmpBJ family 1 group.

Tag Name	Writable
JobRef	JobRef Struct+
JobRefId	string_+
JobRefName	string_+
JobRefUrl	string_+

XMP JobRef Struct

Field Name	Writable
Id	string
Name	string
Url	string

XMP xmpDM Tags

XMP Dynamic Media namespace tags. See <https://developer.adobe.com/xmp/docs/XMPNamespaces/xmpDM/> for the specification.

These tags belong to the ExifTool XMP-xmpDM family 1 group.

Tag Name	Writable
AbsPeakAudioFilePath	string
Album	string
AltTapeName	string
AltTimecode	Timecode Struct
AltTimecodeTimeFormat	string_
AltTimecodeTimeValue	string_
AltTimecodeValue	integer_
Artist	string/
AudioChannelType	string
AudioCompressor	string
AudioModDate	date
AudioSampleRate	integer
AudioSampleType	string
BeatSpliceParams	BeatSpliceStretch Struct
BeatSpliceParamsRiseInDecibel	real_
BeatSpliceParamsRiseInTimeDuration	Time Struct_
BeatSpliceParamsRiseInTimeDurationScale	rational_
BeatSpliceParamsRiseInTimeDurationValue	integer_
BeatSpliceParamsUseFileBeatsMarker	boolean_
CameraAngle	string
CameraLabel	string
CameraModel	string
CameraMove	string
Client	string
DMComment	string
Composer	string
ContributedMedia	Media Struct+
ContributedMediaDuration	Time Struct_+
ContributedMediaDurationScale	rational_+
ContributedMediaDurationValue	integer_+
ContributedMediaManaged	boolean_+
ContributedMediaPath	string_+
ContributedMediaStartTime	Time Struct_+
ContributedMediaStartTimeScale	rational_+
ContributedMediaStartTimeValue	integer_+
ContributedMediaTrack	string_+
ContributedMediaWebStatement	string_+
Copyright	string/
Director	string
DirectorPhotography	string
DiscNumber	string
Duration	Time Struct
DurationScale	rational_
DurationValue	integer_
Engineer	string
FileDataRate	rational
Genre	string
Good	boolean
Instrument	string
IntroTime	Time Struct
IntroTimeScale	rational_
IntroTimeValue	integer_

```
Key                                 string
LogComment                          string
Loop                                boolean
Lyrics                              string
Markers                             Marker Struct+
MarkersComment                      string_+
MarkersCuePointParams               CuePointParam Struct_+
MarkersCuePointParamsKey            string_+
MarkersCuePointParamsValue          string_+
MarkersCuePointType                 string_+
MarkersDuration                     string_+
MarkersLocation                     string_+
MarkersName                         string_+
MarkersProbability                  real_+
MarkersSpeaker                      string_+
MarkersStartTime                    string_+
MarkersTarget                       string_+
MarkersType                         string_+
MetadataModDate                     date
NumberOfBeats                       real
OutCue                              Time Struct
OutCueScale                         rational_
OutCueValue                         integer_
PartOfCompilation                   boolean
Pick                                integer
ProjectName                         string
ProjectRef                          ProjectLink Struct
ProjectRefPath                      string_
ProjectRefType                      string_
PullDown                            string
RelativePeakAudioFilePath           string
RelativeTimestamp                   Time Struct
RelativeTimestampScale              rational_
RelativeTimestampValue              integer_
ReleaseDate                         date
ResampleParams                      ResampleStretch Struct
ResampleParamsQuality               string_
ScaleType                           string
Scene                               string/
ShotDate                            date
ShotDay                             string
ShotLocation                        string
ShotName                            string
ShotNumber                          string
ShotSize                            string
SpeakerPlacement                    string
StartTimecode                       Timecode Struct
StartTimecodeTimeFormat             string_
StartTimecodeTimeValue              string_
StartTimecodeValue                  integer_
StartTimeSampleSize                 integer
StartTimeScale                      string
StretchMode                         string
TakeNumber                          integer
```

```
TapeName                                    string
Tempo                                       real
TimeScaleParams                             TimeScaleStretch Struct
TimeScaleParamsFrameOverlappingPercentage   real_
TimeScaleParamsFrameSize                    real_
TimeScaleParamsQuality                      string_
TimeSignature                               string
TrackNumber                                 integer
Tracks                                      Track Struct+
TracksFrameRate                             string_+
TracksMarkers                               Marker Struct_+
TracksMarkersComment                        string_+
TracksMarkersCuePointParams                 CuePointParam Struct_+
TracksMarkersCuePointParamsKey              string_+
TracksMarkersCuePointParamsValue            string_+
TracksMarkersCuePointType                   string_+
TracksMarkersDuration                       string_+
TracksMarkersLocation                       string_+
TracksMarkersName                           string_+
TracksMarkersProbability                    real_+
TracksMarkersSpeaker                        string_+
TracksMarkersStartTime                      string_+
TracksMarkersTarget                         string_+
TracksMarkersType                           string_+
TracksTrackName                             string_+
TracksTrackType                             string_+
VideoAlphaMode                              string
VideoAlphaPremultipleColor                  Colorant Struct
VideoAlphaPremultipleColorA                 integer_
VideoAlphaPremultipleColorB                 integer_
VideoAlphaPremultipleColorBlack             real_
VideoAlphaPremultipleColorBlue              integer_
VideoAlphaPremultipleColorCyan              real_
VideoAlphaPremultipleColorGray              integer_
VideoAlphaPremultipleColorGreen             integer_
VideoAlphaPremultipleColorL                 real_
VideoAlphaPremultipleColorMagenta           real_
VideoAlphaPremultipleColorMode              string_
VideoAlphaPremultipleColorRed               integer_
VideoAlphaPremultipleColorSwatchName        string_
VideoAlphaPremultipleColorTint              integer_
VideoAlphaPremultipleColorType              string_
VideoAlphaPremultipleColorYellow            real_
VideoAlphaUnityIsTransparent                boolean
VideoColorSpace                             string
VideoCompressor                             string
VideoFieldOrder                             string
VideoFrameRate                              real
VideoFrameSize                              Dimensions Struct
VideoFrameSizeH                             real_
VideoFrameSizeUnit                          string_
VideoFrameSizeW                             real_
VideoModDate                                date
VideoPixelAspectRatio                       rational
```

VideoPixelDepth	string

XMP BeatSpliceStretch Struct

Field Name	Writable
RiseInDecibel	real
RiseInTimeDuration	Time Struct
UseFileBeatsMarker	boolean

XMP Time Struct

Field Name	Writable
Scale	rational
Value	integer

XMP Media Struct

Field Name	Writable
Duration	Time Struct
Managed	boolean
Path	string
StartTime	Time Struct
Track	string
WebStatement	string

XMP Marker Struct

Field Name	Writable
Comment	string
CuePointParams	CuePointParam Struct+
CuePointType	string
Duration	string
Location	string
Name	string
Probability	real
Speaker	string
StartTime	string
Target	string
Type	string

XMP CuePointParam Struct

Field Name	Writable
Key	string
Value	string

XMP ProjectLink Struct

Field Name	Writable
Path	string
Type	string

XMP ResampleStretch Struct

Field Name	Writable
Quality	string

XMP TimeScaleStretch Struct

Field Name	Writable
FrameOverlappingPercentage	real
FrameSize	real
Quality	string

XMP Track Struct

Field Name	Writable
FrameRate	string
Markers	Marker Struct+
TrackName	string
TrackType	string

XMP Colorant Struct

Field Name	Writable
A	integer
B	integer
L	real
Black	real
Blue	integer
Cyan	real
Gray	integer
Green	integer
Magenta	real
Mode	string
Red	integer
SwatchName	string
Tint	integer
Type	string
Yellow	real

XMP Dimensions Struct

Field Name	Writable
H	real
Unit	string
W	real

XMP xmpMM Tags

XMP Media Management namespace tags.

These tags belong to the ExifTool XMP-xmpMM family 1 group.

Tag Name	Writable
DerivedFrom	ResourceRef Struct
DerivedFromAlternatePaths	string_+
DerivedFromDocumentID	string_
DerivedFromFilePath	string_
DerivedFromFromPart	string_
DerivedFromInstanceID	string_
DerivedFromLastModifyDate	date_
DerivedFromLastURL	string_
DerivedFromLinkCategory	string_
DerivedFromLinkForm	string_
DerivedFromManager	string_
DerivedFromManagerVariant	string_
DerivedFromManageTo	string_
DerivedFromManageUI	string_
DerivedFromMaskMarkers	string_
DerivedFromOriginalDocumentID	string_
DerivedFromPartMapping	string_
DerivedFromPlacedResolutionUnit	string_
DerivedFromPlacedXResolution	string_
DerivedFromPlacedYResolution	string_
DerivedFromRenditionClass	string_
DerivedFromRenditionParams	string_
DerivedFromToPart	string_
DerivedFromVersionID	string_
DocumentID	string
History	ResourceEvent Struct+
HistoryAction	string_+
HistoryChanged	string_+
HistoryInstanceID	string_+
HistoryParameters	string_+
HistorySoftwareAgent	string_+
HistoryWhen	date_+
Ingredients	ResourceRef Struct+
IngredientsAlternatePaths	string_+
IngredientsDocumentID	string_+
IngredientsFilePath	string_+
IngredientsFromPart	string_+
IngredientsInstanceID	string_+
IngredientsLastModifyDate	date_+
IngredientsLastURL	string_+
IngredientsLinkCategory	string_+
IngredientsLinkForm	string_+
IngredientsManager	string_+
IngredientsManagerVariant	string_+
IngredientsManageTo	string_+
IngredientsManageUI	string_+
IngredientsMaskMarkers	string_+
IngredientsOriginalDocumentID	string_+
IngredientsPartMapping	string_+
IngredientsPlacedResolutionUnit	string_+
IngredientsPlacedXResolution	string_+
IngredientsPlacedYResolution	string_+

```
IngredientsRenditionClass                string_+
IngredientsRenditionParams               string_+
IngredientsToPart                        string_+
IngredientsVersionID                     string_+
InstanceID                               string
LastURL                                  string
ManagedFrom                              ResourceRef Struct
ManagedFromAlternatePaths                string_+
ManagedFromDocumentID                    string_
ManagedFromFilePath                      string_
ManagedFromFromPart                      string_
ManagedFromInstanceID                    string_
ManagedFromLastModifyDate                date_
ManagedFromLastURL                       string_
ManagedFromLinkCategory                  string_
ManagedFromLinkForm                      string_
ManagedFromManager                       string_
ManagedFromManagerVariant                string_
ManagedFromManageTo                      string_
ManagedFromManageUI                      string_
ManagedFromMaskMarkers                   string_
ManagedFromOriginalDocumentID            string_
ManagedFromPartMapping                   string_
ManagedFromPlacedResolutionUnit          string_
ManagedFromPlacedXResolution             string_
ManagedFromPlacedYResolution             string_
ManagedFromRenditionClass                string_
ManagedFromRenditionParams               string_
ManagedFromToPart                        string_
ManagedFromVersionID                     string_
Manager                                  string
ManagerVariant                           string
ManageTo                                 string
ManageUI                                 string
Manifest                                 ManifestItem Struct+
ManifestLinkForm                         string_+
ManifestPlacedResolutionUnit             string_+
ManifestPlacedXResolution                real_+
ManifestPlacedYResolution                real_+
ManifestReference                        ResourceRef Struct_+
ManifestReferenceAlternatePaths          string_+
ManifestReferenceDocumentID              string_+
ManifestReferenceFilePath                string_+
ManifestReferenceFromPart                string_+
ManifestReferenceInstanceID              string_+
ManifestReferenceLastModifyDate          date_+
ManifestReferenceLastURL                 string_+
ManifestReferenceLinkCategory            string_+
ManifestReferenceLinkForm                string_+
ManifestReferenceManager                 string_+
ManifestReferenceManagerVariant          string_+
ManifestReferenceManageTo                string_+
ManifestReferenceManageUI                string_+
ManifestReferenceMaskMarkers             string_+
```

```
ManifestReferenceOriginalDocumentID          string_+
ManifestReferencePartMapping                 string_+
ManifestReferencePlacedResolutionUnit        string_+
ManifestReferencePlacedXResolution           string_+
ManifestReferencePlacedYResolution           string_+
ManifestReferenceRenditionClass              string_+
ManifestReferenceRenditionParams             string_+
ManifestReferenceToPart                      string_+
ManifestReferenceVersionID                   string_+
OriginalDocumentID                           string
Pantry                                       PantryItem Struct+
PantryInstanceID                             string_
PreservedFileName                            string
RenditionClass                               string
RenditionOf                                  ResourceRef Struct
RenditionOfAlternatePaths                    string_+
RenditionOfDocumentID                        string_
RenditionOfFilePath                          string_
RenditionOfFromPart                          string_
RenditionOfInstanceID                        string_
RenditionOfLastModifyDate                    date_
RenditionOfLastURL                           string_
RenditionOfLinkCategory                      string_
RenditionOfLinkForm                          string_
RenditionOfManager                           string_
RenditionOfManagerVariant                    string_
RenditionOfManageTo                          string_
RenditionOfManageUI                          string_
RenditionOfMaskMarkers                       string_
RenditionOfOriginalDocumentID                string_
RenditionOfPartMapping                       string_
RenditionOfPlacedResolutionUnit              string_
RenditionOfPlacedXResolution                 string_
RenditionOfPlacedYResolution                 string_
RenditionOfRenditionClass                    string_
RenditionOfRenditionParams                   string_
RenditionOfToPart                            string_
RenditionOfVersionID                         string_
RenditionParams                              string
SaveID                                       integer
Subject                                      string/+
VersionID                                    string
Versions                                     Version Struct+
VersionsComments                             string_+
VersionsEvent                                ResourceEvent Struct_+
VersionsEventAction                          string_+
VersionsEventChanged                         string_+
VersionsEventInstanceID                      string_+
VersionsEventParameters                      string_+
VersionsEventSoftwareAgent                   string_+
VersionsEventWhen                            date_+
VersionsModifier                             string_+
VersionsModifyDate                           date_+
VersionsVersion                              string_+
```

XMP ResourceRef Struct

Field Name	Writable
AlternatePaths	string+
DocumentID	string
FilePath	string
FromPart	string
InstanceID	string
LastModifyDate	date
LastURL	string
LinkCategory	string
LinkForm	string
ManageTo	string
ManageUI	string
Manager	string
ManagerVariant	string
MaskMarkers	string
OriginalDocumentID	string
PartMapping	string
PlacedResolutionUnit	string
PlacedXResolution	string
PlacedYResolution	string
RenditionClass	string
RenditionParams	string
ToPart	string
VersionID	string

XMP ResourceEvent Struct

Field Name	Writable
Action	string
Changed	string
InstanceID	string
Parameters	string
SoftwareAgent	string
When	date

XMP ManifestItem Struct

Field Name	Writable
LinkForm	string
PlacedResolutionUnit	string
PlacedXResolution	real
PlacedYResolution	real
Reference	ResourceRef Struct

XMP PantryItem Struct

This structure must have an InstanceID field, but may also contain any other XMP properties.

Field Name	Writable
InstanceID	string

XMP Version Struct

Field Name	Writable
Comments	string
Event	ResourceEvent Struct
Modifier	string
ModifyDate	date
Version	string

XMP xmpNote Tags

XMP Note namespace tags.

These tags belong to the ExifTool XMP-xmpNote family 1 group.

Tag Name	Writable
HasExtendedXMP	string*

XMP xmpPLUS Tags

XMP Picture Licensing Universal System (PLUS) tags as written by some older Adobe applications. See PLUS XMP Tags for the current PLUS tags.

These tags belong to the ExifTool XMP-xmpPLUS family 1 group.

Tag Name	Writable
CreditLineReq	boolean/
ReuseAllowed	boolean/

XMP xmpRights Tags

XMP Rights Management namespace tags.

These tags belong to the ExifTool XMP-xmpRights family 1 group.

Tag Name	Writable
Certificate	string
Marked	boolean
Owner	string+
UsageTerms	lang-alt
WebStatement	string

XMP xmpTPg Tags

XMP Paged-Text namespace tags.

These tags belong to the ExifTool XMP-xmpTPg family 1 group.

Tag Name	Writable
Colorants	Colorant Struct+
ColorantA	integer_+
ColorantB	integer_+
ColorantBlack	real_+
ColorantBlue	integer_+
ColorantCyan	real_+
ColorantGray	integer_+
ColorantGreen	integer_+
ColorantL	real_+
ColorantMagenta	real_+
ColorantMode	string_+
ColorantRed	integer_+

ColorantSwatchName	string_+
ColorantTint	integer_+
ColorantType	string_+
ColorantYellow	real_+
Fonts	Font Struct+
ChildFontFiles	string_+
FontComposite	boolean_+
FontFace	string_+
FontFamily	string_+
FontFileName	string_+
FontName	string_+
FontType	string_+
FontVersion	string_+
HasVisibleOverprint	boolean
HasVisibleTransparency	boolean
MaxPageSize	Dimensions Struct
MaxPageSizeH	real_
MaxPageSizeUnit	string_
MaxPageSizeW	real_
NPages	integer
PlateNames	string+
SwatchGroups	SwatchGroup Struct+
SwatchGroupsColorants	Colorant Struct_+
SwatchColorantA	integer_+
SwatchColorantB	integer_+
SwatchColorantBlack	real_+
SwatchColorantBlue	integer_+
SwatchColorantCyan	real_+
SwatchColorantGray	integer_+
SwatchColorantGreen	integer_+
SwatchColorantL	real_+
SwatchColorantMagenta	real_+
SwatchColorantMode	string_+
SwatchColorantRed	integer_+
SwatchColorantSwatchName	string_+
SwatchColorantTint	integer_+
SwatchColorantType	string_+
SwatchColorantYellow	real_+
SwatchGroupName	string_+
SwatchGroupType	integer_+

XMP Font Struct

Field Name	Writable
ChildFontFiles	string+
Composite	boolean
FontFace	string
FontFamily	string
FontFileName	string
FontName	string
FontType	string
VersionString	string

XMP SwatchGroup Struct

Field Name	Writable
Colorants	Colorant Struct+
GroupName	string
GroupType	integer

XMP XML Tags

Tag ID	Tag Name	Writable
'dc'	dc	XMP dc
'lastUpdate'	LastUpdate	no

XMP SVG Tags

SVG (Scalable Vector Graphics) image tags. By default, only the top-level SVG and Metadata tags are extracted from these images, but all graphics tags may be extracted by setting the Unknown option to 2 (−U on the command line). The SVG tags are not part of XMP as such, but are included with the XMP module for convenience. (see <http://www.w3.org/TR/SVG11/>)

These tags belong to the ExifTool XMP-svg family 1 group.

Tag ID	Tag Name	Writable
'height'	ImageHeight	no
'id'	ID	no
'metadataId'	MetadataID	no
'version'	SVGVersion	no
'width'	ImageWidth	no

GPS Tags

These GPS tags are part of the EXIF standard, and are stored in a separate IFD within the EXIF information.

ExifTool is very flexible about the input format when writing lat/long coordinates, and will accept from 1 to 3 floating point numbers (for decimal degrees, degrees and minutes, or degrees, minutes and seconds) separated by just about anything, and will format them properly according to the EXIF specification.

Some GPS tags have values which are fixed-length strings. For these, the indicated string lengths include a null terminator which is added automatically by ExifTool. Remember that the descriptive values are used when writing (eg. 'Above Sea Level', not '0') unless the print conversion is disabled (with '−n' on the command line or the PrintConv option in the API, or by suffixing the tag name with a # character).

When adding GPS information to an image, it is important to set all of the following tags: GPSLatitude, GPSLatitudeRef, GPSLongitude, GPSLongitudeRef, and GPSAltitude and GPSAltitudeRef if the altitude is known. ExifTool will write the required GPSVersionID tag automatically if new a GPS IFD is added to an image.

Tag ID	Tag Name	Writable
0x0000	GPSVersionID	int8u[4]:
0x0001	GPSLatitudeRef	string[2]
0x0002	GPSLatitude	rational64u[3]
0x0003	GPSLongitudeRef	string[2]
0x0004	GPSLongitude	rational64u[3]
0x0005	GPSAltitudeRef	int8u
0x0006	GPSAltitude	rational64u
0x0007	GPSTimeStamp	rational64u[3]
0x0008	GPSSatellites	string
0x0009	GPSStatus	string[2]
0x000a	GPSMeasureMode	string[2]
0x000b	GPSDOP	rational64u

0x000c	GPSSpeedRef	string[2]
0x000d	GPSSpeed	rational64u
0x000e	GPSTrackRef	string[2]
0x000f	GPSTrack	rational64u
0x0010	GPSImgDirectionRef	string[2]
0x0011	GPSImgDirection	rational64u
0x0012	GPSMapDatum	string
0x0013	GPSDestLatitudeRef	string[2]
0x0014	GPSDestLatitude	rational64u[3]
0x0015	GPSDestLongitudeRef	string[2]
0x0016	GPSDestLongitude	rational64u[3]
0x0017	GPSDestBearingRef	string[2]
0x0018	GPSDestBearing	rational64u
0x0019	GPSDestDistanceRef	string[2]
0x001a	GPSDestDistance	rational64u
0x001b	GPSProcessingMethod	undef
0x001c	GPSAreaInformation	undef
0x001d	GPSDateStamp	string[11]
0x001e	GPSDifferential	int16u
0x001f	GPSHPositioningError	rational64u

GeoTiff Tags

ExifTool extracts the following tags from GeoTIFF images. See <https://web.archive.org/web/20070820121549/http://www.remotesensing.org/geotiff/spec/geotiffhome.html> for the complete GeoTIFF specification. Also included in the table below are ChartTIFF tags (see <https://web.archive.org/web/20020828193928/http://www.charttiff.com/whitepapers.shtml>). GeoTIFF tags are not writable individually, but they may be copied en mass via the block tags GeoTiffDirectory, GeoTiffDoubleParams and GeoTiffAsciiParams.

Tag ID	Tag Name	Writable
0x0001	GeoTiffVersion	no
0x0400	GTModelType	no
0x0401	GTRasterType	no
0x0402	GTCitation	no
0x0800	GeographicType	no
0x0801	GeogCitation	no
0x0802	GeogGeodeticDatum	no
0x0803	GeogPrimeMeridian	no
0x0804	GeogLinearUnits	no
0x0805	GeogLinearUnitSize	no
0x0806	GeogAngularUnits	no
0x0807	GeogAngularUnitSize	no
0x0808	GeogEllipsoid	no
0x0809	GeogSemiMajorAxis	no
0x080a	GeogSemiMinorAxis	no
0x080b	GeogInvFlattening	no
0x080c	GeogAzimuthUnits	no
0x080d	GeogPrimeMeridianLong	no
0x080e	GeogToWGS84	no
0x0c00	ProjectedCSType	no
0x0c01	PCSCitation	no
0x0c02	Projection	no
0x0c03	ProjCoordTrans	no
0x0c04	ProjLinearUnits	no
0x0c05	ProjLinearUnitSize	no

```
0x0c06   ProjStdParallel1                no
0x0c07   ProjStdParallel2                no
0x0c08   ProjNatOriginLong               no
0x0c09   ProjNatOriginLat                no
0x0c0a   ProjFalseEasting                no
0x0c0b   ProjFalseNorthing               no
0x0c0c   ProjFalseOriginLong             no
0x0c0d   ProjFalseOriginLat              no
0x0c0e   ProjFalseOriginEasting          no
0x0c0f   ProjFalseOriginNorthing         no
0x0c10   ProjCenterLong                  no
0x0c11   ProjCenterLat                   no
0x0c12   ProjCenterEasting               no
0x0c13   ProjCenterNorthing              no
0x0c14   ProjScaleAtNatOrigin            no
0x0c15   ProjScaleAtCenter               no
0x0c16   ProjAzimuthAngle                no
0x0c17   ProjStraightVertPoleLong        no
0x0c18   ProjRectifiedGridAngle          no
0x1000   VerticalCSType                  no
0x1001   VerticalCitation                no
0x1002   VerticalDatum                   no
0x1003   VerticalUnits                   no
0xb799   ChartFormat                     no
0xb79a   ChartSource                     no
0xb79b   ChartSourceEdition              no
0xb79c   ChartSourceDate                 no
0xb79d   ChartCorrDate                   no
0xb79e   ChartCountryOrigin              no
0xb79f   ChartRasterEdition              no
0xb7a0   ChartSoundingDatum              no
0xb7a1   ChartDepthUnits                 no
0xb7a2   ChartMagVar                     no
0xb7a3   ChartMagVarYear                 no
0xb7a4   ChartMagVarAnnChange            no
0xb7a5   ChartWGSNSShift                 no
0xb7a7   InsetNWPixelX                   no
0xb7a8   InsetNWPixelY                   no
0xb7a9   ChartContourInterval            no
```

PLUS Tags

PLUS XMP Tags

PLUS (Picture Licensing Universal System) License Data Format 2.0.1 XMP tags. Note that all controlled-vocabulary tags in this table (ie. tags with a fixed set of values) have raw values which begin with ‘‘http://ns.useplus.org/ldf/vocab/’’, but to reduce clutter this prefix has been removed from the values shown below, and from the values read and written with the −n option. See <http://ns.useplus.org/> for the complete specification.

These tags belong to the ExifTool XMP-plus family 1 group.

Tag Name	Writable
AdultContentWarning	string
CopyrightOwner	CopyrightOwner Struct+
CopyrightOwnerID	string_+
CopyrightOwnerName	string_+
CopyrightOwnerImageID	string
CopyrightRegistrationNumber	string
CopyrightStatus	string
CreditLineRequired	string
Custom1	lang-alt+
Custom10	lang-alt+
Custom2	lang-alt+
Custom3	lang-alt+
Custom4	lang-alt+
Custom5	lang-alt+
Custom6	lang-alt+
Custom7	lang-alt+
Custom8	lang-alt+
Custom9	lang-alt+
DataMining	string
EndUser	EndUser Struct+
EndUserID	string_+
EndUserName	string_+
FileNameAsDelivered	string
FirstPublicationDate	date
ImageAlterationConstraints	string+
ImageCreator	ImageCreator Struct+
ImageCreatorID	string_+
ImageCreatorName	string_+
ImageCreatorImageID	string
ImageDuplicationConstraints	string
ImageFileConstraints	string+
ImageFileFormatAsDelivered	string
ImageFileSizeAsDelivered	string
ImageSupplier	ImageSupplier Struct+
ImageSupplierImageID	string
ImageSupplierID	string_+
ImageSupplierName	string_+
ImageType	string
Licensee	Licensee Struct+
LicenseeImageID	string
LicenseeImageNotes	lang-alt
LicenseeID	string_+
LicenseeName	string_+
LicenseEndDate	date
LicenseeProjectReference	string+
LicenseeTransactionID	string+
LicenseID	string
LicenseStartDate	date
LicenseTransactionDate	date
Licensor	Licensor Struct+
LicensorImageID	string
LicensorCity	string_+

LicensorCountry	string_+
LicensorEmail	string_+
LicensorExtendedAddress	string_+
LicensorID	string_+
LicensorName	string_+
LicensorPostalCode	string_+
LicensorRegion	string_+
LicensorStreetAddress	string_+
LicensorTelephone1	string_+
LicensorTelephone2	string_+
LicensorTelephoneType1	string_+
LicensorTelephoneType2	string_+
LicensorURL	string_+
LicensorNotes	lang-alt
LicensorTransactionID	string+
MediaConstraints	lang-alt
MediaSummaryCode	string
MinorModelAgeDisclosure	string
ModelReleaseID	string+
ModelReleaseStatus	string
OtherConditions	lang-alt
OtherConstraints	lang-alt
OtherImageInfo	lang-alt
OtherLicenseDocuments	string+
OtherLicenseInfo	lang-alt
OtherLicenseRequirements	lang-alt
ProductOrServiceConstraints	lang-alt
PropertyReleaseID	string+
PropertyReleaseStatus	string
RegionConstraints	lang-alt
Reuse	string
TermsAndConditionsText	lang-alt
TermsAndConditionsURL	string
PLUSVersion	string

XMP CopyrightOwner Struct

Field Name	Writable
CopyrightOwnerID	string
CopyrightOwnerName	string

XMP EndUser Struct

Field Name	Writable
EndUserID	string
EndUserName	string

XMP ImageCreator Struct

Field Name	Writable
ImageCreatorID	string
ImageCreatorName	string

XMP ImageSupplier Struct

Field Name	Writable
ImageSupplierID	string
ImageSupplierName	string

XMP Licensee Struct

Field Name	Writable
LicenseeID	string
LicenseeName	string

XMP Licensor Struct

Field Name	Writable
LicensorCity	string
LicensorCountry	string
LicensorEmail	string
LicensorExtendedAddress	string
LicensorID	string
LicensorName	string
LicensorPostalCode	string
LicensorRegion	string
LicensorStreetAddress	string
LicensorTelephone1	string
LicensorTelephone2	string
LicensorTelephoneType1	string
LicensorTelephoneType2	string
LicensorURL	string

ICC_Profile Tags

ICC profile information is used in many different file types including JPEG, TIFF, PDF, PostScript, Photoshop, PNG, MIFF, PICT, QuickTime, XCF and some RAW formats. While the tags listed below are not individually writable, the entire profile itself can be accessed via the extra 'ICC_Profile' tag, but this tag is neither extracted nor written unless specified explicitly. See <http://www.color.org/icc_specs2.xalter> for the official ICC specification.

Tag ID	Tag Name	Writable
'A2B0'	AToB0	no
'A2B1'	AToB1	no
'A2B2'	AToB2	no
'A2B3'	AToB3	no
'A2M0'	AToM0	no
'B2A0'	BToA0	no
'B2A1'	BToA1	no
'B2A2'	BToA2	no
'B2A3'	BToA3	no
'B2D0'	BToD0	no
'B2D1'	BToD1	no
'B2D2'	BToD2	no
'B2D3'	BToD3	no
'CxF '	CXF	no
'D2B0'	DToB0	no
'D2B1'	DToB1	no
'D2B2'	DToB2	no
'D2B3'	DToB3	no

```
'Header' ProfileHeader                    ICC_Profile Header
'M2A0'   MToA0                            no
'M2B0'   MToB0                            no
'M2B1'   MToB1                            no
'M2B2'   MToB2                            no
'M2B3'   MToB3                            no
'M2S0'   MToS0                            no
'M2S1'   MToS1                            no
'M2S2'   MToS2                            no
'M2S3'   MToS3                            no
'MS00'   WCSProfiles                      no
'bAB0'   BRDFAToB0                        no
'bAB1'   BRDFAToB1                        no
'bAB2'   BRDFAToB2                        no
'bAB3'   BRDFAToB3                        no
'bBA0'   BRDFBToA0                        no
'bBA1'   BRDFBToA1                        no
'bBA2'   BRDFBToA2                        no
'bBA3'   BRDFBToA3                        no
'bBD0'   BRDFBToD0                        no
'bBD1'   BRDFBToD1                        no
'bBD2'   BRDFBToD2                        no
'bBD3'   BRDFBToD3                        no
'bDB0'   BRDFDToB0                        no
'bDB1'   BRDFDToB1                        no
'bDB2'   BRDFDToB2                        no
'bDB3'   BRDFDToB3                        no
'bMB0'   BRDFMToB0                        no
'bMB1'   BRDFMToB1                        no
'bMB2'   BRDFMToB2                        no
'bMB3'   BRDFMToB3                        no
'bMS0'   BRDFMToS0                        no
'bMS1'   BRDFMToS1                        no
'bMS2'   BRDFMToS2                        no
'bMS3'   BRDFMToS3                        no
'bTRC'   BlueTRC                          no
'bXYZ'   BlueMatrixColumn                 no
'bcp0'   BRDFColorimetricParam0           no
'bcp1'   BRDFColorimetricParam1           no
'bcp2'   BRDFColorimetricParam2           no
'bcp3'   BRDFColorimetricParam3           no
'bfd '   UCRBG                            no
'bkpt'   MediaBlackPoint                  no
'bsp0'   BRDFSpectralParam0               no
'bsp1'   BRDFSpectralParam1               no
'bsp2'   BRDFSpectralParam2               no
'bsp3'   BRDFSpectralParam3               no
'c2sp'   CustomToStandardPcc              no
'calt'   CalibrationDateTime              no
'cept'   ColorEncodingParams              no
'chad'   ChromaticAdaptation              no
'chrm'   Chromaticity                     ICC_Profile Chromaticity
'cicp'   ColorRepresentation              ICC_Profile ColorRep
'ciis'   ColorimetricIntentImageState     no
```

```
    'clio'   ColorantInfoOut                    no
    'cloo'   ColorantOrderOut                   no
    'clot'   ColorantTableOut                   no
    'clro'   ColorantOrder                      no
    'clrt'   ColorantTable                      ICC_Profile ColorantTable
    'cprt'   ProfileCopyright                   no
    'crdi'   CRDInfo                            no
    'csnm'   ColorSpaceName                     no
    'dAB0'   DirectionalAToB0                   no
    'dAB1'   DirectionalAToB1                   no
    'dAB2'   DirectionalAToB2                   no
    'dAB3'   DirectionalAToB3                   no
    'dBA0'   DirectionalBToA0                   no
    'dBA1'   DirectionalBToA1                   no
    'dBA2'   DirectionalBToA2                   no
    'dBA3'   DirectionalBToA3                   no
    'dBD0'   DirectionalBToD0                   no
    'dBD1'   DirectionalBToD1                   no
    'dBD2'   DirectionalBToD2                   no
    'dBD3'   DirectionalBToD3                   no
    'dDB0'   DirectionalDToB0                   no
    'dDB1'   DirectionalDToB1                   no
    'dDB2'   DirectionalDToB2                   no
    'dDB3'   DirectionalDToB3                   no
    'desc'   ProfileDescription                 no
    'devs'   DeviceSettings                     no
    'dmdd'   DeviceModelDesc                    no
    'dmnd'   DeviceMfgDesc                      no
    'dscm'   ProfileDescriptionML               no
    'fpce'   FocalPlaneColorimetryEstimates     no
    'gTRC'   GreenTRC                           no
    'gXYZ'   GreenMatrixColumn                  no
    'gamt'   Gamut                              no
    'gdb0'   GamutBoundaryDescription0          no
    'gdb1'   GamutBoundaryDescription1          no
    'gdb2'   GamutBoundaryDescription2          no
    'gdb3'   GamutBoundaryDescription3          no
    'hdgm'   HDGainMapInfo                      no
    'kTRC'   GrayTRC                            no
    'lumi'   Luminance                          no
    'mcta'   MultiplexTypeArray                 no
    'mdv '   MultiplexDefaultValues             no
    'meas'   Measurement                        ICC_Profile Measurement
    'meta'   Metadata                           ICC_Profile Metadata
    'miin'   MeasurementInputInfo               no
    'minf'   MeasurementInfo                    no
    'mmod'   MakeAndModel                       no
    'ncl2'   NamedColor2                        no
    'ncol'   NamedColor                         no
    'ndin'   NativeDisplayInfo                  no
    'nmcl'   NamedColor                         no
    'pre0'   Preview0                           no
    'pre1'   Preview1                           no
    'pre2'   Preview2                           no
```

'ps2i'	PS2RenderingIntent	no
'ps2s'	PostScript2CSA	no
'psd0'	PostScript2CRD0	no
'psd1'	PostScript2CRD1	no
'psd2'	PostScript2CRD2	no
'psd3'	PostScript2CRD3	no
'pseq'	ProfileSequenceDesc	no
'psid'	ProfileSequenceIdentifier	no
'psin'	ProfileSequenceInfo	no
'psvm'	PS2CRDVMSize	no
'rTRC'	RedTRC	no
'rXYZ'	RedMatrixColumn	no
'resp'	OutputResponse	no
'rfnm'	ReferenceName	no
'rhoc'	ReflectionHardcopyOrigColorimetry	no
'rig0'	PerceptualRenderingIntentGamut	no
'rig2'	SaturationRenderingIntentGamut	no
'rpoc'	ReflectionPrintOutputColorimetry	no
's2cp'	StandardToCustomPcc	no
'sape'	SceneAppearanceEstimates	no
'scoe'	SceneColorimetryEstimates	no
'scrd'	ScreeningDesc	no
'scrn'	Screening	no
'smap'	SurfaceMap	no
'svcn'	SpectralViewingConditions	no
'swpt'	SpectralWhitePoint	no
'targ'	CharTarget	no
'tech'	Technology	no
'vcgt'	VideoCardGamma	no
'view'	ViewingConditions	ICC_Profile ViewingConditions
'vued'	ViewingCondDesc	no
'wtpt'	MediaWhitePoint	no

ICC_Profile Header Tags

Index1	Tag Name	Writable
4	ProfileCMMType	no
8	ProfileVersion	no
12	ProfileClass	no
16	ColorSpaceData	no
20	ProfileConnectionSpace	no
24	ProfileDateTime	no
36	ProfileFileSignature	no
40	PrimaryPlatform	no
44	CMMFlags	no
48	DeviceManufacturer	no
52	DeviceModel	no
56	DeviceAttributes	no
64	RenderingIntent	no
68	ConnectionSpaceIlluminant	no
80	ProfileCreator	no
84	ProfileID	no

ICC_Profile Chromaticity Tags

Index1	Tag Name	Writable
8	ChromaticityChannels	no
10	ChromaticityColorant	no
12	ChromaticityChannel1	no
20	ChromaticityChannel2	no
28	ChromaticityChannel3	no
36	ChromaticityChannel4	no

ICC_Profile ColorRep Tags

Index1	Tag Name	Writable
8	ColorPrimaries	no
9	TransferCharacteristics	no
10	MatrixCoefficients	no
11	VideoFullRangeFlag	no

ICC_Profile ColorantTable Tags

Index1	Tag Name	Writable
8	ColorantCount	no
12	Colorant1Name	no
44	Colorant1Coordinates	no
50	Colorant2Name	no
82	Colorant2Coordinates	no
88	Colorant3Name	no
120	Colorant3Coordinates	no

ICC_Profile Measurement Tags

Index1	Tag Name	Writable
8	MeasurementObserver	no
12	MeasurementBacking	no
24	MeasurementGeometry	no
28	MeasurementFlare	no
32	MeasurementIlluminant	no

ICC_Profile Metadata Tags

Only these few tags have been pre-defined, but ExifTool will extract any Metadata tags that exist.

Tag Name	Writable
CreatorApp	no
ManufacturerName	no
MediaColor	no
MediaWeight	no

ICC_Profile ViewingConditions Tags

Index1	Tag Name	Writable
8	ViewingCondIlluminant	no
20	ViewingCondSurround	no
32	ViewingCondIlluminantType	no

PrintIM Tags

The format of the PrintIM information is known, however no PrintIM tags have been decoded. Use the Unknown (−u) option to extract PrintIM information.

Tag ID	Tag Name	Writable
'PrintIMVersion'	PrintIMVersion	no

Photoshop Tags

Photoshop tags are found in PSD and PSB files, as well as inside embedded Photoshop information in many other file types (JPEG, TIFF, PDF, PNG to name a few).

Many Photoshop tags are marked as Unknown (indicated by a question mark after the tag name) because the information they provide is not very useful under normal circumstances. These unknown tags are not extracted unless the Unknown (-u) option is used. See <http://www.adobe.com/devnet-apps/photoshop/fileformatashtml/> for the official specification

Photoshop path tags (Tag ID's 0x7d0 to 0xbb5) are not defined by default, but a config file included in the full ExifTool distribution (config_files/photoshop_paths.config) contains the tag definitions to allow access to this information.

Tag ID	Tag Name	Writable
0x03e8	Photoshop2Info?	no
0x03e9	MacintoshPrintInfo?	no
0x03ea	XMLData?	no
0x03eb	Photoshop2ColorTable?	no
0x03ed	ResolutionInfo	Photoshop Resolution
0x03ee	AlphaChannelsNames	no
0x03ef	DisplayInfo?	no
0x03f0	PStringCaption?	no
0x03f1	BorderInformation?	no
0x03f2	BackgroundColor?	no
0x03f3	PrintFlags?	no
0x03f4	BW_HalftoningInfo?	no
0x03f5	ColorHalftoningInfo?	no
0x03f6	DuotoneHalftoningInfo?	no
0x03f7	BW_TransferFunc?	no
0x03f8	ColorTransferFuncs?	no
0x03f9	DuotoneTransferFuncs?	no
0x03fa	DuotoneImageInfo?	no
0x03fb	EffectiveBW?	no
0x03fc	ObsoletePhotoshopTag1?	no
0x03fd	EPSOptions?	no
0x03fe	QuickMaskInfo?	no
0x03ff	ObsoletePhotoshopTag2?	no
0x0400	TargetLayerID?	no
0x0401	WorkingPath?	no
0x0402	LayersGroupInfo?	no
0x0403	ObsoletePhotoshopTag3?	no
0x0404	IPTCData	IPTC
0x0405	RawImageMode?	no
0x0406	JPEG_Quality	Photoshop JPEG_Quality
0x0408	GridGuidesInfo?	no
0x0409	PhotoshopBGRThumbnail	undef!
0x040a	CopyrightFlag	int8u
0x040b	URL	string
0x040c	PhotoshopThumbnail	undef!
0x040d	GlobalAngle	int32u
0x040e	ColorSamplersResource?	no
0x040f	ICC_Profile	ICC_Profile

0x0410	Watermark?	no
0x0411	ICC_Untagged?	no
0x0412	EffectsVisible?	no
0x0413	SpotHalftone?	no
0x0414	IDsBaseValue?	no
0x0415	UnicodeAlphaNames?	no
0x0416	IndexedColorTableCount?	no
0x0417	TransparentIndex?	no
0x0419	GlobalAltitude	int32u
0x041a	SliceInfo	Photoshop SliceInfo
0x041b	WorkflowURL	no
0x041c	JumpToXPEP?	no
0x041d	AlphaIdentifiers?	no
0x041e	URL_List	no+
0x0421	VersionInfo	Photoshop VersionInfo
0x0422	EXIFInfo	EXIF
0x0423	ExifInfo2?	no
0x0424	XMP	XMP
0x0425	IPTCDigest	string!
0x0426	PrintScaleInfo	Photoshop PrintScaleInfo
0x0428	PixelInfo	Photoshop PixelInfo
0x0429	LayerComps?	no
0x042a	AlternateDuotoneColors?	no
0x042b	AlternateSpotColors?	no
0x042d	LayerSelectionIDs?	no
0x042e	HDRToningInfo?	no
0x042f	PrintInfo?	no
0x0430	LayerGroupsEnabledID?	no
0x0431	ColorSamplersResource2?	no
0x0432	MeasurementScale?	no
0x0433	TimelineInfo?	no
0x0434	SheetDisclosure?	no
0x0435	ChannelOptions	Photoshop ChannelOptions
0x0436	OnionSkins?	no
0x0438	CountInfo?	no
0x043a	PrintInfo2?	no
0x043b	PrintStyle?	no
0x043c	MacintoshNSPrintInfo?	no
0x043d	WindowsDEVMODE?	no
0x043e	AutoSaveFilePath?	no
0x043f	AutoSaveFormat?	no
0x0440	PathSelectionState?	no
0x0bb7	ClippingPathName	no
0x0bb8	OriginPathInfo?	no
0x1b58	ImageReadyVariables?	no
0x1b59	ImageReadyDataSets?	no
0x1f40	LightroomWorkflow?	no
0x2710	PrintFlagsInfo?	no

Photoshop Resolution Tags

Index2	Tag Name	Writable
0	XResolution	int32u
2	DisplayedUnitsX	int16u
4	YResolution	int32u
6	DisplayedUnitsY	int16u

Photoshop JPEG_Quality Tags

Index2	Tag Name	Writable
0	PhotoshopQuality	int16s
1	PhotoshopFormat	no
2	ProgressiveScans	no

Photoshop SliceInfo Tags

Index1	Tag Name	Writable
20	SlicesGroupName	no
24	NumSlices	no

Photoshop VersionInfo Tags

Index1	Tag Name	Writable
4	HasRealMergedData	no
5	WriterName	no
9	ReaderName	no

Photoshop PrintScaleInfo Tags

Index1	Tag Name	Writable
0	PrintStyle	no
2	PrintPosition	no
10	PrintScale	no

Photoshop PixelInfo Tags

Index1	Tag Name	Writable
4	PixelAspectRatio	no

Photoshop ChannelOptions Tags

These tags relate only to the appearance of a channel.

Index1	Tag Name	Writable
0	ChannelColorSpace	no
2	ChannelColorData	no
11	ChannelOpacity	no
12	ChannelColorIndicates	no

Photoshop DocumentData Tags

Tag ID	Tag Name	Writable
'Layr'	Layers	Photoshop Layers
'Lr16'	Layers	Photoshop Layers

Photoshop Layers Tags

Tags extracted from Photoshop layer information.

Tag ID	Tag Name	Writable
'_xbnd'	LayerBlendModes	no+
'_xcnt'	LayerCount	no
'_xnam'	LayerNames	no+
'_xopc'	LayerOpacities	no+
'_xrct'	LayerRectangles	no+
'_xvis'	LayerVisible	no+
'lclr'	LayerColors	no+
'lsct'	LayerSections	no+
'luni'	LayerUnicodeNames	no+
'lyid'	LayerIDs?	no+
'shmd'	LayerModifyDates	no+

Photoshop Header Tags

This information is found in the PSD file header.

Index2	Tag Name	Writable
6	NumChannels	no
7	ImageHeight	no
9	ImageWidth	no
11	BitDepth	no
12	ColorMode	no

Photoshop ImageData Tags

Index1	Tag Name	Writable
0	Compression	no

Apple Tags

Tags extracted from the maker notes of iPhone images.

Tag ID	Tag Name	Writable
0x0001	MakerNoteVersion	int32s
0x0002	AEMatrix?	no
0x0003	RunTime	Apple RunTime
0x0004	AEStable	int32s
0x0005	AETarget	int32s
0x0006	AEAverage	int32s
0x0007	AFStable	int32s
0x0008	AccelerationVector	rational64s[3]
0x000a	HDRImageType	int32s
0x000b	BurstUUID	string
0x000c	FocusDistanceRange	rational64s[2]
0x000f	OISMode	int32s
0x0011	ContentIdentifier	string
0x0014	ImageCaptureType	int32s
0x0015	ImageUniqueID	string
0x0017	LivePhotoVideoIndex	yes
0x0019	ImageProcessingFlags?	int32s
0x001a	QualityHint?	string
0x001d	LuminanceNoiseAmplitude	rational64s
0x001f	PhotosAppFeatureFlags	int32s
0x0020	ImageCaptureRequestID?	string
0x0021	HDRHeadroom	rational64s

0x0023	AFPerformance	int32s[2]
0x0025	SceneFlags?	int32s
0x0026	SignalToNoiseRatioType?	int32s
0x0027	SignalToNoiseRatio	rational64s
0x002b	PhotoIdentifier	string
0x002d	ColorTemperature	int32s
0x002e	CameraType	int32s
0x002f	FocusPosition	int32s
0x0030	HDRGain	rational64s
0x0038	AFMeasuredDepth	int32s
0x003d	AFConfidence	int32s
0x003e	ColorCorrectionMatrix?	no
0x003f	GreenGhostMitigationStatus?	int32s
0x0040	SemanticStyle	no
0x0041	SemanticStyleRenderingVer	no
0x0042	SemanticStylePreset	no
0x004e	Apple_0x004e?	no
0x004f	Apple_0x004f?	no
0x0054	Apple_0x0054?	no
0x005a	Apple_0x005a?	no

Apple RunTime Tags

This PLIST-format information contains the elements of a CMTime structure representing the amount of time the phone has been running since the last boot, not including standby time.

Tag ID	Tag Name	Writable
'epoch'	RunTimeEpoch	no
'flags'	RunTimeFlags	no
'timescale'	RunTimeScale	no
'value'	RunTimeValue	no

Canon Tags

Tag ID	Tag Name	Writable
0x0001	CanonCameraSettings	Canon CameraSettings
0x0002	CanonFocalLength	Canon FocalLength
0x0003	CanonFlashInfo?	no
0x0004	CanonShotInfo	Canon ShotInfo
0x0005	CanonPanorama	Canon Panorama
0x0006	CanonImageType	string
0x0007	CanonFirmwareVersion	string
0x0008	FileNumber	int32u
0x0009	OwnerName	string
0x000a	UnknownD30	Canon UnknownD30
0x000c	SerialNumber	int32u
0x000d	CanonCameraInfo1D	Canon CameraInfo1D
	CanonCameraInfo1DmkII	Canon CameraInfo1DmkII
	CanonCameraInfo1DmkIIN	Canon CameraInfo1DmkIIN
	CanonCameraInfo1DmkIII	Canon CameraInfo1DmkIII
	CanonCameraInfo1DmkIV	Canon CameraInfo1DmkIV
	CanonCameraInfo1DX	Canon CameraInfo1DX
	CanonCameraInfo5D	Canon CameraInfo5D
	CanonCameraInfo5DmkII	Canon CameraInfo5DmkII
	CanonCameraInfo5DmkIII	Canon CameraInfo5DmkIII
	CanonCameraInfo6D	Canon CameraInfo6D

	CanonCameraInfo7D	Canon CameraInfo7D
	CanonCameraInfo40D	Canon CameraInfo40D
	CanonCameraInfo50D	Canon CameraInfo50D
	CanonCameraInfo60D	Canon CameraInfo60D
	CanonCameraInfo70D	Canon CameraInfo70D
	CanonCameraInfo80D	Canon CameraInfo80D
	CanonCameraInfo450D	Canon CameraInfo450D
	CanonCameraInfo500D	Canon CameraInfo500D
	CanonCameraInfo550D	Canon CameraInfo550D
	CanonCameraInfo600D	Canon CameraInfo600D
	CanonCameraInfo650D	Canon CameraInfo650D
	CanonCameraInfo700D	Canon CameraInfo650D
	CanonCameraInfo750D	Canon CameraInfo750D
	CanonCameraInfo760D	Canon CameraInfo750D
	CanonCameraInfo1000D	Canon CameraInfo1000D
	CanonCameraInfo1100D	Canon CameraInfo600D
	CanonCameraInfo1200D	Canon CameraInfo60D
	CanonCameraInfoR3	Canon CameraInfoR3
	CanonCameraInfoR5m2	Canon CameraInfoR5m2
	CanonCameraInfoR6	Canon CameraInfoR6
	CanonCameraInfoR6m2	Canon CameraInfoR6m2
	CanonCameraInfoR6m3	Canon CameraInfoR6m3
	CanonCameraInfoR7	Canon CameraInfoR7
	CanonCameraInfoR50V	Canon CameraInfoR50V
	CanonCameraInfoR100	Canon CameraInfoR100
	CanonCameraInfoRP	Canon CameraInfoRP
	CanonCameraInfoG5XII	Canon CameraInfoG5XII
	CanonCameraInfoPowerShot	Canon CameraInfoPowerShot
	CanonCameraInfoPowerShot2	Canon CameraInfoPowerShot2
	CanonCameraInfoUnknown32	Canon CameraInfoUnknown32
	CanonCameraInfoUnknown16	Canon CameraInfoUnknown16
	CanonCameraInfoUnknown	Canon CameraInfoUnknown
0x000e	CanonFileLength	int32u
0x000f	CustomFunctions1D	CanonCustom Functions1D
	CustomFunctions5D	CanonCustom Functions5D
	CustomFunctions10D	CanonCustom Functions10D
	CustomFunctions20D	CanonCustom Functions20D
	CustomFunctions30D	CanonCustom Functions30D
	CustomFunctions350D	CanonCustom Functions350D
	CustomFunctions400D	CanonCustom Functions400D
	CustomFunctionsD30	CanonCustom FunctionsD30
	CustomFunctionsD60	CanonCustom FunctionsD30
	CustomFunctionsUnknown	CanonCustom FuncsUnknown
0x0010	CanonModelID	int32u
0x0011	MovieInfo	Canon MovieInfo
0x0012	CanonAFInfo	Canon AFInfo
0x0013	ThumbnailImageValidArea	int16u[4]
0x0015	SerialNumberFormat	int32u
0x001a	SuperMacro	int16u
0x001c	DateStampMode	int16u
0x001d	MyColors	Canon MyColors
0x001e	FirmwareRevision	int32u
0x0023	Categories	int32u[2]
0x0024	FaceDetect1	Canon FaceDetect1

```
0x0025   FaceDetect2                    Canon FaceDetect2
0x0026   CanonAFInfo2                   Canon AFInfo2
0x0027   ContrastInfo                   Canon ContrastInfo
0x0028   ImageUniqueID                  int8u
0x0029   WBInfo                         Canon WBInfo
0x002f   FaceDetect3                    Canon FaceDetect3
0x0031   SmartAutoScene                 Canon SmartAutoScene
0x0035   TimeInfo                       Canon TimeInfo
0x0038   BatteryType                    undef
0x003c   AFInfo3                        Canon AFInfo2
0x0081   RawDataOffset                  no
0x0082   RawDataLength                  no
0x0083   OriginalDecisionDataOffset     int32u*
0x0090   CustomFunctions1D              CanonCustom Functions1D
0x0091   PersonalFunctions              CanonCustom PersonalFuncs
0x0092   PersonalFunctionValues         CanonCustom PersonalFuncValues
0x0093   CanonFileInfo                  Canon FileInfo
0x0094   AFPointsInFocus1D              no
0x0095   LensModel                      string
0x0096   SerialInfo                     Canon SerialInfo
         InternalSerialNumber           string
0x0097   DustRemovalData                undef!
0x0098   CropInfo                       Canon CropInfo
0x0099   CustomFunctions2               CanonCustom Functions2
0x009a   AspectInfo                     Canon AspectInfo
0x00a0   ProcessingInfo                 Canon Processing
0x00a1   ToneCurveTable                 no
0x00a2   SharpnessTable                 no
0x00a3   SharpnessFreqTable             no
0x00a4   WhiteBalanceTable              no
0x00a9   ColorBalance                   Canon ColorBalance
0x00aa   MeasuredColor                  Canon MeasuredColor
0x00ae   ColorTemperature               int16u
0x00b0   CanonFlags                     Canon Flags
0x00b1   ModifiedInfo                   Canon ModifiedInfo
0x00b2   ToneCurveMatching              no
0x00b3   WhiteBalanceMatching           no
0x00b4   ColorSpace                     int16u
0x00b6   PreviewImageInfo               Canon PreviewImageInfo
0x00d0   VRDOffset                      int32u*
0x00e0   SensorInfo                     Canon SensorInfo
0x4001   ColorData1                     Canon ColorData1
         ColorData2                     Canon ColorData2
         ColorData3                     Canon ColorData3
         ColorData4                     Canon ColorData4
         ColorData5                     Canon ColorData5
         ColorData6                     Canon ColorData6
         ColorData7                     Canon ColorData7
         ColorData8                     Canon ColorData8
         ColorData9                     Canon ColorData9
         ColorData10                    Canon ColorData10
         ColorData11                    Canon ColorData11
         ColorData12                    Canon ColorData12
         ColorDataUnknown               Canon ColorDataUnknown
```

0x4002	CRWParam?	no
0x4003	ColorInfo	Canon ColorInfo
0x4005	Flavor?	no
0x4008	PictureStyleUserDef	[Values 0-2] Canon PictureStyle
0x4009	PictureStylePC	[Values 0-2] Canon PictureStyle
0x4010	CustomPictureStyleFileName	string
0x4013	AFMicroAdj	Canon AFMicroAdj
0x4015	VignettingCorr	Canon VignettingCorr
	VignettingCorrUnknown1	Canon VignettingCorrUnknown
	VignettingCorrUnknown2	Canon VignettingCorrUnknown
0x4016	VignettingCorr2	Canon VignettingCorr2
0x4018	LightingOpt	Canon LightingOpt
0x4019	LensInfo	Canon LensInfo
0x4020	AmbienceInfo	Canon Ambience
0x4021	MultiExp	Canon MultiExp
0x4024	FilterInfo	Canon FilterInfo
0x4025	HDRInfo	Canon HDRInfo
0x4026	LogInfo	Canon LogInfo
0x4027	FirmwareInfo	Canon FirmwareInfo
0x4028	AFConfig	Canon AFConfig
0x402e	LensCorrectionData2?	no
0x4033	LensCorrectionData1?	no
0x4035	LensCorrectionData3?	no
0x403f	RawBurstModeRoll	Canon RawBurstInfo
0x4045	LensCorrectionData4?	no
0x4053	FocusBracketingInfo	Canon FocusBracketingInfo
0x4059	LevelInfo	Canon LevelInfo

Canon CameraSettings Tags

Index2	Tag Name	Writable
1	MacroMode	int16s
2	SelfTimer	int16s
3	Quality	int16s
4	CanonFlashMode	int16s
5	ContinuousDrive	int16s
7	FocusMode	int16s
9	RecordMode	int16s
10	CanonImageSize	int16s
11	EasyMode	int16s
12	DigitalZoom	int16s
13	Contrast	int16s
14	Saturation	int16s
15	Sharpness	int16s
16	CameraISO	int16s
17	MeteringMode	int16s
18	FocusRange	int16s
19	AFPoint	int16s
20	CanonExposureMode	int16s
22	LensType	int16u
23	MaxFocalLength	int16u
24	MinFocalLength	int16u
25	FocalUnits	int16s

26	MaxAperture	int16s
27	MinAperture	int16s
28	FlashModel	int16s & 0x7f
29	FlashBits	int16s
32	FocusContinuous	int16s
33	AESetting	int16s
34	ImageStabilization	int16s
35	DisplayAperture	int16s
36	ZoomSourceWidth	int16s
37	ZoomTargetWidth	int16s
39	SpotMeteringMode	int16s
40	PhotoEffect	int16s
41	ManualFlashOutput	int16s
42	ColorTone	int16s
46	SRAWQuality	int16s
50	FocusBracketing	int16s
51	Clarity	int16s
52	HDR-PQ	int16s
69	BlackoutFreeShooting	int16s

Canon FocalLength Tags

Index2	Tag Name	Writable
0	FocalType	int16u
1	FocalLength	int16u
2	FocalPlaneXSize	int16u
	FocalPlaneXUnknown?	int16u
3	FocalPlaneYSize	int16u
	FocalPlaneYUnknown?	int16u

Canon ShotInfo Tags

Index2	Tag Name	Writable
1	AutoISO	int16s
2	BaseISO	int16s
3	MeasuredEV	int16s
4	TargetAperture	int16s
5	TargetExposureTime	int16s
6	ExposureCompensation	int16s
7	WhiteBalance	int16s
8	SlowShutter	int16s
9	SequenceNumber	int16s
10	OpticalZoomCode	int16s
12	CameraTemperature	int16s
13	FlashGuideNumber	int16s
14	AFPointsInFocus	int16s
15	FlashExposureComp	int16s
16	AutoExposureBracketing	int16s
17	AEBBracketValue	int16s
18	ControlMode	int16s
19	FocusDistanceUpper	int16u
20	FocusDistanceLower	int16u
21	FNumber	int16s
22	ExposureTime	int16s
23	MeasuredEV2	int16s

24	BulbDuration	int16s
26	CameraType	int16s
27	AutoRotate	int16s
28	NDFilter	int16s
29	SelfTimer2	int16s
33	FlashOutput	int16s

Canon Panorama Tags

Index2	Tag Name	Writable
2	PanoramaFrameNumber	int16s
5	PanoramaDirection	int16s

Canon UnknownD30 Tags

Index2	Tag Name	Writable
[no tags known]		

Canon CameraInfo1D Tags

Information in the ‘‘CameraInfo’’ records is tricky to decode because the encodings are very different than in other Canon records (even sometimes switching endianness between values within a single camera), plus there is considerable variation in format from model to model. The first table below lists CameraInfo tags for the 1D and 1DS.

Index1	Tag Name	Writable
4	ExposureTime	int8u
10	FocalLength	int16u
13	LensType	int16uRev
14	MinFocalLength	int16u
16	MaxFocalLength	int16u
65	SharpnessFrequency	int8u
66	Sharpness	int8s
68	WhiteBalance	int8u
71	SharpnessFrequency	int8u
72	ColorTemperature	int16u
	Sharpness	int8s
74	WhiteBalance	int8u
75	PictureStyle	int8u
78	ColorTemperature	int16u
81	PictureStyle	int8u

Canon CameraInfo1DmkII Tags

CameraInfo tags for the 1DmkII and 1DSmkII.

Index1	Tag Name	Writable
4	ExposureTime	int8u
9	FocalLength	int16uRev
12	LensType	int16uRev
17	MinFocalLength	int16uRev
19	MaxFocalLength	int16uRev
45	FocalType	int8u
54	WhiteBalance	int8u
55	ColorTemperature	int16uRev
57	CanonImageSize	int16u

102	JPEGQuality	int8u
108	PictureStyle	int8u
110	Saturation	int8s
111	ColorTone	int8s
114	Sharpness	int8s
115	Contrast	int8s
117	ISO	string[5]

Canon CameraInfo1DmkIIN Tags

CameraInfo tags for the 1DmkIIN.

Index1	Tag Name	Writable
4	ExposureTime	int8u
9	FocalLength	int16uRev
12	LensType	int16uRev
17	MinFocalLength	int16uRev
19	MaxFocalLength	int16uRev
54	WhiteBalance	int8u
55	ColorTemperature	int16uRev
115	PictureStyle	int8u
116	Sharpness	int8s
117	Contrast	int8s
118	Saturation	int8s
119	ColorTone	int8s
121	ISO	string[5]

Canon CameraInfo1DmkIII Tags

CameraInfo tags for the 1DmkIII and 1DSmkIII.

Index1	Tag Name	Writable
3	FNumber	int8u
4	ExposureTime	int8u
6	ISO	int8u
24	CameraTemperature	int8u
27	MacroMagnification	int8u
29	FocalLength	int16uRev
48	CameraOrientation	int8u
67	FocusDistanceUpper	int16uRev
69	FocusDistanceLower	int16uRev
94	WhiteBalance	int16u
98	ColorTemperature	int16u
134	PictureStyle	int8u
273	LensType	int16uRev
275	MinFocalLength	int16uRev
277	MaxFocalLength	int16uRev
310	FirmwareVersion	string[6]
370	FileIndex	int32u
374	ShutterCount	int32u
382	DirectoryIndex	int32u
682	PictureStyleInfo	Canon PSInfo
1114	TimeStamp1	int32u
1118	TimeStamp	int32u

Canon PSInfo Tags

Custom picture style information for various models.

Index1	Tag Name	Writable
0	ContrastStandard	int32s
4	SharpnessStandard	int32s
8	SaturationStandard	int32s
12	ColorToneStandard	int32s
16	FilterEffectStandard?	int32s
20	ToningEffectStandard?	int32s
24	ContrastPortrait	int32s
28	SharpnessPortrait	int32s
32	SaturationPortrait	int32s
36	ColorTonePortrait	int32s
40	FilterEffectPortrait?	int32s
44	ToningEffectPortrait?	int32s
48	ContrastLandscape	int32s
52	SharpnessLandscape	int32s
56	SaturationLandscape	int32s
60	ColorToneLandscape	int32s
64	FilterEffectLandscape?	int32s
68	ToningEffectLandscape?	int32s
72	ContrastNeutral	int32s
76	SharpnessNeutral	int32s
80	SaturationNeutral	int32s
84	ColorToneNeutral	int32s
88	FilterEffectNeutral?	int32s
92	ToningEffectNeutral?	int32s
96	ContrastFaithful	int32s
100	SharpnessFaithful	int32s
104	SaturationFaithful	int32s
108	ColorToneFaithful	int32s
112	FilterEffectFaithful?	int32s
116	ToningEffectFaithful?	int32s
120	ContrastMonochrome	int32s
124	SharpnessMonochrome	int32s
128	SaturationMonochrome?	int32s
132	ColorToneMonochrome?	int32s
136	FilterEffectMonochrome	int32s
140	ToningEffectMonochrome	int32s
144	ContrastUserDef1	int32s
148	SharpnessUserDef1	int32s
152	SaturationUserDef1	int32s
156	ColorToneUserDef1	int32s
160	FilterEffectUserDef1	int32s
164	ToningEffectUserDef1	int32s
168	ContrastUserDef2	int32s
172	SharpnessUserDef2	int32s
176	SaturationUserDef2	int32s
180	ColorToneUserDef2	int32s
184	FilterEffectUserDef2	int32s
188	ToningEffectUserDef2	int32s
192	ContrastUserDef3	int32s
196	SharpnessUserDef3	int32s
200	SaturationUserDef3	int32s

204	ColorToneUserDef3	int32s
208	FilterEffectUserDef3	int32s
212	ToningEffectUserDef3	int32s
216	UserDef1PictureStyle	int16u
218	UserDef2PictureStyle	int16u
220	UserDef3PictureStyle	int16u

Canon CameraInfo1DmkIV Tags

CameraInfo tags for the EOS 1D Mark IV. Indices shown are for firmware versions 1.0.x, but they may be different for other firmware versions.

Index1	Tag Name	Writable
0	FirmwareInfo	no
3	FNumber	int8u
4	ExposureTime	int8u
6	ISO	int8u
7	HighlightTonePriority	int8u
8	MeasuredEV2	int8u
9	MeasuredEV3	int8u
21	FlashMeteringMode	int8u
25	CameraTemperature	int8u
30	FocalLength	int16uRev
53	CameraOrientation	int8u
84	FocusDistanceUpper	int16uRev
86	FocusDistanceLower	int16uRev
120	WhiteBalance	int16u
124	ColorTemperature	int16u
335	LensType	int16uRev
337	MinFocalLength	int16uRev
339	MaxFocalLength	int16uRev
493	FirmwareVersion	no
556	FileIndex	int32u
568	DirectoryIndex	int32u
872	PictureStyleInfo	Canon PSInfo

Canon CameraInfo1DX Tags

CameraInfo tags for the EOS 1D X. Indices shown are for firmware version 1.0.2, but they may be different for other firmware versions.

Index1	Tag Name	Writable
0	FirmwareInfo	no
3	FNumber	int8u
4	ExposureTime	int8u
6	ISO	int8u
27	CameraTemperature	int8u
35	FocalLength	int16uRev
125	CameraOrientation	int8u
140	FocusDistanceUpper	int16uRev
142	FocusDistanceLower	int16uRev
188	WhiteBalance	int16u
192	ColorTemperature	int16u
244	PictureStyle	int8u
423	LensType	int16uRev
425	MinFocalLength	int16uRev

427	MaxFocalLength	int16uRev
640	FirmwareVersion	no
720	FileIndex	int32u
732	DirectoryIndex	int32u
1012	PictureStyleInfo	Canon PSInfo2
1476	TimeStamp	int16u[3]

Canon PSInfo2 Tags

Custom picture style information for the EOS 5DmkIII, 60D, 600D and 1100D.

Index1	Tag Name	Writable
0	ContrastStandard	int32s
4	SharpnessStandard	int32s
8	SaturationStandard	int32s
12	ColorToneStandard	int32s
16	FilterEffectStandard?	int32s
20	ToningEffectStandard?	int32s
24	ContrastPortrait	int32s
28	SharpnessPortrait	int32s
32	SaturationPortrait	int32s
36	ColorTonePortrait	int32s
40	FilterEffectPortrait?	int32s
44	ToningEffectPortrait?	int32s
48	ContrastLandscape	int32s
52	SharpnessLandscape	int32s
56	SaturationLandscape	int32s
60	ColorToneLandscape	int32s
64	FilterEffectLandscape?	int32s
68	ToningEffectLandscape?	int32s
72	ContrastNeutral	int32s
76	SharpnessNeutral	int32s
80	SaturationNeutral	int32s
84	ColorToneNeutral	int32s
88	FilterEffectNeutral?	int32s
92	ToningEffectNeutral?	int32s
96	ContrastFaithful	int32s
100	SharpnessFaithful	int32s
104	SaturationFaithful	int32s
108	ColorToneFaithful	int32s
112	FilterEffectFaithful?	int32s
116	ToningEffectFaithful?	int32s
120	ContrastMonochrome	int32s
124	SharpnessMonochrome	int32s
128	SaturationMonochrome?	int32s
132	ColorToneMonochrome?	int32s
136	FilterEffectMonochrome	int32s
140	ToningEffectMonochrome	int32s
144	ContrastAuto	int32s
148	SharpnessAuto	int32s
152	SaturationAuto	int32s
156	ColorToneAuto	int32s
160	FilterEffectAuto	int32s
164	ToningEffectAuto	int32s
168	ContrastUserDef1	int32s

172	SharpnessUserDef1	int32s
176	SaturationUserDef1	int32s
180	ColorToneUserDef1	int32s
184	FilterEffectUserDef1	int32s
188	ToningEffectUserDef1	int32s
192	ContrastUserDef2	int32s
196	SharpnessUserDef2	int32s
200	SaturationUserDef2	int32s
204	ColorToneUserDef2	int32s
208	FilterEffectUserDef2	int32s
212	ToningEffectUserDef2	int32s
216	ContrastUserDef3	int32s
220	SharpnessUserDef3	int32s
224	SaturationUserDef3	int32s
228	ColorToneUserDef3	int32s
232	FilterEffectUserDef3	int32s
236	ToningEffectUserDef3	int32s
240	UserDef1PictureStyle	int16u
242	UserDef2PictureStyle	int16u
244	UserDef3PictureStyle	int16u

Canon CameraInfo5D Tags

CameraInfo tags for the EOS 5D.

Index1	Tag Name	Writable
3	FNumber	int8u
4	ExposureTime	int8u
6	ISO	int8u
12	LensType	int16uRev
23	CameraTemperature	int8u
27	MacroMagnification	int8s
39	CameraOrientation	int8s
40	FocalLength	int16uRev
56	AFPointsInFocus5D	int16uRev
84	WhiteBalance	int16u
88	ColorTemperature	int16u
108	PictureStyle	int8u
147	MinFocalLength	int16uRev
149	MaxFocalLength	int16uRev
151	LensType	int16uRev
164	FirmwareRevision	string[8]
172	ShortOwnerName	string[16]
204	DirectoryIndex	int32u
208	FileIndex	int16u
232	ContrastStandard	int8s
233	ContrastPortrait	int8s
234	ContrastLandscape	int8s
235	ContrastNeutral	int8s
236	ContrastFaithful	int8s
237	ContrastMonochrome	int8s
238	ContrastUserDef1	int8s
239	ContrastUserDef2	int8s
240	ContrastUserDef3	int8s
241	SharpnessStandard	int8s

242	SharpnessPortrait	int8s
243	SharpnessLandscape	int8s
244	SharpnessNeutral	int8s
245	SharpnessFaithful	int8s
246	SharpnessMonochrome	int8s
247	SharpnessUserDef1	int8s
248	SharpnessUserDef2	int8s
249	SharpnessUserDef3	int8s
250	SaturationStandard	int8s
251	SaturationPortrait	int8s
252	SaturationLandscape	int8s
253	SaturationNeutral	int8s
254	SaturationFaithful	int8s
255	FilterEffectMonochrome	int8s
256	SaturationUserDef1	int8s
257	SaturationUserDef2	int8s
258	SaturationUserDef3	int8s
259	ColorToneStandard	int8s
260	ColorTonePortrait	int8s
261	ColorToneLandscape	int8s
262	ColorToneNeutral	int8s
263	ColorToneFaithful	int8s
264	ToningEffectMonochrome	int8s
265	ColorToneUserDef1	int8s
266	ColorToneUserDef2	int8s
267	ColorToneUserDef3	int8s
268	UserDef1PictureStyle	int16u
270	UserDef2PictureStyle	int16u
272	UserDef3PictureStyle	int16u
284	TimeStamp	int32u

Canon CameraInfo5DmkII Tags

CameraInfo tags for the EOS 5D Mark II. Indices shown are for firmware version 1.0.6, but they may be different for other firmware versions.

Index1	Tag Name	Writable
0	FirmwareInfo	no
3	FNumber	int8u
4	ExposureTime	int8u
6	ISO	int8u
7	HighlightTonePriority	int8u
19	FlashModel	int8u & 0x7f
21	FlashMeteringMode	int8u
25	CameraTemperature	int8u
27	MacroMagnification	int8u
30	FocalLength	int16uRev
49	CameraOrientation	int8u
80	FocusDistanceUpper	int16uRev
82	FocusDistanceLower	int16uRev
111	WhiteBalance	int16u
115	ColorTemperature	int16u
167	PictureStyle	int8u
189	HighISONoiseReduction	int8u
191	AutoLightingOptimizer	int8u

230	LensType	int16uRev
232	MinFocalLength	int16uRev
234	MaxFocalLength	int16uRev
382	FirmwareVersion	no
398	OwnerName	string[32]
443	FileIndex	int32u
455	DirectoryIndex	int32u
759	PictureStyleInfo	Canon PSInfo
1195	TimeStamp	int16u[3]
1199	TimeStamp	int16u[3]

Canon CameraInfo5DmkIII Tags

CameraInfo tags for the EOS 5D Mark III. Indices shown are for firmware versions 1.0.x, but they may be different for other firmware versions.

Index1	Tag Name	Writable
0	FirmwareInfo	no
3	FNumber	int8u
4	ExposureTime	int8u
6	ISO	int8u
27	CameraTemperature	int8u
35	FocalLength	int16uRev
125	CameraOrientation	int8u
140	FocusDistanceUpper	int16uRev
142	FocusDistanceLower	int16uRev
188	WhiteBalance	int16u
192	ColorTemperature	int16u
244	PictureStyle	int8u
339	LensType	int16uRev
341	MinFocalLength	int16uRev
343	MaxFocalLength	int16uRev
356	LensSerialNumber	undef[5]
572	FirmwareVersion	no
652	FileIndex	int32u
656	FileIndex2	int32u
664	DirectoryIndex	int32u
668	DirectoryIndex2	int32u
944	PictureStyleInfo	Canon PSInfo2

Canon CameraInfo6D Tags

CameraInfo tags for the EOS 6D.

Index1	Tag Name	Writable
0	FirmwareInfo	no
3	FNumber	int8u
4	ExposureTime	int8u
6	ISO	int8u
27	CameraTemperature	int8u
35	FocalLength	int16uRev
131	CameraOrientation	int8u
146	FocusDistanceUpper	int16uRev
148	FocusDistanceLower	int16uRev
194	WhiteBalance	int16u
198	ColorTemperature	int16u

250	PictureStyle	int8u
353	LensType	int16uRev
355	MinFocalLength	int16uRev
357	MaxFocalLength	int16uRev
598	FirmwareVersion	no
682	FileIndex	int32u
694	DirectoryIndex	int32u
966	PictureStyleInfo	Canon PSInfo2
1430	TimeStamp	int16u[3]

Canon CameraInfo7D Tags

CameraInfo tags for the EOS 7D. Indices shown are for firmware versions 1.0.x, but they may be different for other firmware versions.

Index1	Tag Name	Writable
0	FirmwareInfo	no
3	FNumber	int8u
4	ExposureTime	int8u
6	ISO	int8u
7	HighlightTonePriority	int8u
8	MeasuredEV2	int8u
9	MeasuredEV	int8u
21	FlashMeteringMode	int8u
25	CameraTemperature	int8u
30	FocalLength	int16uRev
53	CameraOrientation	int8u
84	FocusDistanceUpper	int16uRev
86	FocusDistanceLower	int16uRev
119	WhiteBalance	int16u
123	ColorTemperature	int16u
175	CameraPictureStyle	int8u
201	HighISONoiseReduction	int8u
274	LensType	int16uRev
276	MinFocalLength	int16uRev
278	MaxFocalLength	int16uRev
428	FirmwareVersion	no
491	FileIndex	int32u
503	DirectoryIndex	int32u
807	PictureStyleInfo	Canon PSInfo
1247	TimeStamp	int16u[3]
1251	TimeStamp	int16u[3]

Canon CameraInfo40D Tags

CameraInfo tags for the EOS 40D.

Index1	Tag Name	Writable
0	FirmwareInfo	no
3	FNumber	int8u
4	ExposureTime	int8u
6	ISO	int8u
21	FlashMeteringMode	int8u
24	CameraTemperature	int8u
27	MacroMagnification	int8u
29	FocalLength	int16uRev
48	CameraOrientation	int8u
67	FocusDistanceUpper	int16uRev
69	FocusDistanceLower	int16uRev
111	WhiteBalance	int16u
115	ColorTemperature	int16u
214	LensType	int16uRev
216	MinFocalLength	int16uRev
218	MaxFocalLength	int16uRev
255	FirmwareVersion	string[6]
307	FileIndex	int32u
319	DirectoryIndex	int32u
603	PictureStyleInfo	Canon PSInfo
839	TimeStamp	int16u[3]
2347	LensModel	string[64]

Canon CameraInfo50D Tags

CameraInfo tags for the EOS 50D. Indices shown are for firmware versions 1.0.x, but they may be different for other firmware versions.

Index1	Tag Name	Writable
0	FirmwareInfo	no
3	FNumber	int8u
4	ExposureTime	int8u
6	ISO	int8u
7	HighlightTonePriority	int8u
21	FlashMeteringMode	int8u
25	CameraTemperature	int8u
30	FocalLength	int16uRev
49	CameraOrientation	int8u
80	FocusDistanceUpper	int16uRev
82	FocusDistanceLower	int16uRev
111	WhiteBalance	int16u
115	ColorTemperature	int16u
167	PictureStyle	int8u
189	HighISONoiseReduction	int8u
191	AutoLightingOptimizer	int8u
234	LensType	int16uRev
236	MinFocalLength	int16uRev
238	MaxFocalLength	int16uRev
350	FirmwareVersion	no
411	FileIndex	int32u
423	DirectoryIndex	int32u
727	PictureStyleInfo	Canon PSInfo

Canon CameraInfo60D Tags

CameraInfo tags for the EOS 60D and 1200D.

Index1	Tag Name	Writable
0	FirmwareInfo	no
3	FNumber	int8u
4	ExposureTime	int8u
6	ISO	int8u
25	CameraTemperature	int8u
30	FocalLength	int16uRev
54	CameraOrientation	int8u
58	CameraOrientation	int8u
85	FocusDistanceUpper	int16uRev
87	FocusDistanceLower	int16uRev
125	ColorTemperature	int16u
232	LensType	int16uRev
234	MinFocalLength	int16uRev
236	MaxFocalLength	int16uRev
409	FirmwareVersion	no
473	FileIndex	int32u
485	DirectoryIndex	int32u
761	PictureStyleInfo	Canon PSInfo2
801	PictureStyleInfo	Canon PSInfo2

Canon CameraInfo70D Tags

CameraInfo tags for the EOS 70D.

Index1	Tag Name	Writable
0	FirmwareInfo	no
3	FNumber	int8u
4	ExposureTime	int8u
6	ISO	int8u
27	CameraTemperature	int8u
35	FocalLength	int16uRev
132	CameraOrientation	int8u
147	FocusDistanceUpper	int16uRev
149	FocusDistanceLower	int16uRev
199	ColorTemperature	int16u
358	LensType	int16uRev
360	MinFocalLength	int16uRev
362	MaxFocalLength	int16uRev
606	FirmwareVersion	no
691	FileIndex	int32u
703	DirectoryIndex	int32u
975	PictureStyleInfo	Canon PSInfo2
1439	TimeStamp	int16u[3]

Canon CameraInfo80D Tags

CameraInfo tags for the EOS 80D.

Index1	Tag Name	Writable
0	FirmwareInfo	no
3	FNumber	int8u
4	ExposureTime	int8u
6	ISO	int8u
27	CameraTemperature	int8u
35	FocalLength	int16uRev
150	CameraOrientation	int8u
165	FocusDistanceUpper	int16uRev
167	FocusDistanceLower	int16uRev
314	ColorTemperature	int16u
393	LensType	int16uRev
395	MinFocalLength	int16uRev
397	MaxFocalLength	int16uRev
1114	FirmwareVersion	no
1198	FileIndex	int32u
1210	DirectoryIndex	int32u

Canon CameraInfo450D Tags

CameraInfo tags for the EOS 450D.

Index1	Tag Name	Writable
0	FirmwareInfo	no
3	FNumber	int8u
4	ExposureTime	int8u
6	ISO	int8u
21	FlashMeteringMode	int8u
24	CameraTemperature	int8u
27	MacroMagnification	int8u
29	FocalLength	int16uRev
48	CameraOrientation	int8u
67	FocusDistanceUpper	int16uRev
69	FocusDistanceLower	int16uRev
111	WhiteBalance	int16u
115	ColorTemperature	int16u
222	LensType	int16uRev
263	FirmwareVersion	string[6]
271	OwnerName	string[32]
307	DirectoryIndex	int32u
319	FileIndex	int32u
611	PictureStyleInfo	Canon PSInfo
2355	LensModel	string[64]

Canon CameraInfo500D Tags

CameraInfo tags for the EOS 500D.

Index1	Tag Name	Writable
0	FirmwareInfo	no
3	FNumber	int8u
4	ExposureTime	int8u
6	ISO	int8u
7	HighlightTonePriority	int8u
21	FlashMeteringMode	int8u
25	CameraTemperature	int8u
30	FocalLength	int16uRev
49	CameraOrientation	int8u
80	FocusDistanceUpper	int16uRev
82	FocusDistanceLower	int16uRev
115	WhiteBalance	int16u
119	ColorTemperature	int16u
171	PictureStyle	int8u
188	HighISONoiseReduction	int8u
190	AutoLightingOptimizer	int8u
246	LensType	int16uRev
248	MinFocalLength	int16uRev
250	MaxFocalLength	int16uRev
400	FirmwareVersion	no
467	FileIndex	int32u
479	DirectoryIndex	int32u
779	PictureStyleInfo	Canon PSInfo

Canon CameraInfo550D Tags

CameraInfo tags for the EOS 550D.

Index1	Tag Name	Writable
0	FirmwareInfo	no
3	FNumber	int8u
4	ExposureTime	int8u
6	ISO	int8u
7	HighlightTonePriority	int8u
21	FlashMeteringMode	int8u
25	CameraTemperature	int8u
30	FocalLength	int16uRev
53	CameraOrientation	int8u
84	FocusDistanceUpper	int16uRev
86	FocusDistanceLower	int16uRev
120	WhiteBalance	int16u
124	ColorTemperature	int16u
176	PictureStyle	int8u
255	LensType	int16uRev
257	MinFocalLength	int16uRev
259	MaxFocalLength	int16uRev
420	FirmwareVersion	no
484	FileIndex	int32u
496	DirectoryIndex	int32u
796	PictureStyleInfo	Canon PSInfo

Canon CameraInfo600D Tags

CameraInfo tags for the EOS 600D and 1100D.

Index1	Tag Name	Writable
0	FirmwareInfo	no
3	FNumber	int8u
4	ExposureTime	int8u
6	ISO	int8u
7	HighlightTonePriority	int8u
21	FlashMeteringMode	int8u
25	CameraTemperature	int8u
30	FocalLength	int16uRev
56	CameraOrientation	int8u
87	FocusDistanceUpper	int16uRev
89	FocusDistanceLower	int16uRev
123	WhiteBalance	int16u
127	ColorTemperature	int16u
179	PictureStyle	int8u
234	LensType	int16uRev
236	MinFocalLength	int16uRev
238	MaxFocalLength	int16uRev
411	FirmwareVersion	no
475	FileIndex	int32u
487	DirectoryIndex	int32u
763	PictureStyleInfo	Canon PSInfo2

Canon CameraInfo650D Tags

CameraInfo tags for the EOS 650D and 700D.

Index1	Tag Name	Writable
0	FirmwareInfo	no
3	FNumber	int8u
4	ExposureTime	int8u
6	ISO	int8u
27	CameraTemperature	int8u
35	FocalLength	int16uRev
125	CameraOrientation	int8u
140	FocusDistanceUpper	int16uRev
142	FocusDistanceLower	int16uRev
188	WhiteBalance	int16u
192	ColorTemperature	int16u
244	PictureStyle	int8u
295	LensType	int16uRev
297	MinFocalLength	int16uRev
299	MaxFocalLength	int16uRev
539	FirmwareVersion	no
544	FirmwareVersion	no
624	FileIndex	int32u
628	FileIndex	int32u
636	DirectoryIndex	int32u
640	DirectoryIndex	int32u
912	PictureStyleInfo	Canon PSInfo2

Canon CameraInfo750D Tags

CameraInfo tags for the EOS 750D and 760D.

Index1	Tag Name	Writable
0	FirmwareInfo	no
3	FNumber	int8u
4	ExposureTime	int8u
6	ISO	int8u
27	CameraTemperature	int8u
35	FocalLength	int16uRev
150	CameraOrientation	int8u
165	FocusDistanceUpper	int16uRev
167	FocusDistanceLower	int16uRev
305	WhiteBalance	int16u
309	ColorTemperature	int16u
361	PictureStyle	int8u
388	LensType	int16uRev
390	MinFocalLength	int16uRev
392	MaxFocalLength	int16uRev
1085	FirmwareVersion	no
1097	FirmwareVersion	no

Canon CameraInfo1000D Tags

CameraInfo tags for the EOS 1000D.

Index1	Tag Name	Writable
0	FirmwareInfo	no
3	FNumber	int8u
4	ExposureTime	int8u
6	ISO	int8u
19	FlashModel	int8u & 0x7f
21	FlashMeteringMode	int8u
24	CameraTemperature	int8u
27	MacroMagnification	int8u
29	FocalLength	int16uRev
48	CameraOrientation	int8u
67	FocusDistanceUpper	int16uRev
69	FocusDistanceLower	int16uRev
111	WhiteBalance	int16u
115	ColorTemperature	int16u
226	LensType	int16uRev
228	MinFocalLength	int16uRev
230	MaxFocalLength	int16uRev
267	FirmwareVersion	string[6]
311	DirectoryIndex	int32u
323	FileIndex	int32u
615	PictureStyleInfo	Canon PSInfo
851	TimeStamp	int16u[3]
2359	LensModel	string[64]

Canon CameraInfoR3 Tags

CameraInfo tags for the EOS R3 (4608−byte block starting with bb cc).

Index1	Tag Name	Writable
36	AFTrackingHistory	no
4009	ShutterCount	int32u

Canon CameraInfoR5m2 Tags

CameraInfo tags for the EOS R1 and R5 Mark II (the R6 Mark III and R8 Mark II share the AF tracking records).

Index1	Tag Name	Writable
2	AFTrackingInfo	Canon AFTrackingR5m2
2.1	AFTrackingHistory	no
2123	PowerOnTime	int32u
2145	FormatFileNumber	int16u
2149	PowerOnFileNumber	int16u
2151	PowerOnDirectoryNumber	int16u
2153	WakeFileNumber	int16u
3952	BurstShotNumber	no
4386	ImageStabilizationMode	int8s

Canon AFTrackingR5m2 Tags

Most recent record from the ring of AF tracking records in the EOS R1 and R5 Mark II CameraInfo.

Index1	Tag Name	Writable
14	AFFocusPosition	int16s
26	AFSamplingRate	int8u
88	AFFocusDistance	int16u
139	AFDetectedSubject	int8u
143	AFTrackingTarget	int8u & 0x0f
146	AFDetectedParts	int16u & 0x7c
148	AFTrackingArea	int16u[4]
157	AFEyeUsed	int8u & 0x03

Canon CameraInfoR6 Tags

CameraInfo tags for the EOS R5 and R6.

Index1	Tag Name	Writable
36	AFTrackingHistory	no
2522	CameraTemperature	int8u
2801	ShutterCount	int32u

Canon CameraInfoR6m2 Tags

CameraInfo tags for the EOS R6 Mark II, R8 and R50.

Index1	Tag Name	Writable
36	AFTrackingHistory	no
3369	ShutterCount	int32u

Canon CameraInfoR6m3 Tags

CameraInfo tags for the EOS R6 Mark III and R6 V.

Index1	Tag Name	Writable
2	AFTrackingInfo	Canon AFTrackingR5m2
2.1	AFTrackingHistory	no
2123	PowerOnTime	int32u
2157	ImageCount	int16u

Canon CameraInfoR7 Tags

CameraInfo tags for the EOS R7 and R10

Index1	Tag Name	Writable
36	AFTrackingHistory	no
3219	ShutterCount	int32u

Canon CameraInfoR50V Tags

CameraInfo tags for the EOS R50 V.

Index1	Tag Name	Writable
2123	PowerOnTime	int32u

Canon CameraInfoR100 Tags

CameraInfo tags for the EOS R100.

Index1	Tag Name	Writable
2767	ShutterCount	int32u

Canon CameraInfoRP Tags

CameraInfo tags for the EOS RP.

Index1	Tag Name	Writable
2396	ShutterCount	int32u
2400	ShutterCount	int32u

Canon CameraInfoG5XII Tags

CameraInfo tags for the PowerShot G5 X Mark II.

Index1	Tag Name	Writable
659	ShutterCount	int32u
2709	ShutterCount	int32u
2849	DirectoryIndex	int32u
2861	FileIndex	int32u

Canon CameraInfoPowerShot Tags

CameraInfo tags for PowerShot models such as the A450, A460, A550, A560, A570, A630, A640, A650, A710, A720, G7, G9, S5, SD40, SD750, SD800, SD850, SD870, SD900, SD950, SD1000, SX100 and TX1.

Index4	Tag Name	Writable
0	ISO	int32s
5	FNumber	int32s
6	ExposureTime	int32s
23	Rotation	int32s
135	CameraTemperature	int32s
145	CameraTemperature	int32s

Canon CameraInfoPowerShot2 Tags

CameraInfo tags for PowerShot models such as the A470, A480, A490, A495, A580, A590, A1000, A1100, A2000, A2100, A3000, A3100, D10, E1, G10, G11, S90, S95, SD770, SD780, SD790, SD880, SD890, SD940, SD960, SD970, SD980, SD990, SD1100, SD1200, SD1300, SD1400, SD3500, SD4000, SD4500, SX1, SX10, SX20, SX110, SX120, SX130, SX200 and SX210.

Index4	Tag Name	Writable
1	ISO	int32s
6	FNumber	int32s
7	ExposureTime	int32s
24	Rotation	int32s
153	CameraTemperature	int32s
159	CameraTemperature	int32s
164	CameraTemperature	int32s
168	CameraTemperature	int32s
261	CameraTemperature	int32s

Canon CameraInfoUnknown32 Tags

Unknown CameraInfo tags are divided into 3 tables based on format size.

Index4	Tag Name	Writable
71	CameraTemperature	int32s
83	CameraTemperature	int32s
91	CameraTemperature	int32s
92	CameraTemperature	int32s
100	CameraTemperature	int32s
-3	CameraTemperature	int32s

Canon CameraInfoUnknown16 Tags

Index2	Tag Name	Writable
[no tags known]		

Canon CameraInfoUnknown Tags

Index1	Tag Name	Writable
0	FirmwareInfo	no
363	LensSerialNumber	undef[5]
1473	FirmwareVersion	no

Canon MovieInfo Tags

Tags written by some Canon cameras when recording video.

Index2	Tag Name	Writable
1	FrameRate	int16u
2	FrameCount	int16u
4	FrameCount	int32u
6	FrameRate	rational32u
106	Duration	int32u
108	AudioBitrate	int32u
110	AudioSampleRate	int32u
112	AudioChannels	int32u
116	VideoCodec	undef[4]

Canon AFInfo Tags

Auto-focus information used by many older Canon models. The values in this record are sequential, and some have variable sizes based on the value of NumAFPoints (which may be 1,5,7,9,15,45 or 53). The AFArea coordinates are given in a system where the image has dimensions given by AFImageWidth and AFImageHeight, and 0,0 is the image center. The direction of the Y axis depends on the camera model, with positive Y upwards for EOS models, but apparently downwards for PowerShot models.

Sequence	Tag Name	Writable
0	NumAFPoints	no
1	ValidAFPoints	no
2	CanonImageWidth	no
3	CanonImageHeight	no
4	AFImageWidth	no
5	AFImageHeight	no
6	AFAreaWidth	no
7	AFAreaHeight	no
8	AFAreaXPositions	no
9	AFAreaYPositions	no
10	AFPointsInFocus	no
11	PrimaryAFPoint	no
	Canon_AFInfo_0x000b?	no
12	PrimaryAFPoint	no

Canon MyColors Tags

Index2	Tag Name	Writable
2	MyColorMode	int16u

Canon FaceDetect1 Tags

Index2	Tag Name	Writable
2	FacesDetected	int16u
3	FaceDetectFrameSize	int16u[2]
8	Face1Position	int16s[2]
10	Face2Position	int16s[2]
12	Face3Position	int16s[2]
14	Face4Position	int16s[2]
16	Face5Position	int16s[2]
18	Face6Position	int16s[2]
20	Face7Position	int16s[2]
22	Face8Position	int16s[2]
24	Face9Position	int16s[2]

Canon FaceDetect2 Tags

Index1	Tag Name	Writable
1	FaceWidth	int8u
2	FacesDetected	int8u

Canon AFInfo2 Tags

Newer version of the AFInfo record containing much of the same information (and coordinate confusion) as the older version. In this record, NumAFPoints may be 7, 9, 11, 19, 31, 45 or 61, depending on the camera model.

Sequence	Tag Name	Writable
0	AFInfoSize?	no
1	AFAreaMode	no
2	NumAFPoints	no
3	ValidAFPoints	no
4	CanonImageWidth	no
5	CanonImageHeight	no
6	AFImageWidth	no
7	AFImageHeight	no
8	AFAreaWidths	no
9	AFAreaHeights	no
10	AFAreaXPositions	no
11	AFAreaYPositions	no
12	AFPointsInFocus	no
13	AFPointsSelected	no
	Canon_AFInfo2_0x000d?	no
14	PrimaryAFPoint	no

Canon ContrastInfo Tags

Index2	Tag Name	Writable
4	IntelligentContrast	int16u

Canon WBInfo Tags

WB tags for the Canon G9.

Index4	Tag Name	Writable
2	WB_GRBGLevelsAuto	int32s[4]
10	WB_GRBGLevelsDaylight	int32s[4]
18	WB_GRBGLevelsCloudy	int32s[4]
26	WB_GRBGLevelsTungsten	int32s[4]
34	WB_GRBGLevelsFluorescent	int32s[4]
42	WB_GRBGLevelsFluorHigh	int32s[4]
50	WB_GRBGLevelsFlash	int32s[4]
58	WB_GRBGLevelsUnderwater	int32s[4]
66	WB_GRBGLevelsCustom1	int32s[4]
74	WB_GRBGLevelsCustom2	int32s[4]

Canon FaceDetect3 Tags

Index2	Tag Name	Writable
3	FacesDetected	int16u

Canon SmartAutoScene Tags

Index2	Tag Name	Writable
2	AutoSceneMode	int16u
3	AutoSceneSubject	int16u
4	AutoSceneLighting	int16u

Canon TimeInfo Tags

Index4	Tag Name	Writable
1	TimeZone	int32s
2	TimeZoneCity	int32s
3	DaylightSavings	int32s

Canon FileInfo Tags

Index2	Tag Name	Writable
1	FileNumber	int32u
	ShutterCount	int32u
3	BracketMode	int16s
4	BracketValue	int16s
5	BracketShotNumber	int16s
6	RawJpgQuality	int16s
7	RawJpgSize	int16s
8	LongExposureNoiseReduction2	int16s
9	WBBracketMode	int16s
12	WBBracketValueAB	int16s
13	WBBracketValueGM	int16s
14	FilterEffect	int16s
15	ToningEffect	int16s
16	MacroMagnification	int16s
	ExitPupilCode	int16s
19	LiveViewShooting	int16s
20	FocusDistanceUpper	int16u
21	FocusDistanceLower	int16u
23	ShutterMode	int16s
25	FlashExposureLock	int16s
26	Extender	int16s
32	AntiFlicker	int16s
61	RFLensType	int16u
87	CameraTemperature2	int16s
88	CameraTemperature3	int16s

Canon SerialInfo Tags

Index1	Tag Name	Writable
0	InternalSerialNumber2	string[9]
9	InternalSerialNumber	string

Canon CropInfo Tags

Index2	Tag Name	Writable
0	CropLeftMargin	int16u
1	CropRightMargin	int16u
2	CropTopMargin	int16u
3	CropBottomMargin	int16u

Canon AspectInfo Tags

Index4	Tag Name	Writable
0	AspectRatio	int32u
1	CroppedImageWidth	int32u
2	CroppedImageHeight	int32u
3	CroppedImageLeft	int32u
4	CroppedImageTop	int32u

Canon Processing Tags

Index2	Tag Name	Writable
1	ToneCurve	int16s
2	Sharpness	int16s
3	SharpnessFrequency	int16s
4	SensorRedLevel	int16s
5	SensorBlueLevel	int16s
6	WhiteBalanceRed	int16s
7	WhiteBalanceBlue	int16s
8	WhiteBalance	int16s
9	ColorTemperature	int16s
10	PictureStyle	int16s
11	DigitalGain	int16s
12	WBShiftAB	int16s
13	WBShiftGM	int16s
14	UnsharpMaskFineness	int16s
15	UnsharpMaskThreshold	int16s

Canon ColorBalance Tags

These tags are used by the 10D and 300D.

Index2	Tag Name	Writable
1	WB_RGGBLevelsAuto	int16s[4]
5	WB_RGGBLevelsDaylight	int16s[4]
9	WB_RGGBLevelsShade	int16s[4]
13	WB_RGGBLevelsCloudy	int16s[4]
17	WB_RGGBLevelsTungsten	int16s[4]
21	WB_RGGBLevelsFluorescent	int16s[4]
25	WB_RGGBLevelsFlash	int16s[4]
29	WB_RGGBLevelsCustom	int16s[4]
	BlackLevels	int16s[4]
33	WB_RGGBLevelsKelvin	int16s[4]
37	WB_RGGBBlackLevels	int16s[4]

Canon MeasuredColor Tags

Index2	Tag Name	Writable
1	MeasuredRGGB	int16u[4]

Canon Flags Tags

Index2	Tag Name	Writable
1	ModifiedParamFlag	int16s

Canon ModifiedInfo Tags

Index2	Tag Name	Writable
1	ModifiedToneCurve	int16s
2	ModifiedSharpness	int16s
3	ModifiedSharpnessFreq	int16s
4	ModifiedSensorRedLevel	int16s
5	ModifiedSensorBlueLevel	int16s
6	ModifiedWhiteBalanceRed	int16s
7	ModifiedWhiteBalanceBlue	int16s
8	ModifiedWhiteBalance	int16s
9	ModifiedColorTemp	int16s
10	ModifiedPictureStyle	int16s
11	ModifiedDigitalGain	int16s

Canon PreviewImageInfo Tags

Index4	Tag Name	Writable
1	PreviewQuality	int32u
2	PreviewImageLength	int32u*
3	PreviewImageWidth	int32u
4	PreviewImageHeight	int32u
5	PreviewImageStart	int32u*

Canon SensorInfo Tags

Index2	Tag Name	Writable
1	SensorWidth	no
2	SensorHeight	no
5	SensorLeftBorder	no
6	SensorTopBorder	no
7	SensorRightBorder	no
8	SensorBottomBorder	no
9	BlackMaskLeftBorder	no
10	BlackMaskTopBorder	no
11	BlackMaskRightBorder	no
12	BlackMaskBottomBorder	no

Canon ColorData1 Tags

These tags are used by the 20D and 350D.

Index2	Tag Name	Writable
25	WB_RGGBLevelsAsShot	int16s[4]
29	ColorTempAsShot	int16s
30	WB_RGGBLevelsAuto	int16s[4]
34	ColorTempAuto	int16s
35	WB_RGGBLevelsDaylight	int16s[4]
39	ColorTempDaylight	int16s
40	WB_RGGBLevelsShade	int16s[4]
44	ColorTempShade	int16s
45	WB_RGGBLevelsCloudy	int16s[4]
49	ColorTempCloudy	int16s
50	WB_RGGBLevelsTungsten	int16s[4]
54	ColorTempTungsten	int16s
55	WB_RGGBLevelsFluorescent	int16s[4]
59	ColorTempFluorescent	int16s
60	WB_RGGBLevelsFlash	int16s[4]
64	ColorTempFlash	int16s
65	WB_RGGBLevelsCustom1	int16s[4]
69	ColorTempCustom1	int16s
70	WB_RGGBLevelsCustom2	int16s[4]
74	ColorTempCustom2	int16s
75	ColorCalib?	Canon ColorCalib

Canon ColorCalib Tags

Camera color calibration data. For the 20D, 350D, 1DmkII and 1DSmkII the order of the coefficients is A, B, C, Temperature, but for newer models it is B, C, A, Temperature. These tags are extracted only when the Unknown option is used.

Index2	Tag Name	Writable
0	CameraColorCalibration01?	int16s[4]
4	CameraColorCalibration02?	int16s[4]
8	CameraColorCalibration03?	int16s[4]
12	CameraColorCalibration04?	int16s[4]
16	CameraColorCalibration05?	int16s[4]
20	CameraColorCalibration06?	int16s[4]
24	CameraColorCalibration07?	int16s[4]
28	CameraColorCalibration08?	int16s[4]
32	CameraColorCalibration09?	int16s[4]
36	CameraColorCalibration10?	int16s[4]
40	CameraColorCalibration11?	int16s[4]
44	CameraColorCalibration12?	int16s[4]
48	CameraColorCalibration13?	int16s[4]
52	CameraColorCalibration14?	int16s[4]
56	CameraColorCalibration15?	int16s[4]

Canon ColorData2 Tags

These tags are used by the 1DmkII and 1DSmkII.

Index2	Tag Name	Writable
24	WB_RGGBLevelsAuto	int16s[4]
28	ColorTempAuto	int16s
29	WB_RGGBLevelsUnknown?	int16s[4]
33	ColorTempUnknown?	int16s
34	WB_RGGBLevelsAsShot	int16s[4]
38	ColorTempAsShot	int16s
39	WB_RGGBLevelsDaylight	int16s[4]
43	ColorTempDaylight	int16s
44	WB_RGGBLevelsShade	int16s[4]
48	ColorTempShade	int16s
49	WB_RGGBLevelsCloudy	int16s[4]
53	ColorTempCloudy	int16s
54	WB_RGGBLevelsTungsten	int16s[4]
58	ColorTempTungsten	int16s
59	WB_RGGBLevelsFluorescent	int16s[4]
63	ColorTempFluorescent	int16s
64	WB_RGGBLevelsKelvin	int16s[4]
68	ColorTempKelvin	int16s
69	WB_RGGBLevelsFlash	int16s[4]
73	ColorTempFlash	int16s
74	WB_RGGBLevelsUnknown2?	int16s[4]
78	ColorTempUnknown2?	int16s
79	WB_RGGBLevelsUnknown3?	int16s[4]
83	ColorTempUnknown3?	int16s
84	WB_RGGBLevelsUnknown4?	int16s[4]
88	ColorTempUnknown4?	int16s
89	WB_RGGBLevelsUnknown5?	int16s[4]
93	ColorTempUnknown5?	int16s
94	WB_RGGBLevelsUnknown6?	int16s[4]
98	ColorTempUnknown6?	int16s
99	WB_RGGBLevelsUnknown7?	int16s[4]
103	ColorTempUnknown7?	int16s
104	WB_RGGBLevelsUnknown8?	int16s[4]
108	ColorTempUnknown8?	int16s
109	WB_RGGBLevelsUnknown9?	int16s[4]
113	ColorTempUnknown9?	int16s
114	WB_RGGBLevelsUnknown10?	int16s[4]
118	ColorTempUnknown10?	int16s
119	WB_RGGBLevelsUnknown11?	int16s[4]
123	ColorTempUnknown11?	int16s
124	WB_RGGBLevelsUnknown12?	int16s[4]
128	ColorTempUnknown12?	int16s
129	WB_RGGBLevelsUnknown13?	int16s[4]
133	ColorTempUnknown13?	int16s
134	WB_RGGBLevelsUnknown14?	int16s[4]
138	ColorTempUnknown14?	int16s
139	WB_RGGBLevelsUnknown15?	int16s[4]
143	ColorTempUnknown15?	int16s
144	WB_RGGBLevelsPC1	int16s[4]
148	ColorTempPC1	int16s
149	WB_RGGBLevelsPC2	int16s[4]
153	ColorTempPC2	int16s

154	WB_RGGBLevelsPC3	int16s[4]
158	ColorTempPC3	int16s
159	WB_RGGBLevelsUnknown16?	int16s[4]
163	ColorTempUnknown16?	int16s
164	ColorCalib?	Canon ColorCalib
618	RawMeasuredRGGB	int32u[4]

Canon ColorData3 Tags

These tags are used by the 1DmkIIN, 5D, 30D and 400D.

Index2	Tag Name	Writable
0	ColorDataVersion	int16s
63	WB_RGGBLevelsAsShot	int16s[4]
67	ColorTempAsShot	int16s
68	WB_RGGBLevelsAuto	int16s[4]
72	ColorTempAuto	int16s
73	WB_RGGBLevelsMeasured	int16s[4]
77	ColorTempMeasured	int16s
78	WB_RGGBLevelsDaylight	int16s[4]
82	ColorTempDaylight	int16s
83	WB_RGGBLevelsShade	int16s[4]
87	ColorTempShade	int16s
88	WB_RGGBLevelsCloudy	int16s[4]
92	ColorTempCloudy	int16s
93	WB_RGGBLevelsTungsten	int16s[4]
97	ColorTempTungsten	int16s
98	WB_RGGBLevelsFluorescent	int16s[4]
102	ColorTempFluorescent	int16s
103	WB_RGGBLevelsKelvin	int16s[4]
107	ColorTempKelvin	int16s
108	WB_RGGBLevelsFlash	int16s[4]
112	ColorTempFlash	int16s
113	WB_RGGBLevelsPC1	int16s[4]
117	ColorTempPC1	int16s
118	WB_RGGBLevelsPC2	int16s[4]
122	ColorTempPC2	int16s
123	WB_RGGBLevelsPC3	int16s[4]
127	ColorTempPC3	int16s
128	WB_RGGBLevelsCustom	int16s[4]
132	ColorTempCustom	int16s
133	ColorCalib?	Canon ColorCalib
196	PerChannelBlackLevel	int16u[4]
584	FlashOutput	int16s
585	FlashBatteryLevel	int16s
586	ColorTempFlashData	int16s
647	MeasuredRGGBData	int32u[4]

Canon ColorData4 Tags

These tags are used by the 1DmkIII, 1DSmkIII, 1DmkIV, 5DmkII, 7D, 40D, 50D, 60D, 450D, 500D, 550D, 1000D and 1100D.

Index2	Tag Name	Writable
0	ColorDataVersion	int16s
63	ColorCoefs	Canon ColorCoefs
168	ColorCalib?	Canon ColorCalib
231	AverageBlackLevel	int16u[4]
619	FlashOutput	int16s
620	FlashBatteryLevel	int16s
640	RawMeasuredRGGB	int32u[4]
692	PerChannelBlackLevel	int16u[4]
696	NormalWhiteLevel	int16u
697	SpecularWhiteLevel	int16u
698	LinearityUpperMargin	int16u
715	PerChannelBlackLevel	int16u[4]
719	NormalWhiteLevel	int16u
	PerChannelBlackLevel	int16u[4]
720	SpecularWhiteLevel	int16u
721	LinearityUpperMargin	int16u
723	NormalWhiteLevel	int16u
724	SpecularWhiteLevel	int16u
725	LinearityUpperMargin	int16u

Canon ColorCoefs Tags

Index2	Tag Name	Writable
0	WB_RGGBLevelsAsShot	int16s[4]
4	ColorTempAsShot	int16s
5	WB_RGGBLevelsAuto	int16s[4]
9	ColorTempAuto	int16s
10	WB_RGGBLevelsMeasured	int16s[4]
14	ColorTempMeasured	int16s
15	WB_RGGBLevelsUnknown?	int16s[4]
19	ColorTempUnknown?	int16s
20	WB_RGGBLevelsDaylight	int16s[4]
24	ColorTempDaylight	int16s
25	WB_RGGBLevelsShade	int16s[4]
29	ColorTempShade	int16s
30	WB_RGGBLevelsCloudy	int16s[4]
34	ColorTempCloudy	int16s
35	WB_RGGBLevelsTungsten	int16s[4]
39	ColorTempTungsten	int16s
40	WB_RGGBLevelsFluorescent	int16s[4]
44	ColorTempFluorescent	int16s
45	WB_RGGBLevelsKelvin	int16s[4]
49	ColorTempKelvin	int16s
50	WB_RGGBLevelsFlash	int16s[4]
54	ColorTempFlash	int16s
55	WB_RGGBLevelsUnknown2?	int16s[4]
59	ColorTempUnknown2?	int16s
60	WB_RGGBLevelsUnknown3?	int16s[4]
64	ColorTempUnknown3?	int16s
65	WB_RGGBLevelsUnknown4?	int16s[4]
69	ColorTempUnknown4?	int16s
70	WB_RGGBLevelsUnknown5?	int16s[4]
74	ColorTempUnknown5?	int16s

75	WB_RGGBLevelsUnknown6?	int16s[4]
79	ColorTempUnknown6?	int16s
80	WB_RGGBLevelsUnknown7?	int16s[4]
84	ColorTempUnknown7?	int16s
85	WB_RGGBLevelsUnknown8?	int16s[4]
89	ColorTempUnknown8?	int16s
90	WB_RGGBLevelsUnknown9?	int16s[4]
94	ColorTempUnknown9?	int16s
95	WB_RGGBLevelsUnknown10?	int16s[4]
99	ColorTempUnknown10?	int16s
100	WB_RGGBLevelsUnknown11?	int16s[4]
104	ColorTempUnknown11?	int16s
105	WB_RGGBLevelsUnknown12?	int16s[4]
109	ColorTempUnknown12?	int16s
110	WB_RGGBLevelsUnknown13?	int16s[4]
114	ColorTempUnknown13?	int16s

Canon ColorData5 Tags

These tags are used by many EOS M and PowerShot models.

Index2	Tag Name	Writable
0	ColorDataVersion	int16s
71	ColorCoefs	Canon ColorCoefs
	ColorCoefs2	Canon ColorCoefs2
186	ColorCalib2?	Canon ColorCalib2
255	ColorCalib2?	Canon ColorCalib2
264	PerChannelBlackLevel	int16s[4]
333	PerChannelBlackLevel	int16s[4]
662	SpecularWhiteLevel	int16u
1385	NormalWhiteLevel	int16u
1386	SpecularWhiteLevel	int16u

Canon ColorCoefs2 Tags

Index2	Tag Name	Writable
0	WB_RGGBLevelsAsShot	int16s[4]
7	ColorTempAsShot	int16s
8	WB_RGGBLevelsAuto	int16s[4]
15	ColorTempAuto	int16s
16	WB_RGGBLevelsMeasured	int16s[4]
23	ColorTempMeasured	int16s
24	WB_RGGBLevelsUnknown?	int16s[4]
31	ColorTempUnknown?	int16s
32	WB_RGGBLevelsDaylight	int16s[4]
39	ColorTempDaylight	int16s
40	WB_RGGBLevelsShade	int16s[4]
47	ColorTempShade	int16s
48	WB_RGGBLevelsCloudy	int16s[4]
55	ColorTempCloudy	int16s
56	WB_RGGBLevelsTungsten	int16s[4]
63	ColorTempTungsten	int16s
64	WB_RGGBLevelsFluorescent	int16s[4]
71	ColorTempFluorescent	int16s
72	WB_RGGBLevelsKelvin	int16s[4]

79	ColorTempKelvin	int16s
80	WB_RGGBLevelsFlash	int16s[4]
87	ColorTempFlash	int16s
88	WB_RGGBLevelsUnknown2?	int16s[4]
95	ColorTempUnknown2?	int16s
96	WB_RGGBLevelsUnknown3?	int16s[4]
103	ColorTempUnknown3?	int16s
104	WB_RGGBLevelsUnknown4?	int16s[4]
111	ColorTempUnknown4?	int16s
112	WB_RGGBLevelsUnknown5?	int16s[4]
119	ColorTempUnknown5?	int16s
120	WB_RGGBLevelsUnknown6?	int16s[4]
127	ColorTempUnknown6?	int16s
128	WB_RGGBLevelsUnknown7?	int16s[4]
135	ColorTempUnknown7?	int16s
136	WB_RGGBLevelsUnknown8?	int16s[4]
143	ColorTempUnknown8?	int16s
144	WB_RGGBLevelsUnknown9?	int16s[4]
151	ColorTempUnknown9?	int16s
152	WB_RGGBLevelsUnknown10?	int16s[4]
159	ColorTempUnknown10?	int16s
160	WB_RGGBLevelsUnknown11?	int16s[4]
167	ColorTempUnknown11?	int16s
168	WB_RGGBLevelsUnknown12?	int16s[4]
175	ColorTempUnknown12?	int16s
176	WB_RGGBLevelsUnknown13?	int16s[4]
183	ColorTempUnknown13?	int16s

Canon ColorCalib2 Tags

B, C, A, D, Temperature.

Index2	Tag Name	Writable
0	CameraColorCalibration01?	int16s[5]
5	CameraColorCalibration02?	int16s[5]
10	CameraColorCalibration03?	int16s[5]
15	CameraColorCalibration04?	int16s[5]
20	CameraColorCalibration05?	int16s[5]
25	CameraColorCalibration06?	int16s[5]
30	CameraColorCalibration07?	int16s[5]
35	CameraColorCalibration08?	int16s[5]
40	CameraColorCalibration09?	int16s[5]
45	CameraColorCalibration10?	int16s[5]
50	CameraColorCalibration11?	int16s[5]
55	CameraColorCalibration12?	int16s[5]
60	CameraColorCalibration13?	int16s[5]
65	CameraColorCalibration14?	int16s[5]
70	CameraColorCalibration15?	int16s[5]

Canon ColorData6 Tags

These tags are used by the EOS 600D and 1200D.

Index2	Tag Name	Writable
0	ColorDataVersion	int16s
63	WB_RGGBLevelsAsShot	int16s[4]
67	ColorTempAsShot	int16s
68	WB_RGGBLevelsAuto	int16s[4]
72	ColorTempAuto	int16s
73	WB_RGGBLevelsMeasured	int16s[4]
77	ColorTempMeasured	int16s
78	WB_RGGBLevelsUnknown?	int16s[4]
82	ColorTempUnknown?	int16s
83	WB_RGGBLevelsUnknown2?	int16s[4]
87	ColorTempUnknown2?	int16s
88	WB_RGGBLevelsUnknown3?	int16s[4]
92	ColorTempUnknown3?	int16s
93	WB_RGGBLevelsUnknown4?	int16s[4]
97	ColorTempUnknown4?	int16s
98	WB_RGGBLevelsUnknown5?	int16s[4]
102	ColorTempUnknown5?	int16s
103	WB_RGGBLevelsDaylight	int16s[4]
107	ColorTempDaylight	int16s
108	WB_RGGBLevelsShade	int16s[4]
112	ColorTempShade	int16s
113	WB_RGGBLevelsCloudy	int16s[4]
117	ColorTempCloudy	int16s
118	WB_RGGBLevelsTungsten	int16s[4]
122	ColorTempTungsten	int16s
123	WB_RGGBLevelsFluorescent	int16s[4]
127	ColorTempFluorescent	int16s
128	WB_RGGBLevelsKelvin	int16s[4]
132	ColorTempKelvin	int16s
133	WB_RGGBLevelsFlash	int16s[4]
137	ColorTempFlash	int16s
138	WB_RGGBLevelsUnknown6?	int16s[4]
142	ColorTempUnknown6?	int16s
143	WB_RGGBLevelsUnknown7?	int16s[4]
147	ColorTempUnknown7?	int16s
148	WB_RGGBLevelsUnknown8?	int16s[4]
152	ColorTempUnknown8?	int16s
153	WB_RGGBLevelsUnknown9?	int16s[4]
157	ColorTempUnknown9?	int16s
158	WB_RGGBLevelsUnknown10?	int16s[4]
162	ColorTempUnknown10?	int16s
163	WB_RGGBLevelsUnknown11?	int16s[4]
167	ColorTempUnknown11?	int16s
168	WB_RGGBLevelsUnknown12?	int16s[4]
172	ColorTempUnknown12?	int16s
173	WB_RGGBLevelsUnknown13?	int16s[4]
177	ColorTempUnknown13?	int16s
178	WB_RGGBLevelsUnknown14?	int16s[4]
182	ColorTempUnknown14?	int16s
183	WB_RGGBLevelsUnknown15?	int16s[4]
187	ColorTempUnknown15?	int16s
188	ColorCalib?	Canon ColorCalib

251	AverageBlackLevel	int16u[4]
404	RawMeasuredRGGB	int32u[4]
479	PerChannelBlackLevel	int16u[4]
483	NormalWhiteLevel	int16u
484	SpecularWhiteLevel	int16u
485	LinearityUpperMargin	int16u

Canon ColorData7 Tags

These tags are used by the EOS 1DX, 5DmkIII, 6D, 7DmkII, 100D, 650D, 700D, 8000D, M and M2.

Index2	Tag Name	Writable
0	ColorDataVersion	int16s
63	WB_RGGBLevelsAsShot	int16s[4]
67	ColorTempAsShot	int16s
68	WB_RGGBLevelsAuto	int16s[4]
72	ColorTempAuto	int16s
73	WB_RGGBLevelsMeasured	int16s[4]
77	ColorTempMeasured	int16s
78	WB_RGGBLevelsUnknown?	int16s[4]
82	ColorTempUnknown?	int16s
83	WB_RGGBLevelsUnknown2?	int16s[4]
87	ColorTempUnknown2?	int16s
88	WB_RGGBLevelsUnknown3?	int16s[4]
92	ColorTempUnknown3?	int16s
93	WB_RGGBLevelsUnknown4?	int16s[4]
97	ColorTempUnknown4?	int16s
98	WB_RGGBLevelsUnknown5?	int16s[4]
102	ColorTempUnknown5?	int16s
103	WB_RGGBLevelsUnknown6?	int16s[4]
107	ColorTempUnknown6?	int16s
108	WB_RGGBLevelsUnknown7?	int16s[4]
112	ColorTempUnknown7?	int16s
113	WB_RGGBLevelsUnknown8?	int16s[4]
117	ColorTempUnknown8?	int16s
118	WB_RGGBLevelsUnknown9?	int16s[4]
122	ColorTempUnknown9?	int16s
123	WB_RGGBLevelsUnknown10?	int16s[4]
127	ColorTempUnknown10?	int16s
128	WB_RGGBLevelsDaylight	int16s[4]
132	ColorTempDaylight	int16s
133	WB_RGGBLevelsShade	int16s[4]
137	ColorTempShade	int16s
138	WB_RGGBLevelsCloudy	int16s[4]
142	ColorTempCloudy	int16s
143	WB_RGGBLevelsTungsten	int16s[4]
147	ColorTempTungsten	int16s
148	WB_RGGBLevelsFluorescent	int16s[4]
152	ColorTempFluorescent	int16s
153	WB_RGGBLevelsKelvin	int16s[4]
157	ColorTempKelvin	int16s
158	WB_RGGBLevelsFlash	int16s[4]
162	ColorTempFlash	int16s
163	WB_RGGBLevelsUnknown11?	int16s[4]
167	ColorTempUnknown11?	int16s

168	WB_RGGBLevelsUnknown12?	int16s[4]
172	ColorTempUnknown12?	int16s
173	WB_RGGBLevelsUnknown13?	int16s[4]
177	ColorTempUnknown13?	int16s
178	WB_RGGBLevelsUnknown14?	int16s[4]
182	ColorTempUnknown14?	int16s
183	WB_RGGBLevelsUnknown15?	int16s[4]
187	ColorTempUnknown15?	int16s
188	WB_RGGBLevelsUnknown16?	int16s[4]
192	ColorTempUnknown16?	int16s
193	WB_RGGBLevelsUnknown17?	int16s[4]
197	ColorTempUnknown17?	int16s
198	WB_RGGBLevelsUnknown18?	int16s[4]
202	ColorTempUnknown18?	int16s
203	WB_RGGBLevelsUnknown19?	int16s[4]
207	ColorTempUnknown19?	int16s
208	WB_RGGBLevelsUnknown20?	int16s[4]
212	ColorTempUnknown20?	int16s
213	ColorCalib?	Canon ColorCalib
276	AverageBlackLevel	int16u[4]
408	FlashOutput	int16s
409	FlashBatteryLevel	int16s
429	RawMeasuredRGGB	int32u[4]
504	PerChannelBlackLevel	int16u[4]
508	NormalWhiteLevel	int16u
509	SpecularWhiteLevel	int16u
510	LinearityUpperMargin	int16u
619	RawMeasuredRGGB	int32u[4]
728	PerChannelBlackLevel	int16u[4]
732	NormalWhiteLevel	int16u
733	SpecularWhiteLevel	int16u
734	LinearityUpperMargin	int16u

Canon ColorData8 Tags

These tags are used by the EOS 1DXmkII, 5DS, 5DSR, 5DmkIV, 6DmkII, 77D, 80D, 200D, 800D, 1300D, 2000D, 4000D and 9000D.

Index2	Tag Name	Writable
0	ColorDataVersion	int16s
63	WB_RGGBLevelsAsShot	int16s[4]
67	ColorTempAsShot	int16s
68	WB_RGGBLevelsAuto	int16s[4]
72	ColorTempAuto	int16s
73	WB_RGGBLevelsMeasured	int16s[4]
77	ColorTempMeasured	int16s
78	WB_RGGBLevelsUnknown?	int16s[4]
82	ColorTempUnknown?	int16s
83	WB_RGGBLevelsUnknown2?	int16s[4]
87	ColorTempUnknown2?	int16s
88	WB_RGGBLevelsUnknown3?	int16s[4]
92	ColorTempUnknown3?	int16s
93	WB_RGGBLevelsUnknown4?	int16s[4]
97	ColorTempUnknown4?	int16s
98	WB_RGGBLevelsUnknown5?	int16s[4]

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102    ColorTempUnknown5?                int16s
103    WB_RGGBLevelsUnknown6?            int16s[4]
107    ColorTempUnknown6?                int16s
108    WB_RGGBLevelsUnknown7?            int16s[4]
112    ColorTempUnknown7?                int16s
113    WB_RGGBLevelsUnknown8?            int16s[4]
117    ColorTempUnknown8?                int16s
118    WB_RGGBLevelsUnknown9?            int16s[4]
122    ColorTempUnknown9?                int16s
123    WB_RGGBLevelsUnknown10?           int16s[4]
127    ColorTempUnknown10?               int16s
128    WB_RGGBLevelsUnknown11?           int16s[4]
132    ColorTempUnknown11?               int16s
133    WB_RGGBLevelsDaylight             int16s[4]
137    ColorTempDaylight                 int16s
138    WB_RGGBLevelsShade                int16s[4]
142    ColorTempShade                    int16s
143    WB_RGGBLevelsCloudy               int16s[4]
147    ColorTempCloudy                   int16s
148    WB_RGGBLevelsTungsten             int16s[4]
152    ColorTempTungsten                 int16s
153    WB_RGGBLevelsFluorescent          int16s[4]
157    ColorTempFluorescent              int16s
158    WB_RGGBLevelsKelvin               int16s[4]
162    ColorTempKelvin                   int16s
163    WB_RGGBLevelsFlash                int16s[4]
167    ColorTempFlash                    int16s
168    WB_RGGBLevelsUnknown12?           int16s[4]
172    ColorTempUnknown12?               int16s
173    WB_RGGBLevelsUnknown13?           int16s[4]
177    ColorTempUnknown13?               int16s
178    WB_RGGBLevelsUnknown14?           int16s[4]
182    ColorTempUnknown14?               int16s
183    WB_RGGBLevelsUnknown15?           int16s[4]
187    ColorTempUnknown15?               int16s
188    WB_RGGBLevelsUnknown16?           int16s[4]
192    ColorTempUnknown16?               int16s
193    WB_RGGBLevelsUnknown17?           int16s[4]
197    ColorTempUnknown17?               int16s
198    WB_RGGBLevelsUnknown18?           int16s[4]
202    ColorTempUnknown18?               int16s
203    WB_RGGBLevelsUnknown19?           int16s[4]
207    ColorTempUnknown19?               int16s
208    WB_RGGBLevelsUnknown20?           int16s[4]
212    ColorTempUnknown20?               int16s
213    WB_RGGBLevelsUnknown21?           int16s[4]
217    ColorTempUnknown21?               int16s
218    WB_RGGBLevelsUnknown22?           int16s[4]
222    ColorTempUnknown22?               int16s
223    WB_RGGBLevelsUnknown23?           int16s[4]
227    ColorTempUnknown23?               int16s
228    WB_RGGBLevelsUnknown24?           int16s[4]
232    ColorTempUnknown24?               int16s
233    WB_RGGBLevelsUnknown25?           int16s[4]
```

237	ColorTempUnknown25?	int16s
238	WB_RGGBLevelsUnknown26?	int16s[4]
242	ColorTempUnknown26?	int16s
243	WB_RGGBLevelsUnknown27?	int16s[4]
247	ColorTempUnknown27?	int16s
248	WB_RGGBLevelsUnknown28?	int16s[4]
252	ColorTempUnknown28?	int16s
253	WB_RGGBLevelsUnknown29?	int16s[4]
257	ColorTempUnknown29?	int16s
258	WB_RGGBLevelsUnknown30?	int16s[4]
262	ColorTempUnknown30?	int16s
263	ColorCalib?	Canon ColorCalib
326	AverageBlackLevel	int16u[4]
556	PerChannelBlackLevel	int16u[4]
560	NormalWhiteLevel	int16u
561	SpecularWhiteLevel	int16u
562	LinearityUpperMargin	int16u
778	PerChannelBlackLevel	int16u[4]
782	NormalWhiteLevel	int16u
783	SpecularWhiteLevel	int16u
784	LinearityUpperMargin	int16u

Canon ColorData9 Tags

These tags are used by the M6mkII, M50, M200, EOS R, RP, 90D, 250D and 850D

Index2	Tag Name	Writable
0	ColorDataVersion	int16s
71	WB_RGGBLevelsAsShot	int16s[4]
75	ColorTempAsShot	int16s
76	WB_RGGBLevelsAuto	int16s[4]
80	ColorTempAuto	int16s
81	WB_RGGBLevelsMeasured	int16s[4]
85	ColorTempMeasured	int16s
86	WB_RGGBLevelsUnknown?	int16s[4]
90	ColorTempUnknown?	int16s
91	WB_RGGBLevelsUnknown2?	int16s[4]
95	ColorTempUnknown2?	int16s
96	WB_RGGBLevelsUnknown3?	int16s[4]
100	ColorTempUnknown3?	int16s
101	WB_RGGBLevelsUnknown4?	int16s[4]
105	ColorTempUnknown4?	int16s
106	WB_RGGBLevelsUnknown5?	int16s[4]
110	ColorTempUnknown5?	int16s
111	WB_RGGBLevelsUnknown6?	int16s[4]
115	ColorTempUnknown6?	int16s
116	WB_RGGBLevelsUnknown7?	int16s[4]
120	ColorTempUnknown7?	int16s
121	WB_RGGBLevelsUnknown8?	int16s[4]
125	ColorTempUnknown8?	int16s
126	WB_RGGBLevelsUnknown9?	int16s[4]
130	ColorTempUnknown9?	int16s
131	WB_RGGBLevelsUnknown10?	int16s[4]
135	ColorTempUnknown10?	int16s
136	WB_RGGBLevelsDaylight	int16s[4]

```
140    ColorTempDaylight                int16s
141    WB_RGGBLevelsShade               int16s[4]
145    ColorTempShade                   int16s
146    WB_RGGBLevelsCloudy              int16s[4]
150    ColorTempCloudy                  int16s
151    WB_RGGBLevelsTungsten            int16s[4]
155    ColorTempTungsten                int16s
156    WB_RGGBLevelsFluorescent         int16s[4]
160    ColorTempFluorescent             int16s
161    WB_RGGBLevelsKelvin              int16s[4]
165    ColorTempKelvin                  int16s
166    WB_RGGBLevelsFlash               int16s[4]
170    ColorTempFlash                   int16s
171    WB_RGGBLevelsUnknown11?          int16s[4]
175    ColorTempUnknown11?              int16s
176    WB_RGGBLevelsUnknown12?          int16s[4]
180    ColorTempUnknown12?              int16s
181    WB_RGGBLevelsUnknown13?          int16s[4]
185    ColorTempUnknown13?              int16s
186    WB_RGGBLevelsUnknown14?          int16s[4]
190    ColorTempUnknown14?              int16s
191    WB_RGGBLevelsUnknown15?          int16s[4]
195    ColorTempUnknown15?              int16s
196    WB_RGGBLevelsUnknown16?          int16s[4]
200    ColorTempUnknown16?              int16s
201    WB_RGGBLevelsUnknown17?          int16s[4]
205    ColorTempUnknown17?              int16s
206    WB_RGGBLevelsUnknown18?          int16s[4]
210    ColorTempUnknown18?              int16s
211    WB_RGGBLevelsUnknown19?          int16s[4]
215    ColorTempUnknown19?              int16s
216    WB_RGGBLevelsUnknown20?          int16s[4]
220    ColorTempUnknown20?              int16s
221    WB_RGGBLevelsUnknown21?          int16s[4]
225    ColorTempUnknown21?              int16s
226    WB_RGGBLevelsUnknown22?          int16s[4]
230    ColorTempUnknown22?              int16s
231    WB_RGGBLevelsUnknown23?          int16s[4]
235    ColorTempUnknown23?              int16s
236    WB_RGGBLevelsUnknown24?          int16s[4]
240    ColorTempUnknown24?              int16s
241    WB_RGGBLevelsUnknown25?          int16s[4]
245    ColorTempUnknown25?              int16s
246    WB_RGGBLevelsUnknown26?          int16s[4]
250    ColorTempUnknown26?              int16s
251    WB_RGGBLevelsUnknown27?          int16s[4]
255    ColorTempUnknown27?              int16s
256    WB_RGGBLevelsUnknown28?          int16s[4]
260    ColorTempUnknown28?              int16s
261    WB_RGGBLevelsUnknown29?          int16s[4]
265    ColorTempUnknown29?              int16s
266    ColorCalib?                      Canon ColorCalib
329    PerChannelBlackLevel             int16u[4]
796    NormalWhiteLevel                 int16u
```

797	SpecularWhiteLevel	int16u
798	LinearityUpperMargin	int16u

Canon ColorData10 Tags

These tags are used by the R5, R5 and EOS 1DXmkIII.

Index2	Tag Name	Writable
0	ColorDataVersion	int16s
85	WB_RGGBLevelsAsShot	int16s[4]
89	ColorTempAsShot	int16s
90	WB_RGGBLevelsAuto	int16s[4]
94	ColorTempAuto	int16s
95	WB_RGGBLevelsMeasured	int16s[4]
99	ColorTempMeasured	int16s
100	WB_RGGBLevelsUnknown?	int16s[4]
104	ColorTempUnknown?	int16s
105	WB_RGGBLevelsUnknown2?	int16s[4]
109	ColorTempUnknown2?	int16s
110	WB_RGGBLevelsUnknown3?	int16s[4]
114	ColorTempUnknown3?	int16s
115	WB_RGGBLevelsUnknown4?	int16s[4]
119	ColorTempUnknown4?	int16s
120	WB_RGGBLevelsUnknown5?	int16s[4]
124	ColorTempUnknown5?	int16s
125	WB_RGGBLevelsUnknown6?	int16s[4]
129	ColorTempUnknown6?	int16s
130	WB_RGGBLevelsUnknown7?	int16s[4]
134	ColorTempUnknown7?	int16s
135	WB_RGGBLevelsUnknown8?	int16s[4]
139	ColorTempUnknown8?	int16s
140	WB_RGGBLevelsUnknown9?	int16s[4]
144	ColorTempUnknown9?	int16s
145	WB_RGGBLevelsUnknown10?	int16s[4]
149	ColorTempUnknown10?	int16s
150	WB_RGGBLevelsDaylight	int16s[4]
154	ColorTempDaylight	int16s
155	WB_RGGBLevelsShade	int16s[4]
159	ColorTempShade	int16s
160	WB_RGGBLevelsCloudy	int16s[4]
164	ColorTempCloudy	int16s
165	WB_RGGBLevelsTungsten	int16s[4]
169	ColorTempTungsten	int16s
170	WB_RGGBLevelsFluorescent	int16s[4]
174	ColorTempFluorescent	int16s
175	WB_RGGBLevelsKelvin	int16s[4]
179	ColorTempKelvin	int16s
180	WB_RGGBLevelsFlash	int16s[4]
184	ColorTempFlash	int16s
185	WB_RGGBLevelsUnknown11?	int16s[4]
189	ColorTempUnknown11?	int16s
190	WB_RGGBLevelsUnknown12?	int16s[4]
194	ColorTempUnknown12?	int16s
195	WB_RGGBLevelsUnknown13?	int16s[4]
199	ColorTempUnknown13?	int16s

200	WB_RGGBLevelsUnknown14?	int16s[4]
204	ColorTempUnknown14?	int16s
205	WB_RGGBLevelsUnknown15?	int16s[4]
209	ColorTempUnknown15?	int16s
210	WB_RGGBLevelsUnknown16?	int16s[4]
214	ColorTempUnknown16?	int16s
215	WB_RGGBLevelsUnknown17?	int16s[4]
219	ColorTempUnknown17?	int16s
220	WB_RGGBLevelsUnknown18?	int16s[4]
224	ColorTempUnknown18?	int16s
225	WB_RGGBLevelsUnknown19?	int16s[4]
229	ColorTempUnknown19?	int16s
230	WB_RGGBLevelsUnknown20?	int16s[4]
234	ColorTempUnknown20?	int16s
235	WB_RGGBLevelsUnknown21?	int16s[4]
239	ColorTempUnknown21?	int16s
240	WB_RGGBLevelsUnknown22?	int16s[4]
244	ColorTempUnknown22?	int16s
245	WB_RGGBLevelsUnknown23?	int16s[4]
249	ColorTempUnknown23?	int16s
250	WB_RGGBLevelsUnknown24?	int16s[4]
254	ColorTempUnknown24?	int16s
255	WB_RGGBLevelsUnknown25?	int16s[4]
259	ColorTempUnknown25?	int16s
260	WB_RGGBLevelsUnknown26?	int16s[4]
264	ColorTempUnknown26?	int16s
265	WB_RGGBLevelsUnknown27?	int16s[4]
269	ColorTempUnknown27?	int16s
270	WB_RGGBLevelsUnknown28?	int16s[4]
274	ColorTempUnknown28?	int16s
275	WB_RGGBLevelsUnknown29?	int16s[4]
279	ColorTempUnknown29?	int16s
280	ColorCalib?	Canon ColorCalib
343	PerChannelBlackLevel	int16u[4]
665	FlashOutput	int16s
666	FlashBatteryLevel	int16s
810	NormalWhiteLevel	int16u
811	SpecularWhiteLevel	int16u
812	LinearityUpperMargin	int16u

Canon ColorData11 Tags

These tags are used by the EOS R3, R7, R50 and R6mkII

Index2	Tag Name	Writable
0	ColorDataVersion	int16s
105	WB_RGGBLevelsAsShot	int16s[4]
109	ColorTempAsShot	int16s
110	WB_RGGBLevelsAuto	int16s[4]
114	ColorTempAuto	int16s
115	WB_RGGBLevelsMeasured	int16s[4]
119	ColorTempMeasured	int16s
120	WB_RGGBLevelsUnknown?	int16s[4]
124	ColorTempUnknown?	int16s
125	WB_RGGBLevelsUnknown2?	int16s[4]

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129    ColorTempUnknown2?              int16s
130    WB_RGGBLevelsUnknown3?          int16s[4]
134    ColorTempUnknown3?              int16s
135    WB_RGGBLevelsUnknown4?          int16s[4]
139    ColorTempUnknown4?              int16s
140    WB_RGGBLevelsUnknown5?          int16s[4]
144    ColorTempUnknown5?              int16s
145    WB_RGGBLevelsUnknown6?          int16s[4]
149    ColorTempUnknown6?              int16s
150    WB_RGGBLevelsUnknown7?          int16s[4]
154    ColorTempUnknown7?              int16s
155    WB_RGGBLevelsUnknown8?          int16s[4]
159    ColorTempUnknown8?              int16s
160    WB_RGGBLevelsUnknown9?          int16s[4]
164    ColorTempUnknown9?              int16s
165    WB_RGGBLevelsUnknown10?         int16s[4]
169    ColorTempUnknown10?             int16s
170    WB_RGGBLevelsUnknown11?         int16s[4]
174    ColorTempUnknown11?             int16s
175    WB_RGGBLevelsUnknown12?         int16s[4]
179    ColorTempUnknown12?             int16s
180    WB_RGGBLevelsUnknown13?         int16s[4]
184    ColorTempUnknown13?             int16s
185    WB_RGGBLevelsUnknown14?         int16s[4]
189    ColorTempUnknown14?             int16s
190    WB_RGGBLevelsUnknown15?         int16s[4]
194    ColorTempUnknown15?             int16s
195    WB_RGGBLevelsUnknown16?         int16s[4]
199    ColorTempUnknown16?             int16s
200    WB_RGGBLevelsUnknown17?         int16s[4]
204    ColorTempUnknown17?             int16s
205    WB_RGGBLevelsDaylight           int16s[4]
209    ColorTempDaylight               int16s
210    WB_RGGBLevelsShade              int16s[4]
214    ColorTempShade                  int16s
215    WB_RGGBLevelsCloudy             int16s[4]
219    ColorTempCloudy                 int16s
220    WB_RGGBLevelsTungsten           int16s[4]
224    ColorTempTungsten               int16s
225    WB_RGGBLevelsFluorescent        int16s[4]
229    ColorTempFluorescent            int16s
230    WB_RGGBLevelsKelvin             int16s[4]
234    ColorTempKelvin                 int16s
235    WB_RGGBLevelsFlash              int16s[4]
239    ColorTempFlash                  int16s
240    WB_RGGBLevelsUnknown18?         int16s[4]
244    ColorTempUnknown18?             int16s
245    WB_RGGBLevelsUnknown19?         int16s[4]
249    ColorTempUnknown19?             int16s
250    WB_RGGBLevelsUnknown20?         int16s[4]
254    ColorTempUnknown20?             int16s
255    WB_RGGBLevelsUnknown21?         int16s[4]
259    ColorTempUnknown21?             int16s
260    WB_RGGBLevelsUnknown22?         int16s[4]
```

264	ColorTempUnknown22?	int16s
265	WB_RGGBLevelsUnknown23?	int16s[4]
269	ColorTempUnknown23?	int16s
270	WB_RGGBLevelsUnknown24?	int16s[4]
274	ColorTempUnknown24?	int16s
275	WB_RGGBLevelsUnknown25?	int16s[4]
279	ColorTempUnknown25?	int16s
280	WB_RGGBLevelsUnknown26?	int16s[4]
284	ColorTempUnknown26?	int16s
285	WB_RGGBLevelsUnknown27?	int16s[4]
289	ColorTempUnknown27?	int16s
290	WB_RGGBLevelsUnknown28?	int16s[4]
294	ColorTempUnknown28?	int16s
300	ColorCalib?	Canon ColorCalib
363	PerChannelBlackLevel	int16u[4]
640	NormalWhiteLevel	int16u
641	SpecularWhiteLevel	int16u
642	LinearityUpperMargin	int16u

Canon ColorData12 Tags

These tags are used by the EOS R1, R5mkII, R50V, R6mkIII and R8mkII

Index2	Tag Name	Writable
0	ColorDataVersion	int16s
105	WB_RGGBLevelsAsShot	int16s[4]
109	ColorTempAsShot	int16s
110	WB_RGGBLevelsDaylight	int16s[4]
114	ColorTempDaylight	int16s
115	WB_RGGBLevelsShade	int16s[4]
119	ColorTempShade	int16s
120	WB_RGGBLevelsCloudy	int16s[4]
124	ColorTempCloudy	int16s
125	WB_RGGBLevelsTungsten	int16s[4]
129	ColorTempTungsten	int16s
130	WB_RGGBLevelsFluorescent	int16s[4]
134	ColorTempFluorescent	int16s
135	WB_RGGBLevelsFlash	int16s[4]
139	ColorTempFlash	int16s
140	WB_RGGBLevelsUnknown2?	int16s[4]
144	ColorTempUnknown2?	int16s
145	WB_RGGBLevelsUnknown3?	int16s[4]
149	ColorTempUnknown3?	int16s
150	WB_RGGBLevelsUnknown4?	int16s[4]
154	ColorTempUnknown4?	int16s
155	WB_RGGBLevelsUnknown5?	int16s[4]
159	ColorTempUnknown5?	int16s
160	WB_RGGBLevelsUnknown6?	int16s[4]
164	ColorTempUnknown6?	int16s
165	WB_RGGBLevelsUnknown7?	int16s[4]
169	ColorTempUnknown7?	int16s
170	WB_RGGBLevelsUnknown8?	int16s[4]
174	ColorTempUnknown8?	int16s
175	WB_RGGBLevelsUnknown9?	int16s[4]
179	ColorTempUnknown9?	int16s

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180    WB_RGGBLevelsUnknown10?          int16s[4]
184    ColorTempUnknown10?              int16s
185    WB_RGGBLevelsUnknown11?          int16s[4]
189    ColorTempUnknown11?              int16s
190    WB_RGGBLevelsUnknown12?          int16s[4]
194    ColorTempUnknown12?              int16s
195    WB_RGGBLevelsUnknown13?          int16s[4]
199    ColorTempUnknown13?              int16s
200    WB_RGGBLevelsUnknown14?          int16s[4]
204    ColorTempUnknown14?              int16s
205    WB_RGGBLevelsUnknown15?          int16s[4]
209    ColorTempUnknown15?              int16s
210    WB_RGGBLevelsUnknown16?          int16s[4]
214    ColorTempUnknown16?              int16s
215    WB_RGGBLevelsUnknown17?          int16s[4]
219    ColorTempUnknown17?              int16s
220    WB_RGGBLevelsUnknown18?          int16s[4]
224    ColorTempUnknown18?              int16s
225    WB_RGGBLevelsUnknown19?          int16s[4]
229    ColorTempUnknown19?              int16s
230    WB_RGGBLevelsUnknown20?          int16s[4]
234    ColorTempUnknown20?              int16s
235    WB_RGGBLevelsUnknown21?          int16s[4]
239    ColorTempUnknown21?              int16s
240    WB_RGGBLevelsUnknown22?          int16s[4]
244    ColorTempUnknown22?              int16s
245    WB_RGGBLevelsUnknown23?          int16s[4]
249    ColorTempUnknown23?              int16s
250    WB_RGGBLevelsUnknown24?          int16s[4]
254    ColorTempUnknown24?              int16s
255    WB_RGGBLevelsUnknown25?          int16s[4]
259    ColorTempUnknown25?              int16s
260    WB_RGGBLevelsUnknown26?          int16s[4]
264    ColorTempUnknown26?              int16s
265    WB_RGGBLevelsUnknown27?          int16s[4]
269    ColorTempUnknown27?              int16s
270    WB_RGGBLevelsUnknown28?          int16s[4]
274    ColorTempUnknown28?              int16s
275    WB_RGGBLevelsUnknown29?          int16s[4]
279    ColorTempUnknown29?              int16s
280    WB_RGGBLevelsUnknown30?          int16s[4]
284    ColorTempUnknown30?              int16s
285    WB_RGGBLevelsUnknown31?          int16s[4]
289    ColorTempUnknown31?              int16s
290    WB_RGGBLevelsUnknown32?          int16s[4]
294    ColorTempUnknown32?              int16s
295    WB_RGGBLevelsUnknown33?          int16s[4]
299    ColorTempUnknown33?              int16s
320    ColorCalib?                      Canon ColorCalib
383    PerChannelBlackLevel             int16u[4]
515    FlashOutput                      int16s
516    FlashBatteryLevel                int16s
660    NormalWhiteLevel                 int16u
661    SpecularWhiteLevel               int16u
```

662	LinearityUpperMargin	int16u

Canon ColorDataUnknown Tags

Index2	Tag Name	Writable
0	ColorDataVersion	no

Canon ColorInfo Tags

Index2	Tag Name	Writable
1	Saturation	int16s
2	ColorTone	int16s
3	ColorSpace	int16s

Canon AFMicroAdj Tags

Index4	Tag Name	Writable
1	AFMicroAdjMode	int32s
2	AFMicroAdjValue	rational64s

Canon VignettingCorr Tags

This information is found in images from newer EOS models.

Index2	Tag Name	Writable
0	VignettingCorrVersion	no
2	PeripheralLighting	int16s
3	DistortionCorrection	int16s
4	ChromaticAberrationCorr	int16s
5	ChromaticAberrationCorr	int16s
6	PeripheralLightingValue	int16s
9	DistortionCorrectionValue	int16s
11	OriginalImageWidth	int16s
12	OriginalImageHeight	int16s

Canon VignettingCorrUnknown Tags

Vignetting correction from PowerShot models.

Index2	Tag Name	Writable
0	VignettingCorrVersion	no

Canon VignettingCorr2 Tags

Index4	Tag Name	Writable
5	PeripheralLightingSetting	int32s
6	ChromaticAberrationSetting	int32s
7	DistortionCorrectionSetting	int32s
9	DigitalLensOptimizerSetting	int32s

Canon LightingOpt Tags

This information is new in images from the EOS 7D.

Index4	Tag Name	Writable
1	PeripheralIlluminationCorr	int32s
2	AutoLightingOptimizer	int32s
3	HighlightTonePriority	int32s
4	LongExposureNoiseReduction	int32s
5	HighISONoiseReduction	int32s
10	DigitalLensOptimizer	int32s
11	DualPixelRaw	int32s

Canon LensInfo Tags

Index1	Tag Name	Writable
0	LensSerialNumber	undef[5]
6	LensDiaphragmCount	no
9	LensAFCount	no
12	LensISCount	no
15	LensDriveCount3	no

Canon Ambience Tags

Index4	Tag Name	Writable
1	AmbienceSelection	int32s

Canon MultiExp Tags

Index4	Tag Name	Writable
1	MultiExposure	int32s
2	MultiExposureControl	int32s
3	MultiExposureShots	int32s

Canon FilterInfo Tags

Information about creative filter settings.

Tag ID	Tag Name	Writable
0x0101	GrainyBWFilter	no
0x0201	SoftFocusFilter	no
0x0301	ToyCameraFilter	no
0x0401	MiniatureFilter	no
0x0402	MiniatureFilterOrientation	no
0x0403	MiniatureFilterPosition	no
0x0404	MiniatureFilterParameter	no
0x0501	FisheyeFilter	no
0x0601	PaintingFilter	no
0x0701	WatercolorFilter	no

Canon HDRInfo Tags

Index4	Tag Name	Writable
1	HDR	int32s
2	HDREffect	int32s

Canon LogInfo Tags

Index4	Tag Name	Writable
4	CompressionFormat	int32s
6	Sharpness	int32s
7	Saturation	int32s
8	ColorTone	int32s
9	ColorSpace2	int32s
10	ColorMatrix	int32s
11	CanonLogVersion	int32s

Canon FirmwareInfo Tags

Index4	Tag Name	Writable
5	LensFirmwareVersion	int32u

Canon AFConfig Tags

Index4	Tag Name	Writable
1	AFConfigTool	int32s
2	AFTrackingSensitivity	int32s
3	AFAccelDecelTracking	int32s
4	AFPointSwitching	int32s
5	AIServoFirstImage	int32s
6	AIServoSecondImage	int32s
7	USMLensElectronicMF	int32s
8	AFAssistBeam	int32s
9	OneShotAFRelease	int32s
10	AutoAFPointSelEOSiTRAF	int32s
11	LensDriveWhenAFImpossible	int32s
12	SelectAFAreaSelectionMode	int32s
13	AFAreaSelectionMethod	int32s
14	OrientationLinkedAF	int32s
15	ManualAFPointSelPattern	int32s
16	AFPointDisplayDuringFocus	int32s
17	VFDisplayIllumination	int32s
18	AFStatusViewfinder	int32s
19	InitialAFPointInServo	int32s
20	SubjectToDetect	int32s
21	SubjectSwitching	int32s
24	EyeDetection	int32s
26	WholeAreaTracking	int32s
27	ServoAFCharacteristics	int32s
28	CaseAutoSetting	int32s
29	ActionPriority	int32s
30	SportEvents	int32s

Canon RawBurstInfo Tags

Index4	Tag Name	Writable
1	RawBurstImageNum	int32u
2	RawBurstImageCount	int32u

Canon FocusBracketingInfo Tags

Index4	Tag Name	Writable
1	FocusBracketing	int32s
2	FocusBracketingImageCount	int32s
3	FocusBracketingFocusIncrement	int32s
4	FocusBracketingExposureSmoothing	int32s
5	FocusBracketingDepthComposite	int32s
6	FocusBracketingCropDepthComposite	int32s
7	FocusBracketingFlashInterval	int32s

Canon LevelInfo Tags

Index4	Tag Name	Writable
4	RollAngle	int32s
5	PitchAngle	int32s
7	FocalLength	int32s
8	MinFocalLength2	int32s
9	MaxFocalLength2	int32s

Canon CTMD Tags

Canon Timed MetaData tags found in CR3 images. The ExtractEmbedded option is automatically applied when reading CR3 files to be able to extract this information.

Tag ID	Tag Name	Writable
0x0001	TimeStamp	no
0x0004	FocalInfo	Canon FocalInfo
0x0005	ExposureInfo	Canon ExposureInfo
0x0007	ExifInfo7	Canon ExifInfo
0x0008	ExifInfo8	Canon ExifInfo
0x0009	ExifInfo9	Canon ExifInfo
0x000e	LensCorrectionInfo	Canon LensCorrectionInfo

Canon FocalInfo Tags

Index4	Tag Name	Writable
0	FocalLength	no

Canon ExposureInfo Tags

Index4	Tag Name	Writable
0	FNumber	no
1	ExposureTime	no
2	ISO	no

Canon ExifInfo Tags

Tag ID	Tag Name	Writable
0x8769	ExifIFD	EXIF
0x927c	MakerNoteCanon	Canon

Canon LensCorrectionInfo Tags

Lens correction curves from CTMD type 14 in CR3 images from the EOS R5 Mark II, R6 Mark III and R8 Mark II. The values are raw fixed-point numbers.

Index2	Tag Name	Writable
0	LensCorrectionPoints	no
3	PeripheralIlluminationCurve	no
27	LensCorrectionPositions	no
49	LensCorrectionCurve1	no
72	LensCorrectionCurve2	no
118	LensCorrectionCurve3	no

Canon CDI1 Tags

Tag ID	Tag Name	Writable
'IAD1'	IAD1	Canon IAD1

Canon IAD1 Tags

Index2	Tag Name	Writable
[no tags known]		

Canon CMP1 Tags

Index2	Tag Name	Writable
8	ImageWidth	no
10	ImageHeight	no

Canon CNOP Tags

Tag ID	Tag Name	Writable
[no tags known]		

Canon CNTH Tags

Canon-specific QuickTime tags found in the CNTH atom of MOV/MP4 videos from some cameras.

Tag ID	Tag Name	Writable
'CNDA'	ThumbnailImage	undef

Canon uuid Tags

Tags extracted from the uuid atom of MP4 videos from cameras such as the SX280, and CR3 images from cameras such as the EOS M50.

Tag ID	Tag Name	Writable
'CCTP'	CanonCCTP	Canon CCTP
'CMT1'	IFD0	EXIF
'CMT2'	ExifIFD	EXIF
'CMT3'	MakerNoteCanon	Canon
'CMT4'	GPSInfo	GPS
'CNCV'	CompressorVersion	no
'CNOP'	CanonCNOP	Canon CNOP
'CNTH'	CanonCNTH	Canon CNTH
'THMB'	ThumbnailImage	no

Canon CCTP Tags

Tag ID	Tag Name	Writable
[no tags known]		

Canon Skip Tags

Information found in the ‘‘skip’’ atom of Canon MOV videos.

Tag ID	Tag Name	Writable
'CNDB'	Unknown_CNDB?	no

Canon uuid2 Tags

Tag ID	Tag Name	Writable
'CNOP'	CanonVRD	CanonVRD

CanonCustom Tags

CanonCustom Functions1D Tags

These custom functions are used by all 1D models up to but not including the Mark III.

Tag ID	Tag Name	Writable
0	FocusingScreen	int8u
1	FinderDisplayDuringExposure	int8u
2	ShutterReleaseNoCFCard	int8u
3	ISOSpeedExpansion	int8u
4	ShutterAELButton	int8u
5	ManualTv	int8u
6	ExposureLevelIncrements	int8u
7	USMLensElectronicMF	int8u
8	LCDPanels	int8u
9	AEBSequenceAutoCancel	int8u
10	AFPointIllumination	int8u
11	AFPointSelection	int8u
12	MirrorLockup	int8u
13	AFPointSpotMetering	int8u
14	FillFlashAutoReduction	int8u
15	ShutterCurtainSync	int8u
16	SafetyShiftInAvOrTv	int8u
17	AFPointActivationArea	int8u
18	SwitchToRegisteredAFPoint	int8u
19	LensAFStopButton	int8u
20	AIServoTrackingSensitivity	int8u
21	AIServoContinuousShooting	int8u

CanonCustom Functions5D Tags

Tag ID	Tag Name	Writable
0	FocusingScreen	int8u
1	SetFunctionWhenShooting	int8u
2	LongExposureNoiseReduction	int8u
3	FlashSyncSpeedAv	int8u
4	Shutter-AELock	int8u
5	AFAssistBeam	int8u
6	ExposureLevelIncrements	int8u
7	FlashFiring	int8u

8	ISOExpansion	int8u
9	AEBSequenceAutoCancel	int8u
10	SuperimposedDisplay	int8u
11	MenuButtonDisplayPosition	int8u
12	MirrorLockup	int8u
13	AFPointSelectionMethod	int8u
14	ETTLII	int8u
15	ShutterCurtainSync	int8u
16	SafetyShiftInAvOrTv	int8u
17	AFPointActivationArea	int8u
18	LCDDisplayReturnToShoot	int8u
19	LensAFStopButton	int8u
20	AddOriginalDecisionData	int8u

CanonCustom Functions10D Tags

Tag ID	Tag Name	Writable
1	SetButtonWhenShooting	int8u
2	ShutterReleaseNoCFCard	int8u
3	FlashSyncSpeedAv	int8u
4	Shutter-AELock	int8u
5	AFAssist	int8u
6	ExposureLevelIncrements	int8u
7	AFPointRegistration	int8u
8	RawAndJpgRecording	int8u
9	AEBSequenceAutoCancel	int8u
10	SuperimposedDisplay	int8u
11	MenuButtonDisplayPosition	int8u
12	MirrorLockup	int8u
13	AssistButtonFunction	int8u
14	FillFlashAutoReduction	int8u
15	ShutterCurtainSync	int8u
16	SafetyShiftInAvOrTv	int8u
17	LensAFStopButton	int8u

CanonCustom Functions20D Tags

Tag ID	Tag Name	Writable
0	SetFunctionWhenShooting	int8u
1	LongExposureNoiseReduction	int8u
2	FlashSyncSpeedAv	int8u
3	Shutter-AELock	int8u
4	AFAssistBeam	int8u
5	ExposureLevelIncrements	int8u
6	FlashFiring	int8u
7	ISOExpansion	int8u
8	AEBSequenceAutoCancel	int8u
9	SuperimposedDisplay	int8u
10	MenuButtonDisplayPosition	int8u
11	MirrorLockup	int8u
12	AFPointSelectionMethod	int8u
13	ETTLII	int8u
14	ShutterCurtainSync	int8u
15	SafetyShiftInAvOrTv	int8u
16	LensAFStopButton	int8u

17	AddOriginalDecisionData	int8u

CanonCustom Functions30D Tags

Tag ID	Tag Name	Writable
1	SetFunctionWhenShooting	int8u
2	LongExposureNoiseReduction	int8u
3	FlashSyncSpeedAv	int8u
4	Shutter-AELock	int8u
5	AFAssistBeam	int8u
6	ExposureLevelIncrements	int8u
7	FlashFiring	int8u
8	ISOExpansion	int8u
9	AEBSequenceAutoCancel	int8u
10	SuperimposedDisplay	int8u
11	MenuButtonDisplayPosition	int8u
12	MirrorLockup	int8u
13	AFPointSelectionMethod	int8u
14	ETTLII	int8u
15	ShutterCurtainSync	int8u
16	SafetyShiftInAvOrTv	int8u
17	MagnifiedView	int8u
18	LensAFStopButton	int8u
19	AddOriginalDecisionData	int8u

CanonCustom Functions350D Tags

Tag ID	Tag Name	Writable
0	SetButtonCrossKeysFunc	int8u
1	LongExposureNoiseReduction	int8u
2	FlashSyncSpeedAv	int8u
3	Shutter-AELock	int8u
4	AFAssistBeam	int8u
5	ExposureLevelIncrements	int8u
6	MirrorLockup	int8u
7	ETTLII	int8u
8	ShutterCurtainSync	int8u

CanonCustom Functions400D Tags

Tag ID	Tag Name	Writable
0	SetButtonCrossKeysFunc	int8u
1	LongExposureNoiseReduction	int8u
2	FlashSyncSpeedAv	int8u
3	Shutter-AELock	int8u
4	AFAssistBeam	int8u
5	ExposureLevelIncrements	int8u
6	MirrorLockup	int8u
7	ETTLII	int8u
8	ShutterCurtainSync	int8u
9	MagnifiedView	int8u
10	LCDDisplayAtPowerOn	int8u

CanonCustom FunctionsD30 Tags

Custom functions for the EOS D30 and D60.

Tag ID	Tag Name	Writable
1	LongExposureNoiseReduction	int8u
2	Shutter-AELock	int8u
3	MirrorLockup	int8u
4	ExposureLevelIncrements	int8u
5	AFAssist	int8u
6	FlashSyncSpeedAv	int8u
7	AEBSequenceAutoCancel	int8u
8	ShutterCurtainSync	int8u
9	LensAFStopButton	int8u
10	FillFlashAutoReduction	int8u
11	MenuButtonReturn	int8u
12	SetButtonWhenShooting	int8u
13	SensorCleaning	int8u
14	SuperimposedDisplay	int8u
15	ShutterReleaseNoCFCard	int8u

CanonCustom FuncsUnknown Tags

Tag ID	Tag Name	Writable
[no tags known]		

CanonCustom PersonalFuncs Tags

Personal function settings for the EOS-1D.

Index2	Tag Name	Writable
1	PF0CustomFuncRegistration	int16u
2	PF1DisableShootingModes	int16u
3	PF2DisableMeteringModes	int16u
4	PF3ManualExposureMetering	int16u
5	PF4ExposureTimeLimits	int16u
6	PF5ApertureLimits	int16u
7	PF6PresetShootingModes	int16u
8	PF7BracketContinuousShoot	int16u
9	PF8SetBracketShots	int16u
10	PF9ChangeBracketSequence	int16u
11	PF10RetainProgramShift	int16u
14	PF13DrivePriority	int16u
15	PF14DisableFocusSearch	int16u
16	PF15DisableAFAssistBeam	int16u
17	PF16AutoFocusPointShoot	int16u
18	PF17DisableAFPointSel	int16u
19	PF18EnableAutoAFPointSel	int16u
20	PF19ContinuousShootSpeed	int16u
21	PF20LimitContinousShots	int16u
22	PF21EnableQuietOperation	int16u
24	PF23SetTimerLengths	int16u
25	PF24LightLCDDuringBulb	int16u
26	PF25DefaultClearSettings	int16u
27	PF26ShortenReleaseLag	int16u
28	PF27ReverseDialRotation	int16u
29	PF28NoQuickDialExpComp	int16u
30	PF29QuickDialSwitchOff	int16u

31	PF30EnlargementMode	int16u
32	PF31OriginalDecisionData	int16u

CanonCustom PersonalFuncValues Tags

Index2	Tag Name	Writable
1	PF1Value	int16u
2	PF2Value	int16u
3	PF3Value	int16u
4	PF4ExposureTimeMin	int16u
5	PF4ExposureTimeMax	int16u
6	PF5ApertureMin	int16u
7	PF5ApertureMax	int16u
8	PF8BracketShots	int16u
9	PF19ShootingSpeedLow	int16u
10	PF19ShootingSpeedHigh	int16u
11	PF20MaxContinousShots	int16u
12	PF23ShutterButtonTime	int16u
13	PF23FELockTime	int16u
14	PF23PostReleaseTime	int16u
15	PF25AEMode	int16u
16	PF25MeteringMode	int16u
17	PF25DriveMode	int16u
18	PF25AFMode	int16u
19	PF25AFPointSel	int16u
20	PF25ImageSize	int16u
21	PF25WBMode	int16u
22	PF25Parameters	int16u
23	PF25ColorMatrix	int16u
24	PF27Value	int16u

CanonCustom Functions2 Tags

Beginning with the EOS 1D Mark III, Canon finally created a set of custom function tags which are (reasonably) consistent across models. The EOS 1D Mark III has 57 custom function tags divided into four main groups: 1. Exposure (0x0101−0x010f), 2. Image (0x0201−0x0203), Flash Exposure (0x0304−0x0306) and Display (0x0407−0x0409), 3. Auto Focus (0x0501−0x050e) and Drive (0x060f−0x0611), and 4. Operation (0x0701−0x070a) and Others (0x080b−0x0810). The table below lists tags used by the EOS 1D Mark III, as well as newer tags and values added by later models.

Tag ID	Tag Name	Writable
0x0101	ExposureLevelIncrements	int32s
0x0102	ISOSpeedIncrements	int32s
0x0103	ISOSpeedRange	int32s[3]
	ISOExpansion	int32s
0x0104	AEBAutoCancel	int32s
0x0105	AEBSequence	int32s
0x0106	AEBShotCount	int32s
	AEBShotCount	int32s[2]
0x0107	SpotMeterLinkToAFPoint	int32s
0x0108	SafetyShift	int32s
0x0109	UsableShootingModes	int32s
	UsableShootingModes	int32s[2]
0x010a	UsableMeteringModes	int32s
	UsableMeteringModes	int32s[2]

```
0x010b   ExposureModeInManual              int32s
0x010c   ShutterSpeedRange                 int32s[3]
         ShutterSpeedRange                 int32s[4]
0x010d   ApertureRange                     int32s[3]
         ApertureRange                     int32s[4]
0x010e   ApplyShootingMeteringMode         int32s[8]
0x010f   FlashSyncSpeedAv                  int32s
0x0110   AEMicroadjustment                 int32s[3]
0x0111   FEMicroadjustment                 int32s[3]
0x0112   SameExposureForNewAperture        int32s
0x0113   ExposureCompAutoCancel           int32s
0x0114   AELockMeterModeAfterFocus        int32s
0x0201   LongExposureNoiseReduction        int32s
0x0202   HighISONoiseReduction            int32s
0x0203   HighlightTonePriority            int32s
0x0204   AutoLightingOptimizer            int32s
0x0304   ETTLII                           int32s
0x0305   ShutterCurtainSync               int32s
0x0306   FlashFiring                      int32s
0x0407   ViewInfoDuringExposure           int32s
0x0408   LCDIlluminationDuringBulb        int32s
0x0409   InfoButtonWhenShooting           int32s
0x040a   ViewfinderWarnings                int32s
0x040b   LVShootingAreaDisplay             int32s
0x040c   LVShootingAreaDisplay             int32s
0x0501   USMLensElectronicMF               int32s
0x0502   AIServoTrackingSensitivity        int32s
0x0503   AIServoImagePriority             int32s
0x0504   AIServoTrackingMethod            int32s
0x0505   LensDriveNoAF                    int32s
0x0506   LensAFStopButton                 int32s
0x0507   AFMicroadjustment                 int32s[5]
0x0508   AFPointAreaExpansion              int32s
0x0509   SelectableAFPoint                 int32s
0x050a   SwitchToRegisteredAFPoint         int32s
0x050b   AFPointAutoSelection              int32s
0x050c   AFPointDisplayDuringFocus         int32s
0x050d   AFPointBrightness                 int32s
0x050e   AFAssistBeam                      int32s
0x050f   AFPointSelectionMethod            int32s
0x0510   VFDisplayIllumination             int32s
         SuperimposedDisplay               int32s
0x0511   AFDuringLiveView                  int32s
0x0512   SelectAFAreaSelectMode            int32s
0x0513   ManualAFPointSelectPattern        int32s
0x0514   DisplayAllAFPoints                int32s
0x0515   FocusDisplayAIServoAndMF          int32s
0x0516   OrientationLinkedAFPoint          int32s
0x0517   MultiControllerWhileMetering      int32s
0x0518   AccelerationTracking              int32s
0x0519   AIServoFirstImagePriority         int32s
0x051a   AIServoSecondImagePriority        int32s
0x051b   AFAreaSelectMethod                int32s
0x051c   AutoAFPointColorTracking          int32s
```

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0x051d   VFDisplayIllumination            int32s
0x051e   InitialAFPointAIServoAF          int32s
0x060f   MirrorLockup                     int32s
0x0610   ContinuousShootingSpeed          int32s[6]
         ContinuousShootingSpeed          int32s[5]
         ContinuousShootingSpeed          int32s[3]
0x0611   ContinuousShotLimit              int32s[2]
0x0612   RestrictDriveModes              int32s
         RestrictDriveModes               int32s[2]
0x0701   Shutter-AELock                   int32s
         AFAndMeteringButtons             int32s
         ShutterButtonAFOnButton          int32s
0x0702   AFOnAELockButtonSwitch          int32s
0x0703   QuickControlDialInMeter         int32s
0x0704   SetButtonWhenShooting           int32s
0x0705   ManualTv                        int32s
0x0706   DialDirectionTvAv               int32s
0x0707   AvSettingWithoutLens            int32s
0x0708   WBMediaImageSizeSetting         int32s
0x0709   LockMicrophoneButton            int32s
0x070a   ButtonFunctionControlOff        int32s
0x070b   AssignFuncButton                int32s
0x070c   CustomControls                  int32s
0x070d   StartMovieShooting              int32s
0x070e   FlashButtonFunction             int32s
0x070f   MultiFunctionLock               int32s
0x0710   TrashButtonFunction             int32s
0x0711   ShutterReleaseWithoutLens       int32s
0x0712   ControlRingRotation            int32s
0x0713   FocusRingRotation              int32s
0x0714   RFLensMFFocusRingSensitivity    int32s
0x0715   CustomizeDials                  int32s
0x080b   FocusingScreen                  int32s
0x080c   TimerLength                     int32s[3]
         TimerLength                      int32s[4]
0x080d   ShortReleaseTimeLag             int32s
0x080e   AddAspectRatioInfo              int32s
0x080f   AddOriginalDecisionData         int32s
0x0810   LiveViewExposureSimulation      int32s
0x0811   LCDDisplayAtPowerOn             int32s
0x0812   MemoAudioQuality                int32s
0x0813   DefaultEraseOption             int32s
0x0814   RetractLensOnPowerOff           int32s
0x0815   AddIPTCInformation              int32s
0x0816   AudioCompression                int32s
```

CanonVRD Tags

Canon Digital Photo Professional writes VRD (Recipe Data) information as a trailer record to JPEG, TIFF, CRW and CR2 images, or as stand-alone VRD or DR4 files. The tags listed below represent information found in these records. The complete VRD/DR4 data record may be accessed as a block using the Extra 'CanonVRD' or 'CanonDR4' tag, but this tag is not extracted or copied unless specified explicitly.

Tag ID	Tag Name	Writable
0xffff00f4	EditData	CanonVRD Edit
0xffff00f5	IHLData	CanonVRD IHL
0xffff00f6	XMP	XMP
0xffff00f7	Edit4Data	CanonVRD Edit4

CanonVRD Edit Tags

Canon VRD edit information.

Index	Tag Name	Writable
0	VRD1	CanonVRD Ver1
1	VRDStampTool	CanonVRD StampTool
2	VRD2	CanonVRD Ver2

CanonVRD Ver1 Tags

Index1	Tag Name	Writable
2	VRDVersion	no
6	WBAdjRGGBLevels	int16u[4]
24	WhiteBalanceAdj	int16u
26	WBAdjColorTemp	int16u
36	WBFineTuneActive	int16u
40	WBFineTuneSaturation	int16u
44	WBFineTuneTone	int16u
46	RawColorAdj	int16u
48	RawCustomSaturation	int32s
52	RawCustomTone	int32s
56	RawBrightnessAdj	int32s
60	ToneCurveProperty	int16u
122	DynamicRangeMin	int16u
124	DynamicRangeMax	int16u
272	ToneCurveActive	int16u
275	ToneCurveMode	int8u
276	BrightnessAdj	int8s
277	ContrastAdj	int8s
278	SaturationAdj	int16s
286	ColorToneAdj	int32s
294	LuminanceCurvePoints	int16u[21]
336	LuminanceCurveLimits	int16u[4]
345	ToneCurveInterpolation	int8u
352	RedCurvePoints	int16u[21]
394	RedCurveLimits	int16u[4]
410	GreenCurvePoints	int16u[21]
452	GreenCurveLimits	int16u[4]
468	BlueCurvePoints	int16u[21]
510	BlueCurveLimits	int16u[4]
526	RGBCurvePoints	int16u[21]
568	RGBCurveLimits	int16u[4]
580	CropActive	int16u
582	CropLeft	int16u
584	CropTop	int16u
586	CropWidth	int16u
588	CropHeight	int16u

602	SharpnessAdj	int16u
608	CropAspectRatio	int16u
610	ConstrainedCropWidth	float
614	ConstrainedCropHeight	float
618	CheckMark	int16u
622	Rotation	int16u
624	WorkColorSpace	int16u

CanonVRD StampTool Tags

Index1	Tag Name	Writable
0	StampToolCount	no

CanonVRD Ver2 Tags

Tags added in DPP version 2.0 and later.

Index2	Tag Name	Writable
2	PictureStyle	int16s
3	IsCustomPictureStyle	int16s
13	StandardRawColorTone	int16s
14	StandardRawSaturation	int16s
15	StandardRawContrast	int16s
16	StandardRawLinear	int16s
17	StandardRawSharpness	int16s
18	StandardRawHighlightPoint	int16s
19	StandardRawShadowPoint	int16s
20	StandardOutputHighlightPoint	int16s
21	StandardOutputShadowPoint	int16s
22	PortraitRawColorTone	int16s
23	PortraitRawSaturation	int16s
24	PortraitRawContrast	int16s
25	PortraitRawLinear	int16s
26	PortraitRawSharpness	int16s
27	PortraitRawHighlightPoint	int16s
28	PortraitRawShadowPoint	int16s
29	PortraitOutputHighlightPoint	int16s
30	PortraitOutputShadowPoint	int16s
31	LandscapeRawColorTone	int16s
32	LandscapeRawSaturation	int16s
33	LandscapeRawContrast	int16s
34	LandscapeRawLinear	int16s
35	LandscapeRawSharpness	int16s
36	LandscapeRawHighlightPoint	int16s
37	LandscapeRawShadowPoint	int16s
38	LandscapeOutputHighlightPoint	int16s
39	LandscapeOutputShadowPoint	int16s
40	NeutralRawColorTone	int16s
41	NeutralRawSaturation	int16s
42	NeutralRawContrast	int16s
43	NeutralRawLinear	int16s
44	NeutralRawSharpness	int16s
45	NeutralRawHighlightPoint	int16s
46	NeutralRawShadowPoint	int16s
47	NeutralOutputHighlightPoint	int16s

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 48    NeutralOutputShadowPoint            int16s
 49    FaithfulRawColorTone                int16s
 50    FaithfulRawSaturation               int16s
 51    FaithfulRawContrast                 int16s
 52    FaithfulRawLinear                   int16s
 53    FaithfulRawSharpness                int16s
 54    FaithfulRawHighlightPoint           int16s
 55    FaithfulRawShadowPoint              int16s
 56    FaithfulOutputHighlightPoint        int16s
 57    FaithfulOutputShadowPoint           int16s
 58    MonochromeFilterEffect              int16s
 59    MonochromeToningEffect              int16s
 60    MonochromeContrast                  int16s
 61    MonochromeLinear                    int16s
 62    MonochromeSharpness                 int16s
 63    MonochromeRawHighlightPoint         int16s
 64    MonochromeRawShadowPoint            int16s
 65    MonochromeOutputHighlightPoint      int16s
 66    MonochromeOutputShadowPoint         int16s
 69    UnknownContrast?                    int16s
 70    UnknownLinear?                      int16s
 71    UnknownSharpness?                   int16s
 72    UnknownRawHighlightPoint?           int16s
 73    UnknownRawShadowPoint?              int16s
 74    UnknownOutputHighlightPoint?        int16s
 75    UnknownOutputShadowPoint?           int16s
 76    CustomColorTone                     int16s
 77    CustomSaturation                    int16s
 78    CustomContrast                      int16s
 79    CustomLinear                        int16s
 80    CustomSharpness                     int16s
 81    CustomRawHighlightPoint             int16s
 82    CustomRawShadowPoint                int16s
 83    CustomOutputHighlightPoint          int16s
 84    CustomOutputShadowPoint             int16s
 88    CustomPictureStyleData              no
 94    ChrominanceNoiseReduction           int16s
 95    LuminanceNoiseReduction             int16s
 96    ChrominanceNR_TIFF_JPEG             int16s
 98    ChromaticAberrationOn               int16s
 99    DistortionCorrectionOn              int16s
100    PeripheralIlluminationOn            int16s
101    ColorBlur                           int16s
102    ChromaticAberration                 int16s
103    DistortionCorrection                int16s
104    PeripheralIllumination              int16s
105    AberrationCorrectionDistance        int16s
106    ChromaticAberrationRed              int16s
107    ChromaticAberrationBlue             int16s
109    LuminanceNR_TIFF_JPEG               int16s
110    AutoLightingOptimizerOn             int16s
111    AutoLightingOptimizer               int16s
117    StandardRawHighlight                int16s
118    PortraitRawHighlight                int16s
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119    LandscapeRawHighlight               int16s
120    NeutralRawHighlight                 int16s
121    FaithfulRawHighlight                int16s
122    MonochromeRawHighlight              int16s
123    UnknownRawHighlight?                int16s
124    CustomRawHighlight                  int16s
126    StandardRawShadow                   int16s
127    PortraitRawShadow                   int16s
128    LandscapeRawShadow                  int16s
129    NeutralRawShadow                    int16s
130    FaithfulRawShadow                   int16s
131    MonochromeRawShadow                 int16s
132    UnknownRawShadow?                   int16s
133    CustomRawShadow                     int16s
139    AngleAdj                            int32s
142    CheckMark2                          int16u
144    UnsharpMask                         int16s
146    StandardUnsharpMaskStrength         int16s
148    StandardUnsharpMaskFineness         int16s
150    StandardUnsharpMaskThreshold        int16s
152    PortraitUnsharpMaskStrength         int16s
154    PortraitUnsharpMaskFineness         int16s
156    PortraitUnsharpMaskThreshold        int16s
158    LandscapeUnsharpMaskStrength        int16s
160    LandscapeUnsharpMaskFineness        int16s
162    LandscapeUnsharpMaskThreshold       int16s
164    NeutraUnsharpMaskStrength           int16s
166    NeutralUnsharpMaskFineness          int16s
168    NeutralUnsharpMaskThreshold         int16s
170    FaithfulUnsharpMaskStrength         int16s
172    FaithfulUnsharpMaskFineness         int16s
174    FaithfulUnsharpMaskThreshold        int16s
176    MonochromeUnsharpMaskStrength       int16s
178    MonochromeUnsharpMaskFineness       int16s
180    MonochromeUnsharpMaskThreshold      int16s
182    CustomUnsharpMaskStrength           int16s
184    CustomUnsharpMaskFineness           int16s
186    CustomUnsharpMaskThreshold          int16s
188    CustomDefaultUnsharpStrength        int16s
190    CustomDefaultUnsharpFineness        int16s
192    CustomDefaultUnsharpThreshold       int16s
214    CropCircleActive                    int16s
215    CropCircleX                         int16s
216    CropCircleY                         int16s
217    CropCircleRadius                    int16s
220    DLOOn                               int16s
221    DLOSetting                          int16s
222    DLOShootingDistance                 int16s
223    DLODataLength                       no
224    DLOInfo                             CanonVRD DLOInfo
225    CameraRawColorTone                  int16s
226    CameraRawSaturation                 int16s
227    CameraRawContrast                   int16s
228    CameraRawLinear                     int16s
```

229	CameraRawSharpness	int16s
230	CameraRawHighlightPoint	int16s
231	CameraRawShadowPoint	int16s
232	CameraRawOutputHighlightPoint	int16s
233	CameraRawOutputShadowPoint	int16s

CanonVRD DLOInfo Tags

Tags added when DLO (Digital Lens Optimizer) is on.

Index2	Tag Name	Writable
4	DLOSettingApplied	int16s
5	DLOVersion	string[10]
10	DLOData	no

CanonVRD IHL Tags

Tag ID	Tag Name	Writable
0x0001	IHL_EXIF	EXIF
	IHL_EXIF?	no
0x0003	ThumbnailImage	no
0x0004	PreviewImage	no
0x0005	RawCodecVersion	no
0x0006	CRCDevelParams?	no

CanonVRD Edit4 Tags

Canon DPP version 4 edit information.

Index	Tag Name	Writable
0	DR4	CanonVRD DR4

CanonVRD DR4 Tags

Tags written by Canon DPP version 4 in CanonVRD trailers and DR4 files. Each tag has three associated flag words which are stored with the directory entry, some of which are extracted as a separate tag, indicated in the table below by a decimal appended to the tag ID (.0, .1 or .2).

Tag ID	Tag Name	Writable
'header'	DR4Header	CanonVRD DR4Header
0x10002	Rotation	yes
0x10003	AngleAdj	yes
0x10021	CustomPictureStyle	yes
0x10100	Rating	yes
0x10101	CheckMark	yes
0x10200	WorkColorSpace	yes
0x20001	RawBrightnessAdj	yes
0x20101	WhiteBalanceAdj	yes
0x20102	WBAdjColorTemp	yes
0x20105	WBAdjMagentaGreen	yes
0x20106	WBAdjBlueAmber	yes
0x20125	WBAdjRGGBLevels	yes
0x20200	GammaLinear	yes
0x20301	PictureStyle	yes
0x20303	ContrastAdj	yes
0x20304	ColorToneAdj	yes
0x20305	ColorSaturationAdj	yes

0x20306	MonochromeToningEffect	yes
0x20307	MonochromeFilterEffect	yes
0x20308	UnsharpMaskStrength	yes
0x20309	UnsharpMaskFineness	yes
0x2030a	UnsharpMaskThreshold	yes
0x2030b	ShadowAdj	yes
0x2030c	HighlightAdj	yes
0x20310	SharpnessAdj	yes
0x20310.0	SharpnessAdjOn	yes
0x20311	SharpnessStrength	yes
0x20400	ToneCurve	CanonVRD ToneCurve
0x20400.1	ToneCurveOriginal	yes
0x20410	ToneCurveBrightness	yes
0x20411	ToneCurveContrast	yes
0x20500	AutoLightingOptimizer	yes
0x20500.0	AutoLightingOptimizerOn	yes
0x20600	LuminanceNoiseReduction	yes
0x20601	ChrominanceNoiseReduction	yes
0x20670	ColorMoireReduction	yes
0x20670.0	ColorMoireReductionOn	yes
0x20701	ShootingDistance	yes
0x20702	PeripheralIllumination	yes
0x20702.0	PeripheralIlluminationOn	yes
0x20703	ChromaticAberration	yes
0x20703.0	ChromaticAberrationOn	yes
0x20704	ColorBlurOn	yes
0x20705	DistortionCorrection	yes
0x20705.0	DistortionCorrectionOn	yes
0x20706	DLOSetting	yes
0x20706.0	DLOOn	yes
0x20707	ChromaticAberrationRed	yes
0x20708	ChromaticAberrationBlue	yes
0x20709	DistortionEffect	yes
0x2070b	DiffractionCorrectionOn	yes
0x20900	ColorHue	yes
0x20901	SaturationAdj	yes
0x20910	RedHSL	yes
0x20911	OrangeHSL	yes
0x20912	YellowHSL	yes
0x20913	GreenHSL	yes
0x20914	AquaHSL	yes
0x20915	BlueHSL	yes
0x20916	PurpleHSL	yes
0x20917	MagentaHSL	yes
0x20a00	GammaInfo	CanonVRD GammaInfo
0x20b10	DPRAWMicroadjustBackFront	yes
0x20b12	DPRAWMicroadjustStrength	yes
0x20b20	DPRAWBokehShift	yes
0x20b21	DPRAWBokehShiftArea	yes
0x20b30	DPRAWGhostingReductionArea	yes
0x30101	CropAspectRatio	yes
0x30102	CropAspectRatioCustom	yes
0xf0100	CropInfo	CanonVRD CropInfo
0xf0500	CustomPictureStyleData	yes

0xf0510	StampInfo	CanonVRD StampInfo
0xf0511	DustInfo	CanonVRD DustInfo
0xf0512	LensFocalLength	yes

CanonVRD DR4Header Tags

Index4	Tag Name	Writable
3	DR4CameraModel	int32u

CanonVRD ToneCurve Tags

Index4	Tag Name	Writable
0	ToneCurveColorSpace	int32u
1	ToneCurveShape	int32u
3	ToneCurveInputRange	int32u[2]
5	ToneCurveOutputRange	int32u[2]
7	RGBCurvePoints	int32u[21]
10	ToneCurveX	int32u
11	ToneCurveY	int32u
45	RedCurvePoints	int32u[21]
83	GreenCurvePoints	int32u[21]
121	BlueCurvePoints	int32u[21]

CanonVRD GammaInfo Tags

Index8	Tag Name	Writable
2	GammaContrast	double
3	GammaColorTone	double
4	GammaSaturation	double
5	GammaUnsharpMaskStrength	double
6	GammaUnsharpMaskFineness	double
7	GammaUnsharpMaskThreshold	double
8	GammaSharpnessStrength	double
9	GammaShadow	double
10	GammaHighlight	double
12	GammaBlackPoint	double
13	GammaWhitePoint	double
14	GammaMidPoint	double
15	GammaCurveOutputRange	double[2]

CanonVRD CropInfo Tags

Index4	Tag Name	Writable
0	CropActive	int32s
1	CropRotatedOriginalWidth	int32s
2	CropRotatedOriginalHeight	int32s
3	CropX	int32s
4	CropY	int32s
5	CropWidth	int32s
6	CropHeight	int32s
7	CropRotation	int32s
8	CropAngle	double
10	CropOriginalWidth	int32s
11	CropOriginalHeight	int32s

CanonVRD StampInfo Tags

Index4	Tag Name	Writable
2	StampToolCount	no

CanonVRD DustInfo Tags

Index4	Tag Name	Writable
2	DustDeleteApplied	no

Casio Tags

Tag ID	Tag Name	Writable
0x0001	RecordingMode	int16u
0x0002	Quality	int16u
0x0003	FocusMode	int16u
0x0004	FlashMode	int16u
0x0005	FlashIntensity	int16u
0x0006	ObjectDistance	int32u
0x0007	WhiteBalance	int16u
0x000a	DigitalZoom	int32u
0x000b	Sharpness	int16u
0x000c	Contrast	int16u
0x000d	Saturation	int16u
0x0014	ISO	int16u
0x0015	FirmwareDate	string[18]
0x0016	Enhancement	int16u
0x0017	ColorFilter	int16u
0x0018	AFPoint	int16u
0x0019	FlashIntensity	int16u
0x0e00	PrintIM	PrintIM

Casio Type2 Tags

Tag ID	Tag Name	Writable
0x0002	PreviewImageSize	int16u[2]
0x0003	PreviewImageLength	int32u*
0x0004	PreviewImageStart	int32u*
0x0008	QualityMode	int16u
0x0009	CasioImageSize	int16u
0x000d	FocusMode	int16u
0x0014	ISO	int16u
0x0019	WhiteBalance	int16u
0x001d	FocalLength	rational64u
0x001f	Saturation	int16u
0x0020	Contrast	int16u
0x0021	Sharpness	int16u
0x0e00	PrintIM	PrintIM
0x2000	PreviewImage	undef
0x2001	FirmwareDate	string[18]
0x2011	WhiteBalanceBias	int16u[2]
0x2012	WhiteBalance	int16u
0x2021	AFPointPosition	int16u[4]~
0x2022	ObjectDistance	int32u
0x2034	FlashDistance	int16u
0x2076	SpecialEffectMode	int8u[3]

0x2089	FaceInfo1	Casio FaceInfo1
	FaceInfo2	Casio FaceInfo2
	FaceInfoUnknown?	yes
0x211c	FacesDetected	int8u
0x3000	RecordMode	int16u
0x3001	ReleaseMode	int16u
0x3002	Quality	int16u
0x3003	FocusMode	int16u
0x3006	HometownCity	string
0x3007	BestShotMode	int16u
0x3008	AutoISO	int16u
0x3009	AFMode	int16u
0x3011	Sharpness	undef[2]
0x3012	Contrast	undef[2]
0x3013	Saturation	undef[2]
0x3014	ISO	int16u
0x3015	ColorMode	int16u
0x3016	Enhancement	int16u
0x3017	ColorFilter	int16u
0x301b	ArtMode	int16u
0x301c	SequenceNumber	int16u
0x301d	BracketSequence	int16u[2]
0x3020	ImageStabilization	int16u
0x302a	LightingMode	int16u
0x302b	PortraitRefiner	int16u
0x3030	SpecialEffectLevel	int16u
0x3031	SpecialEffectSetting	int16u
0x3103	DriveMode	int16u
0x310b	ArtModeParameters	int8u[3]
0x4001	CaptureFrameRate	int16u[n]
0x4003	VideoQuality	int16u

Casio FaceInfo1 Tags

Face-detect tags extracted from models such as the EX−H5.

Index1	Tag Name	Writable
0	FacesDetected	int8u
1	FaceDetectFrameSize	int16u[2]
13	Face1Position	int16u[4]
124	Face2Position	int16u[4]
235	Face3Position	int16u[4]
346	Face4Position	int16u[4]
457	Face5Position	int16u[4]
568	Face6Position	int16u[4]
679	Face7Position	int16u[4]
790	Face8Position	int16u[4]
901	Face9Position	int16u[4]
1012	Face10Position	int16u[4]

Casio FaceInfo2 Tags

Face-detect tags extracted from models such as the EX−H20G and EX−ZR100.

Index1	Tag Name	Writable
2	FacesDetected	int8u
4	FaceDetectFrameSize	int16u[2]
8	FaceOrientation	int8u
24	Face1Position	int16u[4]
76	Face2Position	int16u[4]
128	Face3Position	int16u[4]
180	Face4Position	int16u[4]
232	Face5Position	int16u[4]
284	Face6Position	int16u[4]
336	Face7Position	int16u[4]
388	Face8Position	int16u[4]
440	Face9Position	int16u[4]
492	Face10Position	int16u[4]

Casio QVCI Tags

This information is found in the APP1 QVCI segment of JPEG images from the Casio QV−7000SX.

Index1	Tag Name	Writable
44	CasioQuality	no
55	FocalRange?	no
77	DateTimeOriginal	no
98	ModelType	no
114	ManufactureIndex	no
124	ManufactureCode	no

Casio AVI Tags

This information is found in Casio GV−10 AVI videos.

Index1	Tag Name	Writable
0	Software	no

DJI Tags

This table lists tags found in the maker notes of images from some DJI Phantom drones.

Tag ID	Tag Name	Writable
0x0001	Make	string
0x0003	SpeedX	float
0x0004	SpeedY	float
0x0005	SpeedZ	float
0x0006	Pitch	float
0x0007	Yaw	float
0x0008	Roll	float
0x0009	CameraPitch	float
0x000a	CameraYaw	float
0x000b	CameraRoll	float

DJI XMP Tags

XMP tags used by DJI for images from drones.

These tags belong to the ExifTool XMP-drone-dji family 1 group.

Tag Name	Writable
AbsoluteAltitude	real
CalibratedFocalLength	real
CalibratedOpticalCenterX	real
CalibratedOpticalCenterY	real
CamReverse	string
DewarpData	string
DewarpFlag	string
FlightPitchDegree	real
FlightRollDegree	real
FlightXSpeed	real
FlightYSpeed	real
FlightYawDegree	real
FlightZSpeed	real
GPSLatitude	real/
GPSLongitude	real/
GPSLongtitude	real/
GimbalPitchDegree	real
GimbalReverse	string
GimbalRollDegree	real
GimbalYawDegree	real
Latitude	real
Longitude	real
RelativeAltitude	real
RtkFlag	string
RtkStdHgt	real
RtkStdLat	real
RtkStdLon	real
SelfData	string

DJI Info Tags

Tags written by some DJI drones.

Tag ID	Tag Name	Writable
'FlightDegree(Y,P,R)'	FlightDegree	no
'FlightSpeed(X,Y,Z)'	FlightSpeed	no
'GimbalDegree(Y,P,R)'	GimbalDegree	no
'adj_dbg_info'	ADJDebugInfo	no
'ae_dbg_info'	AEDebugInfo	no
'ae_histogram_info'	AEHistogramInfo	no
'ae_liveview_histogram_info'	AELiveViewHistogramInfo	no
'ae_liveview_local_histogram'	AELiveViewLocalHistogram	no
'ae_local_histogram'	AELocalHistogram	no
'af_dbg_info'	AFDebugInfo	no
'awb_dbg_info'	AWBDebugInfo	no
'hiso'	Histogram	no
'hyperlapse_dbg_info'	HyperlapsDebugInfo	no
'sensor_id'	SensorID	no
'xidiri'	Xidiri	no

DJI ThermalParams Tags

Thermal parameters extracted from APP4 of DJI RJPEG files from the ZH20T.

Index1	Tag Name	Writable
36	K1	no
40	K2	no
44	K3	no
48	K4	no
52	KF	no
56	B1	no
60	B2	no
68	ObjectDistance	no
70	RelativeHumidity	no
72	Emissivity	no
74	Reflection	no
76	AmbientTemperature	no
80	D2	no
84	KJ	no
86	DB	no
88	KK	no

DJI ThermalParams2 Tags

Thermal parameters extracted from APP4 of DJI M3T RJPEG files.

Index1	Tag Name	Writable
0	AmbientTemperature	no
4	ObjectDistance	no
8	Emissivity	no
12	RelativeHumidity	no
16	ReflectedTemperature	no
101	IDString	no

DJI ThermalParams3 Tags

Thermal parameters extracted from APP4 of some DJI RJPEG files.

Index1	Tag Name	Writable
4	RelativeHumidity	no
6	ObjectDistance	no
8	Emissivity	no
10	ReflectedTemperature	no

DJI Protobuf Tags

Tags found in protobuf-format DJI djmd and dbgi timed metadata. The known tags listed below are extracted by default, but unknown djmd tags may be extracted as well by setting the Unknown option to 1, or 2 to also extract unknown dbgi debug tags. Please report any discoveries so they may be added to ExifTool. Tag ID's are composed of the corresponding .proto file name combined with the hierarchical protobuf field numbers.

Note that with the protobuf format, numerical tags missing from the output for a given protocol should be considered to have the default value of 0.

Tag ID	Tag Name	Writable
'Protocol'	Protocol	no
'dvtm_AVATA2_1-1-5'	SerialNumber	no
'dvtm_AVATA2_1-1-10'	Model	no
'dvtm_AVATA2_2-2-3-1'	SerialNumber2	no
'dvtm_AVATA2_2-3'	FrameInfo	DJI FrameInfo
'dvtm_AVATA2_3-1-1'	FrameNumber	no
'dvtm_AVATA2_3-1-2'	TimeStamp	no
'dvtm_AVATA2_3-2-2-1'	ISO	no
'dvtm_AVATA2_3-2-4-1'	ShutterSpeed	no
'dvtm_AVATA2_3-2-6-1'	ColorTemperature	no
'dvtm_AVATA2_3-2-10-1'	FNumber	no
'dvtm_AVATA2_3-4-3'	DroneInfo	DJI DroneInfo
'dvtm_AVATA2_3-4-4-1'	GPSInfo	DJI GPSInfo
'dvtm_AVATA2_3-4-4-2'	AbsoluteAltitude	no
'dvtm_AVATA2_3-4-5-1'	RelativeAltitude	no
'dvtm_Air3_1-1-5'	SerialNumber	no
'dvtm_Air3_2-3'	FrameInfo	DJI FrameInfo
'dvtm_Air3_3-1-1'	FrameNumber	no
'dvtm_Air3_3-1-2'	TimeStamp	no
'dvtm_Air3_3-2-7-1'	ISO	no
'dvtm_Air3_3-2-10-1'	ShutterSpeed	no
'dvtm_Air3_3-2-11-1'	FNumber	no
'dvtm_Air3_3-2-32-1'	ColorTemperature	no
'dvtm_Air3_3-3-3'	DroneInfo	DJI DroneInfo
'dvtm_Air3_3-3-4-1'	GPSInfo	DJI GPSInfo
'dvtm_Air3_3-3-4-2'	AbsoluteAltitude	no
'dvtm_Air3_3-3-5-1'	RelativeAltitude	no
'dvtm_Air3_3-4-3'	GimbalInfo	DJI GimbalInfo
'dvtm_Air3s_1-1-5'	SerialNumber	no
'dvtm_Air3s_2-3'	FrameInfo	DJI FrameInfo
'dvtm_Air3s_3-1-1'	FrameNumber	no
'dvtm_Air3s_3-1-2'	TimeStamp	no
'dvtm_Air3s_3-2-7-1'	ISO	no
'dvtm_Air3s_3-2-10-1'	ShutterSpeed	no
'dvtm_Air3s_3-2-11-1'	FNumber	no
'dvtm_Air3s_3-2-32-1'	ColorTemperature	no
'dvtm_Air3s_3-3-3'	DroneInfo	DJI DroneInfo
'dvtm_Air3s_3-3-4-1'	GPSInfo	DJI GPSInfo
'dvtm_Air3s_3-3-4-2'	AbsoluteAltitude	no
'dvtm_Air3s_3-3-5-1'	RelativeAltitude	no
'dvtm_Air3s_3-4-3'	GimbalInfo	DJI GimbalInfo
'dvtm_Lito_X1_1-1-5'	SerialNumber	no
'dvtm_Lito_X1_1-1-10'	Model	no
'dvtm_Lito_X1_2-3'	FrameInfo	DJI FrameInfo
'dvtm_Lito_X1_3-1-1'	FrameNumber	no
'dvtm_Lito_X1_3-1-2'	TimeStamp	no
'dvtm_Lito_X1_3-2-7-1'	ISO	no
'dvtm_Lito_X1_3-2-10-1'	ShutterSpeed	no
'dvtm_Lito_X1_3-2-11-1'	FNumber	no
'dvtm_Lito_X1_3-2-32-1'	ColorTemperature	no
'dvtm_Lito_X1_3-3-3'	DroneInfo	DJI DroneInfo
'dvtm_Lito_X1_3-3-4-1'	GPSInfo	DJI GPSInfo

```
'dvtm_Lito_X1_3-3-4-2'    AbsoluteAltitude    no
'dvtm_Lito_X1_3-3-5-1'    RelativeAltitude    no
'dvtm_Lito_X1_3-4-3'      GimbalInfo          DJI GimbalInfo
'dvtm_Mavic4_1-1-5'       SerialNumber        no
'dvtm_Mavic4_1-1-10'      Model               no
'dvtm_Mavic4_2-3'         FrameInfo           DJI FrameInfo
'dvtm_Mavic4_3-1-1'       FrameNumber         no
'dvtm_Mavic4_3-1-2'       TimeStamp           no
'dvtm_Mavic4_3-2-9-1'     ISO                 no
'dvtm_Mavic4_3-2-10-1'    ShutterSpeed        no
'dvtm_Mavic4_3-2-24-1'    ColorTemperature    no
'dvtm_Mavic4_3-2-37-1'    Temperature         no
'dvtm_Mavic4_3-3-3'       DroneInfo           DJI DroneInfo
'dvtm_Mavic4_3-3-4-1'     GPSInfo             DJI GPSInfo
'dvtm_Mavic4_3-3-4-2'     AbsoluteAltitude    no
'dvtm_Mavic4_3-3-5-1'     RelativeAltitude    no
'dvtm_Mini4_Pro_1-1-5'    SerialNumber        no
'dvtm_Mini4_Pro_1-1-10'   Model               no
'dvtm_Mini4_Pro_2-3'      FrameInfo           DJI FrameInfo
'dvtm_Mini4_Pro_3-1-1'    FrameNumber         no
'dvtm_Mini4_Pro_3-2-7-1'  ISO                 no
'dvtm_Mini4_Pro_3-3-3'    DroneInfo           DJI DroneInfo
'dvtm_Mini4_Pro_3-3-4-1'  GPSInfo             DJI GPSInfo
'dvtm_Mini4_Pro_3-3-4-2'  AbsoluteAltitude    no
'dvtm_Mini4_Pro_3-3-5-1'  RelativeAltitude    no
'dvtm_Mini4_Pro_3-4-3'    GimbalInfo          DJI GimbalInfo
'dvtm_Mini5Pro_1-1-5'     SerialNumber        no
'dvtm_Mini5Pro_1-1-10'    Model               no
'dvtm_Mini5Pro_3-1-1'     FrameNumber         no
'dvtm_Mini5Pro_3-2-37-1'  Temperature         no
'dvtm_Mini5Pro_3-3-4-1'   GPSInfo             DJI GPSInfo
'dvtm_Mini5Pro_3-3-4-2'   AbsoluteAltitude    no
'dvtm_Mini4_Pro_3-2-10-1' ShutterSpeed        no
'dvtm_Mini4_Pro_3-2-11-1' FNumber             no
'dvtm_Mini4_Pro_3-2-32-1' ColorTemperature    no
'dvtm_Mini4_Pro_3-2-37-1' Temperature         no
'dvtm_NEO2_1-1-5'         SerialNumber        no
'dvtm_NEO2_1-1-10'        Model               no
'dvtm_NEO2_2-2-3-1'       SerialNumber2       no
'dvtm_NEO2_2-3'           FrameInfo           DJI FrameInfo
'dvtm_NEO2_3-1-1'         FrameNumber         no
'dvtm_NEO2_3-1-2'         TimeStamp           no
'dvtm_NEO2_3-2-2-1'       ISO                 no
'dvtm_NEO2_3-2-4-1'       ShutterSpeed        no
'dvtm_NEO2_3-2-6-1'       ColorTemperature    no
'dvtm_NEO2_3-2-10-1'      FNumber             no
'dvtm_NEO2_3-4-3'         DroneInfo           DJI DroneInfo
'dvtm_NEO2_3-4-4-1'       GPSInfo             DJI GPSInfo
'dvtm_NEO2_3-4-4-2'       AbsoluteAltitude    no
'dvtm_PP-101_1-1-5'       SerialNumber        no
'dvtm_PP-101_1-1-10'      Model               no
'dvtm_PP-101_2-3'         FrameInfo           DJI FrameInfo
'dvtm_PP-101_3-1-1'       FrameNumber         no
'dvtm_PP-101_3-1-2'       TimeStamp           no
```

```
'dvtm_PP-101_3-2-9-1'     ISO                 no
'dvtm_PP-101_3-2-10-1'    ShutterSpeed        no
'dvtm_PP-101_3-2-24-1'    ColorTemperature    no
'dvtm_ac203_1-1-5'        SerialNumber        no
'dvtm_ac203_1-1-6'        FirmwareVersion     no
'dvtm_ac203_1-1-10'       Model               no
'dvtm_ac203_2-3'          FrameInfo           DJI FrameInfo
'dvtm_ac203_3-1-1'        FrameNumber         no
'dvtm_ac203_3-2-3-1'      ISO                 no
'dvtm_ac203_3-2-4-1'      ShutterSpeed        no
'dvtm_ac203_3-2-5-1'      Zoom                no
'dvtm_ac203_3-2-6-1'      ColorTemperature    no
'dvtm_ac203_3-2-9-1'      Quaternion1         no
'dvtm_ac203_3-2-9-2'      Quaternion2         no
'dvtm_ac203_3-2-9-3'      Quaternion3         no
'dvtm_ac203_3-2-9-4'      Quaternion4         no
'dvtm_ac203_3-2-10-2'     AccelerometerX      no
'dvtm_ac203_3-2-10-3'     AccelerometerY      no
'dvtm_ac203_3-2-10-4'     AccelerometerZ      no
'dvtm_ac203_3-2-11-1'     TextureSetting      no
'dvtm_ac203_3-2-12-1'     NoiseReduction      no
'dvtm_ac203_3-4-2-1'      GPSInfo             DJI GPSInfo
'dvtm_ac203_3-4-2-2'      GPSAltitude         no
'dvtm_ac203_3-4-2-6-1'    GPSDateTime         no
'dvtm_ac204_1-1-5'        SerialNumber        no
'dvtm_ac204_1-1-6'        FirmwareVersion     no
'dvtm_ac204_1-1-10'       Model               no
'dvtm_ac204_2-3'          FrameInfo           DJI FrameInfo
'dvtm_ac204_3-1-1'        FrameNumber         no
'dvtm_ac204_3-2-3-1'      ISO                 no
'dvtm_ac204_3-2-4-1'      ShutterSpeed        no
'dvtm_ac204_3-2-5-1'      Zoom                no
'dvtm_ac204_3-2-6-1'      ColorTemperature    no
'dvtm_ac204_3-2-9-1'      Quaternion1         no
'dvtm_ac204_3-2-9-2'      Quaternion2         no
'dvtm_ac204_3-2-9-3'      Quaternion3         no
'dvtm_ac204_3-2-9-4'      Quaternion4         no
'dvtm_ac204_3-2-10-2'     AccelerometerX      no
'dvtm_ac204_3-2-10-3'     AccelerometerY      no
'dvtm_ac204_3-2-10-4'     AccelerometerZ      no
'dvtm_ac204_3-2-11-1'     TextureSetting      no
'dvtm_ac204_3-2-12-1'     NoiseReduction      no
'dvtm_ac204_3-4-2-1'      GPSInfo             DJI GPSInfo
'dvtm_ac204_3-4-2-2'      GPSAltitude         no
'dvtm_ac204_3-4-2-6-1'    GPSDateTime         no
'dvtm_ac206_1-1-5'        SerialNumber        no
'dvtm_ac206_1-1-6'        FirmwareVersion     no
'dvtm_ac206_1-1-10'       Model               no
'dvtm_ac206_1-9-1'        EIS                 no
'dvtm_ac206_1-15-1'       FilmToneColorFilter no
'dvtm_ac206_2-3'          FrameInfo           DJI FrameInfo
'dvtm_ac206_2-5-1'        FOV                 no
'dvtm_ac206_3-1-1'        FrameNumber         no
'dvtm_ac206_3-2-3-1'      ISO                 no
```

```
'dvtm_ac206_3-2-4-1'      ShutterSpeed        no
'dvtm_ac206_3-2-5-1'      Zoom                no
'dvtm_ac206_3-2-6-1'      ColorTemperature    no
'dvtm_ac206_3-2-9-1'      Quaternion1         no
'dvtm_ac206_3-2-9-2'      Quaternion2         no
'dvtm_ac206_3-2-9-3'      Quaternion3         no
'dvtm_ac206_3-2-9-4'      Quaternion4         no
'dvtm_ac206_3-2-10-2'     AccelerometerX      no
'dvtm_ac206_3-2-10-3'     AccelerometerY      no
'dvtm_ac206_3-2-10-4'     AccelerometerZ      no
'dvtm_ac206_3-2-11-1'     TextureSetting      no
'dvtm_ac206_3-2-12-1'     NoiseReduction      no
'dvtm_ac206_3-4-2-1'      GPSInfo             DJI GPSInfo
'dvtm_ac206_3-4-2-2'      GPSAltitude         no
'dvtm_ac206_3-4-2-6-1'    GPSDateTime         no
'dvtm_dji_neo_1-1-5'      SerialNumber        no
'dvtm_dji_neo_1-1-10'     Model               no
'dvtm_dji_neo_2-2-3-1'    SerialNumber2       no
'dvtm_dji_neo_2-3'        FrameInfo           DJI FrameInfo
'dvtm_dji_neo_3-1-1'      FrameNumber         no
'dvtm_dji_neo_3-1-2'      TimeStamp           no
'dvtm_dji_neo_3-2-2-1'    ISO                 no
'dvtm_dji_neo_3-2-4-1'    ShutterSpeed        no
'dvtm_dji_neo_3-2-6-1'    ColorTemperature    no
'dvtm_dji_neo_3-2-10-1'   FNumber             no
'dvtm_dji_neo_3-4-3'      DroneInfo           DJI DroneInfo
'dvtm_dji_neo_3-4-4-1'    GPSInfo             DJI GPSInfo
'dvtm_dji_neo_3-4-4-2'    AbsoluteAltitude    no
'dvtm_oq101_1-1-5'        SerialNumber        no
'dvtm_oq101_1-1-10'       Model               no
'dvtm_oq101_1-14-1'       FNumber             no
'dvtm_oq101_3-1-1'        FrameNumber         no
'dvtm_oq101_3-1-2'        TimeStamp           no
'dvtm_oq101_3-2-3-1'      ISO                 no
'dvtm_oq101_3-2-4-1'      ShutterSpeed        no
'dvtm_oq101_3-2-6-1'      ColorTemperature    no
'dvtm_oq101_3-2-10-2'     AccelerometerX      no
'dvtm_oq101_3-2-10-3'     AccelerometerY      no
'dvtm_oq101_3-2-10-4'     AccelerometerZ      no
'dvtm_oq101_3-4-2-1'      GPSInfo             DJI GPSInfo
'dvtm_oq101_3-4-2-2'      AbsoluteAltitude    no
'dvtm_oq101_3-4-2-6-1'    GPSDateTime         no
'dvtm_pm320_1-1-5'        SerialNumber        no
'dvtm_pm320_1-1-10'       Model               no
'dvtm_pm320_2-2'          FrameInfo           DJI FrameInfo
'dvtm_pm320_3-1-1'        FrameNumber         no
'dvtm_pm320_3-2-2-1'      ISO                 no
'dvtm_pm320_3-2-3-1'      ShutterSpeed        no
'dvtm_pm320_3-2-4-1'      FNumber             no
'dvtm_pm320_3-2-6-1'      DigitalZoom         no
'dvtm_pm320_3-3-3'        DroneInfo           DJI DroneInfo
'dvtm_pm320_3-3-4-1'      GPSInfo             DJI GPSInfo
'dvtm_pm320_3-3-4-2'      AbsoluteAltitude    no
'dvtm_pm320_3-3-5-1'      RelativeAltitude    no
```

```
'dvtm_pm320_3-4-3'        GimbalInfo          DJI GimbalInfo
'dvtm_wa345e_1-1-5'       SerialNumber        no
'dvtm_wa345e_1-1-10'      Model               no
'dvtm_wa345e_2-2'         FrameInfo           DJI FrameInfo
'dvtm_wa345e_3-1-1'       FrameNumber         no
'dvtm_wa345e_3-1-2'       TimeStamp           no
'dvtm_wa345e_3-3-3'       DroneInfo           DJI DroneInfo
'dvtm_wa345e_3-3-4-1'     GPSInfo             DJI GPSInfo
'dvtm_wa345e_3-3-4-2'     AbsoluteAltitude    no
'dvtm_wa345e_3-3-4-6-1'   GPSDateTime         no
'dvtm_wa345e_3-3-5-1'     RelativeAltitude    no
'dvtm_wa345e_3-4-3'       GimbalInfo          DJI GimbalInfo
'dvtm_wm260_1-1-5'        SerialNumber        no
'dvtm_wm260_1-1-10'       Model               no
'dvtm_wm260_2-3'          FrameInfo           DJI FrameInfo
'dvtm_wm260_3-1-1'        FrameNumber         no
'dvtm_wm260_3-1-2'        TimeStamp           no
'dvtm_wm260_3-2-9-1'      ISO                 no
'dvtm_wm260_3-2-10-1'     ShutterSpeed        no
'dvtm_wm260_3-2-11-1'     FNumber             no
'dvtm_wm260_3-3-3'        DroneInfo           DJI DroneInfo
'dvtm_wm260_3-3-4-1'      GPSInfo             DJI GPSInfo
'dvtm_wm260_3-3-4-2'      AbsoluteAltitude    no
'dvtm_wm260_3-3-4-6-1'    GPSDateTime         no
'dvtm_wm260_3-3-5-1'      RelativeAltitude    no
'dvtm_wm260_3-4-3'        GimbalInfo          DJI GimbalInfo
'dvtm_wm261_1-1-5'        SerialNumber        no
'dvtm_wm261_1-1-10'       Model               no
'dvtm_wm261_2-3'          FrameInfo           DJI FrameInfo
'dvtm_wm261_3-1-1'        FrameNumber         no
'dvtm_wm261_3-1-2'        TimeStamp           no
'dvtm_wm261_3-2-9-1'      ISO                 no
'dvtm_wm261_3-2-10-1'     ShutterSpeed        no
'dvtm_wm261_3-2-11-1'     FNumber             no
'dvtm_wm261_3-3-3'        DroneInfo           DJI DroneInfo
'dvtm_wm261_3-3-4-1'      GPSInfo             DJI GPSInfo
'dvtm_wm261_3-3-4-2'      AbsoluteAltitude    no
'dvtm_wm261_3-3-4-6-1'    GPSDateTime         no
'dvtm_wm261_3-3-5-1'      RelativeAltitude    no
'dvtm_wm261_3-4-3'        GimbalInfo          DJI GimbalInfo
'dvtm_wm265e_1-1-5'       SerialNumber        no
'dvtm_wm265e_1-1-10'      Model               no
'dvtm_wm265e_2-2'         FrameInfo           DJI FrameInfo
'dvtm_wm265e_3-1-1'       FrameNumber         no
'dvtm_wm265e_3-2-2-1'     ISO                 no
'dvtm_wm265e_3-2-3-1'     ShutterSpeed        no
'dvtm_wm265e_3-2-6-1'     DigitalZoom         no
'dvtm_wm265e_3-3-3'       DroneInfo           DJI DroneInfo
'dvtm_wm265e_3-3-4-1'     GPSInfo             DJI GPSInfo
'dvtm_wm265e_3-3-4-2'     AbsoluteAltitude    no
'dvtm_wm265e_3-3-5-1'     RelativeAltitude    no
'dvtm_wm265e_3-4-3'       GimbalInfo          DJI GimbalInfo
```

DJI FrameInfo Tags

Field #	Tag Name	Writable
1	FrameWidth	no
2	FrameHeight	no
3	FrameRate	no

DJI DroneInfo Tags

Field #	Tag Name	Writable
1	DroneRoll	no
2	DronePitch	no
3	DroneYaw	no

DJI GPSInfo Tags

Field #	Tag Name	Writable
1	CoordinateUnits	no
2	GPSLatitude	no
3	GPSLongitude	no

DJI GimbalInfo Tags

Field #	Tag Name	Writable
1	GimbalPitch	no
2	GimbalRoll	no
3	GimbalYaw	no

DJI Glamour Tags

Glamour settings used by some DJI models.

Tag ID	Tag Name	Writable
'acne_spot_removal'	AcneSpotRemoval	no
'beauty_enable'	BeautyEnable	no
'blush'	Blush	no
'dark_circle'	DarkCircle	no
'eye_enlarge'	EyeEnlarge	no
'eyebrows'	Eyebrows	no
'face_slimming'	FaceSlimming	no
'head_shrinking'	HeadShrinking	no
'leg_longer'	LegLonger	no
'lipstick'	Lipstick	no
'mouth_beautify'	MouthModify	no
'nose_slimming'	NoseSlimming	no
'smoother'	Smoother	no
'teeth_whitening'	TeethWhitening	no
'whitening'	Whitening	no

FLIR Tags

Information extracted from the maker notes of JPEG images from thermal imaging cameras by FLIR Systems Inc.

Tag ID	Tag Name	Writable
0x0001	ImageTemperatureMax	rational64u
0x0002	ImageTemperatureMin	rational64u
0x0003	Emissivity	rational64u
0x0004	UnknownTemperature?	rational64u
0x0005	CameraTemperatureRangeMax?	rational64u
0x0006	CameraTemperatureRangeMin?	rational64u

FLIR FFF Tags

Information extracted from FLIR FFF images and the APP1 FLIR segment of JPEG images. These tags may also be extracted from the first frame of an FLIR SEQ file, or all frames if the ExtractEmbedded option is used. Setting ExtractEmbedded to 2 also the raw thermal data from all frames.

Tag ID	Tag Name	Writable
'_header'	FFFHeader	FLIR Header
0x0001	RawData	FLIR RawData
0x0005	GainDeadData	FLIR GainDeadData
0x0006	CoarseData	FLIR CoarseData
0x000e	EmbeddedImage	FLIR EmbeddedImage
0x0020	CameraInfo	FLIR CameraInfo
0x0021	MeasurementInfo	FLIR MeasInfo
0x0022	PaletteInfo	FLIR PaletteInfo
0x0023	TextInfo	FLIR TextInfo
0x0024	EmbeddedAudioFile	no
0x0028	PaintData	FLIR PaintData
0x002a	PiP	FLIR PiP
0x002b	GPSInfo	FLIR GPSInfo
0x002c	MeterLink	FLIR MeterLink
0x002e	ParameterInfo	FLIR ParamInfo

FLIR Header Tags

Tags extracted from the FLIR FFF/AFF header.

Index1	Tag Name	Writable
4	CreatorSoftware	no

FLIR RawData Tags

The thermal image data may be stored either as raw data, or in PNG format. If stored as raw data, ExifTool adds a TIFF header to allow the data to be viewed as a TIFF image. If stored in PNG format, the PNG image is extracted as-is. Note that most FLIR cameras using the PNG format seem to write the 16−bit raw image data in the wrong byte order.

Index2	Tag Name	Writable
1	RawThermalImageWidth	no
2	RawThermalImageHeight	no
16	RawThermalImageType	no
16.1	RawThermalImage	no

FLIR GainDeadData Tags

Information found in FFF-format .GAN calibration image files.

Index2	Tag Name	Writable
1	GainDeadMapImageWidth	no
2	GainDeadMapImageHeight	no
16	GainDeadMapImageType	no
16.1	GainDeadMapImage	no

FLIR CoarseData Tags

Information found in FFF-format .CRS correction image files.

Index2	Tag Name	Writable
1	CoarseMapImageWidth	no
2	CoarseMapImageHeight	no
16	CoarseMapImageType	no
16.1	CoarseMapImage	no

FLIR EmbeddedImage Tags

Index2	Tag Name	Writable
1	EmbeddedImageWidth	no
2	EmbeddedImageHeight	no
16	EmbeddedImageType	no
16.1	EmbeddedImage	no

FLIR CameraInfo Tags

FLIR camera information. The Planck tags are variables used in the temperature calculation. See <https://exiftool.org/forum/index.php?topic=4898.msg23972#msg23972> for details.

Index1	Tag Name	Writable
32	Emissivity	no
36	ObjectDistance	no
40	ReflectedApparentTemperature	no
44	AtmosphericTemperature	no
48	IRWindowTemperature	no
52	IRWindowTransmission	no
60	RelativeHumidity	no
88	PlanckR1	no
92	PlanckB	no
96	PlanckF	no
112	AtmosphericTransAlpha1	no
116	AtmosphericTransAlpha2	no
120	AtmosphericTransBeta1	no
124	AtmosphericTransBeta2	no
128	AtmosphericTransX	no
144	CameraTemperatureRangeMax	no
148	CameraTemperatureRangeMin	no
152	CameraTemperatureMaxClip	no
156	CameraTemperatureMinClip	no
160	CameraTemperatureMaxWarn	no
164	CameraTemperatureMinWarn	no
168	CameraTemperatureMaxSaturated	no
172	CameraTemperatureMinSaturated	no
212	CameraModel	no
244	CameraPartNumber	no

260	CameraSerialNumber	no
276	CameraSoftware	no
368	LensModel	no
400	LensPartNumber	no
416	LensSerialNumber	no
436	FieldOfView	no
492	FilterModel	no
508	FilterPartNumber	no
540	FilterSerialNumber	no
776	PlanckO	no
780	PlanckR2	no
784	RawValueRangeMin	no
786	RawValueRangeMax	no
824	RawValueMedian	no
828	RawValueRange	no
900	DateTimeOriginal	no
912	FocusStepCount	no
1116	FocusDistance	no
1124	FrameRate	no

FLIR MeasInfo Tags

Tags listed below are only for the first measurement tool, however multiple measurements may be added, and information is extracted for all of them. Tags for subsequent measurements are generated as required with the prefixes ‘‘Meas2’’, ‘‘Meas3’’, etc.

Tag Name	Writable
Meas1Label	no
Meas1Params	no
Meas1Type	no

FLIR PaletteInfo Tags

Index1	Tag Name	Writable
0	PaletteColors	no
6	AboveColor	no
9	BelowColor	no
12	OverflowColor	no
15	UnderflowColor	no
18	Isotherm1Color	no
21	Isotherm2Color	no
26	PaletteMethod	no
27	PaletteStretch	no
48	PaletteFileName	no
80	PaletteName	no
112	Palette	no

FLIR TextInfo Tags

Tag Name	Writable
Label0	no
Label1	no
Label2	no
Label3	no
Value0	no
Value1	no
Value2	no
Value3	no

FLIR PaintData Tags

Information generated by FLIR Tools ‘‘Paint colors’’ tool.

Index2	Tag Name	Writable
5	PaintImageWidth	no
6	PaintImageHeight	no
20	PaintImageType	no
20.1	PaintImage	no

FLIR PiP Tags

FLIR Picture in Picture tags.

Index2	Tag Name	Writable
0	Real2IR	no
2	OffsetX	no
3	OffsetY	no
4	PiPX1	no
5	PiPX2	no
6	PiPY1	no
7	PiPY2	no

FLIR GPSInfo Tags

Index1	Tag Name	Writable
0	GPSValid	no
4	GPSVersionID	no
8	GPSLatitudeRef	no
10	GPSLongitudeRef	no
16	GPSLatitude	no
24	GPSLongitude	no
32	GPSAltitude	no
64	GPSDOP	no
68	GPSSpeedRef	no
70	GPSTrackRef	no
72	GPSImgDirectionRef	no
76	GPSSpeed	no
80	GPSTrack	no
84	GPSImgDirection	no
88	GPSMapDatum	no

FLIR MeterLink Tags

Tags containing Meterlink humidity meter information.

Index1	Tag Name	Writable
26	Reading1Units	no
28	Reading1Description	no
32	Reading1Device	no
96	Reading1Value	no
126	Reading2Units	no
128	Reading2Description	no
132	Reading2Device	no
196	Reading2Value	no
226	Reading3Units	no
228	Reading3Description	no
232	Reading3Device	no
296	Reading3Value	no
326	Reading4Units	no
328	Reading4Description	no
332	Reading4Device	no
396	Reading4Value	no

FLIR ParamInfo Tags

Tag Name	Writable
DateTimeGenerated	no
Param0	no
Param1	no
Param2	no
Param3	no

FLIR UserData Tags

Tags written by some FLIR cameras in a top-level (!) ‘‘udta’’ atom of MP4 videos.

Tag ID	Tag Name	Writable
'uuid'	FLIR_Parts	FLIR Parts
	FLIR_Serial	FLIR SerialNums
	FLIR_Params	FLIR Params
	FLIR_UnknownUUID	FLIR UnknownUUID
	FLIR_GPS	FLIR GPS_UUID
	FLIR_MoreInfo	FLIR MoreInfo
	SoftwareComponents?	no
	FLIR_Unknown?	no
	Units	no+
	ThumbnailImage	no

FLIR Parts Tags

Tags extracted from the ‘‘uuid’’ box with ID 43c3993b0f94424b82056b66513f485d in FLIR MP4 videos.

Index1	Tag Name	Writable
4	BAHPVer	no
	BALPVer	no
	Battery	no
	BAVPVer	no
	CamCore	no
	DetectorBoard	no
	Detector	no
	GIDCVer	no
	GIDPVer	no
	GIPC_CPLD	no
	GIPCVer	no
	GIXIVer	no
	MainBoard	no
	Optics	no
	PartNumber	no

FLIR SerialNums Tags

Tags extracted from the ‘‘uuid’’ box with ID 57f5b93e51e448afa0d9c3ef1b37f712 in FLIR MP4 videos.

Index1	Tag Name	Writable
12	UnknownSerial1?	no
45	UnknownSerial2?	no
78	UnknownSerial3?	no
111	UnknownSerial4?	no
123	UnknownNumber?	no
126	CameraSerialNumber	no

FLIR Params Tags

Tags extracted from the ‘‘uuid’’ box with ID 41e5dcf9e80a41ceadfe7f0c58082c19 in FLIR MP4 videos.

Index4	Tag Name	Writable
1	ReflectedApparentTemperature	no
2	AtmosphericTemperature	no
3	Emissivity	no
4	ObjectDistance	no
5	RelativeHumidity	no
6	EstimatedAtmosphericTrans	no
7	IRWindowTemperature	no
8	IRWindowTransmission	no

FLIR UnknownUUID Tags

Tags extracted from the ‘‘uuid’’ box with ID 574520502cbb44adae5415e9b839d903 in FLIR MP4 videos.

Index4	Tag Name	Writable
[no tags known]		

FLIR GPS_UUID Tags

Tags extracted from the ‘‘uuid’’ box with ID 7f2e21008b464918afb1de709a74f6f5 in FLIR MP4 videos.

Index4	Tag Name	Writable
1	GPSLatitude	no
2	GPSLongitude	no
3	GPSAltitude	no

FLIR MoreInfo Tags

Tags extracted from the ‘‘uuid’’ box with ID 2b452fdc74354094baee22a6b23a7cf8 in FLIR MP4 videos.

Index1	Tag Name	Writable
5	LensModel	no
11	UnknownTemperature1?	no
15	UnknownTemperature2?	no

FLIR AFF Tags

Tags extracted from FLIR ‘‘AFF’’ SEQ images.

Tag ID	Tag Name	Writable
'_header'	AFFHeader	FLIR Header
0x0001	AFF1	FLIR AFF1
0x0005	AFF5	FLIR AFF5

FLIR AFF1 Tags

Index2	Tag Name	Writable
1	SensorWidth	no
2	SensorHeight	no

FLIR AFF5 Tags

Index2	Tag Name	Writable
19	SensorWidth	no
20	SensorHeight	no

FLIR FPF Tags

Tags extracted from FLIR Public image Format (FPF) files.

Index1	Tag Name	Writable
32	FPFVersion	no
36	ImageDataOffset	no
40	ImageType	no
42	ImagePixelFormat	no
44	ImageWidth	no
46	ImageHeight	no
48	ExternalTriggerCount	no
52	SequenceFrameNumber	no
120	CameraModel	no
152	CameraPartNumber	no
184	CameraSerialNumber	no
216	CameraTemperatureRangeMin	no
220	CameraTemperatureRangeMax	no
224	LensModel	no
256	LensPartNumber	no
288	LensSerialNumber	no

320	FilterModel	no
336	FilterPartNumber	no
384	FilterSerialNumber	no
480	Emissivity	no
484	ObjectDistance	no
488	ReflectedApparentTemperature	no
492	AtmosphericTemperature	no
496	RelativeHumidity	no
500	ComputedAtmosphericTrans	no
504	EstimatedAtmosphericTrans	no
508	ReferenceTemperature	no
512	IRWindowTemperature	no
516	IRWindowTransmission	no
584	DateTimeOriginal	no
676	CameraScaleMin	no
680	CameraScaleMax	no
684	CalculatedScaleMin	no
688	CalculatedScaleMax	no
692	ActualScaleMin	no
696	ActualScaleMax	no

FujiFilm Tags

Tag ID	Tag Name	Writable
0x0000	Version	undef
0x0010	InternalSerialNumber	string
0x1000	Quality	string
0x1001	Sharpness	int16u
0x1002	WhiteBalance	int16u
0x1003	Saturation	int16u
0x1004	Contrast	int16u
0x1005	ColorTemperature	int16u
0x1006	Contrast	int16u
0x100a	WhiteBalanceFineTune	int32s[2]
0x100b	NoiseReduction	int16u
0x100e	NoiseReduction	int16u
0x100f	Clarity	int32s
0x1010	FujiFlashMode	int16u
0x1011	FlashExposureComp	rational64s
0x1020	Macro	int16u
0x1021	FocusMode	int16u
0x1022	AFMode	int16u
0x1023	FocusPixel	int16u[2]
0x102b	PrioritySettings	FujiFilm PrioritySettings
0x102d	FocusSettings	FujiFilm FocusSettings
0x102e	AFCSettings	FujiFilm AFCSettings
0x1030	SlowSync	int16u
0x1031	PictureMode	int16u
0x1032	ExposureCount	int16u
0x1033	EXRAuto	int16u
0x1034	EXRMode	int16u
0x1037	MultipleExposure	int16u
0x1040	ShadowTone	int32s
0x1041	HighlightTone	int32s
0x1044	DigitalZoom	int32u

0x1045	LensModulationOptimizer	int32u
0x1047	GrainEffectRoughness	int32s
0x1048	ColorChromeEffect	int32s
0x1049	BWAdjustment	int8s
0x104b	BWMagentaGreen	int8s
0x104c	GrainEffectSize	int16u
0x104d	CropMode	int16u
0x104e	ColorChromeFXBlue	int32s
0x1050	ShutterType	int16u
0x1051	CropFlag	int8u
0x1052	CropTopLeft	int32u
0x1053	CropSize	int32u
0x1100	AutoBracketing	int16u
0x1101	SequenceNumber	int16u
0x1102	WhiteBalanceBracketing	int16u
0x1103	DriveSettings	FujiFilm DriveSettings
0x1105	PixelShiftShots	int16u
0x1106	PixelShiftOffset	rational64s[2]
0x1150	CompositeImageMode	int32u
0x1151	CompositeImageCount1	int16u
0x1152	CompositeImageCount2	int16u
0x1153	PanoramaAngle	int16u
0x1154	PanoramaDirection	int16u
0x1201	AdvancedFilter	int32u
0x1210	ColorMode	int16u
0x1300	BlurWarning	int16u
0x1301	FocusWarning	int16u
0x1302	ExposureWarning	int16u
0x1304	GEImageSize	string
0x1400	DynamicRange	int16u
0x1401	FilmMode	int16u
0x1402	DynamicRangeSetting	int16u
0x1403	DevelopmentDynamicRange	int16u
0x1404	MinFocalLength	rational64s
0x1405	MaxFocalLength	rational64s
0x1406	MaxApertureAtMinFocal	rational64s
0x1407	MaxApertureAtMaxFocal	rational64s
0x140b	AutoDynamicRange	int16u
0x1422	ImageStabilization	int16u[3]
0x1425	SceneRecognition	int16u
0x1431	Rating	int32u
0x1436	ImageGeneration	int16u
0x1438	ImageCount	int16u
0x1443	DRangePriority	int16u
0x1444	DRangePriorityAuto	int16u
0x1445	DRangePriorityFixed	int16u
0x1446	FlickerReduction	int32u
0x1447	FujiModel	string
0x1448	FujiModel2	string
0x144a	WBRed	int16u
0x144b	WBGreen	int16u
0x144c	WBBlue	int16u
0x144d	RollAngle	rational64s
0x3803	VideoRecordingMode	int32u

0x3804	PeripheralLighting	int16u
0x3806	VideoCompression	int16u
0x3820	FrameRate	int16u
0x3821	FrameWidth	int16u
0x3822	FrameHeight	int16u
0x3824	FullHDHighSpeedRec	int32u
0x4005	FaceElementSelected	int16u[4]
0x4100	FacesDetected	int16u
0x4103	FacePositions	int16u[n]
0x4200	NumFaceElements	int16u
0x4201	FaceElementTypes	int8u[n]
0x4203	FaceElementPositions	int16u[n]
0x4282	FaceRecInfo	FujiFilm FaceRecInfo
0x8000	FileSource	string
0x8002	OrderNumber	int32u
0x8003	FrameNumber	int16u
0xb211	Parallax	rational64s

FujiFilm PrioritySettings Tags

Index2	Tag Name	Writable
0.1	AF-SPriority	int16u & 0x0f
0.2	AF-CPriority	int16u & 0xf0

FujiFilm FocusSettings Tags

Index4	Tag Name	Writable
0.1	FocusMode2	int32u & 0x0f
0.2	PreAF	int32u & 0xf0
0.3	AFAreaMode	int32u & 0xf00
0.4	AFAreaPointSize	int32u & 0xf000
0.5	AFAreaZoneSize	int32u & 0xff0000

FujiFilm AFCSettings Tags

Index4	Tag Name	Writable
0	AF-CSetting	int32u
0.1	AF-CTrackingSensitivity	int32u & 0x0f
0.2	AF-CSpeedTrackingSensitivity	int32u & 0xf0
0.3	AF-CZoneAreaSwitching	int32u & 0xf00

FujiFilm DriveSettings Tags

Index4	Tag Name	Writable
0.1	DriveMode	int32u & 0xff
0.2	DriveSpeed	int32u & 0xff000000

FujiFilm FaceRecInfo Tags

Face recognition information.

Tag Name	Writable
Face1Birthday	no
Face1Category	no
Face1Name	no
Face2Birthday	no
Face2Category	no
Face2Name	no
Face3Birthday	no
Face3Category	no
Face3Name	no
Face4Birthday	no
Face4Category	no
Face4Name	no
Face5Birthday	no
Face5Category	no
Face5Name	no
Face6Birthday	no
Face6Category	no
Face6Name	no
Face7Birthday	no
Face7Category	no
Face7Name	no
Face8Birthday	no
Face8Category	no
Face8Name	no

FujiFilm RAFHeader Tags

Tags extracted from the header of RAF images.

Index1	Tag Name	Writable
60	FirmwareVersion	no
108	RAFCompression	no

FujiFilm RAF Tags

FujiFilm RAF images contain meta information stored in a proprietary FujiFilm RAF format, as well as EXIF information stored inside an embedded JPEG preview image. The table below lists tags currently decoded from the RAF-format information.

Tag ID	Tag Name	Writable
0x0100	RawImageFullSize	no
0x0110	RawImageCropTopLeft	no
0x0111	RawImageCroppedSize	no
0x0115	RawImageAspectRatio	no
0x0117	RawZoomActive	no
0x0118	RawZoomTopLeft	no
0x0119	RawZoomSize	no
0x0121	RawImageSize	no
0x0130	FujiLayout	no
0x0131	XTransLayout	no
0x2000	WB_GRGBLevelsAuto	no
0x2100	WB_GRGBLevelsDaylight	no
0x2200	WB_GRGBLevelsCloudy	no
0x2300	WB_GRGBLevelsDaylightFluor	no

0x2301	WB_GRGBLevelsDayWhiteFluor	no
0x2302	WB_GRGBLevelsWhiteFluorescent	no
0x2310	WB_GRGBLevelsWarmWhiteFluor	no
0x2311	WB_GRGBLevelsLivingRoomWarmWhiteFluor	no
0x2400	WB_GRGBLevelsTungsten	no
0x2410	WB_GRGBLevelsFlash	no
0x2ff0	WB_GRGBLevels	no
0x9200	RelativeExposure	no
0x9650	RawExposureBias	no
0xc000	RAFData	FujiFilm RAFData

FujiFilm RAFData Tags

Index1	Tag Name	Writable
0	RawImageWidth	no
4	RawImageWidth	no
	RawImageHeight	no
8	RawImageWidth	no
	RawImageHeight	no
12	RawImageHeight	no

FujiFilm IFD Tags

Tags found in the FujiIFD information of RAF images from some models.

Tag ID	Tag Name	Writable
0xf000	FujiIFD	FujiFilm IFD
0xf001	RawImageFullWidth	no
0xf002	RawImageFullHeight	no
0xf003	BitsPerSample	no
0xf007	StripOffsets	no
0xf008	StripByteCounts	no
0xf00a	BlackLevel	no
0xf00b	GeometricDistortionParams	no
0xf00c	WB_GRBLevelsStandard	no
0xf00d	WB_GRBLevelsAuto	no
0xf00e	WB_GRBLevels	no
0xf00f	ChromaticAberrationParams	no
0xf010	VignettingParams	no

FujiFilm MRAW Tags

Tags extracted from the M−RAW header of multi-image RAF files. The family 1 group name for these tags is ‘‘M−RAW’’. Additional metadata may be extracted from the embedded RAW images with the ExtractEmbedded option.

Tag ID	Tag Name	Writable
0x2001	RawImageNumber	no
0x2005	ExposureTime	no
0x2006	FNumber	no
0x2007	ISO	no

FujiFilm FFMV Tags

Information found in the FFMV atom of MOV videos.

Index1	Tag Name	Writable
0	MovieStreamName	no

FujiFilm MOV Tags

This information is found in MOV videos from some FujiFilm cameras.

Index1	Tag Name	Writable
0	Make	no
24	Model	no
46	ExposureTime	no
50	FNumber	no
58	ExposureCompensation	no

GE Tags

This table lists tags found in the maker notes of some General Imaging camera models.

Tag ID	Tag Name	Writable
0x0202	Macro	int16u
0x0207	GEModel	string
0x0300	GEMake	string

Google Tags

Google Device Tags

Google depth-map Device tags. See <https://developer.android.com/training/camera2/Dynamic−depth−v1.0.pdf> for the specification.

These tags belong to the ExifTool XMP-Device family 1 group.

Tag Name	Writable
AppInfo	Google AppInfo Struct
AppInfoApplication	string_
AppInfoItemURI	string_
AppInfoVersion	string_
Cameras	Google DeviceCameras Struct+
Camera	Google DeviceCamera Struct_+
CameraAppInfo	Google AppInfo Struct_+
CameraAppInfoApplication	string_+
CameraAppInfoItemURI	string_+
CameraAppInfoVersion	string_+
CameraDepthMap	Google DeviceDepthMap Struct_+
CameraDepthMapConfidenceURI	string_+
CameraDepthMapDepthURI	string_+
CameraDepthMapFar	real_+
CameraDepthMapFocalTable	string_+
CameraDepthMapFocalTableEntryCount	integer_+
CameraDepthMapFormat	string_+
CameraDepthMapItemSemantic	string_+
CameraDepthMapMeasureType	string_+
CameraDepthMapNear	real_+
CameraDepthMapSoftware	string_+
CameraDepthMapUnits	string_+
CameraImage	Google DeviceImage Struct_+
CameraImageItemSemantic	string_+
CameraImageItemURI	string_+

```
CameraImagingModel                          Google DeviceImagingModel Struct_+
CameraImagingModelDistortion                string_+
CameraImagingModelDistortionCount           integer_+
CameraImagingModelFocalLengthX              real_+
CameraImagingModelFocalLengthY              real_+
CameraImagingModelImageHeight               integer_+
CameraImagingModelImageWidth                integer_+
CameraImagingModelPixelAspectRatio          real_+
CameraImagingModelPrincipalPointX           real_+
CameraImagingModelPrincipalPointY           real_+
CameraImagingModelSkew                      real_+
CameraLightEstimate                        Google DeviceLightEstimate Struct_+
CameraLightEstimateColorCorrectionB         real_+
CameraLightEstimateColorCorrectionG         real_+
CameraLightEstimateColorCorrectionR         real_+
CameraLightEstimatePixelIntensity           real_+
CameraPointCloud                            Google DevicePointCloud Struct_+
CameraPointCloudMetric                      boolean_+
CameraPointCloudPointCloud                  integer_+
CameraPointCloudPoints                      string_+
CameraPose                                  Google Pose Struct_+
CameraPosePositionX                         real_+
CameraPosePositionY                         real_+
CameraPosePositionZ                         real_+
CameraPoseRotationW                         real_+
CameraPoseRotationX                         real_+
CameraPoseRotationY                         real_+
CameraPoseRotationZ                         real_+
CameraPoseTimestamp                         integer_+
CameraTrait                                 string_+
CameraVendorInfo                            Google VendorInfo Struct_+
CameraVendorInfoManufacturer                string_+
CameraVendorInfoModel                       string_+
CameraVendorInfoNotes                       string_+
Container                                   Google DeviceContainer Struct
ContainerDirectory                          Google DeviceDirectory Struct_+
ContainerDirectoryItem                      Google DeviceItem Struct_+
ContainerDirectoryItemDataURI               string_+
ContainerDirectoryItemLength                integer_+
ContainerDirectoryItemMime                  string_+
ContainerDirectoryItemPadding               integer_+
EarthPos                                    Google EarthPose Struct
EarthPosAltitude                            real_
EarthPosLatitude                            real_
EarthPosLongitude                           real_
EarthPosRotationW                           real_
EarthPosRotationX                           real_
EarthPosRotationY                           real_
EarthPosRotationZ                           real_
EarthPosTimestamp                           integer_
Planes                                      Google DevicePlanes Struct+
Plane                                       Google DevicePlane Struct_+
PlaneBoundary                               string_+
PlaneBoundaryVertexCount                    integer_+
```

PlaneExtentX	real_+
PlaneExtentZ	real_+
PlanePose	Google Pose Struct_+
PlanePosePositionX	real_+
PlanePosePositionY	real_+
PlanePosePositionZ	real_+
PlanePoseRotationW	real_+
PlanePoseRotationX	real_+
PlanePoseRotationY	real_+
PlanePoseRotationZ	real_+
PlanePoseTimestamp	integer_+
Pose	Google Pose Struct
PosePositionX	real_
PosePositionY	real_
PosePositionZ	real_
PoseRotationW	real_
PoseRotationX	real_
PoseRotationY	real_
PoseRotationZ	real_
PoseTimestamp	integer_
Profiles	Google DeviceProfiles Struct+
Profile	Google DeviceProfile Struct_+
ProfileCameraIndices	integer_+
ProfileType	string_+
VendorInfo	Google VendorInfo Struct
VendorInfoManufacturer	string_
VendorInfoModel	string_
VendorInfoNotes	string_

Google AppInfo Struct

Field Name	Writable
Application	string
ItemURI	string
Version	string

Google DeviceCameras Struct

Field Name	Writable
Camera	Google DeviceCamera Struct

Google DeviceCamera Struct

Field Name	Writable
AppInfo	Google AppInfo Struct
DepthMap	Google DeviceDepthMap Struct
Image	Google DeviceImage Struct
ImagingModel	Google DeviceImagingModel Struct
LightEstimate	Google DeviceLightEstimate Struct
PointCloud	Google DevicePointCloud Struct
Pose	Google Pose Struct
Trait	string
VendorInfo	Google VendorInfo Struct

Google DeviceDepthMap Struct

Field Name	Writable
ConfidenceURI	string
DepthURI	string
Far	real
FocalTable	string
FocalTableEntryCount	integer
Format	string
ItemSemantic	string
MeasureType	string
Near	real
Software	string
Units	string

Google DeviceImage Struct

Field Name	Writable
ItemSemantic	string
ItemURI	string

Google DeviceImagingModel Struct

Field Name	Writable
Distortion	string
DistortionCount	integer
FocalLengthX	real
FocalLengthY	real
ImageHeight	integer
ImageWidth	integer
PixelAspectRatio	real
PrincipalPointX	real
PrincipalPointY	real
Skew	real

Google DeviceLightEstimate Struct

Field Name	Writable
ColorCorrectionB	real
ColorCorrectionG	real
ColorCorrectionR	real
PixelIntensity	real

Google DevicePointCloud Struct

Field Name	Writable
Metric	boolean
PointCloud	integer
Points	string

Google Pose Struct

Field Name	Writable
PositionX	real
PositionY	real
PositionZ	real
RotationW	real
RotationX	real
RotationY	real
RotationZ	real
TimeStamp	integer

Google VendorInfo Struct

Field Name	Writable
Manufacturer	string
Model	string
Notes	string

Google DeviceContainer Struct

Field Name	Writable
Directory	Google DeviceDirectory Struct+

Google DeviceDirectory Struct

Field Name	Writable
Item	Google DeviceItem Struct

Google DeviceItem Struct

Field Name	Writable
DataURI	string
Length	integer
Mime	string
Padding	integer

Google EarthPose Struct

Field Name	Writable
Altitude	real
Latitude	real
Longitude	real
RotationW	real
RotationX	real
RotationY	real
RotationZ	real
TimeStamp	integer

Google DevicePlanes Struct

Field Name	Writable
Plane	Google DevicePlane Struct

Google DevicePlane Struct

Field Name	Writable
Boundary	string
BoundaryVertexCount	integer
ExtentX	real
ExtentZ	real
Pose	Google Pose Struct

Google DeviceProfiles Struct

Field Name	Writable
Profile	Google DeviceProfile Struct

Google DeviceProfile Struct

Field Name	Writable
CameraIndices	integer+
Type	string

Google GAudio Tags

These tags belong to the ExifTool XMP-GAudio family 1 group.

Tag Name	Writable
AudioData	string
AudioMimeType	string

Google GCamera Tags

Camera information found in Google panorama images.

These tags belong to the ExifTool XMP-GCamera family 1 group.

Tag Name	Writable
BurstID	string
BurstPrimary	string
DisableAutoCreation	string+
DisableSuggestedAction	string+
HDRPMakerNote	Google HDRPMakerNote
HDRPlusMakerNote	Google HDRPlusMakerNote
MicroVideo	integer
MicroVideoOffset	integer
MicroVideoPresentationTimestampUs	integer
MicroVideoVersion	integer
MotionPhoto	integer
MotionPhotoPresentationTimestampUs	integer
MotionPhotoVersion	integer
PortraitNote	string
PortraitRequest	Google HDRPMakerNote
PortraitVersion	string
ShotLogData	Google ShotLogData
SpecialTypeID	string+

Google HDRPMakerNote Tags

Google text-based HDRP maker note tags. Stored as base64−encoded, encrypted and gzipped text.

Tag ID	Tag Name	Writable
'Finished image'	FinishedImage	no
'GoudaRequest'	GoudaRequestText	no
'InitParams'	InitParamsText	no
'Logging metadata'	LoggingMetadataText	no
'Merged image'	MergedImage	no
'Payload frame'	PayloadFrame	no
'Payload metadata'	PayloadMetadataText	no
'ProcessingNotes'	ProcessingNotes	no
'Rectiface'	RectifaceText	no
'ShotLogData'	ShotLogDataText	no
'ShotParams'	ShotParamsText	no
'StaticMetadata'	StaticMetadataText	no
'Summary'	SummaryText	no
'Time log'	TimeLogText	no
'Unused logging metadata'	UnusedLoggingMetadata	no

Google HDRPlusMakerNote Tags

Google protobuf-format HDR-Plus maker notes. Tag ID's are hierarchical protobuf field numbers. Stored as base64−encoded, encrypted and gzipped Protobuf data. Much of this metadata is still unknown, but is extracted using the Unknown option.

Tag ID	Tag Name	Writable
'1−1'	ImageName	no
'1−2'	ImageData	no
'2'	TimeLogText	no
'3'	SummaryText	no
'9−3'	FrameCount	no
'9−36−1'	CreateDate	no
'12−1'	DeviceMake	no
'12−2'	DeviceModel	no
'12−3'	DeviceCodename	no
'12−4'	DeviceHardwareRevision	no
'12−6'	HDRPSoftware	no
'12−7'	AndroidRelease	no
'12−8'	SoftwareDate	no
'12−9'	Application	no
'12−10'	AppVersion	no
'12−12−1'	ExposureTimeMin	no
'12−12−2'	ExposureTimeMax	no
'12−13−1'	ISOMin	no
'12−13−2'	ISOMax	no
'12−14'	MaxAnalogISO	no

Google ShotLogData Tags

Stored as base64−encoded, encrypted and gzipped Protobuf data.

Tag ID	Tag Name	Writable
'2'	MeteringFrameCount	no
'3'	OriginalPayloadFrameCount	no

Google GContainer Tags

Google Container namespace. ExifTool uses the prefix 'GContainer' instead of 'Container' to avoid a conflict with the Google Device Container namespace.

These tags belong to the ExifTool XMP-GContainer family 1 group.

Tag Name	Writable
ContainerDirectory	Google Directory Struct+
DirectoryItem	Google Item Struct_+
DirectoryItemLabel	string_+
DirectoryItemLength	integer_+
DirectoryItemMime	string_+
DirectoryItemPadding	integer_+
DirectoryItemSemantic	string_+
DirectoryItemURI	string_+

Google Directory Struct

Field Name	Writable
Item	Google Item Struct

Google Item Struct

Field Name	Writable
Label	string
Length	integer
Mime	string
Padding	integer
Semantic	string
URI	string

Google GCreations Tags

Google creations tags.

These tags belong to the ExifTool XMP-GCreations family 1 group.

Tag Name	Writable
CameraBurstID	string
Type	string/

Google GDepth Tags

Google depthmap information. See <https://developers.google.com/depthmap−metadata/> for the specification.

These tags belong to the ExifTool XMP-GDepth family 1 group.

Tag Name	Writable
Confidence	string/
ConfidenceMime	string/
DepthImage	string/
Far	real/
Format	string/
ImageHeight	real/
ImageWidth	real/
Manufacturer	string/
MeasureType	string/
Mime	string/

Model	string/
Near	real/
Software	string/
Units	string/

Google GFocus Tags

Focus information found in Google depthmap images.

These tags belong to the ExifTool XMP-GFocus family 1 group.

Tag Name	Writable
BlurAtInfinity	real
FocalDistance	real
FocalPointX	real
FocalPointY	real

Google GImage Tags

These tags belong to the ExifTool XMP-GImage family 1 group.

Tag Name	Writable
ImageData	string
ImageMimeType	string

Google GPano Tags

Panorama tags written by Google Photosphere. See <https://developers.google.com/streetview/spherical−metadata> for the specification.

These tags belong to the ExifTool XMP-GPano family 1 group.

Tag Name	Writable
CaptureSoftware	string
CroppedAreaImageHeightPixels	real
CroppedAreaImageWidthPixels	real
CroppedAreaLeftPixels	real
CroppedAreaTopPixels	real
ExposureLockUsed	boolean
FirstPhotoDate	date
FullPanoHeightPixels	real
FullPanoWidthPixels	real
InitialCameraDolly	real
InitialHorizontalFOVDegrees	real
InitialVerticalFOVDegrees	real
InitialViewHeadingDegrees	real
InitialViewPitchDegrees	real
InitialViewRollDegrees	real
LargestValidInteriorRectHeight	real
LargestValidInteriorRectLeft	real
LargestValidInteriorRectTop	real
LargestValidInteriorRectWidth	real
LastPhotoDate	date
PoseHeadingDegrees	real
PosePitchDegrees	real
PoseRollDegrees	real
ProjectionType	string
SourcePhotosCount	integer

StitchingSoftware	string
UsePanoramaViewer	boolean

Google GSpherical Tags

Not actually XMP. These RDF/XML tags are used in Google spherical MP4 videos. These tags are written into the video track of MOV/MP4 files, and not at the top level like other XMP tags. See <https://github.com/google/spatial−media/blob/master/docs/spherical−video−rfc.md> for the specification.

These tags belong to the ExifTool XMP-GSpherical family 1 group.

Tag Name	Writable
CroppedAreaImageHeightPixels	integer/
CroppedAreaImageWidthPixels	integer/
CroppedAreaLeftPixels	integer/
CroppedAreaTopPixels	integer/
FullPanoHeightPixels	integer/
FullPanoWidthPixels	integer/
InitialViewHeadingDegrees	real/
InitialViewPitchDegrees	real/
InitialViewRollDegrees	real/
ProjectionType	string/
SourceCount	integer/
Spherical	boolean/
StereoMode	string/
Stitched	boolean/
StitchingSoftware	string/
TimeStamp	integer/

GoPro Tags

GoPro GPMF Tags

Tags extracted from the GPMF box of GoPro MP4 videos, the APP6 ‘‘GoPro’’ segment of JPEG files, and from the ‘‘gpmd’’ timed metadata if the ExtractEmbedded (−ee) option is enabled. Many more tags exist, but are currently unknown and extracted only with the Unknown (−u) option. Please let me know if you discover the meaning of any of these unknown tags. See <https://github.com/gopro/gpmf−parser> for details about this format.

Tag ID	Tag Name	Writable
'AALP'	AudioLevel	no
'ABSC'	AutoBoostScore	no
'ACCL'	Accelerometer	no
'ALLD'	AutoLowLightDuration	no
'APTO'	AudioProtuneOption	no
'ARUW'	AspectRatioUnwarped	no
'ARWA'	AspectRatioWarped	no
'ATTD'	Attitude	no
'ATTR'	AttitudeTarget	no
'AUBT'	AudioBlueTooth	no
'AUDO'	AudioSetting	no
'AUPT'	AutoProtune	no
'BITR'	BitrateSetting	no
'BPOS'	Controller?	no
'CASN'	CameraSerialNumber	no
'CDAT'	CreationDate	no
'CDTM'	CaptureDelayTimer	no
'CLDP'	ClassificationDataPresent	no

```
'CORI'   CameraOrientation                  no
'CPIN'   ChapterNumber                      no
'CSEN'   CoyoteSense                        no
'CTRL'   ControlLevel                       no
'CYTS'   CoyoteStatus                       no
'DEVC'   DeviceContainer                    GoPro GPMF
'DUST'   DurationSetting                    no
'DVID'   DeviceID?                          no
'DVNM'   DeviceName                         no
'DZMX'   DigitalZoomAmount                  no
'DZOM'   DigitalZoomOn                      no
'DZST'   DigitalZoom                        no
'EISA'   ElectronicImageStabilization       no
'EISE'   ElectronicStabilizationOn          no
'EMPT'   Empty?                             no
'ESCS'   EscapeStatus?                      no
'EXPT'   ExposureType                       no
'FACE'   FaceDetected                       no
'FCNM'   FaceNumbers                        no
'FMWR'   FirmwareVersion                    no
'FWVS'   OtherFirmware                      no
'GLPI'   GPSPos                             GoPro GLPI
'GPRI'   GPSRaw?                            GoPro GPRI
'GPS5'   GPSInfo                            GoPro GPS5
'GPS9'   GPSInfo9                           GoPro GPS9
'GPSA'   GPSAltitudeSystem                  no
'GPSF'   GPSMeasureMode                     no
'GPSP'   GPSHPositioningError               no
'GPSU'   GPSDateTime                        no
'GRAV'   GravityVector                      no
'GYRO'   Gyroscope                          no
'HCTL'   HorizonControl                     no
'HDRV'   HDRVideo                           no
'HSGT'   HindsightSettings                  no
'HUES'   PredominantHue                     no
'IORI'   ImageOrientation                   no
'ISOE'   ISOSpeeds                          no
'ISOG'   ImageSensorGain                    no
'KBAT'   BatteryStatus                      GoPro KBAT
'LNED'   LocalPositionNED                   no
'LOGS'   HealthLogs                         no
'MAGN'   Magnetometer                       no
'MAPX'   MappingXCoefficients               no
'MAPY'   MappingYCoefficients               no
'MINF'   Model                              no
'MMOD'   MediaMode                          no
'MTRX'   AccelerometerMatrix                no
'MUID'   MediaUniqueID                      no
'MWET'   MicrophoneWet                      no
'MXCF'   MappingXMode                       no
'MYCF'   MappingYMode                       no
'ORDP'   OrientationDataPresent             no
'OREN'   AutoRotation                       no
'ORIN'   InputOrientation                   no
```

```
'ORIO'   OutputOrientation                  no
'PHDR'   HDRSetting                         no
'PIMD'   ProtuneISOMode                     no
'PIMN'   AutoISOMin                         no
'PIMX'   AutoISOMax                         no
'POLY'   PolynomialCoefficients             no
'PRES'   PhotoResolution                    no
'PRJT'   LensProjection                     no
'PRTN'   Protune                            no
'PTCL'   ColorMode                          no
'PTEV'   ExposureCompensation               no
'PTSH'   Sharpness                          no
'PTWB'   WhiteBalance                       no
'PWPR'   PowerProfile                       no
'PYCF'   PolynomialPower                    no
'RAMP'   SpeedRampSetting                   no
'RATE'   Rate                               no
'RMRK'   Comments                           no
'SCAL'   ScaleFactor?                       no
'SCAP'   ScheduleCapture                    no
'SCEN'   SceneClassification                no
'SCPR'   ScaledPressure                     no
'SCTM'   ScheduleCaptureTime                no
'SHUT'   ExposureTimes                      no
'SIMU'   ScaledIMU                          no
'SIUN'   SIUnits?                           no
'SMTR'   SpotMeter                          no
'SROT'   SensorReadoutTime                  no
'STMP'   TimeStamp                          no
'STNM'   StreamName?                        no
'STRM'   NestedSignalStream                 GoPro GPMF
'SYST'   SystemTime                         no
'TIMO'   TimeOffset                         no
'TMPC'   CameraTemperature                  no
'TSMP'   TotalSamples?                      no
'TYPE'   StructureType?                     no
'TZON'   TimeZone                           no
'UNIF'   InputUniformity                    no
'UNIT'   Units?                             no
'VERS'   MetadataVersion                    no
'VFOV'   FieldOfView                        no
'VFPS'   VideoFrameRate                     no
'VFRH'   VisualFlightRulesHUD               no
'VRES'   VideoFrameSize                     no
'WBAL'   ColorTemperatures                  no
'WNDM'   WindProcessing                     no
'WRGB'   WhiteBalanceRGB                    no
'YAVG'   LumaAverage                        no
'ZFOV'   DiagonalFieldOfView                no
'ZMPL'   ZoomScaleNormalization             no
```

GoPro GLPI Tags

Index	Tag Name	Writable
0	GPSDateTime	no
1	GPSLatitude	no
2	GPSLongitude	no
3	GPSAltitude	no
5	GPSSpeedX	no
6	GPSSpeedY	no
7	GPSSpeedZ	no
8	GPSTrack	no

GoPro GPRI Tags

Index	Tag Name	Writable
0	GPSDateTimeRaw	no
1	GPSLatitudeRaw	no
2	GPSLongitudeRaw	no
3	GPSAltitudeRaw	no
6	GPSSpeedRaw	no
7	GPSTrackRaw	no

GoPro GPS5 Tags

Index	Tag Name	Writable
0	GPSLatitude	no
1	GPSLongitude	no
2	GPSAltitude	no
3	GPSSpeed	no
4	GPSSpeed3D	no

GoPro GPS9 Tags

Index	Tag Name	Writable
0	GPSLatitude	no
1	GPSLongitude	no
2	GPSAltitude	no
3	GPSSpeed	no
4	GPSSpeed3D	no
6	GPSDateTime	no
7	GPSDOP	no
8	GPSMeasureMode	no

GoPro KBAT Tags

Battery status information found in GoPro Karma videos.

Index	Tag Name	Writable
0	BatteryCurrent	no
1	BatteryCapacity	no
3	BatteryTemperature	no
4	BatteryVoltage1	no
5	BatteryVoltage2	no
6	BatteryVoltage3	no
7	BatteryVoltage4	no
8	BatteryTime	no
14	BatteryLevel	no

GoPro fdsc Tags

Tags extracted from the MP4 ‘‘fdsc’’ timed metadata when the ExtractEmbedded (−ee) option is used.

Index1	Tag Name	Writable
8	FirmwareVersion	no
23	SerialNumber	no
87	OtherSerialNumber	no
102	Model	no

HP Tags

These tables list tags found in the maker notes of some Hewlett-Packard camera models.

The first table lists tags found in the EXIF-format maker notes of the PhotoSmart 720 (also used by the Vivitar ViviCam 3705, 3705B and 3715).

Tag ID	Tag Name	Writable
0x0e00	PrintIM	PrintIM

HP Type2 Tags

These tags are used by the PhotoSmart E427.

Tag ID	Tag Name	Writable
'Lens Shading'	LensShading	no
'PreviewImage'	PreviewImage	no
'Serial Number'	SerialNumber	no

HP Type4 Tags

These tags are used by the PhotoSmart M627.

Index1	Tag Name	Writable
12	MaxAperture	no
16	ExposureTime	no
20	CameraDateTime	no
52	ISO	no
92	SerialNumber	no

HP Type6 Tags

These tags are used by the PhotoSmart M425, M525 and M527.

Index1	Tag Name	Writable
12	FNumber	no
16	ExposureTime	no
20	CameraDateTime	no
52	ISO	no
88	SerialNumber	no

HP TDHD Tags

These tags are extracted from the APP6 "TDHD" segment of Photosmart R837 JPEG images. Many other unknown tags exist in is data, and can be seen with the Unknown (-u) option.

Tag ID	Tag Name	Writable
'CMSN'	SerialNumber	no
'FWRV'	FirmwareVersion	no
'LSLV'	LSLV	HP TDHD
'TDHD'	TDHD	HP TDHD

JVC Tags

JVC EXIF maker note tags.

Tag ID	Tag Name	Writable
0x0002	CPUVersions	no
0x0003	Quality	no

JVC Text Tags

JVC/Victor text-based maker note tags.

Tag ID	Tag Name	Writable
'QTY'	Quality	no
'VER'	MakerNoteVersion	no

Kodak Tags

Many Kodak models don't store the maker notes in standard IFD format, and these formats vary with different models. Some information has been decoded, but much of the Kodak information remains unknown.

The table below contains the most common set of Kodak tags. The following Kodak camera models have been tested and found to use these tags: C360, C663, C875, CX6330, CX6445, CX7330, CX7430, CX7525, CX7530, DC4800, DC4900, DX3500, DX3600, DX3900, DX4330, DX4530, DX4900, DX6340, DX6440, DX6490, DX7440, DX7590, DX7630, EasyShare-One, LS420, LS443, LS633, LS743, LS753, V530, V550, V570, V603, V610, V705, Z650, Z700, Z710, Z730, Z740, Z760 and Z7590.

Index1	Tag Name	Writable
0	KodakModel	string[8]
9	Quality	int8u
10	BurstMode	int8u
12	KodakImageWidth	int16u
14	KodakImageHeight	int16u
16	YearCreated	int16u
18	MonthDayCreated	int8u[2]
20	TimeCreated	int8u[4]
24	BurstMode2?	int16u
27	ShutterMode	int8u
28	MeteringMode	int8u

29	SequenceNumber	int8u
30	FNumber	int16u
32	ExposureTime	int32u
36	ExposureCompensation	int16s
38	VariousModes?	int16u
40	Distance1?	int32u
44	Distance2?	int32u
48	Distance3?	int32u
52	Distance4?	int32u
56	FocusMode	int8u
58	VariousModes2?	int16u
60	PanoramaMode?	int16u
62	SubjectDistance?	int16u
64	WhiteBalance	int8u
92	FlashMode	int8u
93	FlashFired	int8u
94	ISOSetting	int16u
96	ISO	int16u
98	TotalZoom	int16u
100	DateTimeStamp	int16u
102	ColorMode	int16u
104	DigitalZoom	int16u
107	Sharpness	int8s

Kodak IFD Tags

These tags are found in a separate IFD of JPEG, TIFF, DCR and KDC images from some older Kodak models such as the DC50, DC120, DCS760C, DCS Pro 14N, 14nx, SLR/n, Pro Back and Canon EOS D2000.

Tag ID	Tag Name	Writable
0x0000	KodakVersion	int8u[4]
0x0001	UnknownEV?	rational64u
0x0003	ExposureValue	rational64u
0x03e9	OriginalFileName	string
0x03ea	KodakTag	int32u
0x03eb	SensorLeftBorder	int16u
0x03ec	SensorTopBorder	int16u
0x03ed	SensorImageWidth	int16u
0x03ee	SensorImageHeight	int16u
0x03ef	BlackLevelTop	int16u
0x03f0	BlackLevelBottom	int16u
0x03f1	TextualInfo	Kodak TextualInfo
0x03f2	FlashMode?	int16u
0x03f3	FlashCompensation	rational64s
0x03f4	WindMode?	int16u
0x03f5	FocusMode?	int16u
0x03f8	MinAperture	rational64u
0x03f9	MaxAperture	rational64u
0x03fa	WhiteBalanceMode?	int16u
0x03fb	WhiteBalanceDetected?	int16u
0x03fc	WhiteBalance	int16u
0x03fd	Processing	Kodak Processing
	ProcessingParameters	no
0x03fe	ImageAbsoluteX	int16s
0x03ff	ImageAbsoluteY	int16s

```
0x0400   ApplicationKeyString              string
0x0401   Time                              string
0x0402   GPSString                        string
0x0403   EventLogCapture?                 no
0x0404   ComponentTable?                   no
0x0405   CustomIlluminant?                 int16u
0x0406   CameraTemperature                 rational64s
         CameraTemperature                 no
0x0407   AdapterVoltage                    rational64u
0x0408   BatteryVoltage                    rational64u
0x0409   DacVoltages                       no
0x040a   IlluminantDetectorData?           no
0x040b   PixelClockFrequency               int32u
0x040c   CenterPixel                       int16u[3]
0x040d   BurstCount                        int16u
0x040e   BlackLevelRough                   int16u
0x040f   OffsetMapHorizontal?              no
0x0410   OffsetMapVertical?                no
0x0411   Histogram?                        no
0x0412   VerticalClockOverlaps             int16u[2]
0x0413   SensorTemperature                  no
0x0414   XilinxVersion                     string
0x0415   FirmwareVersion                   int32u
0x0416   BlackLevelRoughAfter              int16u
0x0417   BrightRowsTop                     no
0x0418   EventLogProcess                   no
0x0419   DacVoltagesFlush                  no
0x041a   FlashUsed                         no
0x041b   FlashType                         no
0x041c   SelfTimer                         no
0x041d   AFMode                            no
0x041e   LensType                          no
0x041f   ImageCropX                        int16s
0x0420   ImageCropY                        int16s
0x0421   AdjustedTbnImageWidth            no
0x0422   AdjustedTbnImageHeight           no
0x0423   IntegrationTime                   int32u
0x0424   BracketingMode                    no
0x0425   BracketingStep                    no
0x0426   BracketingCounter                 no
0x042e   HuffmanTableLength                no
0x042f   HuffmanTableValue                 no
0x0438   MainBoardVersion                  int32u
0x0439   ImagerBoardVersion               int32u
0x044c   FocusEdgeMap                      no
0x05e6   IdleTiming                        no
0x05e7   FlushTiming                       no
0x05e8   IntegrateTiming                   no
0x05e9   RegisterReadTiming                no
0x05ea   FirstLineTransferTiming           no
0x05eb   ShiftTiming                       no
0x05ec   NormalLineTransferTiming          no
0x05ed   TestTransferTiming                no
0x05fa   MinimumFlushRows                  no
```

```
0x05fd   ImagerPowerOnDelayMsec          int32u
0x05fe   ImagerInitialTimingCode         no
0x05ff   ImagerLogicProgram              no
0x0600   ImagerBiasSettlingDelayMsec     int32u
0x0604   IdleSequence                    no
0x0605   FirstFlushSequence              no
0x0606   FinalFlushSequence             no
0x0607   SampleBlackSequence             no
0x0608   TransferSequence                no
0x060e   DacCountsPerVolt                no
0x060f   BlackDacChannel                 no
0x0610   BlackAdCountsPerDacVolt         no
0x0611   BlackTarget                    no
0x0612   BlackDacSettlingMsec           no
0x07d0   StandardMatrixDaylight          rational64s[9]
0x07d1   StandardMatrixTungsten          rational64s[9]
0x07d2   StandardMatrixFluorescent       rational64s[9]
0x07d3   StandardMatrixFlash             rational64s[9]
0x07d4   StandardMatrixCustom            rational64s[9]
0x07da   DeviantMatrixDaylight           rational64s[9]
0x07db   DeviantMatrixTungsten           rational64s[9]
0x07dc   DeviantMatrixFluorescent        rational64s[9]
0x07dd   DeviantMatrixFlash              rational64s[9]
0x07de   DeviantMatrixCustom             rational64s[9]
0x07e4   UniqueMatrixDaylight            rational64s[9]
0x07e5   UniqueMatrixTungsten            rational64s[9]
0x07e6   UniqueMatrixFluorescent         rational64s[9]
0x07e7   UniqueMatrixFlash               rational64s[9]
0x07e8   UniqueMatrixCustom              rational64s[9]
0x07e9   UniqueMatrixAuto                rational64s[9]
0x0834   StandardWhiteDaylight           rational64s[3]
0x0835   StandardWhiteTungsten           rational64s[3]
0x0836   StandardWhiteFluorescent        rational64s[3]
0x0837   StandardWhiteFlash              rational64s[3]
0x0838   StandardWhiteCustom             rational64s[3]
0x083e   DeviantWhiteDaylight           rational64s[3]
0x083f   DeviantWhiteTungsten           rational64s[3]
0x0840   DeviantWhiteFluorescent        rational64s[3]
0x0841   DeviantWhiteFlash              rational64s[3]
0x0842   DeviantWhiteCustom             rational64s[3]
0x0846   ColorTemperature                int16u
0x0847   WB_RGBLevelsAsShot              no
0x0848   WB_RGBLevelsDaylight            no
0x0849   WB_RGBLevelsTungsten            no
0x084a   WB_RGBLevelsFluorescent         no
0x084b   WB_RGBLevelsFlash               no
0x084c   WB_RGBLevelsCustom              no
0x084d   WB_RGBLevelsAuto                no
0x0852   WB_RGBMulDaylight               rational64u[3]
0x0853   WB_RGBMulTungsten               rational64u[3]
0x0854   WB_RGBMulFluorescent            rational64u[3]
0x0855   WB_RGBMulFlash                  rational64u[3]
0x085c   WB_RGBCoeffsDaylight            no
0x085d   WB_RGBCoeffsTungsten            no
```

```
0x085e   WB_RGBCoeffsFluorescent          no
0x085f   WB_RGBCoeffsFlash                no
0x0898   ExposureGainDaylight             rational64s
0x0899   ExposureGainTungsten             rational64s
0x089a   ExposureGainFluorescent          rational64s
0x089b   ExposureGainFlash                rational64s
0x089c   ExposureGainCustom               rational64s
0x089d   AnalogISOTable                   rational64u[3]
0x089e   AnalogCaptureISO                 int32u
0x089f   ISOCalibrationGain               rational64u
0x08a0   ISOCalibrationGainTable          no
0x08a1   ExposureHeadroomFactor           no
0x08ab   LinearitySplineTags              no
0x08fc   MonitorMatrix                    rational64s[9]
0x08fd   TonScaleTable                    no
0x08fe   Gamma                            rational64u
0x08ff   LogLinTable                      no
0x0900   LinLogTable                      no
0x0901   GammaTable                       no
0x0902   LogScale                         rational64u
0x0903   BaseISO                           rational64u
0x0904   LinLogCoring                      int16u
0x0905   PatternGainConversionTable        no
0x0906   DefectCount                       no
0x0907   DefectList                        no
0x0908   DefectListPacked                  no
0x0909   ImageSpace                        int16u
0x090a   ThumbnailCompressionTable         no
0x090b   ThumbnailExpansionTable           no
0x090c   ImageCompressionTable             no
0x090d   ImageExpansionTable               no
0x090e   EighteenPercentPoint              no
0x090f   DefectIsoCode                     int16u
0x0910   BaseISODaylight                   rational64u
0x0911   BaseISOTungsten                   rational64u
0x0912   BaseISOFluorescent                rational64u
0x0913   BaseISOFlash                      rational64u
0x091a   MatrixSelectThreshold            int16s
0x091b   MatrixSelectK                    rational64u
0x091c   IlluminantDetectTable            no
0x091d   RGTable                          no
0x091e   MatrixSelectThreshold1           int16s
0x091f   MatrixSelectThreshold2           int16s
0x0924   PortraitMatrix                   no
0x0925   PortraitToneScaleTable           no
0x092e   EnableSharpening                 int16u
0x092f   SharpeningKernel                 int16s[25]
0x0930   EdgeMapSlope                     int16u
0x0931   EdgeMapX1                        int16u
0x0932   EdgeMapX2                        int16u
0x0933   KernelDenominators               int16u[3]
0x0934   EdgeMapX3                        int16u
0x0935   EdgeMapX4                        int16u
0x0936   SharpenForThumbnail              no
```

```
0x0937   EdgeSpline                      no
0x0938   DownSampleBy2Hor                no
0x0939   DownSampleBy2Ver                no
0x093a   DownSampleBy4Hor                no
0x093b   DownSampleBy4Ver                no
0x093c   DownSampleBy3Hor                no
0x093d   DownSampleBy3Ver                no
0x093e   DownSampleBy6Hor                no
0x093f   DownSampleBy6Ver                no
0x0940   DownSampleBy2Hor3MPdcr          no
0x0941   DownSampleBy2Ver3MPdcr          no
0x0942   ThumbnailResizeRatio            no
0x0943   AtCaptureUserCrop               int32u[4]
0x0944   ImageResolution                 int32u
0x0945   ImageResolutionJpg              int32u
0x094c   USMParametersLow                no
0x094d   USMParametersMed                no
0x094e   USMParametersHigh               no
0x094f   USMParametersHost               no
0x0950   EdgeSplineLow                   no
0x0951   EdgeSplineMed                   no
0x0952   EdgeSplineHigh                  no
0x0953   USMParametersHost6MP            no
0x0954   USMParametersHost3MP            no
0x0960   PatternImagerWidth             int16u
0x0961   PatternImagerHeight            int16u
0x0962   PatternAreaWidth               int16u
0x0963   PatternAreaHeight              int16u
0x0964   PatternCorrectionGains         no
0x0965   PatternCorrectionOffsets       no
0x0966   PatternX                       int16u
0x0967   PatternY                       int16u
0x0968   PatternCorrectionFactors       no
0x0969   PatternCorrectionFactorScale   int16u
0x096a   PatternCropRows1                int16u
0x096b   PatternCropRows2                int16u
0x096c   PatternCropCols1                int16u
0x096d   PatternCropCols2                int16u
0x096e   PixelCorrectionGains            no
0x096f   StitchRows                      no
0x0970   StitchColumns                   no
0x0971   PixelCorrectionScale            int16u
0x0972   PixelCorrectionOffset           int16u
0x0988   LensTableIndex                  no
0x0992   DiffTileGains602832             no
0x0993   DiffTileGains24t852822          no
0x099c   TileGainDeterminationTable      no
0x099d   NemoBlurKernel                  no
0x099e   NemoTileSize                    no
0x099f   NemoGainFactors                 no
0x09a0   NemoDarkLimit                   no
0x09a1   NemoHighlight12Limit            no
0x09c4   ImagerFileProductionLevel       int16u
0x09c5   ImagerFileDateCreated           int32u
```

```
0x09c6   CalibrationVersion                  string
0x09c7   ImagerFileTagsVersionStandard       int16u
0x09c8   IFCameraModel                       string
0x09c9   CalibrationHistory                  string
0x09ca   CalibrationLog                      no
0x09ce   SensorSerialNumber                  string
0x09f6   DefectConcealArtCorrectThres        no
0x09f7   SglColDCACThres1                    no
0x09f8   SglColDCACThres2                    no
0x09f9   SglColDCACTHres3                    no
0x0a01   DblColDCACThres1                    no
0x0a02   DblColDCACThres2                    no
0x0a0a   DefectConcealThresTable             no
0x0a28   MonoUniqueMatrix                    no
0x0a29   MonoMonitorMatrix                   no
0x0a2a   MonoToneScaleTable                  no
0x0a5a   OmenInitialScaling                  no
0x0a5b   OmenInitialRows                     no
0x0a5c   OmenInitialColumns                  no
0x0a5d   OmenInitialIPFStrength              int32s[4]
0x0a5e   OmenEarlyStrength                   int32s[4]
0x0a5f   OmenAutoStrength                    int32s[4]
0x0a60   OmenAtCaptureStrength               int32s[4]
0x0a61   OmenAtCaptureMode                   no
0x0a62   OmenFocalLengthLimit                int16s
0x0a64   OmenSurfaceIndex                    int16s
0x0a65   OmenPercentToRationalLimitsRed      no
0x0a66   OmenPercentToRationalLimitsGoR      no
0x0a67   OmenPercentToRationalLimitsBlue     no
0x0a68   OmenPercentToRationalLimitsGoB      no
0x0a6e   OmenEarlyGoBSurface                 no
0x0a6f   OmenEarlyGoBRows                    no
0x0a70   OmenEarlyGoBColumns                 no
0x0a73   OmenSmoothingKernel                 no
0x0a74   OmenGradientOffset                  no
0x0a75   OmenGradientKernel                  no
0x0a76   OmenGradientKernelTaps              no
0x0a77   OmenRatioClipFactors                no
0x0a78   OmenRatioExclusionFactors           no
0x0a79   OmenGradientExclusionLimits         no
0x0a7a   OmenROICoordinates                  no
0x0a7b   OmenROICoefficients                 no
0x0a7c   OmenRangeWeighting                  no
0x0a7d   OmenMeanToStrength                  no
0x0bb8   FactoryWhiteGainsDaylight           no
0x0bb9   FactoryWhiteOffsetsDaylight         no
0x0bba   DacGainsCoarse                      no
0x0bbb   DacGainsFine                        no
0x0bbc   DigitalExposureGains                no
0x0bbd   DigitalExposureBiases               no
0x0bbe   BlackClamp                          no
0x0bbf   ChannelCoarseGainAdjust             no
0x0bc0   BlackClampOffset                    no
0x0bf4   DMPixelThresholdFactor              no
```

```
0x0bf5   DMWindowThresholdFactor            no
0x0bf6   DMTrimFraction                     no
0x0bf7   DMSmoothRejThresh                  no
0x0bf8   DMFillRejThresh                    no
0x0bf9   VMWsize                            no
0x0bfa   DMErodeRadius                      no
0x0bfb   DMNumPatches                       no
0x0bfc   DMNoiseScale                       no
0x0bfe   BrightDefectThreshold              no
0x0bff   BrightDefectIntegrationMS          no
0x0c00   BrightDefectIsoCode                no
0x0c03   TopDarkRow1                        no
0x0c04   TopDarkRow2                        no
0x0c05   BottomDarkRow1                     no
0x0c06   BottomDarkRow2                     no
0x0c07   LeftDarkCol1                       no
0x0c08   LeftDarkCol2                       no
0x0c09   RightDarkCol1                      no
0x0c0a   RightDarkCol2                      no
0x0c0b   HMPixThresh                        no
0x0c0c   HMColThresh                        no
0x0c0d   HMWsize                            no
0x0c0e   HMColRejThresh                     no
0x0c0f   VMPixThresh                        no
0x0c10   VMColThresh                        no
0x0c11   VMNbands                           no
0x0c12   VMColDropThresh                    no
0x0c13   VMPatchResLimit                    no
0x0c14   MapScale                           no
0x0c1c   Klut                               no
0x0c1d   RimNonlinearity                    no
0x0c1e   InverseRimNonlinearity             no
0x0c1f   RembrandtToneScale                 no
0x0c20   RimToNifColorTransform             no
0x0c21   RimToNifScaleFactor                no
0x0c22   NifNonlinearity                    no
0x0c23   SBALogTransform                    no
0x0c24   InverseSBALogTransform             no
0x0c25   SBABlack                           int16u
0x0c26   SBAGray                            int16u
0x0c27   SBAWhite                           int16u
0x0c28   GaussianWeights                    no
0x0c29   SfsBoundary                        no
0x0c2a   CoringTableBest                    no
0x0c2b   CoringTableBetter                  no
0x0c2c   CoringTableGood                    no
0x0c2d   ExposureReferenceGain              no
0x0c2e   ExposureReferenceOffset            no
0x0c2f   SBARedBalanceLut                   no
0x0c30   SBAGreenBalanceLut                 no
0x0c31   SBABlueBalanceLut                  no
0x0c32   SBANeutralBAL                      int32s
0x0c33   SBAGreenMagentaBAL                 int32s
0x0c34   SBAIlluminantBAL                   int32s
```

0x0c35	SBAAnalysisComplete	int8u
0x0c36	JPEGQTableBest	no
0x0c37	JPEGQTableBetter	no
0x0c38	JPEGQTableGood	no
0x0c39	RembrandtPortraitToneScale	no
0x0c3a	RembrandtConsumerToneScale	no
0x0c3b	CFAGreenThreshold1	no
0x0c3c	CFAGreenThreshold2	no
0x0c3d	QTableLarge50Pct	no
0x0c3e	QTableLarge67Pct	no
0x0c3f	QTableLarge100Pct	no
0x0c40	QTableMedium50Pct	no
0x0c41	QTableMedium67Pct	no
0x0c42	QTableMedium100Pct	no
0x0c43	QTableSmall50Pct	no
0x0c44	QTableSmall67Pct	no
0x0c45	QTableSmall100Pct	no
0x0c46	SBAHighGray	int16u
0x0c47	SBALowGray	int16u
0x0c48	CaptureLook	int16u
0x0c49	SBAIllOffset	int16s
0x0c4a	SBAGmOffset	int16s
0x0c4b	NifNonlinearity12Bit	no
0x0c4c	SharpeningOn	no
0x0c4d	NifNonlinearity16Bit	no
0x0c4e	RawHistogram	no
0x0c4f	RawCFAComponentAverages	no
0x0c50	DisableFlagsPresent	no
0x0c51	DelayCols	no
0x0c52	DummyColsLeft	no
0x0c53	TrashColsRight	no
0x0c54	BlackColsRight	no
0x0c55	DummyColsRight	no
0x0c56	OverClockColsRight	no
0x0c57	UnusedBlackRowsTopOut	no
0x0c58	TrashRowsBottom	no
0x0c59	BlackRowsBottom	no
0x0c5a	OverClockRowsBottom	no
0x0c5b	BlackColsLeft	no
0x0c5c	BlackRowsTop	no
0x0c5d	PartialActiveColsLeft	no
0x0c5e	PartialActiveColsRight	no
0x0c5f	PartialActiveRowsTop	no
0x0c60	PartialActiveRowsBottom	no
0x0c61	ProcessBorderColsLeft	int16u
0x0c62	ProcessBorderColsRight	int16u
0x0c63	ProcessBorderRowsTop	int16u
0x0c64	ProcessBorderRowsBottom	int16u
0x0c65	ActiveCols	no
0x0c66	ActiveRows	no
0x0c67	FirstLines	no
0x0c68	UnusedBlackRowsTopIn	no
0x0c69	UnusedBlackRowsBottomIn	no
0x0c6a	UnusedBlackRowsBottomOut	no

```
0x0c6b   UnusedBlackColsLeftOut               no
0x0c6c   UnusedBlackColsLeftIn                no
0x0c6d   UnusedBlackColsRightIn               no
0x0c6e   UnusedBlackColsRightOut              no
0x0c6f   CFAOffsetRows                        int32u
0x0c70   ShiftCols                            int16s
0x0c71   CFAOffsetCols                        int32u
0x0c76   DarkMapScale                         no
0x0c77   HMapHandling                         no
0x0c78   VMapHandling                         no
0x0c79   DarkThreshold                        no
0x0c7a   DMDitherMatrix                       int16u
0x0c7b   DMDitherMatrixWidth                  int16u
0x0c7c   DMDitherMatrixHeight                 int16u
0x0c7d   MaxPixelValueThreshold               int16u
0x0c7e   HoleFillDeltaThreshold               int16u
0x0c7f   DarkPedestal                         int16u
0x0c80   ImageProcessingFileTagsVersionNumber int16u
0x0c81   ImageProcessingFileDateCreated       string
0x0c82   DoublingMicrovolts                   int32s
0x0c83   DarkFrameShortExposure               int32u
0x0c84   DarkFrameLongExposure                int32u
0x0c85   DarkFrameCountFactor                 rational64u
0x0c88   HoleFillDarkDeltaThreshold           int16u
0x0c89   FarkleWhiteThreshold                 no
0x0c8a   ColumnResetOffsets                   no
0x0c8b   ColumnGainFactors                    no
0x0c8c   Channel0LagKernel                    no
0x0c8d   Channel1LagKernel                    no
0x0c8e   Channel2LagKernel                    no
0x0c8f   Channel3LagKernel                    no
0x0c90   BluegrassTable                       no
0x0c91   BluegrassScale1                      no
0x0c92   BluegrassScale2                      no
0x0ce4   FinishedFileProcessingRequest        no
0x0ce5   FirmwareVersion                      string
0x0ce6   HostSoftwareExportVersion            no
0x0ce7   HostSoftwareRendering                int32u
0x0dac   DCS3XXProcessingInfoIFD              no
0x0dad   DCS3XXProcessingInfo                 no
0x0dae   IPAVersion                           int32u
0x0db6   FinishIPAVersion                     no
0x0db7   FinishIPFVersion                     no
0x0db8   FinishFileType                       int32u
0x0db9   FinishResolution                     int32u
0x0dba   FinishNoise                          int32u
0x0dbb   FinishSharpening                     int32u
0x0dbc   FinishLook                           int32u
0x0dbd   FinishExposure                       int32u
0x0e0b   SigmaScalingFactorLowRes             rational64u
0x0e0c   SigmaScalingFactorCamera             rational64u
0x0e0d   SigmaImpulseParameters               int16u[n]
0x0e0e   SigmaNoiseThreshTableV2              no
0x0e0f   SigmaSizeTable                       int16u[n]
```

```
0x0e10   DacGainsCoarseAdjPreIF41            no
0x0e11   SigmaNoiseFilterCalTableV1          no
0x0e12   SigmaNoiseFilterTableV1             no
0x0e13   Lin12ToKlut8                        no
0x0e14   SigmaNoiseFilterTableV1Version      no
0x0e15   Lin12ToKlut12                       no
0x0e16   Klut12ToLin12                       no
0x0e17   NifNonlinearity12To16               no
0x0e18   SBALog12Transform                   no
0x0e19   InverseSBALog12Transform            no
0x0e1a   ToneScale0                          no
0x0e1b   ToneScale1                          no
0x0e1c   ToneScale2                          no
0x0e1d   ToneScale3                          no
0x0e1e   ToneScale4                          no
0x0e1f   ToneScale5                          no
0x0e20   ToneScale6                          no
0x0e21   ToneScale7                          no
0x0e22   ToneScale8                          no
0x0e23   ToneScale9                          no
0x0e24   DayMat0                             no
0x0e25   DayMat1                             no
0x0e26   DayMat2                             no
0x0e27   DayMat3                             no
0x0e28   DayMat4                             no
0x0e29   DayMat5                             no
0x0e2a   DayMat6                             no
0x0e2b   DayMat7                             no
0x0e2c   DayMat8                             no
0x0e2d   DayMat9                             no
0x0e2e   TungMat0                            no
0x0e2f   TungMat1                            no
0x0e30   TungMat2                            no
0x0e31   TungMat3                            no
0x0e32   TungMat4                            no
0x0e33   TungMat5                            no
0x0e34   TungMat6                            no
0x0e35   TungMat7                            no
0x0e36   TungMat8                            no
0x0e37   TungMat9                            no
0x0e38   FluorMat0                           no
0x0e39   FluorMat1                           no
0x0e3a   FluorMat2                           no
0x0e3b   FluorMat3                           no
0x0e3c   FluorMat4                           no
0x0e3d   FluorMat5                           no
0x0e3e   FluorMat6                           no
0x0e3f   FluorMat7                           no
0x0e40   FluorMat8                           no
0x0e41   FluorMat9                           no
0x0e42   FlashMat0                           no
0x0e43   FlashMat1                           no
0x0e44   FlashMat2                           no
0x0e45   FlashMat3                           no
```

```
0x0e46   FlashMat4                          no
0x0e47   FlashMat5                          no
0x0e48   FlashMat6                          no
0x0e49   FlashMat7                          no
0x0e4a   FlashMat8                          no
0x0e4b   FlashMat9                          no
0x0e4c   KodakLook                          string
0x0e4d   IPFCameraModel                     string
0x0e4e   AH2GreenInterpolationThreshold     int16u
0x0e4f   ResamplingKernelDenominators067    int16u[3]
0x0e50   ResamplingKernelDenominators050    int16u[3]
0x0e51   ResamplingKernelDenominators100    int16u[3]
0x0e56   LookMat0                           no
0x0e57   LookMat1                           no
0x0e58   LookMat2                           no
0x0e59   LookMat3                           no
0x0e5a   LookMat4                           no
0x0e5b   LookMat5                           no
0x0e5c   LookMat6                           no
0x0e5d   LookMat7                           no
0x0e5e   LookMat8                           no
0x0e5f   LookMat9                           no
0x0e60   CFAInterpolationAlgorithm          int16u
0x0e61   CFAInterpolationMetric             int16u
0x0e62   CFAZipperFixThreshold              int16u
0x0e63   NoiseReductionParametersKhufuRGB   int16u[9]
0x0e64   NoiseReductionParametersKhufu6MP   int16u[9]
0x0e65   NoiseReductionParametersKhufu3MP   int16u[9]
0x0e6a   ChromaNoiseHighFThresh             int32u[2]
0x0e6b   ChromaNoiseLowFThresh              int32u[2]
0x0e6c   ChromaNoiseEdgeMapThresh           int32u
0x0e6d   ChromaNoiseColorSpace              int32u
0x0e6e   EnableChromaNoiseReduction         int16u
0x0e6f   NoiseReductionParametersHostRGB    int16u[9]
0x0e70   NoiseReductionParametersHost6MP    int16u[9]
0x0e71   NoiseReductionParametersHost3MP    int16u[9]
0x0e72   NoiseReductionParametersCamera     int16u[6]
0x0e73   NoiseReductionParametersAtCapture  int16u[6]
0x0e74   LCDMatrix                          rational64s[9]
0x0e75   LCDMatrixChickFix                  rational64s[9]
0x0e76   LCDMatrixMarvin                    rational64s[9]
0x0e7c   LCDGammaTableChickFix              no
0x0e7d   LCDGammaTableMarvin                no
0x0e7e   LCDGammaTable                      no
0x0e7f   LCDSharpeningF1                    no
0x0e80   LCDSharpeningF2                    no
0x0e81   LCDSharpeningF3                    no
0x0e82   LCDSharpeningF4                    no
0x0e83   LCDEdgeMapX1                       no
0x0e84   LCDEdgeMapX2                       no
0x0e85   LCDEdgeMapX3                       no
0x0e86   LCDEdgeMapX4                       no
0x0e87   LCDEdgeMapSlope                    no
0x0e88   YCrCbMatrix                        no
```

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0x0e89   LCDEdgeSpline                      no
0x0e92   Fac18Per                           int16u
0x0e93   Fac170Per                          int16u
0x0e94   Fac100Per                          int16u
0x0e9b   ExtraTickLocations                 no
0x0e9c   RGBtoeV0                           no
0x0e9d   RGBtoeV1                           no
0x0e9e   RGBtoeV2                           no
0x0e9f   RGBtoeV3                           no
0x0ea0   RGBtoeV4                           no
0x0ea1   RGBtoeV5                           no
0x0ea2   RGBtoeV6                           no
0x0ea3   RGBtoeV7                           no
0x0ea4   RGBtoeV8                           no
0x0ea5   RGBtoeV9                           no
0x0ea6   LCDHistLUT0                        no
0x0ea7   LCDHistLUT1                        no
0x0ea8   LCDHistLUT2                        no
0x0ea9   LCDHistLUT3                        no
0x0eaa   LCDHistLUT4                        no
0x0eab   LCDHistLUT5                        no
0x0eac   LCDHistLUT6                        no
0x0ead   LCDHistLUT7                        no
0x0eae   LCDHistLUT8                        no
0x0eaf   LCDHistLUT9                        no
0x0eb0   LCDLinearClipValue                 no
0x0ece   LCDStepYvalues                     no
0x0ecf   LCDStepYvaluesChickFix             no
0x0ed0   LCDStepYvaluesMarvin               no
0x0ed8   InterpolationCoefficients          no
0x0ed9   InterpolationCoefficients6MP       no
0x0eda   InterpolationCoefficients3MP       no
0x0f00   NoiseReductionParametersHostNormal no
0x0f01   NoiseReductionParametersHostStrong no
0x0f02   NoiseReductionParametersHostLow    no
0x0f0a   MariahTextureThreshold             int16u
0x0f0b   MariahMapLoThreshold               int16u
0x0f0c   MariahMapHiThreshold               int16u
0x0f0d   MariahChromaBlurSize               int16u
0x0f0e   MariahSigmaThreshold               int16u
0x0f0f   MariahThresholds                   no
0x0f10   MariahThresholdsNormal             no
0x0f11   MariahThresholdsStrong             no
0x0f12   MariahThresholdsLow                no
0x0f14   KhufuLinearRedMixingCoefficient    no
0x0f15   KhufuLinearGreenMixingCoefficient  no
0x0f16   KhufuLinearBlueMixingCoefficient   no
0x0f17   KhufuUSpaceC2MixingCoefficient     no
0x0f18   KhufuSigmaGaussianWeights          no
0x0f19   KhufuSigmaScalingFactors6MP        no
0x0f1a   KhufuSigmaScalingFactors3MP        no
0x0f1b   KhufuSigmaScalingFactors14MP       no
0x0f32   KhufuI0Thresholds                  no
0x0f33   KhufuI1Thresholds                  no
```

```
0x0f34   KhufuI2Thresholds                no
0x0f35   KhufuI3Thresholds                no
0x0f36   KhufuI4Thresholds                no
0x0f37   KhufuI5Thresholds                no
0x0f3c   CondadoDayBVThresh               int16u
0x0f3d   CondadoNeuRange                  int16u
0x0f3e   CondadoBVFactor                  int16s
0x0f3f   CondadoIllFactor                 int16s
0x0f40   CondadoTunThresh                 int16s
0x0f41   CondadoFluThresh                 int16s
0x0f42   CondadoDayOffsets                int16s[2]
0x0f43   CondadoTunOffsets                int16s[2]
0x0f44   CondadoFluOffsets                int16s[2]
0x0f5a   ERIMMToCRGB0Spline               no
0x0f5b   ERIMMToCRGB1Spline               no
0x0f5c   ERIMMToCRGB2Spline               no
0x0f5d   ERIMMToCRGB3Spline               no
0x0f5e   ERIMMToCRGB4Spline               no
0x0f5f   ERIMMToCRGB5Spline               no
0x0f60   ERIMMToCRGB6Spline               no
0x0f61   ERIMMToCRGB7Spline               no
0x0f62   ERIMMToCRGB8Spline               no
0x0f63   ERIMMToCRGB9Spline               no
0x0f64   CRGBToERIMM0Spline               no
0x0f65   CRGBToERIMM1Spline               no
0x0f66   CRGBToERIMM2Spline               no
0x0f67   CRGBToERIMM3Spline               no
0x0f68   CRGBToERIMM4Spline               no
0x0f69   CRGBToERIMM5Spline               no
0x0f6a   CRGBToERIMM6Spline               no
0x0f6b   CRGBToERIMM7Spline               no
0x0f6c   CRGBToERIMM8Spline               no
0x0f6d   CRGBToERIMM9Spline               no
0x0f6e   ERIMMNonLinearitySpline          no
0x0f6f   Delta12To8Spline                 no
0x0f70   Delta8To12Spline                 no
0x0f71   InverseMonitorMatrix             no
0x0f72   NifNonlinearityExt               no
0x0f73   InvNifNonLinearity               no
0x0f74   RIMM13ToERIMM12Spline            no
0x0f78   ToneScale0Spline                 no
0x0f79   ToneScale1Spline                 no
0x0f7a   ToneScale2Spline                 no
0x0f7b   ToneScale3Spline                 no
0x0f7c   ToneScale4Spline                 no
0x0f7d   ToneScale5Spline                 no
0x0f7e   ToneScale6Spline                 no
0x0f7f   ToneScale7Spline                 no
0x0f80   ToneScale8Spline                 no
0x0f81   ToneScale9Spline                 no
0x0f82   ERIMMToneScale0Spline            no
0x0f83   ERIMMToneScale1Spline            no
0x0f84   ERIMMToneScale2Spline            no
0x0f85   ERIMMToneScale3Spline            no
```

```
0x0f86   ERIMMToneScale4Spline              no
0x0f87   ERIMMToneScale5Spline              no
0x0f88   ERIMMToneScale6Spline              no
0x0f89   ERIMMToneScale7Spline              no
0x0f8a   ERIMMToneScale8Spline              no
0x0f8b   ERIMMToneScale9Spline              no
0x0f8c   RIMMToCRGB0Spline                  no
0x0f8d   RIMMToCRGB1Spline                  no
0x0f8e   RIMMToCRGB2Spline                  no
0x0f8f   RIMMToCRGB3Spline                  no
0x0f90   RIMMToCRGB4Spline                  no
0x0f91   RIMMToCRGB5Spline                  no
0x0f92   RIMMToCRGB6Spline                  no
0x0f93   RIMMToCRGB7Spline                  no
0x0f94   RIMMToCRGB8Spline                  no
0x0f95   RIMMToCRGB9Spline                  no
0x0fa0   QTableLarge25Pct                   no
0x0fa1   QTableMedium25Pct                  no
0x0fa2   QTableSmall25Pct                   no
0x1130   NoiseReductionKernel               no
0x1388   UserMetaData                       no
0x1389   InputProfile                      undef
0x138a   KodakLookProfile                   undef
0x138b   OutputProfile                      undef
0x1390   SourceProfilePrefix               string
0x1391   ToneCurveProfileName              string
0x1392   InputProfile                      ICC_Profile
0x1393   ProcessParametersV2                no
0x1394   ReservedBlob2                      no
0x1395   ReservedBlob3                      no
0x1396   ReservedBlob4                      no
0x1397   ReservedBlob5                      no
0x1398   ReservedBlob6                      no
0x1399   ReservedBlob7                      no
0x139a   ReservedBlob8                      no
0x139b   ReservedBlob9                      no
0x1770   ScriptVersion                      int32u
0x177a   ImagerTimingData                   no
0x1784   ISO                                int32u
0x17a2   Scav11Cols                         no
0x17a3   Scav12Cols                         no
0x17a4   Scav21Cols                         no
0x17a5   Scav22Cols                         no
0x17a6   ActiveCTEMonitor1Cols              no
0x17a7   ActiveCTEMonitor2Cols              no
0x17a8   ActiveCTEMonitorRows               no
0x17a9   ActiveBuf1Cols                     no
0x17aa   ActiveBuf2Cols                     no
0x17ab   ActiveBuf1Rows                     no
0x17ac   ActiveBuf2Rows                     no
0x17c0   HRNoiseLines                       no
0x17c1   RNoiseLines                        no
0x17c2   ANoiseLines                        no
0x17d4   ImagerCols                         int16u
```

```
0x17de   ImagerRows                          int16u
0x17e8   PartialActiveCols1                  int32u
0x17f2   PartialActiveCols2                  int32u
0x17fc   PartialActiveRows1                  int32u
0x1806   PartialActiveRows2                  int32u
0x1810   ElectricalBlackColumns              int32u
0x181a   ResetBlackSegRows                   int32u
0x1838   CaptureWidthNormal                  int32u
0x1839   CaptureHeightNormal                 int32u
0x183a   CaptureWidthResetBlackSegNormal     no
0x183b   CaptureHeightResetBlackSegNormal    no
0x183c   DarkRefOffsetNormal                 no
0x1842   CaptureWidthTest                    int32u
0x1843   CaptureHeightTest                   no
0x1844   CaptureWidthResetBlackSegTest       no
0x1845   CaptureHeightResetBlackSegTest      no
0x1846   DarkRefOffsetTest                   no
0x184c   ImageSegmentStartLine               int32u
0x184d   ImageSegmentLines                   int32u
0x184e   SkipLineTime                        int32u
0x1860   FastResetLineTime                   int32u
0x186a   NormalLineTime                      int32u
0x1874   MinIntegrationRows                  int32u
0x187e   PreReadFastResetCount               int32u
0x1888   TransferTimeNormal                  int32u
0x1889   TransferTimeTest                    int32u
0x188a   QuietTime                           int32u
0x189c   OverClockCols                       int16u
0x18a6   H2ResetBlackPixels                  int32u
0x18b0   H3ResetBlackPixels                  int32u
0x18ba   BlackAcquireRows                    int32u
0x18c4   OverClockRows                       int16u
0x18ce   H3ResetBlackColumns                 int32u
0x18d8   DarkBlackSegRows                    int32u
0x1900   CrossbarEnable                      no
0x1901   FifoenOnePixelDelay                 int32u
0x1902   ReadoutTypeRequested                int32u
0x1903   ReadoutTypeActual                   int32u
0x190a   OffsetDacValue                      int32u
0x1914   TempAmpGainX100                     int32u
0x191e   VarrayDacNominalValues              int32u[3]
0x1928   VddimDacNominalValues               no
0x1964   C14Configuration                    int32u
0x196e   TDA1Offset                          int32u[3]
0x196f   TDA1Bandwidth                       int32u
0x1970   TDA1Gain                            int32u[3]
0x1971   TDA1EdgePolarity                    int32u
0x1978   TDA2Offset                          int32u[3]
0x1979   TDA2Bandwidth                       int32u
0x197a   TDA2Gain                            int32u[3]
0x197b   TDA2EdgePolarity                    int32u
0x1982   TDA3Offset                          int32u[3]
0x1983   TDA3Bandwidth                       int32u
0x1984   TDA3Gain                            int32u[3]
```

0x1985	TDA3EdgePolarity	int32u
0x198c	TDA4Offset	int32u[3]
0x198d	TDA4Bandwidth	int32u
0x198e	TDA4Gain	int32u[3]
0x198f	TDA4EdgePolarity	int32u
0xfde8	ComLenBlkSize	int16u

Kodak TextualInfo Tags

Below is a list of tags which have been observed in the Kodak TextualInfo data, however ExifTool will extract information from any tags found here.

Tag ID	Tag Name	Writable
'AF Function'	AFMode	no
'Actual Compensation'	ActualCompensation	no
'Aperture'	Aperture	no
'Auto Bracket'	AutoBracket	no
'Brightness Value'	BrightnessValue	no
'Camera'	CameraModel	no
'Camera body'	CameraBody	no
'Compensation'	ExposureCompensation	no
'Date'	Date	no
'Exposure Bias'	ExposureBias	no
'Exposure Mode'	ExposureMode	no
'Firmware Version'	FirmwareVersion	no
'Flash Compensation'	FlashExposureComp	no
'Flash Fired'	FlashFired	no
'Flash Sync Mode'	FlashSyncMode	no
'Focal Length'	FocalLength	no
'Height'	KodakImageHeight	no
'ISO'	ISO	no
'ISO Speed'	ISO	no
'Image Number'	ImageNumber	no
'Lens'	Lens	no
'Max Aperture'	MaxAperture	no
'Meter Mode'	MeterMode	no
'Min Aperture'	MinAperture	no
'Popup Flash'	PopupFlash	no
'Serial Number'	SerialNumber	no
'Shooting Mode'	ShootingMode	no
'Shutter'	ShutterSpeed	no
'Temperature'	Temperature	no
'Time'	Time	no
'White balance'	WhiteBalance	no
'Width'	KodakImageWidth	no
'_other_info'	OtherInfo	no

Kodak Processing Tags

Index2	Tag Name	Writable
20	WB_RGBLevels	no

Kodak Type2 Tags

These tags are used by the Kodak DC220, DC260, DC265 and DC290, Hewlett-Packard PhotoSmart 618, C500 and C912, Pentax EI−200 and EI−2000, and Minolta EX1500Z.

Index1	Tag Name	Writable
8	KodakMaker	string[32]
40	KodakModel	string[32]
108	KodakImageWidth	int32u
112	KodakImageHeight	int32u

Kodak Type3 Tags

These tags are used by the DC240, DC280, DC3400 and DC5000.

Index1	Tag Name	Writable
12	YearCreated	int16u
14	MonthDayCreated	int8u[2]
16	TimeCreated	int8u[4]
30	OpticalZoom	int16u
55	Sharpness	int8s
56	ExposureTime	int32u
60	FNumber	int16u
78	ISO	int16u

Kodak Type4 Tags

These tags are used by the DC200 and DC215.

Index1	Tag Name	Writable
32	OriginalFileName	string[12]

Kodak Type5 Tags

These tags are used by the CX4200, CX4210, CX4230, CX4300, CX4310, CX6200 and CX6230.

Index1	Tag Name	Writable
20	ExposureTime	int32u
26	WhiteBalance	int8u
28	FNumber	int16u
30	ISO	int16u
32	OpticalZoom	int16u
34	DigitalZoom	int16u
39	FlashMode	int8u
42	ImageRotated	int8u
43	Macro	int8u

Kodak Type6 Tags

These tags are used by the DX3215 and DX3700.

Index1	Tag Name	Writable
16	ExposureTime	int32u
20	ISOSetting?	int32u
24	FNumber	int16u
26	ISO	int16u
28	OpticalZoom	int16u
30	DigitalZoom	int16u
34	Flash	int16u

Kodak Type7 Tags

The maker notes of models such as the C340, C433, CC533, LS755, V803 and V1003 seem to start with the

camera serial number. The C310, C315, C330, C643, C743, CD33, CD43, CX7220 and CX7300 maker notes are also decoded using this table, although the strings for these cameras don't conform to the usual Kodak serial number format, and instead have the model name followed by 8 digits.

Index1	Tag Name	Writable
0	SerialNumber	string[16]

Kodak Type8 Tags

Kodak models such as the ZD710, P712, P850, P880, V1233, V1253, V1275, V1285, Z612, Z712, Z812, Z885 use standard TIFF IFD format for the maker notes. In keeping with Kodak's strategy of inconsistent makernotes, models such as the M380, M1033, M1093, V1073, V1273, Z1012, Z1085 and Z8612 also use these tags, but these makernotes begin with a TIFF header instead of an IFD entry count and use relative instead of absolute offsets. There is a large amount of information stored in these maker notes (apparently with much duplication), but relatively few tags have so far been decoded.

Tag ID	Tag Name	Writable
0xfc00	SubIFD0	Kodak SubIFD0
		Kodak SubIFD0
0xfc01	SubIFD1	Kodak SubIFD1
		Kodak SubIFD1
0xfc02	SubIFD2	Kodak SubIFD2
		Kodak SubIFD2
0xfc03	SubIFD3	Kodak SubIFD3
		Kodak SubIFD3
0xfc04	SubIFD4	Kodak SubIFD4
		Kodak SubIFD4
0xfc05	SubIFD5	Kodak SubIFD5
		Kodak SubIFD5
0xfc06	SubIFD6	Kodak SubIFD6
		Kodak SubIFD6
0xfcff	SubIFD255	Kodak SubIFD0
0xff00	CameraInfo	Kodak CameraInfo

Kodak SubIFD0 Tags

SubIFD0 through SubIFD5 tags are written a number of newer Kodak models.

Tag ID	Tag Name	Writable
0xfa02	SceneMode	int16u
0xfa19	SerialNumber	string
0xfa1d	KodakImageWidth	int16u
0xfa1e	KodakImageHeight	int16u
0xfa20	SensorWidth	int16u
0xfa21	SensorHeight	int16u
0xfa23	FNumber	int16u
0xfa24	ExposureTime	int32u
0xfa2e	ISO	int16u
0xfa3d	OpticalZoom	int16u
0xfa46	ISO	int16u
0xfa51	KodakImageWidth	int16u
0xfa52	KodakImageHeight	int16u
0xfa54	ThumbnailWidth	int16u
0xfa55	ThumbnailHeight	int16u
0xfa57	PreviewImageWidth	int16u
0xfa58	PreviewImageHeight	int16u

Kodak SubIFD1 Tags

Tag ID	Tag Name	Writable
0x0027	ISO	int16u
0x0028	ISO	int16u

Kodak SubIFD2 Tags

Tag ID	Tag Name	Writable
0x6002	SceneModeUsed	int32u
0x6006	OpticalZoom	int32u
0x6103	MaxAperture	int32u
0xf002	SceneModeUsed	int32u
0xf006	OpticalZoom	int32u
0xf103	FNumber	int32u
0xf104	ExposureTime	int32u
0xf105	ISO	int32u

Kodak SubIFD3 Tags

Tag ID	Tag Name	Writable
0x1000	OpticalZoom	int16u

Kodak SubIFD4 Tags

Tag ID	Tag Name	Writable
[no tags known]		

Kodak SubIFD5 Tags

Tag ID	Tag Name	Writable
0x000f	OpticalZoom	int16u

Kodak SubIFD6 Tags

SubIFD6 is written by the M580.

Tag ID	Tag Name	Writable
[no tags known]		

Kodak CameraInfo Tags

These tags are used by the P712, P850 and P880.

Tag ID	Tag Name	Writable
0xf900	SensorWidth	int16u
0xf901	SensorHeight	int16u
0xf902	BayerPattern	string
0xf903	SensorFullWidth	int16u
0xf904	SensorFullHeight	int16u
0xf907	KodakImageWidth	int16u
0xf908	KodakImageHeight	int16u
0xfa00	KodakInfoType	string
0xfa04	SerialNumber	string
0xfd04	FNumber	int16u
0xfd05	ExposureTime	int32u

0xfd06	ISO	int16u

Kodak Type9 Tags

These tags are used by the Kodak C140, C180, C913, C1013, M320, M340 and M550, as well as various cameras marketed by other manufacturers.

Index1	Tag Name	Writable
12	FNumber	int16u
16	ExposureTime	int32u
20	DateTimeOriginal	string[20]
52	ISO	int16u
87	FirmwareVersion	string[16]
168	UnknownNumber	no
196	UnknownNumber	no

Kodak Type10 Tags

Another variation of the IFD-format type, this time with just a byte order indicator instead of a full TIFF header. These tags are used by the Z980.

Tag ID	Tag Name	Writable
0x0002	PreviewImageSize	int16u[2]
0x0012	ExposureTime	int32u
0x0013	FNumber	int16u
0x0014	ISO	int16u
0x001d	FocalLength	int32u

Kodak Type11 Tags

These tags are found in models such as the PixPro S−1. They are not writable because the inconsistency of Kodak maker notes is beginning to get on my nerves.

Tag ID	Tag Name	Writable
0x0104	FirmwareVersion	no
0x0203	PictureEffect	no
0x0207	KodakModel	no
0x0300	KodakMake	no
0x0308	LensSerialNumber	no
0x0309	LensModel	no
0x030d	LevelMeter?	no
0x0311	Pitch	no
0x0312	Yaw	no
0x0313	Roll	no
0x0314	CX?	no
0x0315	CY?	no
0x0316	Rads?	no

Kodak Unknown Tags

Index1	Tag Name	Writable
[no tags known]		

Kodak Meta Tags

These tags are found in the APP3 ‘‘Meta’’ segment of JPEG images from Kodak cameras such as the DC280, DC3400, DC5000, MC3, M580, Z950 and Z981. The structure of this segment is similar to the APP1 ‘‘Exif’’ segment, but a different set of tags is used.

Tag ID	Tag Name	Writable
0xc350	FilmProductCode	no
0xc351	ImageSourceEK	no
0xc352	CaptureConditionsPAR	no
0xc353	CameraOwner	undef
0xc354	SerialNumber	undef
0xc355	UserSelectGroupTitle	no
0xc356	DealerIDNumber	no
0xc357	CaptureDeviceFID	no
0xc358	EnvelopeNumber	no
0xc359	FrameNumber	no
0xc35a	FilmCategory	no
0xc35b	FilmGencode	no
0xc35c	ModelAndVersion	no
0xc35d	FilmSize	no
0xc35e	SBA_RGBShifts	no
0xc35f	SBAInputImageColorspace	no
0xc360	SBAInputImageBitDepth	no
0xc361	SBAExposureRecord	no
0xc362	UserAdjSBA_RGBShifts	no
0xc363	ImageRotationStatus	no
0xc364	RollGuidElements	no
0xc365	MetadataNumber	no
0xc366	EditTagArray	no
0xc367	Magnification	no
0xc36c	NativeXResolution	no
0xc36d	NativeYResolution	no
0xc36e	KodakEffectsIFD	Kodak SpecialEffects
0xc36f	KodakBordersIFD	Kodak Borders
0xc37a	NativeResolutionUnit	no
0xc418	SourceImageDirectory	no
0xc419	SourceImageFileName	no
0xc41a	SourceImageVolumeName	no
0xc46c	PrintQuality	no
0xc46e	ImagePrintStatus	no

Kodak SpecialEffects Tags

The Kodak SpecialEffects and Borders tags are found in sub-IFD's within the Kodak JPEG APP3 ''Meta'' segment.

Tag ID	Tag Name	Writable
0x0000	DigitalEffectsVersion	no
0x0001	DigitalEffectsName	no
0x0002	DigitalEffectsType	no

Kodak Borders Tags

Tag ID	Tag Name	Writable
0x0000	BordersVersion	no
0x0001	BorderName	no
0x0002	BorderID	no
0x0003	BorderLocation	no
0x0004	BorderType	no
0x0008	WatermarkType	no

Kodak KDC_IFD Tags

These tags are found in a separate IFD of KDC images from some newer Kodak models such as the P880 and Z1015IS.

Tag ID	Tag Name	Writable
0xfa00	SerialNumber	string
0xfa0d	WhiteBalance	int8u
0xfa25	WB_RGBLevelsAuto	no
0xfa27	WB_RGBLevelsTungsten	no
0xfa28	WB_RGBLevelsFluorescent	no
0xfa29	WB_RGBLevelsDaylight	no
0xfa2a	WB_RGBLevelsShade	no

Kodak frea Tags

Information stored in the ‘‘frea’’ atom of Kodak PixPro SP360 MP4 videos.

Tag ID	Tag Name	Writable
'scra'	PreviewImage	no
'thma'	ThumbnailImage	no
'tima'	Duration	no
'ver '	KodakVersion	no

Kodak Free Tags

Information stored in the ‘‘free’’ atom of Kodak MP4 videos. (VERY bad form for Kodak to store useful information in an atom intended for unused space!)

Tag ID	Tag Name	Writable
'AprV'	ApertureValue	no
'BrtV'	BrightnessValue	no
'Expc'	ExposureCompensation	no
'Expo'	ExposureTime	no
'FL35'	FocalLengthIn35mmFormat	no
'FNum'	FNumber	no
'FoLn'	FocalLength	no
'ISOS'	ISO	no
'SVer'	FirmwareVersion	no
'Scrn'	PreviewInfo	Kodak Scrn
'Seri'	SerialNumber	no
'StSV'	ShutterSpeedValue	no

Kodak Scrn Tags

Index2	Tag Name	Writable
0	PreviewImageWidth	no
1	PreviewImageHeight	no
2	PreviewImageLength	no
4	PreviewImage	no

Kodak DcMD Tags

Metadata directory found in MOV and MP4 videos from some Kodak cameras.

Tag ID	Tag Name	Writable
'CMbo'	CameraByteOrder	no
'Cmbo'	CameraByteOrder	no
'DcEM'	DcEM	Kodak DcEM
'DcME'	DcME	Kodak DcME

Kodak DcEM Tags

Tag ID	Tag Name	Writable
[no tags known]		

Kodak DcME Tags

Tag ID	Tag Name	Writable
[no tags known]		

Kodak MOV Tags

This information is found in the TAGS atom of MOV videos from Kodak models such as the P880.

Index1	Tag Name	Writable
0	Make	no
22	Model	no
64	ModelType	no
78	ExposureTime	no
82	FNumber	no
90	ExposureCompensation	no
112	FocalLength	no

Kodak pose Tags

Streamed orientation information from the PixPro 4KVR360, extracted as sub-documents when the Duplicates option is used.

Tag ID	Tag Name	Writable
'Accelerometer'	Accelerometer	no
'AngularVelocity'	AngularVelocity	no

Leaf Tags

These tags are found in .MOS images from Leaf digital camera backs as written by Creo Leaf Capture. They exist within the Leaf-specific directory structure of EXIF tag 0x8606. The tables below list observed Leaf tags, however ExifTool will extract any tags found in the Leaf directories even if they don't appear in these tables.

Tag ID	Tag Name	Writable
'JPEG_preview_data'	PreviewImage	no
'JPEG_preview_info'	PreviewInfo	no
'PDA_histogram_data'	PDAHistogram	no
'back_serial_number'	BackSerial	no
'camera_profile'	CameraProfile	Leaf CameraProfile
'icc_camera_profile'	ICC_Profile	ICC_Profile
'icc_camera_to_tone_matrix'	ToneMatrix	no
'icc_camera_to_tone_space_flow'	ToneSpaceFlow	no
'icc_rgb_ws_profile'	RGB_Profile	ICC_Profile
'image_offset'	ImageOffset	no
'pattern_ratation_angle'	PatternAngle	no

Leaf CameraProfile Tags

All **Tag ID**'s in the following table have a leading 'CamProf_' which has been removed.

Tag ID	Tag Name	Writable
'back_type'	CameraBackType	no
'capture_profile'	CaptureProfile	Leaf CaptureProfile
'image_profile'	ImageProfile	Leaf ImageProfile
'name'	CameraName	no
'type'	CameraType	no
'version'	CameraProfileVersion	no

Leaf CaptureProfile Tags

All **Tag ID**'s in the following table have a leading 'CaptProf_' which has been removed.

Tag ID	Tag Name	Writable
'CCD_rect'	CCDRect	no
'CCD_valid_rect'	CCDValidRect	no
'CCD_video_rect'	CCDVideoRect	no
'back_type'	CaptProfBackType	no
'center_dark_rect'	CenterDarkRect	no
'color_averages'	ColorAverages	no
'color_matrix'	ColorMatrix	no
'dark_correction_type'	DarkCorrectionType	no
'image_bounds'	ImageBounds	no
'image_fields'	ImageFields	no
'image_offset'	ImageOffset	no
'left_dark_rect'	LeftDarkRect	no
'luminance_consts'	LuminanceConsts	no
'mosaic_pattern'	MosaicPattern	no
'name'	CaptProfName	no
'number_of_planes'	NumberOfPlanes	no
'raw_data_rotation'	RawDataRotation	no
'reconstruction_type'	ReconstructionType	no
'right_dark_rect'	RightDarkRect	no
'serial_number'	CaptureSerial	no
'type'	CaptProfType	no
'version'	CaptProfVersion	no
'xy_offset_info'	XYOffsetInfo	no

Leaf ImageProfile Tags

All **Tag ID**'s in the following table have a leading 'ImgProf_' which has been removed.

Tag ID	Tag Name	Writable
'back_type'	ImgProfBackType	no
'image_status'	ImageStatus	no
'name'	ImgProfName	no
'rotation_angle'	RotationAngle	no
'shoot_setup'	ShootSetup	Leaf ShootSetup
'type'	ImgProfType	no
'version'	ImgProfVersion	no

Leaf ShootSetup Tags

All **Tag ID**'s in the following table have a leading 'ShootObj_' which has been removed.

Tag ID	Tag Name	Writable
'back_type'	ShootObjBackType	no
'camera_setup'	CameraSetup	Leaf CameraSetup
'capture_setup'	CaptureSetup	Leaf CaptureSetup
'color_setup'	ColorSetup	Leaf ColorSetup
'look_header'	LookHeader	Leaf LookHeader
'name'	ShootObjName	no
'save_setup'	SaveSetup	Leaf SaveSetup
'type'	ShootObjType	no
'version'	ShootObjVersion	no

Leaf CameraSetup Tags

All **Tag ID**'s in the following table have a leading 'CameraObj_' which has been removed.

Tag ID	Tag Name	Writable
'ISO_speed'	ISOSpeed	no
'back_type'	CameraObjBackType	no
'camera_type'	CameraType	no
'lens_ID'	LensID	no
'lens_type'	LensType	no
'name'	CameraObjName	no
'strobe'	Strobe	no
'type'	CameraObjType	no
'version'	CameraObjVersion	no

Leaf CaptureSetup Tags

All **Tag ID**'s in the following table have a leading 'CaptureObj_' which has been removed.

Tag ID	Tag Name	Writable
'Multi_quality'	MultiQuality	no
'back_type'	CaptureObjBackType	no
'name'	CaptureObjName	no
'neutals'	Neutals	Leaf Neutrals
'selection'	Selection	Leaf Selection
'sharpness'	Sharpness	Leaf Sharpness
'single_quality'	SingleQuality	no
'tone_curve'	ToneCurve	Leaf ToneCurve
'type'	CaptureObjType	no
'version'	CaptureObjVersion	no

Leaf Neutrals Tags

All **Tag ID**'s in the following table have a leading 'NeutObj_' which has been removed.

Tag ID	Tag Name	Writable
'back_type'	NeutObjBackType	no
'color_casts'	ColorCasts	no
'highlight_end_points'	HighlightEndPoints	no
'name'	NeutObjName	no
'neutrals'	Neutrals	no
'shadow_end_points'	ShadowEndPoints	no
'type'	NeutObjType	no
'version'	NeutObjVersion	no

Leaf Selection Tags

All **Tag ID**'s in the following table have a leading 'SelObj_' which has been removed.

Tag ID	Tag Name	Writable
'back_type'	SelObjBackType	no
'locks'	Locks	no
'name'	SelObjName	no
'orientation'	Orientation	no
'rect'	Rect	no
'resolution'	Resolution	no
'scale'	Scale	no
'type'	SelObjType	no
'version'	SelObjVersion	no

Leaf Sharpness Tags

All **Tag ID**'s in the following table have a leading 'SharpObj_' which has been removed.

Tag ID	Tag Name	Writable
'back_type'	SharpObjBackType	no
'data_len'	DataLen	no
'name'	SharpObjName	no
'sharp_info'	SharpInfo	no
'sharp_method'	SharpMethod	no
'type'	SharpObjType	no
'version'	SharpObjVersion	no

Leaf ToneCurve Tags

All **Tag ID**'s in the following table have a leading 'ToneObj_' which has been removed.

Tag ID	Tag Name	Writable
'back_type'	ToneObjBackType	no
'gamma'	Gamma	no
'name'	ToneObjName	no
'npts'	Npts	no
'tones'	Tones	no
'type'	ToneObjType	no
'version'	ToneObjVersion	no

Leaf ColorSetup Tags

All **Tag ID**'s in the following table have a leading 'ColorObj_' which has been removed.

Tag ID	Tag Name	Writable
'back_type'	ColorObjBackType	no
'color_mode'	ColorMode	no
'color_type'	ColorType	no
'has_ICC'	HasICC	no
'input_profile'	InputProfile	no
'name'	ColorObjName	no
'output_profile'	OutputProfile	no
'type'	ColorObjType	no
'version'	ColorObjVersion	no

Leaf LookHeader Tags

All **Tag ID**'s in the following table have a leading 'LookHead_' which has been removed.

Tag ID	Tag Name	Writable
'back_type'	LookHeadBackType	no
'name'	LookHeadName	no
'type'	LookHeadType	no
'version'	LookHeadVersion	no

Leaf SaveSetup Tags

All **Tag ID**'s in the following table have a leading 'SaveObj_' which has been removed.

Tag ID	Tag Name	Writable
'back_type'	SaveObjBackType	no
'leaf_auto_active'	LeafAutoActive	no
'leaf_auto_base_name'	LeafAutoBaseName	no
'leaf_hot_folder'	LeafHotFolder	no
'leaf_open_proc_HDR'	LeafOpenProcHDR	no
'leaf_output_file_type'	LeafOutputFileType	no
'leaf_save_selection'	LeafSaveSelection	no
'name'	SaveObjName	no
'std_auto_active'	StdAutoActive	no
'std_base_name'	StdBaseName	no
'std_hot_folder'	StdHotFolder	no
'std_open_in_photoshop'	StdOpenInPhotoshop	no
'std_output_bit_depth'	StdOutputBitDepth	no
'std_output_color_mode'	StdOutputColorMode	no
'std_output_file_type'	StdOutputFileType	no
'std_oxygen'	StdOxygen	no
'std_save_selection'	StdSaveSelection	no
'std_scaled_output'	StdScaledOutput	no
'std_sharpen_output'	StdSharpenOutput	no
'type'	SaveObjType	no
'version'	SaveObjVersion	no

Leaf SubIFD Tags

Leaf writes a TIFF-format sub-IFD inside IFD0 of a MOS image. No tags in this sub-IFD are currently known, except for tags 0x8602 and 0x8606 which really shouldn't be here anyway (so they don't appear in the table below) because they duplicate references to the same data from tags with the same ID in IFD0.

Tag ID	Tag Name	Writable
[no tags known]		

Lytro Tags

Tag definitions for Lytro Light Field Picture (LFP) files. ExifTool extracts the full JSON metadata blocks, as well as breaking them down into individual tags. All available tags are extracted from the JSON metadata, even if they don't appear in the table below.

Tag Name	Writable
AccelerometerTime	no
AccelerometerX	no
AccelerometerY	no
AccelerometerZ	no
CameraType	no
DateTimeOriginal	no
EmbeddedImage	no
ExposureTime	no
FNumber	no
FirmwareVersion	no
FocalLength	no
FocalPlaneXResolution	no
FrameExposureTime	no
ISO	no
ImageLimitExposureBias	no
ImageModulationExposureBias	no
JSONMetadata	no+
LensTemperature	no
Make	no
Model	no
Orientation	no
SensorSerialNumber	no
SerialNumber	no
SocTemperature	no

Minolta Tags

These tags are used by Minolta, Konica/Minolta as well as some Sony cameras. Minolta doesn't make things easy for decoders because the meaning of some tags and the location where some information is stored is different for different camera models. (Take MinoltaQuality for example, which may be located in 5 different places.)

Tag ID	Tag Name	Writable
0x0000	MakerNoteVersion	undef[4]
0x0001	MinoltaCameraSettingsOld	Minolta CameraSettings
0x0003	MinoltaCameraSettings	Minolta CameraSettings
0x0004	MinoltaCameraSettings7D	Minolta CameraSettings7D
0x0010	CameraInfoA100	Minolta CameraInfoA100
0x0018	ISInfoA100	Minolta ISInfoA100
	ImageStabilization	no
0x0020	WBInfoA100	Minolta WBInfoA100
0x0040	CompressedImageSize	int32u
0x0081	PreviewImage	undef
0x0088	PreviewImageStart	int32u*
0x0089	PreviewImageLength	int32u*
0x0100	SceneMode	int32u

0x0101	ColorMode	int32u
0x0102	MinoltaQuality	int32u
0x0103	MinoltaQuality	int32u
	MinoltaImageSize	int32u
0x0104	FlashExposureComp	rational64s
0x0105	Teleconverter	int32u
0x0107	ImageStabilization	int32u
0x0109	RawAndJpgRecording	int32u
0x010a	ZoneMatching	int32u
0x010b	ColorTemperature	int32u
0x010c	LensType	int32u
0x0111	ColorCompensationFilter	int32s
0x0112	WhiteBalanceFineTune	int32u
0x0113	ImageStabilization	int32u
0x0114	MinoltaCameraSettings5D	Minolta CameraSettings5D
	CameraSettingsA100	Minolta CameraSettingsA100
0x0115	WhiteBalance	int32u
0x0e00	PrintIM	PrintIM
0x0f00	MinoltaCameraSettings2	no

Minolta CameraSettings Tags

There is some variability in CameraSettings information between different models (and sometimes even between different firmware versions), so this information may not be as reliable as it should be. Because of this, tags in the following tables are set to lower priority to prevent them from superseding the values of same-named tags in other locations when duplicate tags are disabled.

Index4	Tag Name	Writable
1	ExposureMode	int32u
2	FlashMode	int32u
3	WhiteBalance	int32u~
4	MinoltaImageSize	int32u
5	MinoltaQuality	int32u
6	DriveMode	int32u
7	MeteringMode	int32u
8	ISO	int32u
9	ExposureTime	int32u
10	FNumber	int32u
11	MacroMode	int32u
12	DigitalZoom	int32u
13	ExposureCompensation	int32u
14	BracketStep	int32u
16	IntervalLength	int32u
17	IntervalNumber	int32u
18	FocalLength	int32u
19	FocusDistance	int32u
20	FlashFired	int32u
21	MinoltaDate	int32u
22	MinoltaTime	int32u
23	MaxAperture	int32u
26	FileNumberMemory	int32u
27	LastFileNumber	int32u
28	ColorBalanceRed	int32u
29	ColorBalanceGreen	int32u
30	ColorBalanceBlue	int32u

31	Saturation	int32u
32	Contrast	int32u
33	Sharpness	int32u
34	SubjectProgram	int32u
35	FlashExposureComp	int32u
36	ISOSetting	int32u
37	MinoltaModelID	int32u
38	IntervalMode	int32u
39	FolderName	int32u
40	ColorMode	int32u
41	ColorFilter	int32u
42	BWFilter	int32u
43	InternalFlash	int32u
44	Brightness	int32u
45	SpotFocusPointX	int32u
46	SpotFocusPointY	int32u
47	WideFocusZone	int32u
48	FocusMode	int32u
49	FocusArea	int32u
50	DECPosition	int32u
51	ColorProfile	int32u
52	DataImprint	int32u
63	FlashMetering	int32u

Minolta CameraSettings7D Tags

Index2	Tag Name	Writable
0	ExposureMode	int16u
2	MinoltaImageSize	int16u
3	MinoltaQuality	int16u
4	WhiteBalance	int16u
14	FocusMode	int16u
16	AFPoints	int16u
21	Flash	int16u
22	FlashMode	int16u
28	ISOSetting	int16u
30	ExposureCompensation	int16s
37	ColorSpace	int16u
38	Sharpness	int16u
39	Contrast	int16u
40	Saturation	int16u
45	FreeMemoryCardImages	int16u
63	ColorTemperature	int16s
64	HueAdjustment	int16u
70	Rotation	int16u
71	FNumber	int16u
72	ExposureTime	int16u
74	FreeMemoryCardImages	int16u
94	ImageNumber	int16u
96	NoiseReduction	int16u
98	ImageNumber2	int16u
113	ImageStabilization	int16u
117	ZoneMatchingOn	int16u

Minolta CameraInfoA100 Tags

Camera information for the Sony DSLR−A100.

Index1	Tag Name	Writable
1	AFSensorActive	int8u
2	AFStatusActiveSensor	int16s
4	AFStatusTop−right	int16s
6	AFStatusBottom−right	int16s
8	AFStatusBottom	int16s
10	AFStatusMiddleHorizontal	int16s
12	AFStatusCenterVertical	int16s
14	AFStatusTop	int16s
16	AFStatusTop−left	int16s
18	AFStatusBottom−left	int16s
20	FocusLocked	int8u
21	AFPoint	int8u
22	AFMode	int8u
45	AFStatusLeft	int16s
47	AFStatusCenterHorizontal	int16s
49	AFStatusRight	int16s
51	AFAreaMode	int8u

Minolta ISInfoA100 Tags

Image stabilization information for the Sony DSLR−A100.

Index1	Tag Name	Writable
0	ImageStabilization	int16u

Minolta WBInfoA100 Tags

White balance information for the Sony DSLR−A100.

Index1	Tag Name	Writable
14	DriveMode	int8u
16	Rotation	int8u
20	ImageStabilizationSetting	int8u
21	DynamicRangeOptimizerMode	int8u
42	ExposureCompensationMode	int8u
43	WBBracketShotNumber	int8u
44	WhiteBalanceBracketing	int8u
45	ExposureBracketShotNumber	int8u
49	FlashFunction	int16u
52	ExposureMode	int16u
54	ColorMode	int16u
56	AverageLV	int16u
60	FrameNumber	int8u
150	WB_RGBLevels	int16u[3]
174	WB_GBRGLevels	int16u[4]
192	WB_RedLevelsTungsten	int16u[7]
206	WB_BlueLevelsTungsten	int16u[7]
220	WB_RedLevelsDaylight	int16u[7]
234	WB_BlueLevelsDaylight	int16u[7]
248	WB_RedLevelsCloudy	int16u[7]
262	WB_BlueLevelsCloudy	int16u[7]
276	WB_RedLevelsFlash	int16u[7]
290	WB_BlueLevelsFlash	int16u[7]

332	WB_RedLevelsFluorescent	int16u[7]
346	WB_BlueLevelsFluorescent	int16u[7]
360	WB_RedLevelsShade	int16u[7]
374	WB_BlueLevelsShade	int16u[7]
392	WB_RedLevel6500K	int16u
394	WB_BlueLevel6500K	int16u
396	WB_RedLevelCustom	int16u
398	WB_BlueLevelCustom	int16u
408	WB_RedLevel3500K	int16u
410	WB_BlueLevel3500K	int16u
446	WB_RedLevelsKelvin	int16u[75]
596	WB_BlueLevelsKelvin	int16u[75]
772	WB_RBLevelsFlash	int16u[2]
776	WB_RBLevelsCoolWhiteF	int16u[2]
1000	WB_RBLevelsTungsten	int16u[2]
1004	WB_RBLevelsDaylight	int16u[2]
1008	WB_RBLevelsCloudy	int16u[2]
1012	WB_RBLevelsFlash	int16u[2]
1020	WB_RedLevelsFluorescent	int16u[7]
1034	WB_BlueLevelsFluorescent	int16u[7]
1048	WB_RBLevelsShade	int16u[2]
1056	WB_RBLevels6500K	int16u[2]
1060	WB_RBLevelsCustom	int16u[2]
1072	WB_RBLevels3500K	int16u[2]
1320	WB_RBLevelsDaylight	int16u[2]
1350	WB_RGBLevels	int16u[3]
1576	AEMeteringSegments	int8u[40]
1680	MeasuredLV	int8u
1681	BrightnessValue	int8u
4172	TiffMeteringImage	no
18872	ExposureTime	int8u
18874	ISO	int8u
18875	FocusDistance	int8u
18877	LensType	int16uRev
18880	ExposureCompensation	int8s
18881	FlashExposureComp	int8s
18882	ImageStabilization	int8u
18883	BrightnessValue	int8u
18885	MaxAperture	int8u
18887	FNumber	int8u
18908	InternalSerialNumber	string[12]

Minolta CameraSettings5D Tags

Index2	Tag Name	Writable
10	ExposureMode	int16u
12	MinoltaImageSize	int16u
13	MinoltaQuality	int16u
14	WhiteBalance	int16u
31	Flash	int16u
32	FlashMode	int16u
37	MeteringMode	int16u
38	ISOSetting	int16u
47	ColorSpace	int16u
48	Sharpness	int16u

49	Contrast	int16u
50	Saturation	int16u
53	ExposureTime	int16u
54	FNumber	int16u
55	FreeMemoryCardImages	int16u
73	ColorTemperature	int16s
74	HueAdjustment	int16u
80	Rotation	int16u
83	ExposureCompensation	int16u
84	FreeMemoryCardImages	int16u
101	Rotation	int16u
110	ColorTemperature	int16s
113	PictureFinish	int16u
174	ImageNumber	int16u
176	NoiseReduction	int16u
189	ImageStabilization	int16u

Minolta CameraSettingsA100 Tags

Camera settings information for the Sony DSLR−A100.

Index2	Tag Name	Writable
0	ExposureMode	int16u
1	ExposureCompensationSetting	int16u
5	HighSpeedSync	int16u
6	ShutterSpeedSetting	int16u
7	ApertureSetting	int16u
8	ExposureTime	int16u
9	FNumber	int16u
10	DriveMode2	int16u
11	WhiteBalance	int16u
12	FocusMode	int16u
13	AFPointSelected	int16u
14	AFAreaMode	int16u
15	FlashMode	int16u
16	FlashExposureCompSet	int16u
18	MeteringMode	int16u
19	ISOSetting	int16u
20	ZoneMatchingMode	int16u
21	DynamicRangeOptimizer	int16u
22	ColorMode	int16u
23	ColorSpace	int16u
24	Sharpness	int16u
25	Contrast	int16u
26	Saturation	int16u
28	FlashMetering	int16u
29	PrioritySetupShutterRelease	int16u
30	DriveMode	int16u
31	SelfTimerTime	int16u
32	ContinuousBracketing	int16u
33	SingleFrameBracketing	int16u
34	WhiteBalanceBracketing	int16u
35	WhiteBalanceSetting	int16u
36	PresetWhiteBalance	int16u
37	ColorTemperatureSetting	int16u

38	CustomWBSetting	int16u
39	DynamicRangeOptimizerSetting	int16u
50	FreeMemoryCardImages	int16u
52	CustomWBRedLevel	int16u
53	CustomWBGreenLevel	int16u
54	CustomWBBlueLevel	int16u
55	CustomWBError	int16u
56	WhiteBalanceFineTune	int16s
57	ColorTemperature	int16u
58	ColorCompensationFilter	int16s
59	SonyImageSize	int16u
60	SonyQuality	int16u
61	InstantPlaybackTime	int16u
62	InstantPlaybackSetup	int16u
63	NoiseReduction	int16u
64	EyeStartAF	int16u
65	RedEyeReduction	int16u
66	FlashDefault	int16u
67	AutoBracketOrder	int16u
68	FocusHoldButton	int16u
69	AELButton	int16u
70	ControlDialSet	int16u
71	ExposureCompensationMode	int16u
72	AFAssist	int16u
73	CardShutterLock	int16u
74	LensShutterLock	int16u
75	AFAreaIllumination	int16u
76	MonitorDisplayOff	int16u
77	RecordDisplay	int16u
78	PlayDisplay	int16u
80	ExposureIndicator	int16u
81	AELExposureIndicator	int16u
82	ExposureBracketingIndicatorLast	int16u
83	MeteringOffScaleIndicator	int16u
84	FlashExposureIndicator	int16u
85	FlashExposureIndicatorNext	int16u
86	FlashExposureIndicatorLast	int16u
87	ImageStabilization	int16u
88	FocusModeSwitch	int16u
89	FlashType	int16u
90	Rotation	int16u
91	AELock	int16u
94	ColorTemperature	int16u
95	ColorCompensationFilter	int16s
96	BatteryState	int16u

Minolta MMA Tags

This information is found in MOV videos from Minolta models such as the DiMAGE A2, S414 and 7Hi.

Index1	Tag Name	Writable
0	Make	no
20	SoftwareVersion	no

Minolta MOV1 Tags

This information is found in MOV videos from some Konica Minolta models such as the DiMage Z10 and X50.

Index1	Tag Name	Writable
0	Make	no
32	ModelType	no
46	ExposureTime	no
50	FNumber	no
58	ExposureCompensation	no
80	FocalLength	no

Minolta MOV2 Tags

This information is found in MOV videos from some Minolta models such as the DiMAGE X and Xt.

Index1	Tag Name	Writable
0	Make	no
24	ModelType	no
38	ExposureTime	no
42	FNumber	no
50	ExposureCompensation	no
72	FocalLength	no

Motorola Tags

Tag ID	Tag Name	Writable
0x5500	BuildNumber	string
0x5501	SerialNumber	string
0x6420	CustomRendered	string
0x64d0	DriveMode	string
0x665e	Sensor	string
0x6705	ManufactureDate	string

Nikon Tags

Tag ID	Tag Name	Writable
0x0001	MakerNoteVersion	undef[4]
0x0002	ISO	int16u[2]
0x0003	ColorMode	string
0x0004	Quality	string
0x0005	WhiteBalance	string
0x0006	Sharpness	string
0x0007	FocusMode	string
0x0008	FlashSetting	string
0x0009	FlashType	string
0x000b	WhiteBalanceFineTune	int16s[n]
0x000c	WB_RBLevels	rational64u[4]
0x000d	ProgramShift	undef[4]
0x000e	ExposureDifference	undef[4]
0x000f	ISOSelection	string
0x0010	DataDump	no
0x0011	PreviewIFD	Nikon PreviewIFD
0x0012	FlashExposureComp	undef[4]
0x0013	ISOSetting	int16u[2]
0x0014	ColorBalanceA	Nikon ColorBalanceA
	NRWData	Nikon ColorBalanceB

```
                                                Nikon ColorBalanceC
0x0016   ImageBoundary                          int16u[4]
0x0017   ExternalFlashExposureComp              undef[4]
0x0018   FlashExposureBracketValue              undef[4]
0x0019   ExposureBracketValue                   rational64s
0x001a   ImageProcessing                        string
0x001b   CropHiSpeed                            int16u[7]
0x001c   ExposureTuning                         undef[3]
0x001d   SerialNumber                           string!
0x001e   ColorSpace                             int16u
0x001f   VRInfo                                 Nikon VRInfo
0x0020   ImageAuthentication                    int8u
0x0021   FaceDetect                             Nikon FaceDetect
0x0022   ActiveD-Lighting                       int16u
0x0023   PictureControlData                     Nikon PictureControl
                                                Nikon PictureControl2
                                                Nikon PictureControl3
                                                Nikon PictureControlUnknown
0x0024   WorldTime                              Nikon WorldTime
0x0025   ISOInfo                                Nikon ISOInfo
0x002a   VignetteControl                        int16u
0x002b   DistortInfo                            Nikon DistortInfo
0x002c   UnknownInfo                            Nikon UnknownInfo
0x0032   UnknownInfo2                           Nikon UnknownInfo2
0x0034   ShutterMode                            int16u
0x0035   HDRInfo                                Nikon HDRInfo
         HDRInfo2                               Nikon HDRInfo2
0x0037   MechanicalShutterCount                 int32u
0x0039   LocationInfo                           Nikon LocationInfo
0x003d   BlackLevel                             int16u[4]
0x003e   ImageSizeRAW                           yes
0x003f   WhiteBalanceFineTune                   rational64s[2]
0x0044   JPGCompression                         yes
0x0045   CropArea                              int16u[4]
0x004e   NikonSettings                          NikonSettings
0x004f   ColorTemperatureAuto                   int16u
0x0051   MakerNotes0x51                         Nikon MakerNotes0x51
0x0056   MakerNotes0x56                         Nikon MakerNotes0x56
0x0080   ImageAdjustment                        string
0x0081   ToneComp                              string
0x0082   AuxiliaryLens                         string
0x0083   LensType                              int8u
0x0084   Lens                                   rational64u[4]
0x0085   ManualFocusDistance                    rational64u
0x0086   DigitalZoom                            rational64u
0x0087   FlashMode                              int8u
0x0088   AFInfo                                 Nikon AFInfo
                                                Nikon AFInfo
0x0089   ShootingMode                           int16u~
0x008b   LensFStops                             undef[4]
0x008c   ContrastCurve                          undef!
0x008d   ColorHue                               string
0x008f   SceneMode                              string
0x0090   LightSource                           string
```

0x0091	ShotInfoD40	Nikon ShotInfoD40
	ShotInfoD80	Nikon ShotInfoD80
	ShotInfoD90	Nikon ShotInfoD90
	ShotInfoD3a	Nikon ShotInfoD3a
	ShotInfoD3b	Nikon ShotInfoD3b
	ShotInfoD3X	Nikon ShotInfoD3X
	ShotInfoD3S	Nikon ShotInfoD3S
	ShotInfoD300a	Nikon ShotInfoD300a
	ShotInfoD300b	Nikon ShotInfoD300b
	ShotInfoD300S	Nikon ShotInfoD300S
	ShotInfoD700	Nikon ShotInfoD700
	ShotInfoD780	Nikon ShotInfoD780
	ShotInfoD7500	Nikon ShotInfoD7500
	ShotInfoD800	Nikon ShotInfoD800
	ShotInfoD810	Nikon ShotInfoD810
	ShotInfoD850	Nikon ShotInfoD850
	ShotInfoD5000	Nikon ShotInfoD5000
	ShotInfoD5100	Nikon ShotInfoD5100
	ShotInfoD5200	Nikon ShotInfoD5200
	ShotInfoD7000	Nikon ShotInfoD7000
	ShotInfoD4	Nikon ShotInfoD4
	ShotInfoD4S	Nikon ShotInfoD4S
	ShotInfoD500	Nikon ShotInfoD500
	ShotInfoD6	Nikon ShotInfoD6
	ShotInfoD610	Nikon ShotInfoD610
	ShotInfoZ6III	Nikon ShotInfoZ6III
	ShotInfoZ7II	Nikon ShotInfoZ7II
	ShotInfoZ8	Nikon ShotInfoZ8
	ShotInfoZ9	Nikon ShotInfoZ9
	ShotInfo02xx	Nikon ShotInfo
	ShotInfoUnknown	Nikon ShotInfo
0x0092	HueAdjustment	int16s
0x0093	NEFCompression	int16u
0x0094	SaturationAdj	int16s
0x0095	NoiseReduction	string
0x0096	NEFLinearizationTable	undef!
0x0097	ColorBalance0100	Nikon ColorBalance1
	ColorBalance0102	Nikon ColorBalance2
	ColorBalance0103	Nikon ColorBalance3
	ColorBalance0205	Nikon ColorBalance2
	ColorBalance0209	Nikon ColorBalance4
	ColorBalance02	Nikon ColorBalance2
	ColorBalance0211	Nikon ColorBalance4
	ColorBalance0213	Nikon ColorBalance2
	ColorBalance0215	Nikon ColorBalance4
	ColorBalance0219	Nikon ColorBalance2
	ColorBalanceUnknown1	Nikon ColorBalanceUnknown
	ColorBalanceUnknown2	Nikon ColorBalanceUnknown2
	ColorBalanceUnknown	Nikon ColorBalanceUnknown
0x0098	LensData0100	Nikon LensData00
	LensData0101	Nikon LensData01
	LensData0201	Nikon LensData01
	LensData0204	Nikon LensData0204
	LensData0400	Nikon LensData0400

```
            LensData0402                    Nikon LensData0402
            LensData0403                    Nikon LensData0403
            LensData0800                    Nikon LensData0800
            LensDataUnknown                 Nikon LensDataUnknown
   0x0099   RawImageCenter                  int16u[2]
   0x009a   SensorPixelSize                 rational64u[2]
   0x009c   SceneAssist                     string
   0x009d   DateStampMode                   int16u
   0x009e   RetouchHistory                  int16u[10]
   0x00a0   SerialNumber                    string
   0x00a2   ImageDataSize                   int32u
   0x00a5   ImageCount                      int32u
   0x00a6   DeletedImageCount               int32u
   0x00a7   ShutterCount                    int32u!
   0x00a8   FlashInfo0100                   Nikon FlashInfo0100
            FlashInfo0102                   Nikon FlashInfo0102
            FlashInfo0103                   Nikon FlashInfo0103
            FlashInfo0106                   Nikon FlashInfo0106
            FlashInfo0107                   Nikon FlashInfo0107
            FlashInfo0300                   Nikon FlashInfo0300
            FlashInfoUnknown                Nikon FlashInfoUnknown
   0x00a9   ImageOptimization               string
   0x00aa   Saturation                      string
   0x00ab   VariProgram                     string
   0x00ac   ImageStabilization              string
   0x00ad   AFResponse                      string
   0x00b0   MultiExposure                   Nikon MultiExposure
            MultiExposure2                  Nikon MultiExposure
                                            Nikon MultiExposure2
   0x00b1   HighISONoiseReduction           int16u
   0x00b3   ToningEffect                    string
   0x00b6   PowerUpTime                     undef
   0x00b7   AFInfo2                         Nikon AFInfo2V0100
                                            Nikon AFInfo2V0101
                                            Nikon AFInfo2V0200
                                            Nikon AFInfo2V0300
                                            Nikon AFInfo2V0400
   0x00b8   FileInfo                        Nikon FileInfo
                                            Nikon FileInfo
   0x00b9   AFTune                          Nikon AFTune
   0x00bb   RetouchInfo                     Nikon RetouchInfo
   0x00bd   PictureControlData              Nikon PictureControl
   0x00bf   SilentPhotography               yes
   0x00c3   BarometerInfo                   Nikon BarometerInfo
   0x0e00   PrintIM                         PrintIM
   0x0e01   NikonCaptureData                NikonCapture
   0x0e09   NikonCaptureVersion             stringˆ
   0x0e0e   NikonCaptureOffsets             Nikon CaptureOffsets
   0x0e10   NikonScanIFD                    Nikon Scan
   0x0e13   NikonCaptureEditVersions        NikonCapture
            NikonCaptureEditVersions        undef!ˆ
   0x0e1d   NikonICCProfile                 ICC_Profile
   0x0e1e   NikonCaptureOutput              Nikon CaptureOutput
   0x0e22   NEFBitDepth                     int16u[4]!
```

Nikon ast Tags

Tags used by Nikon NX Studio in Nikon NKSC sidecar files and trailers.

These tags belong to the ExifTool XMP-ast family 1 group.

Tag Name	Writable
About	no
GPSAltitude	no
GPSAltitudeRef	no
GPSImgDirection	no
GPSImgDirectionRef	no
GPSLatitude	no
GPSLatitudeRef	no
GPSLongitude	no
GPSLongitudeRef	no
GPSMapDatum	no
GPSVersionID	no
IPTC	IPTC
Version	no
XMLPackets	XMP

Nikon nine Tags

These tags belong to the ExifTool XMP-nine family 1 group.

Tag Name	Writable
About	no
Label	no
NineEdits	Nikon NineEdits
Rating	no
Trim	no
Version	no

Nikon NineEdits Tags

XML-based tags used to store editing information.

Tag Name	Writable
FilterParametersBinary	no
FilterParametersCustomCustomData	no
FilterParametersExportExportData	no

Nikon sdc Tags

These tags belong to the ExifTool XMP-sdc family 1 group.

Tag Name	Writable
About	no
AppName	no
AppVersion	no
Version	no

Nikon PreviewIFD Tags

Tag ID	Tag Name	Writable
0x00fe	SubfileType	no
0x0103	Compression	no
0x011a	XResolution	no
0x011b	YResolution	no
0x0128	ResolutionUnit	no
0x0201	PreviewImageStart	int32u*
0x0202	PreviewImageLength	int32u*
0x0213	YCbCrPositioning	no

Nikon ColorBalanceA Tags

Index2	Tag Name	Writable
624	WB_RBLevels	int16u[2]!
626	WB_RBLevelsAuto	int16u[2]!
628	WB_RBLevelsDaylight	int16u[14]!
642	WB_RBLevelsIncandescent	int16u[14]!
656	WB_RBLevelsFluorescent	int16u[6]!
662	WB_RBLevelsCloudy	int16u[14]!
676	WB_RBLevelsFlash	int16u[14]!
690	WB_RBLevelsShade	int16u[14]!

Nikon ColorBalanceB Tags

Color balance tags used by the P6000.

Index1	Tag Name	Writable
4	ColorBalanceVersion	undef[4]
5096	WB_RGGBLevels	int32u[4]!
5112	WB_RGGBLevelsDaylight	int32u[4]!
5128	WB_RGGBLevelsCloudy	int32u[4]!
5160	WB_RGGBLevelsTungsten	int32u[4]!
5176	WB_RGGBLevelsFluorescentW	int32u[4]!
5192	WB_RGGBLevelsFlash	int32u[4]!
5224	WB_RGGBLevelsCustom	int32u[4]!
5240	WB_RGGBLevelsAuto	int32u[4]!

Nikon ColorBalanceC Tags

Color balance tags used by the P1000, P7000, P7100 and B700.

Index1	Tag Name	Writable
4	ColorBalanceVersion	undef[4]
32	BlackLevel	int16u
56	WB_RGGBLevels	int32u[4]!
76	WB_RGGBLevelsDaylight	int32u[4]!
96	WB_RGGBLevelsCloudy	int32u[4]!
116	WB_RGGBLevelsShade	int32u[4]!
136	WB_RGGBLevelsTungsten	int32u[4]!
156	WB_RGGBLevelsFluorescentW	int32u[4]!
176	WB_RGGBLevelsFluorescentN	int32u[4]!
196	WB_RGGBLevelsFluorescentD	int32u[4]!
216	WB_RGGBLevelsHTMercury	int32u[4]!
256	WB_RGGBLevelsCustom	int32u[4]!
276	WB_RGGBLevelsAuto	int32u[4]!

Nikon VRInfo Tags

Index1	Tag Name	Writable
0	VRInfoVersion	no
4	VibrationReduction	int8u
6	VRMode	int8u
8	VRType	int8u

Nikon FaceDetect Tags

Index2	Tag Name	Writable
1	FaceDetectFrameSize	int16u[2]
3	FacesDetected	int16u
4	Face1Position	int16u[4]
8	Face2Position	int16u[4]
12	Face3Position	int16u[4]
16	Face4Position	int16u[4]
20	Face5Position	int16u[4]
24	Face6Position	int16u[4]
28	Face7Position	int16u[4]
32	Face8Position	int16u[4]
36	Face9Position	int16u[4]
40	Face10Position	int16u[4]
44	Face11Position	int16u[4]
48	Face12Position	int16u[4]

Nikon PictureControl Tags

Index1	Tag Name	Writable
0	PictureControlVersion	no
4	PictureControlName	string[20]
24	PictureControlBase	string[20]
48	PictureControlAdjust	int8u
49	PictureControlQuickAdjust	int8u
50	Sharpness	int8u
51	Contrast	int8u
52	Brightness	int8u
53	Saturation	int8u
54	HueAdjustment	int8u
55	FilterEffect	int8u
56	ToningEffect	int8u
57	ToningSaturation	int8u

Nikon PictureControl2 Tags

Index1	Tag Name	Writable
0	PictureControlVersion	no
4	PictureControlName	string[20]
24	PictureControlBase	string[20]
48	PictureControlAdjust	int8u
49	PictureControlQuickAdjust	int8u
51	Sharpness	int8u
53	Clarity	int8u
55	Contrast	int8u
57	Brightness	int8u

59	Saturation	int8u
61	Hue	int8u
63	FilterEffect	int8u
64	ToningEffect	int8u
65	ToningSaturation	int8u

Nikon PictureControl3 Tags

Index1	Tag Name	Writable
0	PictureControlVersion	no
8	PictureControlName	string[20]
28	PictureControlBase	string[20]
54	PictureControlAdjust	int8u
55	PictureControlQuickAdjust	int8u
57	Sharpness	int8u
59	MidRangeSharpness	int8u
61	Clarity	int8u
63	Contrast	int8u
65	Brightness	int8u
67	Saturation	int8u
69	Hue	int8u
71	FilterEffect	int8u
72	ToningEffect	int8u
73	ToningSaturation	int8u

Nikon PictureControlUnknown Tags

Index1	Tag Name	Writable
0	PictureControlVersion	no

Nikon WorldTime Tags

Index1	Tag Name	Writable
0	TimeZone	int16s
2	DaylightSavings	int8u
3	DateDisplayFormat	int8u

Nikon ISOInfo Tags

Index1	Tag Name	Writable
0	ISO	int8u
4	ISOExpansion	int16u
6	ISO2	int8u
10	ISOExpansion2	int16u

Nikon DistortInfo Tags

Index1	Tag Name	Writable
0	DistortionVersion?	no
4	AutoDistortionControl	int8u

Nikon UnknownInfo Tags

Index4	Tag Name	Writable
0	UnknownInfoVersion?	no

Nikon UnknownInfo2 Tags

Index4	Tag Name	Writable
0	UnknownInfo2Version?	no

Nikon HDRInfo Tags

Index1	Tag Name	Writable
0	HDRInfoVersion	no
4	HDR	int8u
5	HDRLevel	int8u
6	HDRSmoothing	int8u
7	HDRLevel2	int8u

Nikon HDRInfo2 Tags

Index1	Tag Name	Writable
0	HDRInfoVersion	no
4	HDR	int8u
5	HDRLevel	int8u

Nikon LocationInfo Tags

Tags written by some Nikon GPS-equipped cameras like the AW100.

Index1	Tag Name	Writable
0	LocationInfoVersion	undef[4]
4	TextEncoding	int8u
5	CountryCode	undef[3]
8	POILevel	int8u
9	Location	undef[70]

Nikon MakerNotes0x51 Tags

Index1	Tag Name	Writable
0	FirmwareVersion51	no
10	NEFCompression	int16u

Nikon MakerNotes0x56 Tags

Index1	Tag Name	Writable
0	FirmwareVersion56	no
4.1	BurstStartSlotNumber	int32u & 0x20000000
4.2	BurstStartFolderNumber	int32u & 0x1ff80000
4.3	BurstStartImageNumber	int32u & 0x7ffe0
4.4	BurstStartImageType	int32u & 0x1f
8	BurstShotNumber	int32u
12	PixelShiftActive	int8u

Nikon AFInfo Tags

Index1	Tag Name	Writable
0	AFAreaMode	int8u
1	AFPoint	int8u
2	AFPointsInFocus	int16u

Nikon ShotInfoD40 Tags

These tags are extracted from encrypted data in D40 and D40X images.

Index	Tag Name	Writable
0	ShotInfoVersion	no
582	ShutterCount	int32u
586.1	VibrationReduction	int8u & 0x08
729	CustomSettingsD40	NikonCustom SettingsD40

Nikon ShotInfoD80 Tags

These tags are extracted from encrypted data in D80 images.

Index	Tag Name	Writable
0	ShotInfoVersion	no
586	ShutterCount	int32u
590.1	Rotation	int8u & 0x07
590.2	VibrationReduction	int8u & 0x18
590.3	FlashFired	int8u & 0xe0
708	NikonImageSize	int8u & 0xf0
708.1	ImageQuality	int8u & 0x0f
748	CustomSettingsD80	NikonCustom SettingsD80

Nikon ShotInfoD90 Tags

These tags are extracted from encrypted data in images from the D90 with firmware 1.00.

Index	Tag Name	Writable
0	ShotInfoVersion	no
4	FirmwareVersion	no
693	ISO2	int8u
725	ShutterCount	int32u
884	CustomSettingsD90	NikonCustom SettingsD90

Nikon ShotInfoD3a Tags

These tags are extracted from encrypted data in images from the D3 with firmware 1.00 and earlier.

Index	Tag Name	Writable
0	ShotInfoVersion	no
598	ISO2	int8u
630	ShutterCount	int32u
723.1	NikonImageSize	int8u & 0x18
723.2	ImageQuality	int8u & 0x07
769	CustomSettingsD3	NikonCustom SettingsD3

Nikon ShotInfoD3b Tags

These tags are extracted from encrypted data in images from the D3 with firmware 1.10, 2.00, 2.01 and 2.02.

Index	Tag Name	Writable
0	ShotInfoVersion	no
4	FirmwareVersion	no
16	ImageArea	int8u
605	ISO2	int8u
637	ShutterCount	int32u
639	ShutterCount	int32u
650	PreFlashReturnStrength	int8u
732.1	NikonImageSize	int8u & 0x18
732.2	ImageQuality	int8u & 0x07
778	CustomSettingsD3	NikonCustom SettingsD3

Nikon ShotInfoD3X Tags

These tags are extracted from encrypted data in images from the D3X with firmware 1.00.

Index	Tag Name	Writable
0	ShotInfoVersion	no
4	FirmwareVersion	no
605	ISO2	int8u
640	ShutterCount	int32u
779	CustomSettingsD3X	NikonCustom SettingsD3

Nikon ShotInfoD3S Tags

These tags are extracted from encrypted data in images from the D3S with firmware 1.00 and earlier.

Index	Tag Name	Writable
0	ShotInfoVersion	no
4	FirmwareVersion	no
16	ImageArea	int8u
545	ISO2	int8u
578	ShutterCount	int32u
671.1	JPGCompression	int8u & 0x40
718	CustomSettingsD3S	NikonCustom SettingsD3

Nikon ShotInfoD300a Tags

These tags are extracted from encrypted data in images from the D300 with firmware 1.00 and earlier.

Index	Tag Name	Writable
0	ShotInfoVersion	no
604	ISO2	int8u
633	ShutterCount	int32u
721	AFFineTuneAdj	int16u
790	CustomSettingsD300	NikonCustom SettingsD3

Nikon ShotInfoD300b Tags

These tags are extracted from encrypted data in images from the D300 with firmware 1.10.

Index	Tag Name	Writable
0	ShotInfoVersion	no
4	FirmwareVersion	no
613	ISO2	int8u
644	ShutterCount	int32u
732	AFFineTuneAdj	int16u
802	CustomSettingsD300	NikonCustom SettingsD3

Nikon ShotInfoD300S Tags

These tags are extracted from encrypted data in images from the D300S with firmware 1.00.

Index	Tag Name	Writable
0	ShotInfoVersion	no
4	FirmwareVersion	no
613	ISO2	int8u
646	ShutterCount	int32u
804	CustomSettingsD300S	NikonCustom SettingsD3

Nikon ShotInfoD700 Tags

These tags are extracted from encrypted data in images from the D700 with firmware 1.02f.

Index	Tag Name	Writable
0	ShotInfoVersion	no
4	FirmwareVersion	no
613	ISO2	int8u
647	ShutterCount	int32u
804	CustomSettingsD700	NikonCustom SettingsD700

Nikon ShotInfoD780 Tags

These tags are extracted from encrypted data in images from the D780.

Index	Tag Name	Writable
0	ShotInfoVersion	no
4	FirmwareVersion	no
156	OrientOffset	Nikon OrientationInfo

Nikon OrientationInfo Tags

Index1	Tag Name	Writable
0	RollAngle	fixed32u
4	PitchAngle	fixed32u
8	YawAngle	fixed32u

Nikon ShotInfoD7500 Tags

These tags are extracted from encrypted data in images from the D7500.

Index	Tag Name	Writable
0	ShotInfoVersion	no
4	FirmwareVersion	no
160	OrientOffset	Nikon OrientationInfo

Nikon ShotInfoD800 Tags

These tags are extracted from encrypted data in images from the D800.

Index	Tag Name	Writable
0	ShotInfoVersion	no
4	FirmwareVersion	no
1216	RepeatingFlashOutputExternal	int8u
1218	RepeatingFlashRateExternal	int8u
1219	RepeatingFlashCountExternal	int8u
1234	FlashExposureComp2	int8s
1242	RepeatingFlashRateBuilt-in	int8u
1243	RepeatingFlashCountBuilt-in	int8u
1308	SequenceNumber	int8u
1531	ShutterCount	int32u
1772	CustomSettingsD800	NikonCustom SettingsD800

Nikon ShotInfoD810 Tags

These tags are extracted from encrypted data in images from the D810.

Index	Tag Name	Writable
0	ShotInfoVersion	no
4	FirmwareVersion	no
16	SettingsOffset	Nikon SettingsInfoD810
36	BracketingOffset	Nikon BracketingInfoD810
56	ISOAutoOffset	Nikon ISOAutoInfoD810
64	CustomSettingsOffset	NikonCustom SettingsD810
132	OrientationOffset	Nikon OrientationInfo

Nikon SettingsInfoD810 Tags

Index1	Tag Name	Writable
316	SecondarySlotFunction	int8u & 0x03

Nikon BracketingInfoD810 Tags

Index1	Tag Name	Writable
15	AEBracketingSteps	int8u & 0xff
16	WBBracketingSteps	int8u & 0xff
23	NikonMeteringMode	int8u & 0x03

Nikon ISOAutoInfoD810 Tags

Index1	Tag Name	Writable
4	ISOAutoShutterTime	int8u & 0x3f
5	ISOAutoHiLimit	int8u & 0xff

Nikon ShotInfoD850 Tags

These tags are extracted from encrypted data in images from the D850.

Index	Tag Name	Writable
0	ShotInfoVersion	no
4	FirmwareVersion	no
16	MenuSettingsOffset	Nikon MenuSettingsD850
76	MoreSettingsOffset	Nikon MoreSettingsD850
88	CustomSettingsOffset	NikonCustom SettingsD850
160	OrientationOffset	Nikon OrientationInfo

Nikon MenuSettingsD850 Tags

Index1	Tag Name	Writable
1757	PhotoShootingMenuBankImageArea	int8u & 0x07

Nikon MoreSettingsD850 Tags

Index1	Tag Name	Writable
36	PhotoShootingMenuBank	int8u & 0x03
37	PrimarySlot	int8u & 0x80

Nikon ShotInfoD5000 Tags

These tags are extracted from encrypted data in images from the D5000 with firmware 1.00.

Index	Tag Name	Writable
0	ShotInfoVersion	no
4	FirmwareVersion	no
693	ISO2	int8u
726	ShutterCount	int32u
888	CustomSettingsD5000	NikonCustom SettingsD5000

Nikon ShotInfoD5100 Tags

Index	Tag Name	Writable
0	ShotInfoVersion	no
4	FirmwareVersion	no
801	ShutterCount	int32u
1031	CustomSettingsD5100	NikonCustom SettingsD5100

Nikon ShotInfoD5200 Tags

Index	Tag Name	Writable
0	ShotInfoVersion	no
4	FirmwareVersion	no
3032	ShutterCount	int32u
3285	CustomSettingsD5200	NikonCustom SettingsD5200

Nikon ShotInfoD7000 Tags

These tags are extracted from encrypted data in images from the D7000 with firmware 1.01b.

Index	Tag Name	Writable
0	ShotInfoVersion	no
4	FirmwareVersion	no
800	ShutterCount	int32u
1028	CustomSettingsD7000	NikonCustom SettingsD7000

Nikon ShotInfoD4 Tags

These tags are extracted from encrypted data in images from the D4.

Index	Tag Name	Writable
0	ShotInfoVersion	no
4	FirmwareVersion	no
1873	CustomSettingsD4	NikonCustom SettingsD4

Nikon ShotInfoD4S Tags

These tags are extracted from encrypted data in images from the D4S.

Index	Tag Name	Writable
0	ShotInfoVersion	no
4	FirmwareVersion	no
464	SecondarySlotFunction	int8u & 0x03
5964	AEBracketingSteps	int8u & 0xff
5965	WBBracketingSteps	int8u & 0xff
6221	ReleaseMode	int8u & 0xff
6301	CustomSettingsD4S	NikonCustom SettingsD4
6338	MultiSelectorLiveViewMode	int8u & 0xc0
6378	ISOAutoShutterTime	int8u & 0x3f
6379	ISOAutoHiLimit	int8u & 0xff
6461	CustomSettingsD4S	NikonCustom SettingsD4
13579	OrientationInfo	Nikon OrientationInfo
13971	Rotation	int8u & 0x30

Nikon ShotInfoD500 Tags

These tags are extracted from encrypted data in images from the D5 and D500.

Index	Tag Name	Writable
0	ShotInfoVersion	no
4	FirmwareVersion	no
16	RotationInfoOffset	Nikon RotationInfoD500
20	JPGInfoOffset	Nikon JPGInfoD500
44	BracketingOffset	Nikon BracketingInfoD500
80	ShootingMenuOffset	Nikon ShootingMenuD500
88	CustomSettingsOffset	Nikon CustomSettingsD500
160	OrientationOffset	Nikon OrientationInfo
168	OtherOffset	Nikon OtherInfoD500

Nikon RotationInfoD500 Tags

Index1	Tag Name	Writable
26	Rotation	int8u & 0x03
32	Interval	int8u~
36	IntervalFrame	int8u~
1330	FlickerReductionIndicator	int8u & 0x01

Nikon JPGInfoD500 Tags

Index1	Tag Name	Writable
36	JPGCompression	int8u & 0x01

Nikon BracketingInfoD500 Tags

Index1	Tag Name	Writable
15	AEBracketingSteps	int8u & 0xff
16	WBBracketingSteps	int8u & 0xff
23	ADLBracketingStep	int8u & 0xf0
24	ADLBracketingType	int8u & 0x0f

Nikon ShootingMenuD500 Tags

Index1	Tag Name	Writable
0	PhotoShootingMenuBank	int8u & 0x03
2	PrimarySlot	int8u & 0x80
4	ISOAutoShutterTime	int8u & 0x3f
5	ISOAutoHiLimit	int8u & 0xff
7	FlickerReduction	int8u & 0x20
7.1	PhotoShootingMenuBankImageArea	int8u & 0x07

Nikon CustomSettingsD500 Tags

Index1	Tag Name	Writable
0	CustomSettingsD5	NikonCustom SettingsD5
	CustomSettingsD500	NikonCustom SettingsD500

Nikon OtherInfoD500 Tags

Index1	Tag Name	Writable
532	NikonMeteringMode	int8u & 0x03

Nikon ShotInfoD6 Tags

These tags are extracted from encrypted data in images from the D6.

Index	Tag Name	Writable
0	ShotInfoVersion	no
4	FirmwareVersion	no
36	NumberOffsets	no
48	SequenceOffset	Nikon SeqInfoD6
156	OrientationOffset	Nikon OrientationInfo
164	IntervalOffset	Nikon IntervalInfoD6

Nikon SeqInfoD6 Tags

Index1	Tag Name	Writable
36	IntervalShooting	int16u~
40	IntervalFrame	int16u
43	ImageArea	int8u

Nikon IntervalInfoD6 Tags

Index1	Tag Name	Writable
380	Intervals	int32u
384	ShotsPerInterval	int32u
388	IntervalExposureSmoothing	int8u
390	IntervalPriority	int8u
424	FocusShiftNumberShots	int8u
428	FocusShiftStepWidth	int8u
432	FocusShiftInterval	int8u~
436	FocusShiftExposureLock	int8u
526	DiffractionCompensation	int8u
532	FlashControlMode	int8u
538	FlashGNDistance?	no
542	FlashOutput?	int8u
552	FlashRemoteControl?	int8u
556	FlashMasterControlMode	int8u

558	FlashMasterCompensation?	int8s
562	FlashMasterOutput?	int8u
564	FlashWirelessOption?	int8u
714	MovieType?	int8u

Nikon ShotInfoD610 Tags

These tags are extracted from encrypted data in images from the D610.

Index	Tag Name	Writable
0	ShotInfoVersion	no
4	FirmwareVersion	no
1999	CustomSettingsD610	NikonCustom SettingsD610

Nikon ShotInfoZ6III Tags

These tags are extracted from encrypted data in images from the Z6III.

Index	Tag Name	Writable
0	ShotInfoVersion	no
4	FirmwareVersion	no
14	FirmwareVersion2	no
24	FirmwareVersion3	no
36	NumberOffsets	no
48	SequenceOffset	Nikon SeqInfoZ9 Nikon SeqInfoZ6iiiv2
136	OrientationOffset	Nikon OrientationInfo
144	MenuOffset	Nikon MenuSettingsZ6III Nikon MenuSettingsZ6IIIv2

Nikon SeqInfoZ9 Tags

Index1	Tag Name	Writable
32	FocusShiftShooting	int8u~
40	IntervalShooting	int16u~
42	IntervalFrame	int16u

Nikon SeqInfoZ6iiiv2 Tags

Index1	Tag Name	Writable
32	FocusShiftShooting	int8u~
42	IntervalShooting	int16u~
44	IntervalFrame	int16u

Nikon MenuSettingsZ6III Tags

These tags are used by the Z6III.

Index1	Tag Name	Writable
360	SingleFrame	int8u
364	HighFrameRate	int8u
444	MultipleExposureMode	int8u
446	MultiExposureShots	int8u
476	IntervalDurationHours	int32u
480	IntervalDurationMinutes	int32u
484	IntervalDurationSeconds	int32u
492	Intervals	int32u
496	ShotsPerInterval	int32u
500	IntervalExposureSmoothing	int8u
502	IntervalPriority	int8u
536	FocusShiftNumberShots	int8u
540	FocusShiftStepWidth	int8u
544	FocusShiftInterval	int8u~
548	FocusShiftExposureLock	int8u
648	AutoISO	int8u
650	ISOAutoHiLimit?	int16u
718	DiffractionCompensation	int8u
719	AutoDistortionControl	int8u
720	FlickerReductionShooting	int8u
722	NikonMeteringMode	int8u
724	FlashControlMode	int8u
730	FlashGNDistance?	no
734	FlashOutput?	int8u
742	FlashWirelessOption?	int8u
744	FlashRemoteControl?	int8u
748	FlashMasterControlMode	int8u
750	FlashMasterCompensation?	int8s
754	FlashMasterOutput?	int8u
832	AFAreaMode	int8u
834	VRMode	int8u
838	BracketSet	int8u
840	BracketProgram	int8u
842	BracketIncrement	int8u
852	HDR	int8u
858	SecondarySlotFunction	int8u
864	HDRLevel	int8u
868	Slot2JpgSize?	int8u
878	SubjectDetection	int8u
880	DynamicAFAreaSize	int8u
884	ToneMap?	int8u
888	PortraitImpressionBalance	int8u
902	HighFrequencyFlickerReduction?	int8u
904	PixelShiftShooting	int8u
906	PixelShiftNumberShots	int8u
908	PixelShiftDelay	int8u~
910	PixelShiftInterval	int8u~
1002	SubjectDetectionAreaMF	int8u
1004	LinkVRToFocusPoint?	int8u
1046	MovieSlowMotion?	int8u
1050	MovieType	int8u
1162	MovieFrameSize?	int8u

1164	MovieFrameRate?	int8u
1255	CustomSettingsZ6III	NikonCustom SettingsZ6III
2300	Language?	int8u
2302	TimeZone	int8u
2308	MonitorBrightness?	int8u
2444	EmptySlotRelease?	int8u
2450	EnergySavingMode?	int8u
2476	USBPowerDelivery?	int8u
2480	SaveFocusPosition?	int8u
2487	SilentPhotography?	int8u
2496	AirplaneMode?	int8u

Nikon MenuSettingsZ6IIIv2 Tags

These tags are used by the Z6III.

Index1	Tag Name	Writable
360	SingleFrame	int8u
364	HighFrameRate	int8u
448	MultipleExposureMode	int8u
450	MultiExposureShots	int8u
480	IntervalDurationHours	int32u
484	IntervalDurationMinutes	int32u
488	IntervalDurationSeconds	int32u
496	Intervals	int32u
500	ShotsPerInterval	int32u
504	IntervalExposureSmoothing	int8u
506	IntervalPriority	int8u
540	FocusShiftNumberShots	int8u
544	FocusShiftStepWidth	int8u
548	FocusShiftInterval	int8u~
552	FocusShiftExposureLock	int8u
618	PhotoShootingMenuBankImageArea	int8u
634	AutoISO	int8u
636	ISOAutoHiLimit?	int16u
706	DiffractionCompensation	int8u
710	NikonMeteringMode	int8u
712	FlashControlMode	int8u
718	FlashGNDistance?	no
722	FlashOutput?	int8u
730	FlashWirelessOption?	int8u
732	FlashRemoteControl?	int8u
736	FlashMasterControlMode	int8u
738	FlashMasterCompensation?	int8s
742	FlashMasterOutput?	int8u
822	VRMode	int8u
832	AFAreaMode	int8u
866	SubjectDetection	int8u
912	LinkVRToFocusPoint?	int8u
1167	CustomSettingsZ6III	NikonCustom SettingsZ6III
2212	Language?	int8u
2214	TimeZone	int8u
2220	MonitorBrightness?	int8u

Nikon ShotInfoZ7II Tags

These tags are extracted from encrypted data in images from the Z7II.

Index	Tag Name	Writable
0	ShotInfoVersion	no
4	FirmwareVersion	no
14	FirmwareVersion2	no
24	FirmwareVersion3	no
36	NumberOffsets	no
48	IntervalOffset	Nikon IntervalInfoZ7II
56	PortraitOffset	Nikon PortraitInfoZ7II
136	OrientationOffset	Nikon OrientationInfo
152	OrientationOffset	Nikon OrientationInfo
160	MenuOffset	Nikon MenuInfoZ7II

Nikon IntervalInfoZ7II Tags

Index1	Tag Name	Writable
36	IntervalShooting	int16u~
40	IntervalFrame	int16u
43	ImageArea	int8u

Nikon PortraitInfoZ7II Tags

Index1	Tag Name	Writable
160	PortraitImpressionBalance	int8u[2]~

Nikon MenuInfoZ7II Tags

Index1	Tag Name	Writable
16	MenuSettingsOffsetZ7II	Nikon MenuSettingsZ7II

Nikon MenuSettingsZ7II Tags

These tags are used by the Z5, Z6, Z7, Z6II, Z7II, Z50, Zfc and Zf.

Index1	Tag Name	Writable
90	SingleFrame	int8u
92	ReleaseMode	no
160	IntervalDurationHours	int32u
164	IntervalDurationMinutes	int32u
168	IntervalDurationSeconds	int32u
176	Intervals	int32u
180	ShotsPerInterval	int32u
184	IntervalExposureSmoothing	int8u
186	IntervalPriority	int8u
220	FocusShiftNumberShots	int8u
224	FocusShiftStepWidth	int8u
228	FocusShiftInterval	int8u~
232	FocusShiftExposureLock	int8u
322	DiffractionCompensation	int8u
323	AutoDistortionControl	int8u
326	NikonMeteringMode	int8u
328	FlashControlMode	int8u
334	FlashGNDistance?	no
338	FlashOutput?	int8u

346	FlashWirelessOption?	int8u
348	FlashRemoteControl?	int8u
352	FlashMasterControlMode	int8u
354	FlashMasterCompensation?	int8s
358	FlashMasterOutput?	int8u
502	MovieFrameSize?	int8u
504	MovieFrameRate?	int8u
506	MovieSlowMotion?	int8u
510	MovieType?	int8u
516	MovieISOAutoManualMode?	int16u
568	MovieActiveD-Lighting?	int8u
572	MovieHighISONoiseReduction?	int8u
574	MovieVignetteControl?	int8u
576	MovieVignetteControlSameAsPhoto?	int8u
577	MovieDiffractionCompensation?	int8u
578	MovieAutoDistortionControl?	int8u
584	MovieFocusMode?	int8u
590	MovieVibrationReduction?	int8u
591	MovieVibrationReductionSameAsPhoto?	int8u
858	HDMIOutputN-Log?	int8u

Nikon ShotInfoZ8 Tags

These tags are extracted from encrypted data in images from the Z8.

Index	Tag Name	Writable
0	ShotInfoVersion	no
4	FirmwareVersion	no
14	FirmwareVersion2	no
24	FirmwareVersion3	no
36	NumberOffsets	no
48	SequenceOffset	Nikon SeqInfoZ9
128	AutoCaptureOffset	Nikon AutoCaptureInfo
132	OrientOffset	Nikon OrientationInfo
140	MenuOffset	Nikon MenuInfoZ8

Nikon AutoCaptureInfo Tags

Index1	Tag Name	Writable
0	AutoCapturedFrame	int8u
1	AutoCaptureCriteria	int8u~
55	AutoCaptureRecordingTime	int8u
56	AutoCaptureWaitTime	int8u
74	AutoCaptureDistanceFar	int8u~
78	AutoCaptureDistanceNear	int8u~
95	AutoCaptureCriteriaMotionDirection	int8u~
99	AutoCaptureCriteriaMotionSpeed	int8u
100	AutoCaptureCriteriaMotionSize	int8u
105	AutoCaptureCriteriaSubjectSize	int8u
106	AutoCaptureCriteriaSubjectType	int8u

Nikon MenuInfoZ8 Tags

Index1	Tag Name	Writable
16	MenuSettingsOffsetZ8v1	Nikon MenuSettingsZ8v1
	MenuSettingsOffsetZ8v2	–
		Nikon MenuSettingsZ8v2

Nikon MenuSettingsZ8v1 Tags

These tags are used by the Z8 firmware 1.00 and 1.10.

Index1	Tag Name	Writable
0	MenuSettingsZ8	Nikon MenuSettingsZ8
943	CustomSettingsZ8	NikonCustom SettingsZ8
1684	TimeZone	int8u
1690	MonitorBrightness?	int8u
1698	Language?	int8u
1712	AFFineTune?	int8u
1716	NonCPULens1FocalLength?	int16u~
1718	NonCPULens2FocalLength?	int16u~
1720	NonCPULens3FocalLength?	int16u~
1722	NonCPULens4FocalLength?	int16u~
1724	NonCPULens5FocalLength?	int16u~
1726	NonCPULens6FocalLength?	int16u~
1728	NonCPULens7FocalLength?	int16u~
1730	NonCPULens8FocalLength?	int16u~
1732	NonCPULens9FocalLength?	int16u~
1734	NonCPULens10FocalLength?	int16u~
1736	NonCPULens11FocalLength?	int16u~
1738	NonCPULens12FocalLength?	int16u~
1740	NonCPULens13FocalLength?	int16u~
1742	NonCPULens14FocalLength?	int16u~
1744	NonCPULens15FocalLength?	int16u~
1746	NonCPULens16FocalLength?	int16u~
1748	NonCPULens17FocalLength?	int16u~
1750	NonCPULens18FocalLength?	int16u~
1752	NonCPULens19FocalLength?	int16u~
1754	NonCPULens20FocalLength?	int16u~
1756	NonCPULens1MaxAperture?	int16u
1758	NonCPULens2MaxAperture?	int16u
1760	NonCPULens3MaxAperture?	int16u
1762	NonCPULens4MaxAperture?	int16u
1764	NonCPULens5MaxAperture?	int16u
1766	NonCPULens6MaxAperture?	int16u
1768	NonCPULens7MaxAperture?	int16u
1770	NonCPULens8MaxAperture?	int16u
1772	NonCPULens9MaxAperture?	int16u
1774	NonCPULens10MaxAperture?	int16u
1776	NonCPULens11MaxAperture?	int16u
1778	NonCPULens12MaxAperture?	int16u
1780	NonCPULens13MaxAperture?	int16u
1782	NonCPULens14MaxAperture?	int16u
1784	NonCPULens15MaxAperture?	int16u
1786	NonCPULens16MaxAperture?	int16u
1788	NonCPULens17MaxAperture?	int16u
1790	NonCPULens18MaxAperture?	int16u

1792	NonCPULens19MaxAperture?	int16u
1794	NonCPULens20MaxAperture?	int16u
1808	HDMIOutputResolution	int8u
1826	AirplaneMode?	int8u
1827	EmptySlotRelease?	int8u
1862	EnergySavingMode?	int8u
1890	USBPowerDelivery?	int8u
1899	SensorShield?	int8u

Nikon MenuSettingsZ8 Tags

These tags are common to all Z8 firmware versions.

Index1	Tag Name	Writable
72	HighFrameRate	int8u
152	MultipleExposureMode	int8u
154	MultiExposureShots	int8u
184	IntervalDurationHours	int32u
188	IntervalDurationMinutes	int32u
192	IntervalDurationSeconds	int32u
200	Intervals	int32u
204	ShotsPerInterval	int32u
208	IntervalExposureSmoothing	int8u
210	IntervalPriority	int8u
244	FocusShiftNumberShots	int8u
248	FocusShiftStepWidth	int8u
252	FocusShiftInterval	int8u~
256	FocusShiftExposureLock?	int8u
286	PhotoShootingMenuBank	int8u
288	ExtendedMenuBanks	int8u
324	PhotoShootingMenuBankImageArea	int8u
338	AutoISO	int8u
340	ISOAutoHiLimit?	int16u
342	ISOAutoFlashLimit?	int16u
350	ISOAutoShutterTime	no
432	MovieVignetteControl?	int8u
434	DiffractionCompensation	int8u
436	FlickerReductionShooting	int8u
440	FlashControlMode	int8u
548	AFAreaMode	int8u
550	VRMode	int8u
554	BracketSet	int8u
556	BracketProgram	int8u
558	BracketIncrement	int8u
570	HDR	int8u
576	SecondarySlotFunction	int8u
582	HDRLevel	int8u
586	Slot2JpgSize?	int8u
592	DXCropAlert	int8u
594	SubjectDetection	int8u
596	DynamicAFAreaSize	int8u
618	ToneMap?	int8u
622	PortraitImpressionBalance	int8u
636	HighFrequencyFlickerReduction	int8u
730	MovieImageArea?	int8u & 0x01

740	MovieType?	int8u
742	MovieISOAutoHiLimit?	int16u
744	MovieISOAutoControlManualMode?	int8u
746	MovieISOAutoManualMode?	int16u
820	MovieActiveD−Lighting?	int8u
822	MovieHighISONoiseReduction?	int8u
828	MovieFlickerReduction	int8u
830	MovieMeteringMode?	int8u
832	MovieFocusMode?	int8u
834	MovieAFAreaMode	int8u
836	MovieVRMode?	int8u
840	MovieElectronicVR?	int8u
842	MovieSoundRecording?	int8u
844	MicrophoneSensitivity?	int8u
846	MicrophoneAttenuator?	int8u
848	MicrophoneFrequencyResponse?	int8u
850	WindNoiseReduction?	int8u
882	MovieFrameSize?	int8u
884	MovieFrameRate?	int8u
886	MicrophoneJackPower?	int8u
887	MovieDXCropAlert?	int8u
888	MovieSubjectDetection?	int8u
896	MovieHighResZoom?	int8u

Nikon MenuSettingsZ8v2 Tags

These tags are used by the Z8 firmware 2.00 and 2.10.

Index1	Tag Name	Writable
0	MenuSettingsZ8	Nikon MenuSettingsZ8
943	CustomSettingsZ8	NikonCustom SettingsZ8
1698	Language?	int8u
1700	TimeZone	int8u
1706	MonitorBrightness?	int8u
1728	AFFineTune?	int8u
1732	NonCPULens1FocalLength?	int16u~
1734	NonCPULens2FocalLength?	int16u~
1736	NonCPULens3FocalLength?	int16u~
1738	NonCPULens4FocalLength?	int16u~
1740	NonCPULens5FocalLength?	int16u~
1742	NonCPULens6FocalLength?	int16u~
1744	NonCPULens7FocalLength?	int16u~
1746	NonCPULens8FocalLength?	int16u~
1748	NonCPULens9FocalLength?	int16u~
1750	NonCPULens10FocalLength?	int16u~
1752	NonCPULens11FocalLength?	int16u~
1754	NonCPULens12FocalLength?	int16u~
1756	NonCPULens13FocalLength?	int16u~
1758	NonCPULens14FocalLength?	int16u~
1760	NonCPULens15FocalLength?	int16u~
1762	NonCPULens16FocalLength?	int16u~
1764	NonCPULens17FocalLength?	int16u~
1766	NonCPULens18FocalLength?	int16u~
1768	NonCPULens19FocalLength?	int16u~
1770	NonCPULens20FocalLength?	int16u~

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1812    NonCPULens1MaxAperture?             int32u~
1816    NonCPULens2MaxAperture?             int32u~
1820    NonCPULens3MaxAperture?             int32u~
1824    NonCPULens4MaxAperture?             int32u~
1828    NonCPULens5MaxAperture?             int32u~
1832    NonCPULens6MaxAperture?             int32u~
1836    NonCPULens7MaxAperture?             int32u~
1840    NonCPULens8MaxAperture?             int32u~
1844    NonCPULens9MaxAperture?             int32u~
1848    NonCPULens10MaxAperture?            int32u~
1852    NonCPULens11MaxAperture?            int32u~
1856    NonCPULens12MaxAperture?            int32u~
1860    NonCPULens13MaxAperture?            int32u~
1864    NonCPULens14MaxAperture?            int32u~
1868    NonCPULens15MaxAperture?            int32u~
1872    NonCPULens16MaxAperture?            int32u~
1876    NonCPULens17MaxAperture?            int32u~
1880    NonCPULens18MaxAperture?            int32u~
1884    NonCPULens19MaxAperture?            int32u~
1888    NonCPULens20MaxAperture?            int32u~
1904    HDMIOutputResolution                int8u
1922    AirplaneMode?                       int8u
1923    EmptySlotRelease?                   int8u
1958    EnergySavingMode?                   int8u
1986    USBPowerDelivery?                   int8u
1995    SensorShield?                       int8u
2046    PixelShiftShooting                  int8u
2048    PixelShiftNumberShots               int8u
2050    PixelShiftDelay                     int8u
2052    PlaybackButton                      int8u
2054    WBButton                            int8u
2056    BracketButton                       int8u
2058    LensFunc1ButtonPlaybackMode         int8u
2060    LensFunc2ButtonPlaybackMode         int8u
2062    PlaybackButtonPlaybackMode          int8u
2064    BracketButtonPlaybackMode           int8u
2206    MaximumApertureLV?                  int8u
2208    ReleaseModeButton                   int8u
2216    ReleaseModeButtonPlaybackMode       int8u
```

Nikon ShotInfoZ9 Tags

These tags are extracted from encrypted data in images from the Z9.

Index	Tag Name	Writable
0	ShotInfoVersion	no
4	FirmwareVersion	no
14	FirmwareVersion2	no
24	FirmwareVersion3	no
36	NumberOffsets	no
48	SequenceOffset	Nikon SeqInfoZ9
88	Offset13	Nikon Offset13InfoZ9
128	AutoCaptureOffset	Nikon AutoCaptureInfo
132	OrientOffset	Nikon OrientationInfo
140	MenuOffset	Nikon MenuInfoZ9

Nikon Offset13InfoZ9 Tags

Index1	Tag Name	Writable
3048	AFAreaInitialXPosition	int8s~
3049	AFAreaInitialYPosition	int8s~
3050	AFAreaInitialWidth	int8u
3051	AFAreaInitialHeight	int8u

Nikon MenuInfoZ9 Tags

Index1	Tag Name	Writable
16	MenuSettingsOffsetZ9	Nikon MenuSettingsZ9
	MenuSettingsOffsetZ9v3	–
	MenuSettingsOffsetZ9v4	Nikon MenuSettingsZ9v3
		–
		Nikon MenuSettingsZ9v4

Nikon MenuSettingsZ9 Tags

These tags are used by the Z9.

Index1	Tag Name	Writable
140	MultipleExposureMode	int8u
142	MultiExposureShots	int8u
188	Intervals	int32u
192	ShotsPerInterval	int32u
232	FocusShiftNumberShots	int8u
236	FocusShiftStepWidth	int8u
240	FocusShiftInterval	int8u~
244	FocusShiftExposureLock?	int8u
274	PhotoShootingMenuBank	int8u
276	ExtendedMenuBanks	int8u
308	PhotoShootingMenuBankImageArea	int8u
322	AutoISO	int8u
324	ISOAutoHiLimit?	int16u
326	ISOAutoFlashLimit?	int16u
334	ISOAutoShutterTime	no
416	MovieVignetteControl?	int8u
418	DiffractionCompensation	int8u
420	FlickerReductionShooting	int8u
424	FlashControlMode	int8u
426	FlashMasterCompensation?	int8s
430	FlashGNDistance?	no

```
 434    FlashOutput?                        int8u
 444    FlashRemoteControl?                 int8u
 456    FlashWirelessOption?                int8u
 528    AFAreaMode                          int8u
 530    VRMode                              int8u
 534    BracketSet                          int8u
 536    BracketProgram                      int8u
 538    BracketIncrement                    int8u
 556    SecondarySlotFunction               int8u
 572    DXCropAlert                         int8u
 574    SubjectDetection                    int8u
 576    DynamicAFAreaSize                   int8u
 604    MovieImageArea?                     int8u & 0x01
 614    MovieType?                          int8u
 616    MovieISOAutoHiLimit?                int16u
 618    MovieISOAutoControlManualMode?      int8u
 620    MovieISOAutoManualMode?             int16u
 696    MovieActiveD-Lighting?              int8u
 698    MovieHighISONoiseReduction?         int8u
 704    MovieFlickerReduction               int8u
 706    MovieMeteringMode?                  int8u
 708    MovieFocusMode?                     int8u
 710    MovieAFAreaMode                     int8u
 712    MovieVRMode?                        int8u
 716    MovieElectronicVR?                  int8u
 718    MovieSoundRecording?                int8u
 720    MicrophoneSensitivity?              int8u
 722    MicrophoneAttenuator?               int8u
 724    MicrophoneFrequencyResponse?        int8u
 726    WindNoiseReduction?                 int8u
 748    MovieToneMap?                       int8u
 754    MovieFrameSize?                     int8u
 756    MovieFrameRate?                     int8u
 762    MicrophoneJackPower?                int8u
 763    MovieDXCropAlert?                   int8u
 764    MovieSubjectDetection?              int8u
 799    CustomSettingsZ9                    NikonCustom SettingsZ9
1426    Language?                           int8u
1428    TimeZone                            int8u
1434    MonitorBrightness?                  no
1456    AFFineTune?                         int8u
1552    HDMIOutputResolution                int8u
1565    SetClockFromLocationData?           int8u
1572    AirplaneMode?                       int8u
1573    EmptySlotRelease?                   int8u
1608    EnergySavingMode?                   int8u
1632    RecordLocationData?                 int8u
1636    USBPowerDelivery?                   int8u
1645    SensorShield?                       int8u
```

Nikon MenuSettingsZ9v3 Tags

These tags are used by the Z9 firmware 3.00.

Index1	Tag Name	Writable
72	HighFrameRate	int8u
154	MultipleExposureMode	int8u
156	MultiExposureShots	int8u
204	Intervals	int32u
208	ShotsPerInterval	int32u
248	FocusShiftNumberShots	int8u
252	FocusShiftStepWidth	int8u
256	FocusShiftInterval	int8u~
260	FocusShiftExposureLock?	int8u
290	PhotoShootingMenuBank	int8u
292	ExtendedMenuBanks	int8u
328	PhotoShootingMenuBankImageArea	int8u
342	AutoISO	int8u
344	ISOAutoHiLimit?	int16u
346	ISOAutoFlashLimit?	int16u
354	ISOAutoShutterTime	no
436	MovieVignetteControl?	int8u
438	DiffractionCompensation	int8u
440	FlickerReductionShooting	int8u
444	FlashControlMode	int8u
446	FlashMasterCompensation?	int8s
450	FlashGNDistance?	no
454	FlashOutput?	int8u
548	AFAreaMode	int8u
550	VRMode	int8u
554	BracketSet	int8u
556	BracketProgram	int8u
558	BracketIncrement	int8u
576	SecondarySlotFunction	int8u
592	DXCropAlert	int8u
594	SubjectDetection	int8u
596	DynamicAFAreaSize	int8u
636	HighFrequencyFlickerReduction?	int8u
646	MovieImageArea?	int8u & 0x01
656	MovieType?	int8u
658	MovieISOAutoHiLimit?	int16u
660	MovieISOAutoControlManualMode?	int8u
662	MovieISOAutoManualMode?	int16u
736	MovieActiveD-Lighting?	int8u
738	MovieHighISONoiseReduction?	int8u
744	MovieFlickerReduction	int8u
746	MovieMeteringMode?	int8u
748	MovieFocusMode?	int8u
750	MovieAFAreaMode	int8u
752	MovieVRMode?	int8u
756	MovieElectronicVR?	int8u
758	MovieSoundRecording?	int8u
760	MicrophoneSensitivity?	int8u
762	MicrophoneAttenuator?	int8u
764	MicrophoneFrequencyResponse?	int8u
766	WindNoiseReduction?	int8u
788	MovieToneMap?	int8u

794	MovieFrameSize?	int8u
796	MovieFrameRate?	int8u
802	MicrophoneJackPower?	int8u
803	MovieDXCropAlert?	int8u
804	MovieSubjectDetection?	int8u
812	MovieHighResZoom?	int8u
847	CustomSettingsZ9	NikonCustom SettingsZ9
1474	Language?	int8u
1476	TimeZone	int8u
1482	MonitorBrightness?	int8u
1504	AFFineTune?	int8u
1600	HDMIOutputResolution	int8u
1613	SetClockFromLocationData?	int8u
1620	AirplaneMode?	int8u
1621	EmptySlotRelease?	int8u
1656	EnergySavingMode?	int8u
1680	RecordLocationData?	int8u
1684	USBPowerDelivery?	int8u
1693	SensorShield?	int8u
1754	FocusShiftAutoReset?	int8u
1810	PreReleaseBurstLength	int8u
1812	PostReleaseBurstLength	int8u

Nikon MenuSettingsZ9v4 Tags

These tags are used by the Z9 firmware 4.00, 4.10, 5.00 and 5.10.

Index1	Tag Name	Writable
72	HighFrameRate	int8u
154	MultipleExposureMode	int8u
156	MultiExposureShots	int8u
204	Intervals	int32u
208	ShotsPerInterval	int32u
248	FocusShiftNumberShots	int8u
252	FocusShiftStepWidth	int8u
256	FocusShiftInterval	int8u~
260	FocusShiftExposureLock?	int8u
290	PhotoShootingMenuBank	int8u
292	ExtendedMenuBanks	int8u
328	PhotoShootingMenuBankImageArea	int8u
342	AutoISO	int8u
344	ISOAutoHiLimit?	int16u
346	ISOAutoFlashLimit?	int16u
354	ISOAutoShutterTime	no
436	MovieVignetteControl?	int8u
438	DiffractionCompensation	int8u
440	FlickerReductionShooting	int8u
444	FlashControlMode	int8u
446	FlashMasterCompensation?	int8s
450	FlashGNDistance?	no
454	FlashOutput?	int8u
548	AFAreaMode	int8u
550	VRMode	int8u
554	BracketSet	int8u
556	BracketProgram	int8u

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 558    BracketIncrement                    int8u
 570    HDR                                 int8u
 576    SecondarySlotFunction               int8u
 582    HDRLevel                            int8u
 586    Slot2JpgSize?                       int8u
 592    DXCropAlert                         int8u
 594    SubjectDetection                    int8u
 596    DynamicAFAreaSize                   int8u
 636    HighFrequencyFlickerReduction?      int8u
 646    MovieImageArea?                     int8u & 0x01
 656    MovieType?                          int8u
 658    MovieISOAutoHiLimit?                int16u
 660    MovieISOAutoControlManualMode?      int8u
 662    MovieISOAutoManualMode?             int16u
 736    MovieActiveD-Lighting?              int8u
 738    MovieHighISONoiseReduction?         int8u
 744    MovieFlickerReduction               int8u
 746    MovieMeteringMode?                  int8u
 748    MovieFocusMode?                     int8u
 750    MovieAFAreaMode                     int8u
 752    MovieVRMode?                        int8u
 756    MovieElectronicVR?                  int8u
 758    MovieSoundRecording?                int8u
 760    MicrophoneSensitivity?              int8u
 762    MicrophoneAttenuator?               int8u
 764    MicrophoneFrequencyResponse?        int8u
 766    WindNoiseReduction?                 int8u
 788    MovieToneMap?                       int8u
 794    MovieFrameSize?                     int8u
 796    MovieFrameRate?                     int8u
 802    MicrophoneJackPower?                int8u
 803    MovieDXCropAlert?                   int8u
 804    MovieSubjectDetection?              int8u
 812    MovieHighResZoom?                   int8u
 847    CustomSettingsZ9v4                  NikonCustom SettingsZ9v4
1498    Language?                           int8u
1500    TimeZone                            int8u
1506    MonitorBrightness?                  int8u
1528    AFFineTune?                         int8u
1532    NonCPULens1FocalLength?             int16s~
1536    NonCPULens2FocalLength?             int16s~
1540    NonCPULens3FocalLength?             int16s~
1544    NonCPULens4FocalLength?             int16s~
1548    NonCPULens5FocalLength?             int16s~
1552    NonCPULens6FocalLength?             int16s~
1556    NonCPULens7FocalLength?             int16s~
1560    NonCPULens8FocalLength?             int16s~
1564    NonCPULens9FocalLength?             int16s~
1568    NonCPULens10FocalLength?            int16s~
1572    NonCPULens11FocalLength?            int16s~
1576    NonCPULens12FocalLength?            int16s~
1580    NonCPULens13FocalLength?            int16s~
1584    NonCPULens14FocalLength?            int16s~
1588    NonCPULens15FocalLength?            int16s~
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1592    NonCPULens16FocalLength?            int16s~
1596    NonCPULens17FocalLength?            int16s~
1600    NonCPULens18FocalLength?            int16s~
1604    NonCPULens19FocalLength?            int16s~
1608    NonCPULens20FocalLength?            int16s~
1612    NonCPULens1MaxAperture?             int16s~
1616    NonCPULens2MaxAperture?             int16s~
1620    NonCPULens3MaxAperture?             int16s~
1624    NonCPULens4MaxAperture?             int16s~
1628    NonCPULens5MaxAperture?             int16s~
1632    NonCPULens6MaxAperture?             int16s~
1636    NonCPULens7MaxAperture?             int16s~
1640    NonCPULens8MaxAperture?             int16s~
1644    NonCPULens9MaxAperture?             int16s~
1648    NonCPULens10MaxAperture?            int16s~
1652    NonCPULens11MaxAperture?            int16s~
1656    NonCPULens12MaxAperture?            int16s~
1660    NonCPULens13MaxAperture?            int16s~
1664    NonCPULens14MaxAperture?            int16s~
1668    NonCPULens15MaxAperture?            int16s~
1672    NonCPULens16MaxAperture?            int16s~
1676    NonCPULens17MaxAperture?            int16s~
1680    NonCPULens18MaxAperture?            int16s~
1684    NonCPULens19MaxAperture?            int16s~
1688    NonCPULens20MaxAperture?            int16s~
1704    HDMIOutputResolution                int8u
1717    SetClockFromLocationData?           int8u
1724    AirplaneMode?                       int8u
1725    EmptySlotRelease?                   int8u
1760    EnergySavingMode?                   int8u
1784    RecordLocationData?                 int8u
1788    USBPowerDelivery?                   int8u
1797    SensorShield?                       int8u
1862    AutoCapturePreset                   int8u
1864    FocusShiftAutoReset?                int8u
1922    PreReleaseBurstLength               int8u
1924    PostReleaseBurstLength              int8u
1938    VerticalISOButton                   int8u
1940    ExposureCompensationButton          int8u
1942    ISOButton                           int8u
2002    ViewModeShowEffectsOfSettings?      int8u
2004    DispButton                          int8u
2048    ExposureDelay                       fixed32u~
2052    CommandDialFrameAdvanceZoom?        int8u
2054    SubCommandDialFrameAdvanceZoom?     int8u
2056    PlaybackButton                      int8u
2058    WBButton                            int8u
2060    BracketButton                       int8u
2062    FlashModeButton                     int8u
2064    LensFunc1ButtonPlaybackMode         int8u
2066    LensFunc2ButtonPlaybackMode         int8u
2068    PlaybackButtonPlaybackMode          int8u
2070    BracketButtonPlaybackMode           int8u
2072    FlashModeButtonPlaybackMode         int8u
```

Nikon ShotInfo Tags

This information is encrypted for ShotInfoVersion 02xx, and some tags are only valid for specific models.

Index1	Tag Name	Writable
0	ShotInfoVersion	no
4	FirmwareVersion	no
16	DistortionControl	int8u
102	VR_0x66?	int8u
106	ShutterCount	int32u
110	DeletedImageCount	int32u
117	VibrationReduction	int8u
130	VibrationReduction	int8u
343	ShutterCount	undef[2]
430	VibrationReduction	int8u
589	ShutterCount	int32u

Nikon ColorBalance1 Tags

Index2	Tag Name	Writable
0	WB_RBGGLevels	int16u[4]!

Nikon ColorBalance2 Tags

This information is encrypted for most camera models.

Index2	Tag Name	Writable
0	WB_RGGBLevels	int16u[4]!

Nikon ColorBalance3 Tags

Index2	Tag Name	Writable
0	WB_RGBGLevels	int16u[4]!

Nikon ColorBalance4 Tags

Index2	Tag Name	Writable
0	WB_GRBGLevels	int16u[4]!

Nikon ColorBalanceUnknown Tags

Index1	Tag Name	Writable
0	ColorBalanceVersion	undef[4]

Nikon ColorBalanceUnknown2 Tags

Index2	Tag Name	Writable
0	ColorBalanceVersion	undef[4]

Nikon LensData00 Tags

This structure is used by the D100, and D1X with firmware version 1.1.

Index1	Tag Name	Writable
0	LensDataVersion	no
6	LensIDNumber	int8u
7	LensFStops	int8u
8	MinFocalLength	int8u
9	MaxFocalLength	int8u
10	MaxApertureAtMinFocal	int8u
11	MaxApertureAtMaxFocal	int8u
12	MCUVersion	int8u

Nikon LensData01 Tags

Nikon encrypts the LensData information below if LensDataVersion is 0201 or higher, but the decryption algorithm is known so the information can be extracted.

Index1	Tag Name	Writable
0	LensDataVersion	no
4	ExitPupilPosition	int8u
5	AFAperture	int8u
8	FocusPosition	int8u
9	FocusDistance	int8u
10	FocalLength	int8u
11	LensIDNumber	int8u
12	LensFStops	int8u
13	MinFocalLength	int8u
14	MaxFocalLength	int8u
15	MaxApertureAtMinFocal	int8u
16	MaxApertureAtMaxFocal	int8u
17	MCUVersion	int8u
18	EffectiveMaxAperture	int8u

Nikon LensData0204 Tags

Nikon encrypts the LensData information below if LensDataVersion is 0201 or higher, but the decryption algorithm is known so the information can be extracted.

Index1	Tag Name	Writable
0	LensDataVersion	no
4	ExitPupilPosition	int8u
5	AFAperture	int8u
8	FocusPosition	int8u
10	FocusDistance	int8u
11	FocalLength	int8u
12	LensIDNumber	int8u
13	LensFStops	int8u
14	MinFocalLength	int8u
15	MaxFocalLength	int8u
16	MaxApertureAtMinFocal	int8u
17	MaxApertureAtMaxFocal	int8u
18	MCUVersion	int8u
19	EffectiveMaxAperture	int8u

Nikon LensData0400 Tags

Tags extracted from the encrypted lens data of the Nikon 1J1/1V1/1J2.

Index1	Tag Name	Writable
0	LensDataVersion	no
394	LensModel	string[64]

Nikon LensData0402 Tags

Tags extracted from the encrypted lens data of the Nikon 1J3/1S1/1V2.

Index1	Tag Name	Writable
0	LensDataVersion	no
395	LensModel	string[64]

Nikon LensData0403 Tags

Tags extracted from the encrypted lens data of the Nikon 1J4/1J5.

Index1	Tag Name	Writable
0	LensDataVersion	no
684	LensModel	string[64]

Nikon LensData0800 Tags

Tags found in the encrypted LensData from cameras such as the Z6 and Z7.

Index1	Tag Name	Writable
0	LensDataVersion	no
3	OldLensData	undef[17]
4	ExitPupilPosition	int8u
5	AFAperture	int8u
11	FocusDistance	int8u
12	FocalLength	int8u
13	LensIDNumber	int8u
14	LensFStops	int8u
15	MinFocalLength	int8u
16	MaxFocalLength	int8u
17	MaxApertureAtMinFocal	int8u
18	MaxApertureAtMaxFocal	int8u
19	MCUVersion	int8u
20	EffectiveMaxAperture	int8u
47	NewLensData	undef[17]
48	LensID	int16u
52	LensFirmwareVersion	int16u~
54	MaxAperture	int16u
56	FNumber	int16u
60	FocalLength	int16u
76	FocusDistanceRangeWidth?	int8u
78	FocusDistance	int16u~
86	LensDriveEnd?	int8u
88	FocusStepsFromInfinity?	int8u
90	LensPositionAbsolute	int32s
95	LensMountType	int8u & 0x01

Nikon LensDataUnknown Tags

Index1	Tag Name	Writable
0	LensDataVersion	no

Nikon FlashInfo0100 Tags

These tags are used by the D2H, D2Hs, D2X, D2Xs, D50, D70, D70s, D80 and D200.

Index1	Tag Name	Writable
0	FlashInfoVersion	no
4	FlashSource	int8u
6	ExternalFlashFirmware	int8u[2]
8	ExternalFlashFlags	int8u
9.1	FlashCommanderMode	int8u & 0x80
9.2	FlashControlMode	int8u & 0x7f
10	FlashOutput	int8u
	FlashCompensation	int8s
11	FlashFocalLength	int8u
12	RepeatingFlashRate	int8u
13	RepeatingFlashCount	int8u
14	FlashGNDistance	int8u
15	FlashGroupAControlMode	int8u & 0x0f
16	FlashGroupBControlMode	int8u & 0x0f
17	FlashGroupAOutput	int8u
	FlashGroupACompensation	int8s
18	FlashGroupBOutput	int8u
	FlashGroupBCompensation	int8s

Nikon FlashInfo0102 Tags

These tags are used by the D3 (firmware 1.x), D40, D40X, D60 and D300 (firmware 1.00).

Index1	Tag Name	Writable
0	FlashInfoVersion	no
4	FlashSource	int8u
6	ExternalFlashFirmware	int8u[2]
8	ExternalFlashFlags	int8u
9.1	FlashCommanderMode	int8u & 0x80
9.2	FlashControlMode	int8u & 0x7f
10	FlashOutput	int8u
	FlashCompensation	int8s
12	FlashFocalLength	int8u
13	RepeatingFlashRate	int8u
14	RepeatingFlashCount	int8u
15	FlashGNDistance	int8u
16.1	FlashGroupAControlMode	int8u & 0x0f
17.1	FlashGroupBControlMode	int8u & 0xf0
17.2	FlashGroupCControlMode	int8u & 0x0f
18	FlashGroupAOutput	int8u
	FlashGroupACompensation	int8s
19	FlashGroupBOutput	int8u
	FlashGroupBCompensation	int8s
20	FlashGroupCOutput	int8u
	FlashGroupCCompensation	int8s

Nikon FlashInfo0103 Tags

These tags are used by the D3 (firmware 2.x), D3X, D3S, D4, D90, D300 (firmware 1.10), D300S, D600, D700, D800, D3000, D3100, D3200, D5000, D5100, D5200, D7000.

Index1	Tag Name	Writable
0	FlashInfoVersion	no
4	FlashSource	int8u
6	ExternalFlashFirmware	int8u[2]
8	ExternalFlashFlags	int8u
9.1	FlashCommanderMode	int8u & 0x80
9.2	FlashControlMode	int8u & 0x7f
10	FlashOutput	int8u
	FlashCompensation	int8s
12	FlashFocalLength	int8u
13	RepeatingFlashRate	int8u
14	RepeatingFlashCount	int8u
15	FlashGNDistance	int8u
16	FlashColorFilter	int8u
17.1	FlashGroupAControlMode	int8u & 0x0f
18.1	FlashGroupBControlMode	int8u & 0xf0
18.2	FlashGroupCControlMode	int8u & 0x0f
19	FlashGroupAOutput	int8u
	FlashGroupACompensation	int8s
20	FlashGroupBOutput	int8u
	FlashGroupBCompensation	int8s
21	FlashGroupCOutput	int8u
	FlashGroupCCompensation	int8s
27	ExternalFlashCompensation	int8s
29	FlashExposureComp3	int8s
39	FlashExposureComp4	int8s

Nikon FlashInfo0106 Tags

These tags are used by the Df, D610, D3300, D5300, D7100 and Coolpix A.

Index1	Tag Name	Writable
0	FlashInfoVersion	no
4	FlashSource	int8u
6	ExternalFlashFirmware	int8u[2]
8	ExternalFlashFlags	int8u
9.1	FlashCommanderMode	int8u & 0x80
9.2	FlashControlMode	int8u & 0x7f
12	FlashFocalLength	int8u
13	RepeatingFlashRate	int8u
14	RepeatingFlashCount	int8u
15	FlashGNDistance	int8u
16	FlashColorFilter	int8u
17.1	FlashGroupAControlMode	int8u & 0x0f
18.1	FlashGroupBControlMode	int8u & 0xf0
18.2	FlashGroupCControlMode	int8u & 0x0f
39	FlashOutput	int8u
	FlashCompensation	int8s
40	FlashGroupAOutput	int8u
	FlashGroupACompensation	int8s
41	FlashGroupBOutput	int8u
	FlashGroupBCompensation	int8s

42	FlashGroupCOutput	int8u
	FlashGroupCCompensation	int8s

Nikon FlashInfo0107 Tags

These tags are used by the D4S, D750, D810, D5500, D7200 (FlashInfoVersion 0107) and the D5, D500, D850 and D3400 (FlashInfoVersion 0108).

Index1	Tag Name	Writable
0	FlashInfoVersion	no
4	FlashSource	int8u
6	ExternalFlashFirmware	int8u[2]
8.1	ExternalFlashZoomOverride	int8u & 0x80
8.2	ExternalFlashStatus	int8u & 0x01
9.1	ExternalFlashReadyState	int8u & 0x07
10	FlashCompensation	int8s
12	FlashFocalLength	int8u
13	RepeatingFlashRate	int8u
14	RepeatingFlashCount	int8u
15	FlashGNDistance	int8u
17.1	FlashGroupAControlMode	int8u & 0x0f
18.1	FlashGroupBControlMode	int8u & 0xf0
18.2	FlashGroupCControlMode	int8u & 0x0f
40	FlashGroupAOutput	int8u
	FlashGroupACompensation	int8s
41	FlashGroupBOutput	int8u
	FlashGroupBCompensation	int8s
42	FlashGroupCOutput	int8u
	FlashGroupCCompensation	int8s

Nikon FlashInfo0300 Tags

Index1	Tag Name	Writable
0	FlashInfoVersion	no
4	FlashSource	int8u
6	ExternalFlashFirmware	int8u[2]
8	ExternalFlashFlags	int8u
9.1	FlashCommanderMode	int8u & 0x80
9.2	FlashControlMode	int8u & 0x7f
10	FlashCompensation	int8s
13	RepeatingFlashRate	int8u
14	RepeatingFlashCount	int8u
15	FlashGNDistance	int8u
16	FlashColorFilter	int8u
17.1	FlashGroupAControlMode	int8u & 0x0f
18.1	FlashGroupBControlMode	int8u & 0xf0
18.2	FlashGroupCControlMode	int8u & 0x0f
33	FlashOutput	int8u
37	FlashIlluminationPattern	int8u
38	FlashFocalLength	int8u
40	FlashGroupAOutput	int8u
	FlashGroupACompensation	int8s
41	FlashGroupBOutput	int8u
	FlashGroupBCompensation	int8s
42	FlashGroupCOutput	int8u

	FlashGroupCCompensation	int8s

Nikon FlashInfoUnknown Tags

Index1	Tag Name	Writable
0	FlashInfoVersion	no

Nikon MultiExposure Tags

Index4	Tag Name	Writable
0	MultiExposureVersion	no
1	MultiExposureMode	int32u
2	MultiExposureShots	int32u
3	MultiExposureAutoGain	int32u

Nikon MultiExposure2 Tags

Index4	Tag Name	Writable
0	MultiExposureVersion	no
1	MultiExposureMode	int32u
2	MultiExposureShots	int32u
3	MultiExposureOverlayMode	int32u

Nikon AFInfo2V0100 Tags

AF information for Nikon cameras with LiveView that were introduced 2007 thru 2015 (and the D5600 in 2016), including D3, D4, D3000, D3100−D3300, D5000−D5600, D6x0, D700, D7000, D7100, D810

Index1	Tag Name	Writable
0	AFInfo2Version	no
4	AFDetectionMethod	int8u
5	AFAreaMode	int8u
6	FocusPointSchema	int8u
7	PrimaryAFPoint	int8u
8	AFPointsUsed	undef[7]
	AFPointsUsed	undef[2]
	AFPointsUsed	undef[5]
	AFPointsUsed	int8u
16	AFImageWidth	int16u
18	AFImageHeight	int16u
20	AFAreaXPosition	int16u
22	AFAreaYPosition	int16u
24	AFAreaWidth	int16u
26	AFAreaHeight	int16u
28	ContrastDetectAFInFocus	int8u
	AFPointsSelected	undef[20]

Nikon AFInfo2V0101 Tags

AF information for Nikon cameras D5, D500, D850, D3400, D3500 and D7500

Index1	Tag Name	Writable
0	AFInfo2Version	no
4	AFDetectionMethod	int8u
5	AFAreaMode	int8u
6	FocusPointSchema	int8u
8	AFPointsUsed	undef[7]
	AFPointsUsed	undef[2]
	AFPointsUsed	undef[20]
	AFPointsUsed	int8u
28	ContrastDetectAFInFocus	int8u
	AFPointsUsed	undef[7]
	AFPointsSelected	undef[20]
48	AFPointsInFocus	undef[7]
	AFPointsInFocus	undef[20]
68	PrimaryAFPoint	int8u
70	AFImageWidth	int16u
72	AFImageHeight	int16u
74	AFAreaXPosition	int16u
76	AFAreaYPosition	int16u
78	AFAreaWidth	int16u
80	AFAreaHeight	int16u
82	ContrastDetectAFInFocus	int8u

Nikon AFInfo2V0200 Tags

AF information for Nikon 1 series cameras: Nikon 1 V1, V2, V3, J1, J2, J3, S1, S2 AW1.

Index1	Tag Name	Writable
0	AFInfo2Version	no
5	AFAreaMode	int8u
6	PhaseDetectAF	int8u
7	PrimaryAFPoint	int8u
8	AFPointsUsed	undef[17]
	AFPointsUsed	undef[21]
	AFPointsUsed	undef[29]

Nikon AFInfo2V0300 Tags

AF information for Nikon cameras with the Expeed 6 processor: D6, D780, Z5, Z6, Z6ii, Z7, Z7ii, Z50 and Zfc.

Index1	Tag Name	Writable
0	AFInfo2Version	no
4	AFDetectionMethod	int8u
5	AFAreaMode	int8u
6	FocusPointSchema	int8u
7	AFCoordinatesAvailable	int8u
10	AFPointsUsed	undef[7]
	AFPointsUsed	undef[11]
	AFPointsUsed	undef[14]
42	AFImageWidth	int16u
44	AFImageHeight	int16u
46	AFAreaXPosition	int16u
47	FocusPositionHorizontal	no
48	AFAreaYPosition	int16u

49	FocusPositionVertical	no
50	AFAreaWidth	int16u
52	AFAreaHeight	int16u
56	PrimaryAFPoint	int8u

Nikon AFInfo2V0400 Tags

AF information for Nikon cameras with the Expeed 7 processor: The Zf, Z6_3, Z8, Z9, Z50_2 and Z5_2.

Index1	Tag Name	Writable
0	AFInfo2Version	no
4	AFDetectionMethod	int8u
5	AFAreaMode	int8u
7	AFCoordinatesAvailable	int8u
10	AFPointsUsed	undef[51]
	AFPointsUsed	undef[38]
	AFPointsUsed	undef[29]
62	AFImageWidth	int16u
64	AFImageHeight	int16u
66	AFAreaXPosition	int16u
67	FocusPositionHorizontal	no
68	AFAreaYPosition	int16u
69	FocusPositionVertical	no
70	AFAreaWidth	int16u
72	AFAreaHeight	int16u
74	FocusResult	int8u

Nikon FileInfo Tags

Index2	Tag Name	Writable
0	FileInfoVersion	no
2	MemoryCardNumber	int16u
3	DirectoryNumber	int16u
4	FileNumber	int16u

Nikon AFTune Tags

Index1	Tag Name	Writable
0	AFFineTune	int8u
1	AFFineTuneIndex	int8u
2	AFFineTuneAdj	int8s
3	AFFineTuneAdjTele	int8s

Nikon RetouchInfo Tags

Index1	Tag Name	Writable
0	RetouchInfoVersion	no
5	RetouchNEFProcessing	int8s

Nikon BarometerInfo Tags

Index1	Tag Name	Writable
0	BarometerInfoVersion	no
6	Altitude	int32s

Nikon CaptureOffsets Tags

Tag ID	Tag Name	Writable
0x0001	IFD0_Offset	no
0x0002	PreviewIFD_Offset	no
0x0003	SubIFD_Offset	no

Nikon Scan Tags

This information is written by the Nikon Scan software.

Tag ID	Tag Name	Writable
0x0002	FilmType	string
0x0040	MultiSample	string
0x0041	BitDepth	int16u
0x0050	MasterGain	rational64s
0x0051	ColorGain	rational64s[3]
0x0060	ScanImageEnhancer	int32u
0x0100	DigitalICE	string
0x0110	ROCInfo	Nikon ROC
0x0120	GEMInfo	Nikon GEM
0x0200	DigitalDEEShadowAdj	int32u
0x0201	DigitalDEEThreshold	int32u
0x0202	DigitalDEEHighlightAdj	int32u

Nikon ROC Tags

Index4	Tag Name	Writable
0	DigitalROC	int32u

Nikon GEM Tags

Index4	Tag Name	Writable
0	DigitalGEM	int32u

Nikon CaptureOutput Tags

Index4	Tag Name	Writable
2	OutputImageWidth	int32u
3	OutputImageHeight	int32u
4	OutputResolution	int32u

Nikon Type2 Tags

Tag ID	Tag Name	Writable
0x0003	Quality	yes
0x0004	ColorMode	yes
0x0005	ImageAdjustment	yes
0x0006	CCDSensitivity	yes
0x0007	WhiteBalance	yes
0x0008	Focus	yes
0x000a	DigitalZoom	yes
0x000b	Converter	yes

Nikon NEFInfo Tags

As-yet unknown information found in SubIFD1 tag 0xc7d5 of NEF images from cameras such as the Z6 and Z7, and NRW images from some Coolpix cameras.

Tag ID	Tag Name	Writable
0x0005	DistortionInfo	Nikon DistortionInfo
0x0006	VignetteInfo	Nikon VignetteInfo

Nikon DistortionInfo Tags

Index1	Tag Name	Writable
0	DistortionCorrectionVersion	string[4]
4	DistortionCorrection	int8u
20	RadialDistortionCoefficient1	rational64s~
28	RadialDistortionCoefficient2	rational64s~
36	RadialDistortionCoefficient3	rational64s~

Nikon VignetteInfo Tags

Index1	Tag Name	Writable
0	VignetteCorrectionVersion	string[4]
36	VignetteCoefficient1	rational64s~
52	VignetteCoefficient2	rational64s~
68	VignetteCoefficient3	rational64s~

Nikon AVI Tags

Nikon-specific RIFF tags found in AVI videos.

Tag ID	Tag Name	Writable
'nctg'	NikonTags	Nikon AVITags
'ncth'	ThumbnailImage	no
'ncvr'	NikonVers	Nikon AVIVers
'ncvw'	PreviewImage	no

Nikon AVITags Tags

These tags and the AVIVer tags below are found in proprietary-format records of Nikon AVI videos.

Tag ID	Tag Name	Writable
0x0003	Make	no
0x0004	Model	no
0x0005	Software	no
0x0006	Equipment	no
0x0007	Orientation	no
0x0008	ExposureTime	no
0x0009	FNumber	no
0x000a	ExposureCompensation	no
0x000b	MaxApertureValue	no
0x000c	MeteringMode	no
0x000f	FocalLength	no
0x0010	XResolution	no
0x0011	YResolution	no
0x0012	ResolutionUnit	no
0x0013	DateTimeOriginal	no
0x0014	CreateDate	no
0x0016	Duration	no
0x0018	FocusMode	no
0x001b	DigitalZoom	no

0x001d	ColorMode	no
0x001e	Sharpness	no
0x001f	WhiteBalance	no
0x0020	NoiseReduction	no

Nikon AVIVers Tags

Tag ID	Tag Name	Writable
0x0001	MakerNoteType	no
0x0002	MakerNoteVersion	no

Nikon NCDT Tags

Nikon-specific QuickTime tags found in the NCDT atom of MOV videos from various Nikon models.

Tag ID	Tag Name	Writable
'NCDB'	NikonNCDB	Nikon NCDB
'NCHD'	MakerNoteVersion	no
'NCM1'	PreviewImage1	no
'NCM2'	PreviewImage2	no
'NCTG'	NikonTags	Nikon NCTG
'NCTH'	ThumbnailImage	no
'NCVW'	PreviewImage	no

Nikon NCDB Tags

Tag ID	Tag Name	Writable

[no tags known]

Nikon NCTG Tags

These tags are found in proprietary-format records of the NCTG atom in MOV videos from some Nikon cameras.

Tag ID	Tag Name	Writable
0x0001	Make	no
0x0002	Model	no
0x0003	Software	no
0x0011	CreateDate	no
0x0012	DateTimeOriginal	no
0x0013	FrameCount	no
0x0016	FrameRate	no
0x0019	TimeZone	no
0x0022	FrameWidth	no
0x0023	FrameHeight	no
0x0032	AudioChannels	no
0x0033	AudioBitsPerSample	no
0x0034	AudioSampleRate	no
0x1001	Rating	no
0x1002	NikonDateTime	no
0x1013	ElectronicVR	no
0x110829a	ExposureTime	no
0x110829d	FNumber	no
0x1108822	ExposureProgram	no
0x1109204	ExposureCompensation	no
0x1109207	MeteringMode	no

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0x110920a    FocalLength                 no
0x110a431    SerialNumber                no
0x110a432    LensInfo                    no
0x110a433    LensMake                    no
0x110a434    LensModel                   no
0x110a435    LensSerialNumber            no
0x1200000    GPSVersionID                no
0x1200001    GPSLatitudeRef              no
0x1200002    GPSLatitude                 no
0x1200003    GPSLongitudeRef             no
0x1200004    GPSLongitude                no
0x1200005    GPSAltitudeRef              no
0x1200006    GPSAltitude                 no
0x1200007    GPSTimeStamp                no
0x1200008    GPSSatellites               no
0x1200010    GPSImgDirectionRef          no
0x1200011    GPSImgDirection             no
0x1200012    GPSMapDatum                 no
0x120001d    GPSDateStamp                no
0x2000001    MakerNoteVersion            no
0x2000005    WhiteBalance                no
0x2000007    FocusMode                   no
0x200000b    WhiteBalanceFineTune        no
0x200001b    CropHiSpeed                 no
0x200001e    ColorSpace                  no
0x200001f    VRInfo                      Nikon VRInfo
0x2000022    ActiveD-Lighting            no
0x2000023    PictureControlData          Nikon PictureControl
                                         Nikon PictureControl2
                                         Nikon PictureControl3
                                         Nikon PictureControlUnknown
0x2000024    WorldTime                   Nikon WorldTime
0x2000025    ISOInfo                     Nikon ISOInfo
0x200002a    VignetteControl             no
0x200002c    UnknownInfo                 Nikon UnknownInfo
0x2000032    UnknownInfo2                Nikon UnknownInfo2
0x2000039    LocationInfo                Nikon LocationInfo
0x200003f    WhiteBalanceFineTune        no
0x200004e    NikonSettings               NikonSettings
0x2000083    LensType                    no
0x2000084    Lens                        no
0x2000087    FlashMode                   no
0x2000098    LensData0100                Nikon LensData00
             LensData0101                Nikon LensData01
             LensData0201                Nikon LensData01
             LensData0204                Nikon LensData0204
             LensData0400                Nikon LensData0400
             LensData0402                Nikon LensData0402
             LensData0403                Nikon LensData0403
             LensData0800                Nikon LensData0800
             LensDataUnknown             Nikon LensDataUnknown
0x20000a7    ShutterCount                no
0x20000a8    FlashInfo0100               Nikon FlashInfo0100
             FlashInfo0102               Nikon FlashInfo0102
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	FlashInfo0103	Nikon FlashInfo0103
	FlashInfo0106	Nikon FlashInfo0106
	FlashInfo0107	Nikon FlashInfo0107
	FlashInfoUnknown	Nikon FlashInfoUnknown
0x20000ab	VariProgram	no
0x20000b1	HighISONoiseReduction	no
0x20000b7	AFInfo2	Nikon AFInfo2V0100
		Nikon AFInfo2V0101
		Nikon AFInfo2V0200
		Nikon AFInfo2V0300
		Nikon AFInfo2V0400
0x20000c3	BarometerInfo	Nikon BarometerInfo

Nikon MOV Tags

This information is found in MOV and QT videos from some Nikon cameras.

Index1	Tag Name	Writable
0	Make	no
24	Model	no
38	ExposureTime	no
42	FNumber	no
50	ExposureCompensation	no
68	WhiteBalance	no
72	FocalLength	no
175	Software	no
223	ISO	no

NikonCapture Tags

This information is written by the Nikon Capture software in tag 0x0e01 of the maker notes of NEF images.

Tag ID	Tag Name	Writable
0x8ae85e	LCHEditor	int8u
0x83a1a25	HistogramXML	undef
0xc89224b	ColorAberrationControl	int8u
0x116fea21	HighlightData	NikonCapture HighlightData
0x2175eb78	D-LightingHQ	int8u
0x2fc08431	StraightenAngle	double
0x374233e0	CropData	NikonCapture CropData
0x39c456ac	PictureCtrl	NikonCapture PictureCtrl
0x3cfc73c6	RedEyeData	NikonCapture RedEyeData
0x3d136244	EditVersionName	string
0x416391c6	QuickFix	int8u
0x56a54260	Exposure	NikonCapture Exposure
0x5f0e7d23	ColorBooster	int8u
0x6a6e36b6	D-LightingHQSelected	int8u
0x753dcbc0	NoiseReduction	int8u
0x76a43200	UnsharpMask	int8u
0x76a43201	Curves	int8u
0x76a43202	ColorBalanceAdj	int8u
0x76a43203	AdvancedRaw	int8u
0x76a43204	WhiteBalanceAdj	int8u
0x76a43205	VignetteControl	int8u
0x76a43206	FlipHorizontal	int8u
0x76a43207	Rotation	int16u

0x84589434	BrightnessData	NikonCapture Brightness
0x890ff591	D-LightingHQData	NikonCapture DLightingHQ
0x926f13e0	NoiseReductionData	NikonCapture NoiseReduction
0x9ef5f6e0	IPTCData	IPTC
0xab5eca5e	PhotoEffects	int8u
0xac6bd5c0	VignetteControlIntensity	int16s
0xb0384e1e	PhotoEffectsData	NikonCapture PhotoEffects
0xb999a36f	ColorBoostData	NikonCapture ColorBoost
0xbf3c6c20	WBAdjData	NikonCapture WBAdjData
0xce5554aa	D-LightingHS	int8u
0xe2173c47	PictureControl	int8u
0xe37b4337	D-LightingHSData	NikonCapture DLightingHS
0xe42b5161	UnsharpData	NikonCapture UnsharpData
0xe9651831	PhotoEffectHistoryXML	undef
0xfe28a44f	AutoRedEye	int8u
0xfe443a45	ImageDustOff	int8u

NikonCapture HighlightData Tags

Index1	Tag Name	Writable
0	ShadowProtection	int8s
1	SaturationAdj	int8s
6	HighlightProtection	int8s

NikonCapture CropData Tags

Index1	Tag Name	Writable
30	CropLeft	double
38	CropTop	double
46	CropRight	double
54	CropBottom	double
142	CropOutputWidthInches	double
150	CropOutputHeightInches	double
158	CropScaledResolution	double
174	CropSourceResolution	double
182	CropOutputResolution	double
190	CropOutputScale	double
198	CropOutputWidth	double
206	CropOutputHeight	double
214	CropOutputPixels	double

NikonCapture PictureCtrl Tags

Index1	Tag Name	Writable
0	PictureControlActive	int8u
19	PictureControlMode	string[16]
42	QuickAdjust	int8u
43	SharpeningAdj	int8u
44	ContrastAdj	int8u
45	BrightnessAdj	int8u
46	SaturationAdj	int8u
47	HueAdj	int8u

NikonCapture RedEyeData Tags

Index1	Tag Name	Writable
0	RedEyeCorrection	int8u

NikonCapture Exposure Tags

Index1	Tag Name	Writable
0	ExposureAdj	int16s
18	ExposureAdj2	double
36	ActiveD-Lighting	int8u
37	ActiveD-LightingMode	int8u

NikonCapture Brightness Tags

Index1	Tag Name	Writable
0	BrightnessAdj	double
8	EnhanceDarkTones	int8u

NikonCapture DLightingHQ Tags

Index4	Tag Name	Writable
0	D-LightingHQShadow	int32u
1	D-LightingHQHighlight	int32u
2	D-LightingHQColorBoost	int32u

NikonCapture NoiseReduction Tags

Index1	Tag Name	Writable
4	EdgeNoiseReduction	int8u
5	ColorMoireReductionMode	int8u
9	NoiseReductionIntensity	int32u
13	NoiseReductionSharpness	int32u
17	NoiseReductionMethod	int16u
21	ColorMoireReduction	int8u
23	NoiseReduction	int8u
24	ColorNoiseReductionIntensity	int32u
28	ColorNoiseReductionSharpness	int32u

NikonCapture PhotoEffects Tags

Index1	Tag Name	Writable
0	PhotoEffectsType	int8u
4	PhotoEffectsRed	int16s
6	PhotoEffectsGreen	int16s
8	PhotoEffectsBlue	int16s

NikonCapture ColorBoost Tags

Index1	Tag Name	Writable
0	ColorBoostType	int8u
1	ColorBoostLevel	int32u

NikonCapture WBAdjData Tags

Index1	Tag Name	Writable
0	WBAdjRedBalance	double
8	WBAdjBlueBalance	double
16	WBAdjMode	int8u
20	WBAdjLighting	int16u
24	WBAdjTemperature	int16u
37	WBAdjTint	int32s

NikonCapture DLightingHS Tags

Index4	Tag Name	Writable
0	D-LightingHSAdjustment	int32u
1	D-LightingHSColorBoost	int32u

NikonCapture UnsharpData Tags

Index1	Tag Name	Writable
0	UnsharpCount	int8u
19	Unsharp1Color	int16u
23	Unsharp1Intensity	int16u
25	Unsharp1HaloWidth	int16u
27	Unsharp1Threshold	int8u
46	Unsharp2Color	int16u
50	Unsharp2Intensity	int16u
52	Unsharp2HaloWidth	int16u
54	Unsharp2Threshold	int8u
73	Unsharp3Color	int16u
77	Unsharp3Intensity	int16u
79	Unsharp3HaloWidth	int16u
81	Unsharp3Threshold	int8u
100	Unsharp4Color	int16u
104	Unsharp4Intensity	int16u
106	Unsharp4HaloWidth	int16u
108	Unsharp4Threshold	int8u

NikonCustom Tags

Unfortunately, the NikonCustom settings are stored in a binary data block which changes from model to model. This means that significant effort must be spent in decoding these for each model, usually requiring hundreds of test images from a dedicated Nikon owner. For this reason, the NikonCustom settings have not been decoded for all models. The tables below list the custom settings for the currently supported models.

NikonCustom SettingsD40 Tags

Custom settings for the Nikon D40.

Index1	Tag Name	Writable
0.1	Beep	int8u & 0x80
0.2	AFAssist	int8u & 0x40
0.3	NoMemoryCard	int8u & 0x20
0.4	ImageReview	int8u & 0x10
1.1	AutoISO	int8u & 0x80
1.2	AutoISOMax	int8u & 0x30
1.3	AutoISOMinShutterSpeed	int8u & 0x07
2.1	ImageReviewTime	int8u & 0x07
3.1	MonitorOffTime	int8u & 0xe0

3.2	MeteringTime	int8u & 0x1c
3.3	SelfTimerTime	int8u & 0x03
3.4	RemoteOnDuration	int8u & 0xc0
4.1	AELockButton	int8u & 0x0e
4.2	AELock	int8u & 0x01
5.1	ShootingModeSetting	int8u & 0x70
5.2	TimerFunctionButton	int8u & 0x07
6.1	Metering	int8u & 0x03
8.1	InternalFlash	int8u & 0x10
8.2	ManualFlashOutput	int8u & 0x07
9	FlashLevel	int8s
10.1	FocusModeSetting	int8u & 0xc0
11.1	AFAreaModeSetting	int8u & 0x30

NikonCustom SettingsD80 Tags

Custom settings for the Nikon D80.

Index1	Tag Name	Writable
0.1	Beep	int8u & 0x80
0.2	AFAssist	int8u & 0x40
0.3	NoMemoryCard	int8u & 0x20
0.4	ImageReview	int8u & 0x10
0.5	Illumination	int8u & 0x08
0.6	MainDialExposureComp	int8u & 0x04
0.7	EVStepSize	int8u & 0x01
1.1	AutoISO	int8u & 0x40
1.2	AutoISOMax	int8u & 0x30
1.3	AutoISOMinShutterSpeed	int8u & 0x0f
2.1	AutoBracketSet	int8u & 0xc0
2.2	AutoBracketOrder	int8u & 0x20
3.1	MonitorOffTime	int8u & 0xe0
3.2	MeteringTime	int8u & 0x1c
3.3	SelfTimerTime	int8u & 0x03
4.1	AELockButton	int8u & 0x1e
4.2	AELock	int8u & 0x01
4.3	RemoteOnDuration	int8u & 0xc0
5.1	CommandDials	int8u & 0x80
5.2	FunctionButton	int8u & 0x78
6.1	GridDisplay	int8u & 0x80
6.2	ViewfinderWarning	int8u & 0x40
6.3	CenterWeightedAreaSize	int8u & 0x0c
6.4	ExposureDelayMode	int8u & 0x20
6.5	MB-D80Batteries	int8u & 0x03
7.1	FlashWarning	int8u & 0x80
7.2	FlashShutterSpeed	int8u & 0x78
7.3	AutoFP	int8u & 0x04
7.4	ModelingFlash	int8u & 0x02
8.1	InternalFlash	int8u & 0xc0
8.2	ManualFlashOutput	int8u & 0x07
9.1	RepeatingFlashOutput	int8u & 0x70
9.2	RepeatingFlashCount	int8u & 0x0f
10.1	RepeatingFlashRate	int8u & 0xf0
10.2	CommanderChannel	int8u & 0x03
11.1	CommanderInternalFlash	int8u & 0xc0

11.2	CommanderGroupAMode	int8u & 0x30
11.3	CommanderGroupBMode	int8u & 0x0c
12.1	CommanderInternalTTLComp	int8u & 0x1f
12.2	CommanderInternalManualOutput	int8u & 0xe0
13.1	CommanderGroupA_TTL-AAComp	int8u & 0x1f
13.2	CommanderGroupAManualOutput	int8u & 0xe0
14.1	CommanderGroupB_TTL-AAComp	int8u & 0x1f
14.2	CommanderGroupBManualOutput	int8u & 0xe0
15.1	CenterAFArea	int8u & 0x80
15.2	FocusAreaSelection	int8u & 0x04
15.3	AFAreaIllumination	int8u & 0x03
16.1	AFAreaModeSetting	int8u & 0xc0

NikonCustom SettingsD90 Tags

Custom settings for the D90.

Index1	Tag Name	Writable
0.1	LightSwitch	int8u & 0x08
2.1	AFAreaModeSetting	int8u & 0x60
2.2	CenterFocusPoint	int8u & 0x10
2.3	AFAssist	int8u & 0x01
2.4	AFPointIllumination	int8u & 0x06
2.5	FocusPointWrap	int8u & 0x08
3.1	AELockForMB-D80	int8u & 0x1c
3.2	MB-D80BatteryType	int8u & 0x03
4.1	Beep	int8u & 0x40
4.2	GridDisplay	int8u & 0x02
4.3	ISODisplay	int8u & 0x0c
4.4	ViewfinderWarning	int8u & 0x01
4.5	NoMemoryCard	int8u & 0x20
5.1	ScreenTips	int8u & 0x04
5.2	FileNumberSequence	int8u & 0x08
5.3	ShootingInfoDisplay	int8u & 0xc0
5.4	LCDIllumination	int8u & 0x20
6.1	EasyExposureComp	int8u & 0x01
6.2	ReverseIndicators	int8u & 0x80
7.1	ExposureControlStepSize	int8u & 0x40
8.1	CenterWeightedAreaSize	int8u & 0x60
8.2	FineTuneOptMatrixMetering	int8u & 0x0f
9.1	FineTuneOptCenterWeighted	int8u & 0xf0
9.2	FineTuneOptSpotMetering	int8u & 0x0f
11.1	CLModeShootingSpeed	int8u & 0x07
11.2	ExposureDelayMode	int8u & 0x40
13.1	AutoBracketSet	int8u & 0xe0
13.2	AutoBracketOrder	int8u & 0x10
14.1	FuncButton	int8u & 0x78
16.1	OKButton	int8u & 0x18
17.1	AELockButton	int8u & 0x38
18.1	CommandDialsReverseRotation	int8u & 0x80
18.2	ShutterReleaseButtonAE-L	int8u & 0x02
19.1	MeteringTime	int8u & 0xf0
19.2	RemoteOnDuration	int8u & 0x03
20.1	SelfTimerTime	int8u & 0xc0
20.2	SelfTimerShotCount	int8u & 0x1e

21.1	PlaybackMonitorOffTime	int8u & 0x1c
21.2	ImageReviewTime	int8u & 0xe0
22.1	MenuMonitorOffTime	int8u & 0xe0
22.2	ShootingInfoMonitorOffTime	int8u & 0x1c
23.1	FlashShutterSpeed	int8u & 0x0f
24.1	InternalFlash	int8u & 0xc0
24.2	ManualFlashOutput	int8u & 0x1f
25.1	RepeatingFlashOutput	int8u & 0x70
25.2	RepeatingFlashCount	int8u & 0x0f
26.1	RepeatingFlashRate	int8u & 0xf0
31.1	FlashWarning	int8u & 0x80
31.2	CommanderInternalTTLComp	int8u & 0x1f
31.3	ModelingFlash	int8u & 0x20
31.4	AutoFP	int8u & 0x40
32.1	CommanderGroupA_TTLComp	int8u & 0x1f
33.1	CommanderGroupB_TTLComp	int8u & 0x1f
34.1	LiveViewAF	int8u & 0xc0

NikonCustom SettingsD3 Tags

Custom settings for the D3, D3S, D3X, D300 and D300S.

Index1	Tag Name	Writable
0.1	CustomSettingsBank	int8u & 0x03
0.2	CustomSettingsAllDefault	int8u & 0x80
1.1	AF-CPrioritySelection	int8u & 0xc0
1.2	AF-SPrioritySelection	int8u & 0x20
1.3	AFPointSelection	int8u & 0x10
1.4	DynamicAFArea	int8u & 0x0c
1.5	FocusTrackingLockOn	int8u & 0x03
2.1	AFActivation	int8u & 0x80
2.2	FocusPointWrap	int8u & 0x08
2.3	AFPointIllumination	int8u & 0x60
	AFPointIllumination	int8u & 0x06
2.4	AFPointBrightness	int8u & 0x06
2.5	AFAssist	int8u & 0x01
3.1	AFOnButton	int8u & 0x07
3.2	VerticalAFOnButton	int8u & 0x70
3.3	AF-OnForMB-D10	int8u & 0x70
4.1	FocusTrackingLockOn	int8u & 0x07
4.2	AssignBktButton	int8u & 0x08
4.3	MultiSelectorLiveView	int8u & 0xc0
4.4	InitialZoomLiveView	int8u & 0x30
6.1	ISOStepSize	int8u & 0xc0
6.2	ExposureControlStepSize	int8u & 0x30
6.3	ExposureCompStepSize	int8u & 0x0c
6.4	EasyExposureCompensation	int8u & 0x03
7.1	CenterWeightedAreaSize	int8u & 0xe0
7.2	FineTuneOptCenterWeighted	int8u & 0x0f
8.1	FineTuneOptMatrixMetering	int8u & 0xf0
8.2	FineTuneOptSpotMetering	int8u & 0x0f
9.1	MultiSelectorShootMode	int8u & 0xc0
9.2	MultiSelectorPlaybackMode	int8u & 0x30
9.3	InitialZoomSetting	int8u & 0x0c
9.4	MultiSelector	int8u & 0x01

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10.1    ExposureDelayMode               int8u & 0x40
10.2    CLModeShootingSpeed             int8u & 0x07
10.3    CHModeShootingSpeed             int8u & 0x30
  11    MaxContinuousRelease            int8u
12.1    ReverseIndicators               int8u & 0x20
12.2    FileNumberSequence              int8u & 0x02
        FileNumberSequence              int8u & 0x08
12.3    RearDisplay                     int8u & 0x80
12.4    ViewfinderDisplay               int8u & 0x40
12.5    BatteryOrder                    int8u & 0x04
12.6    MB-D10Batteries                 int8u & 0x03
12.7    ScreenTips                      int8u & 0x10
13.1    Beep                            int8u & 0xc0
13.2    ShootingInfoDisplay             int8u & 0x30
13.3    GridDisplay                     int8u & 0x02
13.4    ViewfinderWarning               int8u & 0x01
13.5    MultiSelectorPlaybackMode       int8u & 0x03
14.1    PreviewButton                   int8u & 0xf8
        FuncButton                      int8u & 0xf8
14.2    PreviewButtonPlusDials          int8u & 0x07
        FuncButtonPlusDials             int8u & 0x07
15.1    FuncButton                      int8u & 0xf8
        PreviewButton                   int8u & 0xf8
15.2    FuncButtonPlusDials             int8u & 0x07
        PreviewButtonPlusDials          int8u & 0x07
16.1    AELockButton                    int8u & 0xf8
16.2    AELockButtonPlusDials           int8u & 0x07
17.1    CommandDialsReverseRotation     int8u & 0x80
17.2    CommandDialsChangeMainSub       int8u & 0x40
17.3    CommandDialsApertureSetting     int8u & 0x20
17.4    CommandDialsMenuAndPlayback     int8u & 0x10
17.5    LCDIllumination                 int8u & 0x08
17.6    PhotoInfoPlayback               int8u & 0x04
17.7    ShutterReleaseButtonAE-L        int8u & 0x02
17.8    ReleaseButtonToUseDial          int8u & 0x01
18.1    SelfTimerTime                   int8u & 0x18
18.2    MonitorOffTime                  int8u & 0x07
20.1    FlashSyncSpeed                  int8u & 0xe0
        FlashSyncSpeed                  int8u & 0xf0
20.2    FlashShutterSpeed               int8u & 0x0f
21.1    AutoBracketSet                  int8u & 0xc0
        AutoBracketSet                  int8u & 0xe0
21.2    AutoBracketModeM                int8u & 0x30
        AutoBracketModeM                int8u & 0x18
21.3    AutoBracketOrder                int8u & 0x08
        AutoBracketOrder                int8u & 0x04
21.4    ModelingFlash                   int8u & 0x01
22.1    NoMemoryCard                    int8u & 0x80
22.2    MeteringTime                    int8u & 0x0f
23.1    InternalFlash                   int8u & 0xc0
25.1    ImageReviewTime                 int8u & 0xe0
25.2    PlaybackMonitorOffTime          int8u & 0x1c
26.1    MenuMonitorOffTime              int8u & 0xe0
26.2    ShootingInfoMonitorOffTime      int8u & 0x1c
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NikonCustom SettingsD700 Tags

Custom settings for the D700.

Index1	Tag Name	Writable
0.1	CustomSettingsBank	int8u & 0x03
0.2	CustomSettingsAllDefault	int8u & 0x80
1.1	AF-CPrioritySelection	int8u & 0xc0
1.2	AF-SPrioritySelection	int8u & 0x20
1.3	AFPointSelection	int8u & 0x10
1.4	DynamicAFArea	int8u & 0x0c
2.1	AFActivation	int8u & 0x80
2.2	FocusPointWrap	int8u & 0x08
2.3	AFPointIllumination	int8u & 0x06
2.4	AFAssist	int8u & 0x01
3.1	FocusTrackingLockOn	int8u & 0x07
3.2	AF-OnForMB-D10	int8u & 0x70
4.1	ISOStepSize	int8u & 0xc0
4.2	ExposureControlStepSize	int8u & 0x30
4.3	ExposureCompStepSize	int8u & 0x0c
4.4	EasyExposureCompensation	int8u & 0x03
5.1	CenterWeightedAreaSize	int8u & 0x70
6.1	FineTuneOptMatrixMetering	int8u & 0xf0
6.2	FineTuneOptSpotMetering	int8u & 0x0f
7.1	ShutterReleaseButtonAE-L	int8u & 0x80
7.2	SelfTimerTime	int8u & 0x30
7.3	MeteringTime	int8u & 0x0f
8.1	PlaybackMonitorOffTime	int8u & 0x38
8.2	MenuMonitorOffTime	int8u & 0x07
9.1	ShootingInfoMonitorOffTime	int8u & 0x38
9.2	ImageReviewTime	int8u & 0x07
10.1	Beep	int8u & 0xc0
10.2	ShootingInfoDisplay	int8u & 0x30
10.3	LCDIllumination	int8u & 0x08
10.4	ExposureDelayMode	int8u & 0x04
10.5	GridDisplay	int8u & 0x02
11.1	FileNumberSequence	int8u & 0x40
11.2	CLModeShootingSpeed	int8u & 0x07
12	MaxContinuousRelease	int8u
13.1	ScreenTips	int8u & 0x08
13.2	BatteryOrder	int8u & 0x04
13.3	MB-D10BatteryType	int8u & 0x03
15.1	FlashSyncSpeed	int8u & 0xf0
15.2	FlashShutterSpeed	int8u & 0x0f
16.1	FlashControlBuilt-in	int8u & 0xc0
16.2	ManualFlashOutput	int8u & 0x1f
17.1	RepeatingFlashOutput	int8u & 0x70
17.2	RepeatingFlashCount	int8u & 0x0f
18.1	RepeatingFlashRate	int8u & 0xf0
18.2	CommanderInternalTTLChannel	int8u & 0x03
20.1	CommanderInternalTTLCompBuiltin	int8u & 0x1f
21.1	CommanderInternalTTLCompGroupA	int8u & 0x1f
22.1	CommanderInternalTTLCompGroupB	int8u & 0x1f
26.1	AutoBracketSet	int8u & 0xc0
26.2	AutoBracketModeM	int8u & 0x30

26.3	AutoBracketOrder	int8u & 0x08
26.4	ModelingFlash	int8u & 0x01
27.1	MultiSelectorShootMode	int8u & 0xc0
27.2	MultiSelectorPlaybackMode	int8u & 0x30
27.3	InitialZoomSetting	int8u & 0x0c
27.4	MultiSelector	int8u & 0x01
28.1	FuncButton	int8u & 0xf8
29.1	PreviewButton	int8u & 0xf8
30.1	AELockButton	int8u & 0xf8
31.1	FuncButtonPlusDials	int8u & 0x70
31.2	PreviewButtonPlusDials	int8u & 0x07
32.1	AELockButtonPlusDials	int8u & 0x70
33.1	CommandDialsReverseRotation	int8u & 0x80
33.2	CommandDialsChangeMainSub	int8u & 0x40
33.3	CommandDialsApertureSetting	int8u & 0x20
33.4	CommandDialsMenuAndPlayback	int8u & 0x10
33.5	ReverseIndicators	int8u & 0x08
33.6	PhotoInfoPlayback	int8u & 0x04
33.7	NoMemoryCard	int8u & 0x02
33.8	ReleaseButtonToUseDial	int8u & 0x01

NikonCustom SettingsD800 Tags

Custom settings for the D800 and D800E.

Index1	Tag Name	Writable
12.1	AutoBracketingSet	int8u & 0xe0
12.2	AutoBracketOrder	int8u & 0x10
12.3	AutoBracketingMode	int8u & 0x0c
22.1	FlashSyncSpeed	int8u & 0xf0
22.2	FlashShutterSpeed	int8u & 0x0f
23.1	FlashControlBuilt-in	int8u & 0xc0
23.2	ManualFlashOutput	int8u & 0x1f
24.1	RepeatingFlashOutput	int8u & 0x70
24.2	RepeatingFlashCount	int8u & 0x0f
25.1	RepeatingFlashRate	int8u & 0xf0
25.2	CommanderChannel	int8u & 0x03
27.1	CommanderInternalFlash	int8u & 0xc0
27.2	CommanderInternalManualOutput	int8u & 0x1f
28.1	CommanderGroupAMode	int8u & 0xc0
28.2	CommanderGroupAManualOutput	int8u & 0x1f
29.1	CommanderGroupBMode	int8u & 0xc0
29.2	CommanderGroupBManualOutput	int8u & 0x1f
30.1	ModelingFlash	int8u & 0x20
30.2	CommanderInternalTTLComp	int8u & 0x1f
31.1	CommanderGroupA_TTL-AAComp	int8u & 0x1f
32.1	CommanderGroupB_TTL-AAComp	int8u & 0x1f

NikonCustom SettingsD810 Tags

Custom settings for the D810.

Index1	Tag Name	Writable
0.1	LightSwitch	int8u & 0x08
0.2	CustomSettingsBank	int8u & 0x03
1.1	AF-CPrioritySelection	int8u & 0xc0
1.2	AF-SPrioritySelection	int8u & 0x20
1.3	AFPointSelection	int8u & 0x10
1.4	FocusTrackingLockOn	int8u & 0x07
2.1	AFActivation	int8u & 0x80
2.2	FocusPointWrap	int8u & 0x08
2.3	AFPointBrightness	int8u & 0x06
2.4	AFAssist	int8u & 0x01
3.1	BatteryOrder	int8u & 0x40
3.2	MB-D12BatteryType	int8u & 0x03
4.1	Pitch	int8u & 0x40
4.2	NoMemoryCard	int8u & 0x20
4.3	ISODisplay	int8u & 0x0c
4.4	GridDisplay	int8u & 0x02
5.1	ShootingInfoDisplay	int8u & 0xc0
5.2	LCDIllumination	int8u & 0x20
5.3	ElectronicFront-CurtainShutter	int8u & 0x08
5.4	ScreenTips	int8u & 0x04
5.5	Beep	int8u & 0x03
6.1	ReverseIndicators	int8u & 0x80
6.2	CommandDialsReverseRotation	int8u & 0x18
6.3	EasyExposureCompensation	int8u & 0x03
7.1	ExposureControlStepSize	int8u & 0xc0
7.2	ISOStepSize	int8u & 0x30
7.3	ExposureCompStepSize	int8u & 0x0c
8.1	CenterWeightedAreaSize	int8u & 0xe0
8.2	FineTuneOptMatrixMetering	int8u & 0x0f
9.1	FineTuneOptCenterWeighted	int8u & 0xf0
9.2	FineTuneOptSpotMetering	int8u & 0x0f
10.1	MultiSelectorShootMode	int8u & 0xc0
10.2	MultiSelectorPlaybackMode	int8u & 0x30
10.3	MultiSelector	int8u & 0x01
11.1	ExposureDelayMode	int8u & 0xc0
11.2	CLModeShootingSpeed	int8u & 0x0f
12.1	MaxContinuousRelease	int8u
13.1	AutoBracketSet	int8u & 0xe0
13.2	AutoBracketOrder	int8u & 0x10
13.3	AutoBracketModeM	int8u & 0x0c
14.1	FuncButton	int8u & 0x1f
15.1	PreviewButton	int8u & 0x1f
16.1	AssignBktButton	int8u & 0x07
17.1	AELockButton	int8u & 0x1f
18.1	CommandDialsChangeMainSub	int8u & 0xe0
18.2	CommandDialsMenuAndPlayback	int8u & 0x18
18.3	CommandDialsApertureSetting	int8u & 0x04
18.4	ShutterReleaseButtonAE-L	int8u & 0x02
18.5	ReleaseButtonToUseDial	int8u & 0x01
19.1	StandbyTimer	int8u & 0xf0
20.1	SelfTimerTime	int8u & 0xc0
20.2	SelfTimerShotInterval	int8u & 0x30

20.3	SelfTimerShotCount	int8u & 0x0f
21.1	ImageReviewMonitorOffTime	int8u & 0xe0
21.2	LiveViewMonitorOffTime	int8u & 0x1c
22.1	MenuMonitorOffTime	int8u & 0xe0
22.2	ShootingInfoMonitorOffTime	int8u & 0x1c
23.1	FlashSyncSpeed	int8u & 0xf0
23.2	FlashShutterSpeed	int8u & 0x0f
24.1	FlashControlBuilt-in	int8u & 0xc0
31.1	ModelingFlash	int8u & 0x20
36.1	PlaybackMonitorOffTime	int8u & 0xe0
37.1	MultiSelectorLiveView	int8u & 0xc0
38.1	ShutterSpeedLock	int8u & 0x80
38.2	ApertureLock	int8u & 0x40
38.3	MovieShutterButton	int8u & 0x20
38.4	FlashExposureCompArea	int8u & 0x04
40.1	MovieAELockButtonAssignment	int8u & 0x0f
41.1	MovieFunctionButton	int8u & 0x70
41.2	MoviePreviewButton	int8u & 0x07
42.1	FuncButtonPlusDials	int8u & 0x0f
43.1	PreviewButtonPlusDials	int8u & 0x0f
44.1	AELockButtonPlusDials	int8u & 0x0f
45.1	AssignMovieRecordButton	int8u & 0x0f
46.1	FineTuneOptHighlightWeighted	int8u & 0x0f
47.1	DynamicAreaAFDisplay	int8u & 0x80
47.2	AFPointIllumination	int8u & 0x40
47.3	StoreByOrientation	int8u & 0x18
47.4	GroupAreaAFIllumination	int8u & 0x04
48.1	MatrixMetering	int8u & 0x80
48.2	LiveViewButtonOptions	int8u & 0x30
48.3	AFModeRestrictions	int8u & 0x03
49.1	LimitAFAreaModeSelection	int8u & 0x7e
50.1	AF-OnForMB-D12	int8u & 0x07
51.1	AssignRemoteFnButton	int8u & 0x1f
52.1	LensFocusFunctionButtons	int8u & 0x3f

NikonCustom SettingsD850 Tags

Custom settings for the D850.

Index1	Tag Name	Writable
0.2	CustomSettingsBank	int8u & 0x03
1.1	AF-CPrioritySelection	int8u & 0xc0
1.2	AF-SPrioritySelection	int8u & 0x20
1.3	AFPointSelection	int8u & 0x10
1.4	Three-DTrackingFaceDetection	int8u & 0x08
1.5	BlockShotAFResponse	int8u & 0x07
2.1	FocusPointWrap	int8u & 0x08
2.2	AFPointBrightness	int8u & 0x06
4.1	ISODisplay	int8u & 0x08
4.2	GridDisplay	int8u & 0x02
5.1	LCDIllumination	int8u & 0x20
5.2	ElectronicFront-CurtainShutter	int8u & 0x08
6.1	ReverseIndicators	int8u & 0x80
6.2	CommandDialsReverseRotation	int8u & 0x18
6.3	EasyExposureCompensation	int8u & 0x03

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 7.1    ExposureControlStepSize             int8u & 0xc0
 7.2    ISOStepSize                         int8u & 0x30
 7.3    ExposureCompStepSize                int8u & 0x0c
 8.1    CenterWeightedAreaSize              int8u & 0xe0
 8.2    FineTuneOptMatrixMetering           int8u & 0x0f
 9.1    FineTuneOptCenterWeighted           int8u & 0xf0
 9.2    FineTuneOptSpotMetering             int8u & 0x0f
10.1    MultiSelectorShootMode              int8u & 0xe0
10.2    MultiSelectorPlaybackMode           int8u & 0x0c
10.3    MultiSelector                       int8u & 0x01
11.1    ExposureDelayMode                   int8u & 0xe0
11.2    CLModeShootingSpeed                 int8u & 0x0f
12.1    MaxContinuousRelease                int8u
13.1    AutoBracketOrder                    int8u & 0x10
13.2    AutoBracketModeM                    int8u & 0x0c
14.1    Func1Button                         int8u & 0x3f
15.1    PreviewButton                       int8u & 0x3f
16.1    AssignBktButton                     int8u & 0x07
18.1    CommandDialsChangeMainSub           int8u & 0xe0
18.2    CommandDialsMenuAndPlayback         int8u & 0x18
18.3    CommandDialsApertureSetting         int8u & 0x04
18.4    ReleaseButtonToUseDial              int8u & 0x01
19.1    StandbyTimer                        int8u & 0xf0
20.1    SelfTimerTime                       int8u & 0xc0
20.2    SelfTimerShotInterval               int8u & 0x30
20.3    SelfTimerShotCount                  int8u & 0x0f
21.1    ImageReviewMonitorOffTime           int8u & 0xe0
21.2    LiveViewMonitorOffTime              int8u & 0x1c
22.1    MenuMonitorOffTime                  int8u & 0xe0
22.2    ShootingInfoMonitorOffTime          int8u & 0x1c
23.1    FlashSyncSpeed                      int8u & 0xf0
23.2    FlashShutterSpeed                   int8u & 0x0f
31.1    ModelingFlash                       int8u & 0x20
36.1    PlaybackMonitorOffTime              int8u & 0xe0
37.1    MultiSelectorLiveView               int8u & 0xc0
38.1    ShutterSpeedLock                    int8u & 0x80
38.2    ApertureLock                        int8u & 0x40
38.3    MovieShutterButton                  int8u & 0x10
38.4    FlashExposureCompArea               int8u & 0x04
38.5    AutoFlashISOSensitivity             int8u & 0x02
41.1    MovieFunc1Button                    int8u & 0xf0
41.2    MoviePreviewButton                  int8u & 0x0f
42.1    Func1ButtonPlusDials                int8u & 0x0f
43.1    PreviewButtonPlusDials              int8u & 0x0f
45.1    AssignMovieRecordButtonPlusDials    int8u & 0x0f
46.1    FineTuneOptHighlightWeighted        int8u & 0x0f
47.1    DynamicAreaAFDisplay                int8u & 0x80
47.2    AFPointIllumination                 int8u & 0x40
47.3    StoreByOrientation                  int8u & 0x18
48.1    MatrixMetering                      int8u & 0x80
48.2    LiveViewButtonOptions               int8u & 0x30
48.3    AFModeRestrictions                  int8u & 0x03
49.1    LimitAFAreaModeSelection            int8u & 0x7e
52.1    LensFocusFunctionButtons            int8u & 0x3f
```

66.1	VerticalMultiSelector	int8u & 0xff
67.1	AssignMB-D18FuncButton	int8u & 0x3f
68.1	AssignMB-D18FuncButtonPlusDials	int8u & 0x0f
70.1	AF-OnButton	int8u & 0x3f
71.1	SubSelector	int8u & 0x80
72.1	SubSelectorCenter	int8u & 0x3f
73.1	SubSelectorPlusDials	int8u & 0x0f
74.1	AssignMovieSubselector	int8u & 0xf0
75.1	AssignMovieFunc1ButtonPlusDials	int8u & 0x10
75.2	AssignMoviePreviewButtonPlusDials	int8u & 0x01
76.1	AssignMovieSubselectorPlusDials	int8u & 0x10
77.1	SyncReleaseMode	int8u & 0x80
77.2	ContinuousModeLiveView	int8u & 0x40
78.1	Three-DTrackingWatchArea	int8u & 0x80
78.2	SubjectMotion	int8u & 0x60
78.3	AFActivation	int8u & 0x08
78.4	ShutterReleaseButtonAE-L	int8u & 0x03
79.1	AssignMB-D18AF-OnButton	int8u & 0x7f
80.1	Func2Button	int8u & 0x3f
82.1	AssignMovieFunc2Button	int8u & 0x70

NikonCustom SettingsD5000 Tags

Custom settings for the D5000.

Index1	Tag Name	Writable
0.1	AFAreaModeSetting	int8u & 0x60
0.2	AFAssist	int8u & 0x01
2.1	Beep	int8u & 0xc0
2.2	GridDisplay	int8u & 0x02
2.3	ISODisplay	int8u & 0x08
2.4	NoMemoryCard	int8u & 0x20
3.1	FileNumberSequence	int8u & 0x08
4.1	RangeFinder	int8u & 0x10
4.2	DateImprint	int8u & 0x08
4.3	ReverseIndicators	int8u & 0x80
5.1	EVStepSize	int8u & 0x40
9.1	ExposureDelayMode	int8u & 0x40
11.1	AutoBracketSet	int8u & 0xc0
12.1	TimerFunctionButton	int8u & 0x38
15.1	AELockButton	int8u & 0x38
16.1	ShutterReleaseButtonAE-L	int8u & 0x02
16.2	CommandDialsReverseRotation	int8u & 0x80
17.1	MeteringTime	int8u & 0x70
17.2	RemoteOnDuration	int8u & 0x03
18.1	SelfTimerTime	int8u & 0xc0
18.2	SelfTimerShotCount	int8u & 0x1e
19.1	ImageReviewTime	int8u & 0xe0
20.1	PlaybackMenusTime	int8u & 0xe0
22.1	InternalFlash	int8u & 0xc0
22.2	ManualFlashOutput	int8u & 0x1f
32.1	LiveViewAF	int8u & 0x60

NikonCustom SettingsD5100 Tags

Custom settings for the D5100.

Index1	Tag Name	Writable
0.1	AF-CPrioritySelection	int8u & 0x80
1.1	AFAssist	int8u & 0x01
3.1	Beep	int8u & 0xc0
3.2	NoMemoryCard	int8u & 0x20
3.3	ISODisplay	int8u & 0x08
4.1	FileNumberSequence	int8u & 0x08
5.1	RangeFinder	int8u & 0x10
5.2	ReverseIndicators	int8u & 0x80
6.1	EVStepSize	int8u & 0x40
10.1	ExposureDelayMode	int8u & 0x40
12.1	AutoBracketSet	int8u & 0xc0
13.1	TimerFunctionButton	int8u & 0x38
16.1	AELockButton	int8u & 0x38
17.1	ShutterReleaseButtonAE-L	int8u & 0x02
17.2	CommandDialsReverseRotation	int8u & 0x80
18.1	MeteringTime	int8u & 0x70
18.2	RemoteOnDuration	int8u & 0x03
19.1	SelfTimerTime	int8u & 0xc0
19.2	SelfTimerShotCount	int8u & 0x0f
20.1	ImageReviewTime	int8u & 0xe0
20.2	LiveViewMonitorOffTime	int8u & 0x1c
21.1	PlaybackMenusTime	int8u & 0xe0
23.1	ManualFlashOutput	int8u & 0x1f

NikonCustom SettingsD5200 Tags

Custom settings for the D5200.

Index1	Tag Name	Writable
0.1	AF-CPrioritySelection	int8u & 0x80
0.2	NumberOfFocusPoints	int8u & 0x10
1.1	AFAssist	int8u & 0x01
3.1	Beep	int8u & 0xc0
3.2	NoMemoryCard	int8u & 0x20
3.3	ISODisplay	int8u & 0x08
4.1	FileNumberSequence	int8u & 0x08
5.1	RangeFinder	int8u & 0x04
5.2	ReverseExposureCompDial	int8u & 0x10
5.3	ReverseShutterSpeedAperture	int8u & 0x08
5.4	ReverseIndicators	int8u & 0x80
6.1	EVStepSize	int8u & 0x40
10.1	ExposureDelayMode	int8u & 0x40
12.1	AutoBracketSet	int8u & 0xc0
13.1	FunctionButton	int8u & 0x1f
16.1	AELockButton	int8u & 0x0f
17.1	ShutterReleaseButtonAE-L	int8u & 0x02
18.1	StandbyTimer	int8u & 0xe0
18.2	RemoteOnDuration	int8u & 0x03
19.1	SelfTimerTime	int8u & 0xc0
19.2	SelfTimerShotCount	int8u & 0x0f
20.1	ImageReviewTime	int8u & 0xe0
20.2	LiveViewMonitorOffTime	int8u & 0x1c
21.1	PlaybackMenusTime	int8u & 0xe0

23.1	InternalFlash	int8u & 0xc0
23.2	ManualFlashOutput	int8u & 0x1f

NikonCustom SettingsD7000 Tags

Custom settings for the D7000.

Index1	Tag Name	Writable
0.1	AF-CPrioritySelection	int8u & 0x80
0.2	AF-SPrioritySelection	int8u & 0x20
0.3	NumberOfFocusPoints	int8u & 0x10
0.4	FocusTrackingLockOn	int8u & 0x07
1.1	FocusPointWrap	int8u & 0x08
1.2	AFPointIllumination	int8u & 0x06
1.3	AFAssist	int8u & 0x01
2.1	BatteryOrder	int8u & 0x40
2.2	AF-OnForMB-D11	int8u & 0x1c
2.3	MB-D11BatteryType	int8u & 0x03
3.1	BeepPitch	int8u & 0xc0
3.2	NoMemoryCard	int8u & 0x20
3.3	ISODisplay	int8u & 0x0c
3.4	GridDisplay	int8u & 0x02
3.5	ViewfinderWarning	int8u & 0x01
4.1	ShootingInfoDisplay	int8u & 0xc0
4.2	LCDIllumination	int8u & 0x20
4.3	FileNumberSequence	int8u & 0x08
4.4	ScreenTips	int8u & 0x04
4.5	BeepVolume	int8u & 0x03
5.1	ReverseIndicators	int8u & 0x80
5.2	EasyExposureCompensation	int8u & 0x03
6.1	ExposureControlStep	int8u & 0x40
6.2	ISOSensitivityStep	int8u & 0x10
7.1	CenterWeightedAreaSize	int8u & 0xe0
10.1	ExposureDelayMode	int8u & 0x40
10.2	CLModeShootingSpeed	int8u & 0x07
11	MaxContinuousRelease	int8u
12.1	AutoBracketSet	int8u & 0xe0
12.2	AutoBracketOrder	int8u & 0x10
13.1	FuncButton	int8u & 0xf8
14.1	PreviewButton	int8u & 0xf8
15.1	OKButton	int8u & 0x18
16.1	AELockButton	int8u & 0x38
17.1	CommandDialsReverseRotation	int8u & 0x80
17.2	CommandDialsChangeMainSub	int8u & 0x60
17.3	CommandDialsApertureSetting	int8u & 0x04
17.4	CommandDialsMenuAndPlayback	int8u & 0x18
17.5	ShutterReleaseButtonAE-L	int8u & 0x02
17.6	ReleaseButtonToUseDial	int8u & 0x01
18.1	MeteringTime	int8u & 0xf0
18.2	RemoteOnDuration	int8u & 0x03
19.1	SelfTimerTime	int8u & 0xc0
19.2	SelfTimerInterval	int8u & 0x30
19.3	SelfTimerShotCount	int8u & 0x0f
20.1	ImageReviewTime	int8u & 0xe0
20.2	LiveViewMonitorOffTime	int8u & 0x1c

21.1	MenuMonitorOffTime	int8u & 0xe0
21.2	ShootingInfoMonitorOffTime	int8u & 0x1c
22.1	FlashSyncSpeed	int8u & 0xf0
22.2	FlashShutterSpeed	int8u & 0x0f
23.1	FlashControlBuilt-in	int8u & 0xc0
23.2	ManualFlashOutput	int8u & 0x1f
24.1	RepeatingFlashOutput	int8u & 0x70
24.2	RepeatingFlashCount	int8u & 0x0f
25.1	RepeatingFlashRate	int8u & 0xf0
26.1	CommanderInternalTTLCompBuiltin	int8u & 0x1f
27.1	CommanderInternalTTLCompGroupA	int8u & 0x1f
28.1	CommanderInternalTTLCompGroupB	int8u & 0x1f
30.1	FlashWarning	int8u & 0x80
30.2	ModelingFlash	int8u & 0x20
34.1	LiveViewAFAreaMode	int8u & 0x60
34.2	LiveViewAFMode	int8u & 0x02
35.1	PlaybackMonitorOffTime	int8u & 0xe0

NikonCustom SettingsD4 Tags

Custom settings for the D4 and D4S.

Index1	Tag Name	Writable
0.1	CustomSettingsBank	int8u & 0x03
1.1	AF-CPrioritySelection	int8u & 0xc0
1.2	AF-SPrioritySelection	int8u & 0x20
1.3	AFPointSelection	int8u & 0x10
1.4	FocusTrackingLockOn	int8u & 0x07
2.1	AFActivation	int8u & 0x80
2.2	FocusPointWrap	int8u & 0x08
4.1	Pitch	int8u & 0x40
4.2	NoMemoryCard	int8u & 0x20
4.3	GridDisplay	int8u & 0x02
5.1	ShootingInfoDisplay	int8u & 0xc0
5.2	LCDIllumination	int8u & 0x20
5.3	ScreenTips	int8u & 0x04
5.4	Beep	int8u & 0x03
6.1	ReverseIndicators	int8u & 0x80
6.2	RearDisplay	int8u & 0x40
6.3	ViewfinderDisplay	int8u & 0x20
6.4	CommandDialsReverseRotation	int8u & 0x18
6.5	EasyExposureCompensation	int8u & 0x03
7.1	ExposureControlStepSize	int8u & 0xc0
7.2	ISOStepSize	int8u & 0x30
7.3	ExposureCompStepSize	int8u & 0x0c
8.1	CenterWeightedAreaSize	int8u & 0xe0
8.2	FineTuneOptMatrixMetering	int8u & 0x0f
9.1	FineTuneOptCenterWeighted	int8u & 0xf0
9.2	FineTuneOptSpotMetering	int8u & 0x0f
10.1	MultiSelectorShootMode	int8u & 0xc0
10.2	MultiSelectorPlaybackMode	int8u & 0x30
10.3	MultiSelector	int8u & 0x01
11.1	ExposureDelayMode	int8u & 0xc0
11.2	CHModeShootingSpeed	int8u & 0x10
11.3	CLModeShootingSpeed	int8u & 0x0f

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  12    MaxContinuousRelease              int8u
13.1    AutoBracketSet                    int8u & 0xe0
13.2    AutoBracketOrder                  int8u & 0x10
13.3    AutoBracketModeM                  int8u & 0x0c
14.1    FuncButton                        int8u & 0xf8
14.2    FuncButtonPlusDials               int8u & 0x07
15.1    PreviewButton                     int8u & 0xf8
15.2    PreviewButtonPlusDials            int8u & 0x07
16.1    AssignBktButton                   int8u & 0x07
18.1    CommandDialsChangeMainSub         int8u & 0xe0
18.2    CommandDialsMenuAndPlayback       int8u & 0x18
18.3    CommandDialsApertureSetting       int8u & 0x04
18.4    ShutterReleaseButtonAE-L          int8u & 0x02
18.5    ReleaseButtonToUseDial            int8u & 0x01
19.1    StandbyTimer                      int8u & 0xf0
20.1    SelfTimerTime                     int8u & 0xc0
20.2    SelfTimerShotCount                int8u & 0x0f
20.3    SelfTimerShotInterval             int8u & 0x30
21.1    ImageReviewMonitorOffTime         int8u & 0xe0
21.2    LiveViewMonitorOffTime            int8u & 0x1c
22.1    MenuMonitorOffTime                int8u & 0xe0
22.2    ShootingInfoMonitorOffTime        int8u & 0x1c
23.1    FlashSyncSpeed                    int8u & 0xf0
23.2    FlashShutterSpeed                 int8u & 0x0f
31.1    ModelingFlash                     int8u & 0x20
36.1    PlaybackMonitorOffTime            int8u & 0xe0
37.1    PlaybackZoom                      int8u & 0x01
38.1    ShutterSpeedLock                  int8u & 0x80
38.2    ApertureLock                      int8u & 0x40
38.3    MovieShutterButton                int8u & 0x30
38.4    FlashExposureCompArea             int8u & 0x04
41.1    MovieFunctionButton               int8u & 0x70
41.2    MoviePreviewButton                int8u & 0x07
42.1    VerticalMultiSelector             int8u & 0x60
42.2    VerticalFuncButton                int8u & 0x1f
43.1    VerticalFuncButtonPlusDials       int8u & 0xf0
43.2    AssignMovieRecordButton           int8u & 0x07
46.1    DynamicAreaAFDisplay              int8u & 0x80
46.2    AFPointIllumination               int8u & 0x60
46.3    StoreByOrientation                int8u & 0x18
46.4    GroupAreaAFIllumination           int8u & 0x04
46.5    AFPointBrightness                 int8u & 0x03
47.1    AFOnButton                        int8u & 0x70
47.2    VerticalAFOnButton                int8u & 0x07
48.1    SubSelectorAssignment             int8u & 0x80
48.2    MovieSubSelectorAssignment        int8u & 0x07
49.1    SubSelector                       int8u & 0xf8
49.2    SubSelectorPlusDials              int8u & 0x07
50.1    MatrixMetering                    int8u & 0x80
50.2    LiveViewButtonOptions             int8u & 0x30
50.3    AFModeRestrictions                int8u & 0x03
51.1    LimitAFAreaModeSelection          int8u & 0x7e
52.1    MovieFunctionButtonPlusDials      int8u & 0x10
52.2    MoviePreviewButtonPlusDials       int8u & 0x01
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53.1	MovieSubSelectorAssignmentPlusDials	int8u & 0x10
54.1	AssignRemoteFnButton	int8u & 0x1f
55.1	LensFocusFunctionButtons	int8u & 0x3f

NikonCustom SettingsD5 Tags

Custom settings for the D5.

Index1	Tag Name	Writable
0.1	CustomSettingsBank	int8u & 0x03
1.1	AF-CPrioritySelection	int8u & 0xc0
1.2	AF-SPrioritySelection	int8u & 0x20
1.3	NumberOfFocusPoints	int8u & 0x10
1.4	Three-DTrackingFaceDetection	int8u & 0x08
1.5	BlockShotAFResponse	int8u & 0x07
2.1	FocusPointWrap	int8u & 0x08
2.2	AFPointBrightness	int8u & 0x06
4.1	ISODisplay	int8u & 0x08
4.2	GridDisplay	int8u & 0x02
5.1	LCDIllumination	int8u & 0x20
5.2	ElectronicFront-CurtainShutter	int8u & 0x08
6.1	ReverseIndicators	int8u & 0x80
6.2	CommandDialsReverseRotation	int8u & 0x18
6.3	EasyExposureCompensation	int8u & 0x03
7.1	ExposureControlStepSize	int8u & 0xc0
7.2	ISOStepSize	int8u & 0x30
7.3	ExposureCompStepSize	int8u & 0x0c
8.1	CenterWeightedAreaSize	int8u & 0xe0
8.2	FineTuneOptMatrixMetering	int8u & 0x0f
9.1	FineTuneOptCenterWeighted	int8u & 0xf0
9.2	FineTuneOptSpotMetering	int8u & 0x0f
10.1	MultiSelectorShootMode	int8u & 0xe0
10.3	MultiSelector	int8u & 0x01
11.1	ExposureDelayMode	int8u & 0xc0
11.2	CLModeShootingSpeed	int8u & 0x0f
12.1	MaxContinuousRelease	int8u
13.1	AutoBracketOrder	int8u & 0x10
13.2	AutoBracketModeM	int8u & 0x0c
14.1	Func1Button	int8u & 0x3f
15.1	PreviewButton	int8u & 0x3f
16.1	AssignBktButton	int8u & 0x07
18.1	CommandDialsChangeMainSub	int8u & 0xe0
18.2	CommandDialsMenuAndPlayback	int8u & 0x18
18.3	CommandDialsApertureSetting	int8u & 0x04
18.4	ReleaseButtonToUseDial	int8u & 0x01
19.1	StandbyTimer	int8u & 0xf0
20.1	SelfTimerTime	int8u & 0xc0
20.2	SelfTimerShotInterval	int8u & 0x30
20.3	SelfTimerShotCount	int8u & 0x0f
21.1	ImageReviewMonitorOffTime	int8u & 0xe0
21.2	LiveViewMonitorOffTime	int8u & 0x1c
22.1	MenuMonitorOffTime	int8u & 0xe0
22.2	ShootingInfoMonitorOffTime	int8u & 0x1c
23.1	FlashSyncSpeed	int8u & 0xf0
23.2	FlashShutterSpeed	int8u & 0x0f

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31.1    ModelingFlash                       int8u & 0x20
36.1    PlaybackMonitorOffTime              int8u & 0xe0
37.1    MultiSelectorLiveView               int8u & 0xc0
38.1    ShutterSpeedLock                    int8u & 0x80
38.2    ApertureLock                        int8u & 0x40
38.3    MovieShutterButton                  int8u & 0x10
38.4    FlashExposureCompArea               int8u & 0x04
38.5    AutoFlashISOSensitivity             int8u & 0x02
41.1    MovieFunc1Button                    int8u & 0xf0
41.2    MoviePreviewButton                  int8u & 0x0f
42.1    Func1ButtonPlusDials                int8u & 0x0f
43.1    PreviewButtonPlusDials              int8u & 0x0f
45.1    AssignMovieRecordButtonPlusDials    int8u & 0x0f
46.1    FineTuneOptHighlightWeighted        int8u & 0x0f
47.1    DynamicAreaAFDisplay                int8u & 0x80
47.2    AFPointIllumination                 int8u & 0x40
47.3    StoreByOrientation                  int8u & 0x18
48.1    MatrixMetering                      int8u & 0x80
48.2    LiveViewButtonOptions               int8u & 0x30
48.3    AFModeRestrictions                  int8u & 0x03
49.1    LimitAFAreaModeSelection            int8u & 0x7e
52.1    LensFocusFunctionButtons            int8u & 0x3f
66.1    VerticalMultiSelector               int8u & 0xff
67.1    VerticalFuncButton                  int8u & 0x3f
68.1    VerticalFuncPlusDials               int8u & 0x0f
70.1    AF-OnButton                         int8u & 0x3f
71.1    SubSelector                         int8u & 0x80
72.1    SubSelectorCenter                   int8u & 0x3f
73.1    SubSelectorPlusDials                int8u & 0x0f
74.1    AssignMovieSubselector              int8u & 0xf0
75.1    AssignMovieFunc1ButtonPlusDials     int8u & 0x10
75.2    AssignMoviePreviewButtonPlusDials   int8u & 0x01
76.1    AssignMovieSubselectorPlusDials     int8u & 0x10
77.1    SyncReleaseMode                     int8u & 0x80
78.1    Three-DTrackingWatchArea            int8u & 0x80
78.2    SubjectMotion                       int8u & 0x60
78.3    AFActivation                        int8u & 0x08
78.4    ShutterReleaseButtonAE-L            int8u & 0x03
79.1    VerticalAFOnButton                  int8u & 0x7f
80.1    Func2Button                         int8u & 0x3f
81.1    Func2ButtonPlusDials                int8u & 0x0f
82.1    AssignMovieFunc2Button              int8u & 0x70
83.1    Func3Button                         int8u & 0x03
```

NikonCustom SettingsD500 Tags

Custom settings for the D500.

Index1	Tag Name	Writable
0.1	CustomSettingsBank	int8u & 0x03
1.1	AF-CPrioritySelection	int8u & 0xc0
1.2	AF-SPrioritySelection	int8u & 0x20
1.3	NumberOfFocusPoints	int8u & 0x10
1.4	Three-DTrackingFaceDetection	int8u & 0x08
1.5	BlockShotAFResponse	int8u & 0x07
2.1	FocusPointWrap	int8u & 0x08
2.2	AFPointBrightness	int8u & 0x06
4.1	ISODisplay	int8u & 0x08
4.2	GridDisplay	int8u & 0x02
5.1	LCDIllumination	int8u & 0x20
5.2	ElectronicFront-CurtainShutter	int8u & 0x08
6.1	ReverseIndicators	int8u & 0x80
6.2	CommandDialsReverseRotation	int8u & 0x18
6.3	EasyExposureCompensation	int8u & 0x03
7.1	ExposureControlStepSize	int8u & 0xc0
7.2	ISOStepSize	int8u & 0x30
7.3	ExposureCompStepSize	int8u & 0x0c
8.1	CenterWeightedAreaSize	int8u & 0xe0
8.2	FineTuneOptMatrixMetering	int8u & 0x0f
9.1	FineTuneOptCenterWeighted	int8u & 0xf0
9.2	FineTuneOptSpotMetering	int8u & 0x0f
10.1	MultiSelectorShootMode	int8u & 0xe0
10.2	MultiSelectorPlaybackMode	int8u & 0x0c
10.3	MultiSelector	int8u & 0x01
11.1	ExposureDelayMode	int8u & 0xc0
11.2	CLModeShootingSpeed	int8u & 0x0f
12.1	MaxContinuousRelease	int8u
13.1	AutoBracketOrder	int8u & 0x10
13.2	AutoBracketModeM	int8u & 0x0c
14.1	Func1Button	int8u & 0x3f
15.1	PreviewButton	int8u & 0x3f
16.1	AssignBktButton	int8u & 0x07
18.1	CommandDialsChangeMainSub	int8u & 0xe0
18.2	CommandDialsMenuAndPlayback	int8u & 0x18
18.3	CommandDialsApertureSetting	int8u & 0x04
18.4	ReleaseButtonToUseDial	int8u & 0x01
19.1	StandbyTimer	int8u & 0xf0
20.1	SelfTimerTime	int8u & 0xc0
20.2	SelfTimerShotInterval	int8u & 0x30
20.3	SelfTimerShotCount	int8u & 0x0f
21.1	ImageReviewMonitorOffTime	int8u & 0xe0
21.2	LiveViewMonitorOffTime	int8u & 0x1c
22.1	MenuMonitorOffTime	int8u & 0xe0
22.2	ShootingInfoMonitorOffTime	int8u & 0x1c
23.1	FlashSyncSpeed	int8u & 0xf0
23.2	FlashShutterSpeed	int8u & 0x0f
31.1	ModelingFlash	int8u & 0x20
36.1	PlaybackMonitorOffTime	int8u & 0xe0
37.1	MultiSelectorLiveView	int8u & 0xc0
38.1	ShutterSpeedLock	int8u & 0x80
38.2	ApertureLock	int8u & 0x40

38.3	MovieShutterButton	int8u & 0x10
38.4	FlashExposureCompArea	int8u & 0x04
38.5	AutoFlashISOSensitivity	int8u & 0x02
41.1	MovieFunc1Button	int8u & 0xf0
41.2	MoviePreviewButton	int8u & 0x0f
42.1	Func1ButtonPlusDials	int8u & 0x0f
43.1	PreviewButtonPlusDials	int8u & 0x0f
45.1	AssignMovieRecordButtonPlusDials	int8u & 0x0f
46.1	FineTuneOptHighlightWeighted	int8u & 0x0f
47.1	DynamicAreaAFDisplay	int8u & 0x80
47.2	AFPointIllumination	int8u & 0x40
47.3	StoreByOrientation	int8u & 0x18
47.4	GroupAreaAFIllumination	int8u & 0x04
48.1	MatrixMetering	int8u & 0x80
48.2	LiveViewButtonOptions	int8u & 0x30
48.3	AFModeRestrictions	int8u & 0x03
49.1	LimitAFAreaModeSelection	int8u & 0x7e
52.1	LensFocusFunctionButtons	int8u & 0x3f
66.1	VerticalMultiSelector	int8u & 0xff
67.1	AssignMB-D17FuncButton	int8u & 0x3f
68.1	AssignMB-D17FuncButtonPlusDials	int8u & 0x0f
70.1	AF-OnButton	int8u & 0x3f
71.1	SubSelector	int8u & 0x80
72.1	SubSelectorCenter	int8u & 0x3f
73.1	SubSelectorPlusDials	int8u & 0x0f
74.1	AssignMovieSubselector	int8u & 0xf0
75.1	AssignMovieFunc1ButtonPlusDials	int8u & 0x10
75.2	AssignMoviePreviewButtonPlusDials	int8u & 0x01
76.1	AssignMovieSubselectorPlusDials	int8u & 0x10
77.1	SyncReleaseMode	int8u & 0x80
78.1	Three-DTrackingWatchArea	int8u & 0x80
78.2	SubjectMotion	int8u & 0x60
78.3	AFActivation	int8u & 0x08
78.4	ShutterReleaseButtonAE-L	int8u & 0x03
79.1	AssignMB-D17AF-OnButton	int8u & 0x7f
80.1	Func2Button	int8u & 0x3f
82.1	AssignMovieFunc2Button	int8u & 0x70

NikonCustom SettingsD610 Tags

Custom settings for the D610.

Index1	Tag Name	Writable
0.1	AF-CPrioritySelection	int8u & 0x80
0.2	AF-SPrioritySelection	int8u & 0x20
0.3	NumberOfFocusPoints	int8u & 0x10
0.4	FocusTrackingLockOn	int8u & 0x07
1.1	FocusPointWrap	int8u & 0x08
1.2	AFPointIllumination	int8u & 0x06
1.3	AFAssist	int8u & 0x01
5.1	EasyExposureCompensation	int8u & 0x03
6.1	ExposureControlStep	int8u & 0x40
6.2	ISOSensitivityStep	int8u & 0x10
7.1	CenterWeightedAreaSize	int8u & 0xe0
7.2	FineTuneOptMatrixMetering	int8u & 0x0f

8.1	FineTuneOptCenterWeighted	int8u & 0xf0
8.2	FineTuneOptSpotMetering	int8u & 0x0f
17.1	ShutterReleaseButtonAE-L	int8u & 0x02
18.1	StandbyTimer	int8u & 0xf0
18.2	RemoteOnDuration	int8u & 0x03
19.1	SelfTimerTime	int8u & 0xc0
19.2	SelfTimerShotInterval	int8u & 0x30
19.3	SelfTimerShotCount	int8u & 0x0f
20.1	ImageReviewMonitorOffTime	int8u & 0xe0
20.2	LiveViewMonitorOffTime	int8u & 0x1c
21.1	MenuMonitorOffTime	int8u & 0xe0
21.2	ShootingInfoMonitorOffTime	int8u & 0x1c
35.1	PlaybackMonitorOffTime	int8u & 0xe0

NikonCustom SettingsZ6III Tags

Custom settings for the Z6III.

Index1	Tag Name	Writable
3	AF-CPrioritySelection	int8u
5	AF-SPrioritySelection	int8u
7	BlockShotAFResponse	int8u
11	AFPointSel	int8u
13	StoreByOrientation	int8u
15	AFActivation	int8u
16	AF-OnOutOfFocusRelease?	int8u
17	LimitAF-AreaModeSelPinpoint?	int8u
19	LimitAF-AreaModeSelWideAF_S?	int8u
20	LimitAF-AreaModeSelWideAF_L?	int8u
21	LimitAFAreaModeSelAuto?	int8u
22	FocusPointWrap?	int8u
23	ManualFocusPointIllumination?	int8u
24	DynamicAreaAFAssist?	int8u
26	AF-AssistIlluminator	int8u
27	ManualFocusRingInAFMode	int8u
29	ExposureControlStepSize	int8u
31	EasyExposureCompensation	int8u
33	CenterWeightedAreaSize	int8u
35	FineTuneOptMatrixMetering	int8s
37	FineTuneOptCenterWeighted	int8s
39	FineTuneOptSpotMetering	int8s
41	FineTuneOptHighlightWeighted	int8s
43	ShutterReleaseButtonAE-L	int8u
45	SelfTimerTime	int8u
49	SelfTimerShotCount	int8u
53	SelfTimerShotInterval	int8u
55	PlaybackMonitorOffTime	int8u
57	MenuMonitorOffTime	int8u
59	ImageReviewMonitorOffTime	int8u
61	ShootingInfoMonitorOffTime	int8u
63	CLModeShootingSpeed	int8u
65	MaxContinuousRelease	no
69	SyncReleaseMode?	int8u
75	LimitSelectableImageAreaDX?	int8u
76	LimitSelectableImageArea1To1?	int8u

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 77    LimitSelectableImageArea16To9?       int8u
 78    FileNumberSequence                   int8u
 81    FocusPeakingLevel?                   int8u
 83    FocusPeakingHighlightColor?          int8u
 85    ContinuousModeDisplay                int8u
 87    FlashSyncSpeed                       no
 89    HighSpeedSync                        int8u
 91    FlashShutterSpeed                    no
 93    FlashExposureCompArea                int8u
 95    AutoFlashISOSensitivity              int8u
 97    ModelingFlash                        int8u
 99    AutoBracketModeM                     int8u
101    AutoBracketOrder                     int8u
103    Func1Button                          int8u
119    Func2Button                          int8u
135    AFOnButton                           int8u
147    SubSelector?                         int8u
159    AssignMovieRecordButton?             int8u
163    LensFunc1Button                      int8u
171    LensFunc2Button                      int8u
177    LensControlRing                      int8u
179    MultiSelectorShootMode               int8u
183    MultiSelectorPlaybackMode            int8u
187    ShutterSpeedLock                     int8u
188    ApertureLock                         int8u
189    CmdDialsReverseRotExposureComp       int8u
190    CmdDialsReverseRotation              int8u
195    UseDialWithoutHold?                  int8u
197    ReverseIndicators?                   int8u
199    MovieFunc1Button                     int8u
205    MovieFunc2Button                     int8u
211    MovieAF-OnButton                     int8u
223    MovieLensControlRing                 int8u
225    MovieMultiSelector?                  int8u
229    MovieAFSpeed                         int8u
231    MovieAFSpeedApply                    int8u
233    MovieAFTrackingSensitivity           int8u
241    LCDIllumination?                     int8u
242    ExtendedShutterSpeeds                int8u
245    FocusPointPersistence                int8u
257    FlashBurstPriority?                  int8u
319    LimitAF-AreaModeSelDynamic_S?        int8u
320    LimitAF-AreaModeSelDynamic_M?        int8u
321    LimitAF-AreaModeSelDynamic_L?        int8u
323    LimitAF-AreaModeSel3DTracking?       int8u
325    PlaybackFlickUp?                     int8u
329    PlaybackFlickDown?                   int8u
333    ISOStepSize                          int8u
340    TouchFn?                             int8u
341    TouchFnRole?                         int8u
345    TouchFnAreaWide?                     int8u
347    TouchFnAreaTall?                     int8u
350    EVFImageFrame?                       int8u
351    EVFGrid?                             int8u
```

353	VirtualHorizonStyle?	int8u
415	Func1ButtonPlaybackMode?	int8u
417	Func2ButtonPlaybackMode?	int8u
431	MovieRecordButtonPlaybackMode?	int8u
463	ControlRingResponse	int8u
559	FocusPeakingDisplay?	int8u

NikonCustom SettingsZ8 Tags

Custom settings for the Z8.

Index1	Tag Name	Writable
1	CustomSettingsBank	int8u
3	AF-CPrioritySelection	int8u
5	AF-SPrioritySelection	int8u
7	BlockShotAFResponse	int8u
11	AFPointSel	int8u
13	StoreByOrientation	int8u
15	AFActivation	int8u
16	AF-OnOutOfFocusRelease?	int8u
17	LimitAF-AreaModeSelPinpoint?	int8u
19	LimitAF-AreaModeSelWideAF_S?	int8u
20	LimitAF-AreaModeSelWideAF_L?	int8u
21	LimitAFAreaModeSelAuto?	int8u
22	FocusPointWrap?	int8u
23	ManualFocusPointIllumination?	int8u
24	DynamicAreaAFAssist?	int8u
25	AF-AssistIlluminator	int8u
26	ManualFocusRingInAFMode	int8u
27	ExposureControlStepSize	int8u
29	EasyExposureCompensation	int8u
31	CenterWeightedAreaSize	int8u
33	FineTuneOptMatrixMetering	int8s
35	FineTuneOptCenterWeighted	int8s
37	FineTuneOptSpotMetering	int8s
39	FineTuneOptHighlightWeighted	int8s
41	ShutterReleaseButtonAE-L	int8u
43	SelfTimerTime	int8u
45	SelfTimerShotCount	int8u
49	SelfTimerShotInterval	int8u
51	PlaybackMonitorOffTime	int8u
53	MenuMonitorOffTime	int8u
55	ShootingInfoMonitorOffTime	int8u
57	ImageReviewMonitorOffTime	int8u
59	CLModeShootingSpeed	int8u
61	MaxContinuousRelease	no
65	SyncReleaseMode?	int8u
69	LimitSelectableImageAreaDX?	int8u
70	LimitSelectableImageArea1To1?	int8u
71	LimitSelectableImageArea16To9?	int8u
72	FileNumberSequence	int8u
73	FocusPeakingLevel?	int8u
75	FocusPeakingHighlightColor?	int8u
81	ContinuousModeDisplay	int8u
83	FlashSyncSpeed	no

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 85    HighSpeedSync                       int8u
 87    FlashShutterSpeed                   no
 89    FlashExposureCompArea               int8u
 91    AutoFlashISOSensitivity             int8u
 93    ModelingFlash                       int8u
 95    AutoBracketModeM                    int8u
 97    AutoBracketOrder                    int8u
 99    Func1Button                         int8u
115    Func2Button                         int8u
131    AFOnButton                          int8u
143    SubSelector?                        int8u
155    AssignMovieRecordButton?            int8u
159    LensFunc1Button                     int8u
167    LensFunc2Button                     int8u
173    LensControlRing                     int8u
175    MultiSelectorShootMode              int8u
179    MultiSelectorPlaybackMode           int8u
183    ShutterSpeedLock                    int8u
184    ApertureLock                        int8u
185    CmdDialsReverseRotExposureComp      int8u
186    CmdDialsReverseRotation             int8u
191    UseDialWithoutHold?                 int8u
193    ReverseIndicators?                  int8u
195    MovieFunc1Button                    int8u
199    MovieFunc2Button                    int8u
203    MovieAF-OnButton                    int8u
215    MovieLensControlRing                int8u
217    MovieMultiSelector?                 int8u
221    MovieAFSpeed                        int8u
223    MovieAFSpeedApply                   int8u
225    MovieAFTrackingSensitivity          int8u
257    LCDIllumination?                    int8u
258    ExtendedShutterSpeeds               int8u
259    SubjectMotion                       int8u
261    FocusPointPersistence               int8u
263    AutoFocusModeRestrictions?          int8u
267    CHModeShootingSpeed                 int8u
273    FlashBurstPriority?                 int8u
281    Func3Button                         int8u
335    LimitAF-AreaModeSelDynamic_S?       int8u
336    LimitAF-AreaModeSelDynamic_M?       int8u
337    LimitAF-AreaModeSelDynamic_L?       int8u
339    LimitAF-AreaModeSel3DTracking?      int8u
341    PlaybackFlickUp?                    int8u
345    PlaybackFlickDown?                  int8u
349    ISOStepSize                         int8u
355    ReverseFocusRing                    int8u
356    EVFImageFrame?                      int8u
357    EVFGrid?                            int8u
359    VirtualHorizonStyle?                int8u
421    Func1ButtonPlaybackMode?            int8u
423    Func2ButtonPlaybackMode?            int8u
437    MovieRecordButtonPlaybackMode?      int8u
453    WBButtonPlaybackMode                int8u
```

459	CommandDialPlaybackMode?	int8u
461	CommandDialVideoPlaybackMode?	int8u
463	SubCommandDialPlaybackMode?	int8u
465	SubCommandDialVideoPlaybackMode?	int8u
467	FocusPointLock?	int8u
469	ControlRingResponse	int8u
529	ZebraPatternToneRange?	int8u
531	MovieZebraPattern?	int8u
533	MovieHighlightDisplayThreshold?	int8u
535	MovieMidtoneDisplayValue?	int8u
537	MovieMidtoneDisplayRange?	int8u~
541	MovieEVFGrid?	int8u
549	MovieShutterSpeedLock?	int8u
550	MovieFocusPointLock?	int8u
563	MatrixMetering?	int8u
564	AF-CFocusDisplay	int8u
565	FocusPeakingDisplay?	int8u
567	KeepExposure	int8u
585	StarlightView?	int8u
587	EVFWarmDisplayMode?	int8u
589	EVFWarmDisplayBrightness?	int8s
591	EVFReleaseIndicator?	int8u
601	MovieApertureLock?	int8u
607	FlickAdvanceDirection?	int8u
647	PreReleaseBurstLength	int8u
649	PostReleaseBurstLength	int8u
681	ViewModeShowEffectsOfSettings?	int8u
683	DispButton	int8u
753	ExposureDelay	int16u~

NikonCustom SettingsZ9 Tags

Custom settings for the Z9.

Index1	Tag Name	Writable
1	CustomSettingsBank	int8u
3	AF-CPrioritySelection	int8u
5	AF-SPrioritySelection	int8u
7	BlockShotAFResponse	int8u
11	AFPointSel	int8u
13	StoreByOrientation	int8u
15	AFActivation	int8u
16	AF-OnOutOfFocusRelease?	int8u
17	LimitAF-AreaModeSelPinpoint?	int8u
19	LimitAF-AreaModeSelWideAF_S?	int8u
20	LimitAF-AreaModeSelWideAF_L?	int8u
21	LimitAFAreaModeSelAuto?	int8u
22	FocusPointWrap?	int8u
23	ManualFocusPointIllumination?	int8u
24	DynamicAreaAFAssist?	int8u
25	AF-AssistIlluminator	int8u
26	ManualFocusRingInAFMode	int8u
27	ExposureControlStepSize	int8u
29	EasyExposureCompensation	int8u
31	CenterWeightedAreaSize	int8u

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 33    FineTuneOptMatrixMetering           int8s
 35    FineTuneOptCenterWeighted           int8s
 37    FineTuneOptSpotMetering             int8s
 39    FineTuneOptHighlightWeighted        int8s
 41    ShutterReleaseButtonAE-L            int8u
 43    SelfTimerTime                       int8u
 45    SelfTimerShotCount                  int8u
 49    SelfTimerShotInterval               int8u
 51    PlaybackMonitorOffTime              int8u
 53    MenuMonitorOffTime                  int8u
 55    ShootingInfoMonitorOffTime          int8u
 57    ImageReviewMonitorOffTime           int8u
 59    CLModeShootingSpeed                 int8u
 61    MaxContinuousRelease                no
 65    SyncReleaseMode?                    int8u
 69    LimitSelectableImageAreaDX?         int8u
 70    LimitSelectableImageArea1To1?       int8u
 71    LimitSelectableImageArea16To9?      int8u
 72    FileNumberSequence                  int8u
 73    FocusPeakingLevel?                  int8u
 75    FocusPeakingHighlightColor?         int8u
 81    ContinuousModeDisplay               int8u
 83    FlashSyncSpeed                      no
 85    HighSpeedSync                       int8u
 87    FlashShutterSpeed                   no
 89    FlashExposureCompArea               int8u
 91    AutoFlashISOSensitivity             int8u
 93    ModelingFlash                       int8u
 95    AutoBracketModeM                    int8u
 97    AutoBracketOrder                    int8u
 99    Func1Button                         int8u
115    Func2Button                         int8u
131    AFOnButton                          int8u
143    SubSelector?                        int8u
155    AssignMovieRecordButton?            int8u
159    LensFunc1Button                     int8u
167    LensFunc2Button                     int8u
173    LensControlRing                     int8u
175    MultiSelectorShootMode              int8u
179    MultiSelectorPlaybackMode           int8u
183    ShutterSpeedLock                    int8u
184    ApertureLock                        int8u
185    CmdDialsReverseRotExposureComp      int8u
186    CmdDialsReverseRotation             int8u
191    UseDialWithoutHold?                 int8u
193    ReverseIndicators?                  int8u
195    MovieFunc1Button                    int8u
199    MovieFunc2Button                    int8u
203    MovieAF-OnButton                    int8u
207    MovieMultiSelector?                 int8u
215    MovieLensControlRing                int8u
221    MovieAFSpeed                        int8u
223    MovieAFSpeedApply                   int8u
225    MovieAFTrackingSensitivity          int8u
```

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  257    LCDIllumination?                    int8u
  258    ExtendedShutterSpeeds               int8u
  259    SubjectMotion                       int8u
  261    FocusPointPersistence               int8u
  263    AutoFocusModeRestrictions?          int8u
  267    CHModeShootingSpeed                 int8u
269.1    LimitReleaseModeSelCL?              int8u & 0x02
269.2    LimitReleaseModeSelCH?              int8u & 0x04
269.3    LimitReleaseModeSelC30?             int8u & 0x10
269.4    LimitReleaseModeSelC120?            int8u & 0x40
269.5    LimitReleaseModeSelSelf?            int8u & 0x80
  273    FlashBurstPriority?                 int8u
  277    VerticalFuncButton                  int8u
  281    Func3Button                         int8u
  285    VerticalAFOnButton                  int8u
  293    VerticalMultiSelectorPlaybackMode?  int8u
  295    MovieFunc3Button                    int8u
  335    LimitAF-AreaModeSelDynamic_S?       int8u
  336    LimitAF-AreaModeSelDynamic_M?       int8u
  337    LimitAF-AreaModeSelDynamic_L?       int8u
  339    LimitAF-AreaModeSel3DTracking?      int8u
  341    PlaybackFlickUp?                    int8u
  345    PlaybackFlickDown?                  int8u
  349    ISOStepSize                         int8u
  355    ReverseFocusRing                    int8u
  356    EVFImageFrame?                      int8u
  357    EVFGrid?                            int8u
  359    VirtualHorizonStyle?                int8u
  373    Func4Button?                        int8u
  379    AudioButton?                        int8u
  381    QualityButton?                      int8u
  399    VerticalMultiSelector?              int8u
  421    Func1ButtonPlaybackMode?            int8u
  423    Func2ButtonPlaybackMode?            int8u
  425    Func3ButtonPlaybackMode?            int8u
  431    Func4ButtonPlaybackMode?            int8u
  437    MovieRecordButtonPlaybackMode?      int8u
  439    VerticalFuncButtonPlaybackMode?     int8u
  441    AudioButtonPlaybackMode?            int8u
  447    QualityButtonPlaybackMode?          int8u
  453    WhiteBalanceButtonPlaybackMode?     int8u
  459    CommandDialPlaybackMode?            int8u
  463    SubCommandDialPlaybackMode?         int8u
  467    FocusPointLock?                     int8u
  469    ControlRingResponse                 int8u
  481    VerticalMovieFuncButton?            int8u
  505    VerticalMovieAFOnButton?            int8u
  515    MovieAFAreaMode?                    int8u
  527    HDMIViewAssist?                     int8u
  529    ZebraPatternToneRange?              int8u
  531    MovieZebraPattern?                  int8u
  533    MovieHighlightDisplayThreshold?     int8u
  535    MovieMidtoneDisplayValue?           int8u
  537    MovieMidtoneDisplayRange?           int8u~
```

541	MovieEVFGrid?	int8u
549	MovieShutterSpeedLock?	int8u
550	MovieFocusPointLock?	int8u
563	MatrixMetering?	int8u
564	AF-CFocusDisplay	int8u
565	FocusPeakingDisplay?	int8u
567	KeepExposure	int8u
585	StarlightView?	int8u
587	EVFWarmDisplayMode?	int8u
589	EVFWarmDisplayBrightness?	int8s
591	EVFReleaseIndicator?	int8u
601	MovieApertureLock?	int8u
607	FlickAdvanceDirection?	int8u

NikonCustom SettingsZ9v4 Tags

Custom settings for the Z9.

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17	LimitAF-AreaModeSelPinpoint?	int8u
19	LimitAF-AreaModeSelWideAF_S?	int8u
20	LimitAF-AreaModeSelWideAF_L?	int8u
21	LimitAFAreaModeSelAuto?	int8u
22	FocusPointWrap?	int8u
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25	AF-AssistIlluminator	int8u
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29	EasyExposureCompensation	int8u
31	CenterWeightedAreaSize	int8u
33	FineTuneOptMatrixMetering	int8s
35	FineTuneOptCenterWeighted	int8s
37	FineTuneOptSpotMetering	int8s
39	FineTuneOptHighlightWeighted	int8s
41	ShutterReleaseButtonAE-L	int8u
43	SelfTimerTime	int8u
45	SelfTimerShotCount	int8u
49	SelfTimerShotInterval	int8u
51	PlaybackMonitorOffTime	int8u
53	MenuMonitorOffTime	int8u
55	ShootingInfoMonitorOffTime	int8u
57	ImageReviewMonitorOffTime	int8u
59	CLModeShootingSpeed	int8u
61	MaxContinuousRelease	no
65	SyncReleaseMode?	int8u
69	LimitSelectableImageAreaDX?	int8u

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   70    LimitSelectableImageArea1To1?        int8u
   71    LimitSelectableImageArea16To9?       int8u
   72    FileNumberSequence                   int8u
   73    FocusPeakingLevel?                   int8u
   75    FocusPeakingHighlightColor?          int8u
   81    ContinuousModeDisplay                int8u
   83    FlashSyncSpeed                       no
   85    HighSpeedSync                        int8u
   87    FlashShutterSpeed                    no
   89    FlashExposureCompArea                int8u
   91    AutoFlashISOSensitivity              int8u
   93    ModelingFlash                        int8u
   95    AutoBracketModeM                     int8u
   97    AutoBracketOrder                     int8u
   99    Func1Button                          int8u
  115    Func2Button                          int8u
  131    AFOnButton                           int8u
  143    SubSelector?                         int8u
  155    AssignMovieRecordButton?             int8u
  159    LensFunc1Button                      int8u
  167    LensFunc2Button                      int8u
  173    LensControlRing                      int8u
  175    MultiSelectorShootMode               int8u
  179    MultiSelectorPlaybackMode            int8u
  183    ShutterSpeedLock                     int8u
  184    ApertureLock                         int8u
  185    CmdDialsReverseRotExposureComp       int8u
  186    CmdDialsReverseRotation              int8u
  191    UseDialWithoutHold?                  int8u
  193    ReverseIndicators?                   int8u
  195    MovieFunc1Button                     int8u
  199    MovieFunc2Button                     int8u
  203    MovieAF-OnButton                     int8u
  207    MovieMultiSelector?                  int8u
  215    MovieLensControlRing                 int8u
  221    MovieAFSpeed                         int8u
  223    MovieAFSpeedApply                    int8u
  225    MovieAFTrackingSensitivity           int8u
  279    LCDIllumination?                     int8u
  280    ExtendedShutterSpeeds                int8u
  281    SubjectMotion                        int8u
  283    FocusPointPersistence                int8u
  285    AutoFocusModeRestrictions?           int8u
  289    CHModeShootingSpeed                  int8u
293.1    LimitReleaseModeSelCL?               int8u & 0x02
293.2    LimitReleaseModeSelCH?               int8u & 0x04
293.3    LimitReleaseModeSelC30?              int8u & 0x10
293.4    LimitReleaseModeSelC120?             int8u & 0x40
293.5    LimitReleaseModeSelSelf?             int8u & 0x80
  297    FlashBurstPriority?                  int8u
  301    VerticalFuncButton                   int8u
  305    Func3Button                          int8u
  309    VerticalAFOnButton                   int8u
  317    VerticalMultiSelectorPlaybackMode?   int8u
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319    MovieFunc3Button                    int8u
359    LimitAF-AreaModeSelDynamic_S?       int8u
360    LimitAF-AreaModeSelDynamic_M?       int8u
361    LimitAF-AreaModeSelDynamic_L?       int8u
363    LimitAF-AreaModeSel3DTracking?      int8u
365    PlaybackFlickUp?                    int8u
369    PlaybackFlickDown?                  int8u
373    ISOStepSize                         int8u
379    ReverseFocusRing                    int8u
380    EVFImageFrame?                      int8u
381    EVFGrid?                            int8u
383    VirtualHorizonStyle?                int8u
397    Func4Button?                        int8u
403    AudioButton?                        int8u
405    QualityButton?                      int8u
423    VerticalMultiSelector?              int8u
445    Func1ButtonPlaybackMode?            int8u
447    Func2ButtonPlaybackMode?            int8u
449    Func3ButtonPlaybackMode?            int8u
455    Func4ButtonPlaybackMode?            int8u
461    MovieRecordButtonPlaybackMode?      int8u
463    VerticalFuncButtonPlaybackMode?     int8u
465    AudioButtonPlaybackMode?            int8u
471    QualityButtonPlaybackMode?          int8u
477    WhiteBalanceButtonPlaybackMode?     int8u
483    CommandDialPlaybackMode?            int8u
485    CommandDialVideoPlaybackMode?       int8u
487    SubCommandDialPlaybackMode?         int8u
489    SubCommandDialVideoPlaybackMode?    int8u
491    FocusPointLock?                     int8u
493    ControlRingResponse                 int8u
505    VerticalMovieFuncButton?            int8u
529    VerticalMovieAFOnButton?            int8u
551    HDMIViewAssist?                     int8u
553    ZebraPatternToneRange?              int8u
555    MovieZebraPattern?                  int8u
557    MovieHighlightDisplayThreshold?     int8u
559    MovieMidtoneDisplayValue?           int8u
561    MovieMidtoneDisplayRange?           int8u~
565    MovieEVFGrid?                       int8u
573    MovieShutterSpeedLock?              int8u
574    MovieFocusPointLock?                int8u
587    MatrixMetering?                     int8u
588    AF-CFocusDisplay                    int8u
589    FocusPeakingDisplay?                int8u
591    KeepExposure                        int8u
609    StarlightView?                      int8u
611    EVFWarmDisplayMode?                 int8u
613    EVFWarmDisplayBrightness?           int8s
615    EVFReleaseIndicator?                int8u
625    MovieApertureLock?                  int8u
631    FlickAdvanceDirection?              int8u
```

NikonSettings Tags

User settings for newer Nikon models. A number of the tags are marked as Unknown only to reduce the volume of the normal output.

Tag ID	Tag Name	Writable
0x0001	ISOAutoHiLimit	no
0x0002	ISOAutoFlashLimit	no
0x0003	ISOAutoShutterTime	no
0x000b	FlickerReductionShooting	no
0x000c	FlickerReductionIndicator	no
0x000d	MovieISOAutoHiLimit	no
0x000e	MovieISOAutoControlManualMode	no
0x000f	MovieWhiteBalanceSameAsPhoto	no
0x001d	AF-CPrioritySel	no
0x001e	AF-SPrioritySel	no
0x0020	AFPointSel	no
0x0022	AFActivation	no
0x0023	FocusPointWrap	no
0x0025	ManualFocusPointIllumination	no
0x0026	AF-AssistIlluminator	no
0x0027	ManualFocusRingInAFMode	no
0x0029	ISOStepSize	no
0x002a	ExposureControlStepSize	no
0x002b	EasyExposureCompensation	no
0x002c	MatrixMetering	no
0x002d	CenterWeightedAreaSize	no
0x002f	FineTuneOptMatrixMetering	no
0x0030	FineTuneOptCenterWeighted	no
0x0031	FineTuneOptSpotMetering	no
0x0032	FineTuneOptHighlightWeighted	no
0x0033	ShutterReleaseButtonAE-L	no
0x0034	StandbyMonitorOffTime	no
0x0035	SelfTimerTime	no
0x0036	SelfTimerShotCount	no
0x0037	SelfTimerShotInterval	no
0x0038	PlaybackMonitorOffTime	no
0x0039	MenuMonitorOffTime	no
0x003a	ShootingInfoMonitorOffTime	no
0x003b	ImageReviewMonitorOffTime	no
0x003c	LiveViewMonitorOffTime	no
0x003e	CLModeShootingSpeed	no
0x003f	MaxContinuousRelease	no
0x0040	ExposureDelayMode	no
0x0041	ElectronicFront-CurtainShutter	no
0x0042	FileNumberSequence	no
0x0043	FramingGridDisplay	no
0x0045	LCDIllumination	no
0x0046	OpticalVR	no
0x0047	FlashSyncSpeed	no
0x0048	FlashShutterSpeed	no
0x0049	FlashExposureCompArea	no
0x004a	AutoFlashISOSensitivity	no
0x0051	AssignBktButton	no
0x0052	AssignMovieRecordButton	no

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0x0053   MultiSelectorShootMode              no
0x0054   MultiSelectorPlaybackMode           no
0x0056   MultiSelectorLiveView               no
0x0058   CmdDialsReverseRotExposureComp?     no
0x0059   CmdDialsChangeMainSubExposure?      no
0x005a   CmdDialsChangeMainSub               no
0x005b   CmdDialsMenuAndPlayback             no
0x005c   SubDialFrameAdvance                 no
0x005d   ReleaseButtonToUseDial              no
0x005e   ReverseIndicators                   no
0x0062   MovieShutterButton                  no
0x0063   Language                            no
0x006c   ShootingInfoDisplay                 no
0x0074   FlickAdvanceDirection               no
0x0075   HDMIOutputResolution                no
0x0077   HDMIOutputRange                     no
0x0080   RemoteFuncButton                    no
0x008b   CmdDialsReverseRotation             no
0x008d   FocusPeakingHighlightColor          no
0x008e   ContinuousModeDisplay               no
0x008f   ShutterSpeedLock                    no
0x0090   ApertureLock                        no
0x0091   MovieHighlightDisplayThreshold      no
0x0092   HDMIExternalRecorder               no
0x0093   BlockShotAFResponse                no
0x0094   SubjectMotion                       no
0x0095   Three-DTrackingFaceDetection       no
0x0097   StoreByOrientation                 no
0x0099   DynamicAreaAFAssist                no
0x009a   ExposureCompStepSize                no
0x009b   SyncReleaseMode                     no
0x009c   ModelingFlash                       no
0x009d   AutoBracketModeM                    no
0x009e   PreviewButton                       no
0x00a0   Func1Button                         no
0x00a2   Func2Button                         no
0x00a3   AF-OnButton                         no
0x00a4   SubSelector                         no
0x00a5   SubSelectorCenter                   no
0x00a7   LensFunc1Button                     no
0x00a8   CmdDialsApertureSetting             no
0x00a9   MultiSelector                       no
0x00aa   LiveViewButtonOptions               no
0x00ab   LightSwitch                         no
0x00b1   MoviePreviewButton                  no
         MovieFunc1Button                    no
0x00b3   MovieFunc1Button                    no
         MovieFunc2Button                    no
0x00b5   MovieFunc2Button                    no
0x00b6   AssignMovieSubselector              no
0x00b8   LimitAFAreaModeSelD9?               no
0x00b9   LimitAFAreaModeSelD25?              no
0x00bc   LimitAFAreaModeSel3D?               no
0x00bd   LimitAFAreaModeSelGroup?            no
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0x00be   LimitAFAreaModeSelAuto?             no
0x00c1   LimitSelectableImageArea5To4?       no
0x00c2   LimitSelectableImageArea1To1?       no
0x00d4   PhotoShootingMenuBank               no
0x00d5   CustomSettingsBank                  no
0x00d6   LimitAF-AreaModeSelPinpoint?        no
0x00d7   LimitAF-AreaModeSelDynamic?         no
0x00d8   LimitAF-AreaModeSelWideAF_S?        no
0x00d9   LimitAF-AreaModeSelWideAF_L?        no
0x00da   LowLightAF                          no
0x00db   LimitSelectableImageAreaDX?         no
0x00dc   LimitSelectableImageArea5To4?       no
0x00dd   LimitSelectableImageArea1To1?       no
0x00de   LimitSelectableImageArea16To9?      no
0x00df   ApplySettingsToLiveView             no
0x00e0   FocusPeakingLevel                   no
0x00ea   LensControlRing                     no
0x00ed   MovieMultiSelector                  no
0x00ee   MovieAFSpeed                        no
0x00ef   MovieAFSpeedApply                   no
0x00f0   MovieAFTrackingSensitivity          no
0x00f1   MovieHighlightDisplayPattern        no
0x00f2   SubDialFrameAdvanceRating5?         no
0x00f3   SubDialFrameAdvanceRating4?         no
0x00f4   SubDialFrameAdvanceRating3?         no
0x00f5   SubDialFrameAdvanceRating2?         no
0x00f6   SubDialFrameAdvanceRating1?         no
0x00f7   SubDialFrameAdvanceRating0?         no
0x00f9   MovieAF-OnButton                    no
0x00fb   SecondarySlotFunction               no
0x00fc   SilentPhotography                   no
0x00fd   ExtendedShutterSpeeds               no
0x0102   HDMIBitDepth                        no
0x0103   HDMIOutputHDR                       no
0x0104   HDMIViewAssist                      no
0x0109   BracketSet                          no
0x010a   BracketProgram                      no
0x010b   BracketIncrement                    no
0x010c   BracketIncrement                    no
0x010e   MonitorBrightness                   no
0x0116   GroupAreaC1                         no
0x0117   AutoAreaAFStartingPoint             no
0x0118   FocusPointPersistence              no
0x0119   LimitAFAreaModeSelD49?             no
0x011a   LimitAFAreaModeSelD105?            no
0x011b   LimitAFAreaModeSelGroupC1?         no
0x011c   LimitAFAreaModeSelGroupC2?         no
0x011d   AutoFocusModeRestrictions           no
0x011e   FocusPointBrightness               no
0x011f   CHModeShootingSpeed                no
0x0120   CLModeShootingSpeed                no
0x0121   QuietShutterShootingSpeed          no
0x0122   LimitReleaseModeSelCL?             no
0x0123   LimitReleaseModeSelCH?             no
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0x0124	LimitReleaseModeSelQ?	no
0x0125	LimitReleaseModeSelTimer?	no
0x0126	LimitReleaseModeSelMirror-Up?	no
0x0127	LimitSelectableImageArea16To9?	no
0x0128	RearControPanelDisplay	no
0x0129	FlashBurstPriority	no
0x012a	RecallShootFuncExposureMode	no
0x012b	RecallShootFuncShutterSpeed	no
0x012c	RecallShootFuncAperture	no
0x012d	RecallShootFuncExposureComp	no
0x012e	RecallShootFuncISO	no
0x012f	RecallShootFuncMeteringMode	no
0x0130	RecallShootFuncWhiteBalance	no
0x0131	RecallShootFuncAFAreaMode	no
0x0132	RecallShootFuncFocusTracking	no
0x0133	RecallShootFuncAF-On	no
0x0134	VerticalFuncButton	no
0x0135	Func3Button	no
0x0136	VerticalAF-OnButton	no
0x0137	VerticalMultiSelector	no
0x0138	MeteringButton	no
0x0139	PlaybackFlickUp	no
0x013a	PlaybackFlickUpRating	no
0x013b	PlaybackFlickDown	no
0x013c	PlaybackFlickDownRating	no
0x013d	MovieFunc3Button	no
0x0150	ShutterType	no
0x0151	LensFunc2Button	no
0x0158	USBPowerDelivery	no
0x0159	EnergySavingMode	no
0x015c	BracketingBurstOptions	no
0x015e	PrimarySlot	no
0x015f	ReverseFocusRing	no
0x0160	VerticalFuncButton	no
0x0161	VerticalAFOnButton	no
0x0162	VerticalMultiSelector	no
0x0164	VerticalMovieFuncButton	no
0x0165	VerticalMovieAFOnButton	no
0x0169	LimitAF-AreaModeSelAutoPeople?	no
0x016a	LimitAF-AreaModeSelAutoAnimals?	no
0x016b	LimitAF-AreaModeSelWideLPeople?	no
0x016c	LimitAF-AreaModeSelWideLAnimals?	no
0x016d	SaveFocus	no
0x016e	AFAreaMode	no
0x016f	MovieAFAreaMode	no
0x0170	PreferSubSelectorCenter	no
0x0171	KeepExposureWithTeleconverter	no
0x0174	FocusPointSelectionSpeed	no

Nintendo Tags

Tag ID	Tag Name	Writable
0x1101	CameraInfo	Nintendo CameraInfo

Nintendo CameraInfo Tags

Index1	Tag Name	Writable
0	ModelID	undef[4]
8	TimeStamp	int32u
24	InternalSerialNumber	undef[4]
40	Parallax	float
48	Category	int16u

Olympus Tags

Tags 0x0000 through 0x0103 are used by some older Olympus cameras, and are the same as Konica/Minolta tags. These tags are also used for some models from other brands such as Acer, BenQ, Epson, Hitachi, HP, Maginon, Minolta, Pentax, Ricoh, Samsung, Sanyo, SeaLife, Sony, Supra and Vivitar.

Tag ID	Tag Name	Writable
0x0000	MakerNoteVersion	undef
0x0001	MinoltaCameraSettingsOld	Minolta CameraSettings
0x0003	MinoltaCameraSettings	Minolta CameraSettings
0x0040	CompressedImageSize	int32u
0x0081	PreviewImageData	no
0x0088	PreviewImageStart	no
0x0089	PreviewImageLength	no
0x0100	ThumbnailImage	undef
0x0104	BodyFirmwareVersion	string
0x0200	SpecialMode	int32u[3]~
0x0201	Quality	int16u~
0x0202	Macro	int16u
0x0203	BWMode	int16u
0x0204	DigitalZoom	rational64u
0x0205	FocalPlaneDiagonal	rational64u
0x0206	LensDistortionParams	int16s[6]
0x0207	CameraType	string
0x0208	TextInfo	Olympus TextInfo
0x0209	CameraID	string
0x020b	EpsonImageWidth	int32u
0x020c	EpsonImageHeight	int32u
0x020d	EpsonSoftware	string
0x0280	PreviewImage	int8u
0x0300	PreCaptureFrames	int16u
0x0301	WhiteBoard	int16u
0x0302	OneTouchWB	int16u
0x0303	WhiteBalanceBracket	int16u
0x0304	WhiteBalanceBias	int16u
0x0400	SensorArea	undef[8]
0x0401	BlackLevel	int32u[4]
0x0403	SceneMode	int16u
0x0404	SerialNumber	string
0x0405	Firmware	string
0x0e00	PrintIM	PrintIM
0x0f00	DataDump	no
0x0f01	DataDump2	no
0x0f04	ZoomedPreviewStart	int32u*
0x0f05	ZoomedPreviewLength	int32u*
0x0f06	ZoomedPreviewSize	int16u[2]
0x1000	ShutterSpeedValue	rational64s
0x1001	ISOValue	rational64s

0x1002	ApertureValue	rational64s
0x1003	BrightnessValue	rational64s
0x1004	FlashMode	int16u
0x1005	FlashDevice	int16u
0x1006	ExposureCompensation	rational64s
0x1007	SensorTemperature	int16s
0x1008	LensTemperature	int16s
0x1009	LightCondition	int16u
0x100a	FocusRange	int16u
0x100b	FocusMode	int16u
0x100c	ManualFocusDistance	rational64u
0x100d	ZoomStepCount	int16u
0x100e	FocusStepCount	int16u
0x100f	Sharpness	int16u
0x1010	FlashChargeLevel	int16u
0x1011	ColorMatrix	int16u[9]
0x1012	BlackLevel	int16u[4]
0x1013	ColorTemperatureBG?	int16u
0x1014	ColorTemperatureRG?	int16u
0x1015	WBMode	int16u[2]
0x1017	RedBalance	int16u[2]
0x1018	BlueBalance	int16u[2]
0x1019	ColorMatrixNumber	int16u
0x101a	SerialNumber	string
0x101b	ExternalFlashAE1_0?	int32u
0x101c	ExternalFlashAE2_0?	int32u
0x101d	InternalFlashAE1_0?	int32u
0x101e	InternalFlashAE2_0?	int32u
0x101f	ExternalFlashAE1?	int32u
0x1020	ExternalFlashAE2?	int32u
0x1021	InternalFlashAE1?	int32u
0x1022	InternalFlashAE2?	int32u
0x1023	FlashExposureComp	rational64s
0x1024	InternalFlashTable	int16u
0x1025	ExternalFlashGValue	rational64s
0x1026	ExternalFlashBounce	int16u
0x1027	ExternalFlashZoom	int16u
0x1028	ExternalFlashMode	int16u
0x1029	Contrast	int16u
0x102a	SharpnessFactor	int16u
0x102b	ColorControl	int16u[6]
0x102c	ValidBits	int16u[2]
0x102d	CoringFilter	int16u
0x102e	OlympusImageWidth	int32u
0x102f	OlympusImageHeight	int32u
0x1030	SceneDetect	int16u
0x1031	SceneArea?	int32u[8]
0x1033	SceneDetectData?	int32u[720]
0x1034	CompressionRatio	rational64u
0x1035	PreviewImageValid	int32u
0x1036	PreviewImageStart	int32u*
0x1037	PreviewImageLength	int32u*
0x1038	AFResult	int16u
0x1039	CCDScanMode	int16u

0x103a	NoiseReduction	int16u
0x103b	FocusStepInfinity	int16u
0x103c	FocusStepNear	int16u
0x103d	LightValueCenter	rational64s
0x103e	LightValuePeriphery	rational64s
0x103f	FieldCount?	int16u
0x2010	Equipment	Olympus Equipment
	EquipmentIFD	Olympus Equipment
0x2020	CameraSettings	Olympus CameraSettings
	CameraSettingsIFD	Olympus CameraSettings
0x2030	RawDevelopment	Olympus RawDevelopment
	RawDevelopmentIFD	Olympus RawDevelopment
0x2031	RawDev2	Olympus RawDevelopment2
	RawDev2IFD	Olympus RawDevelopment2
0x2040	ImageProcessing	Olympus ImageProcessing
	ImageProcessingIFD	Olympus ImageProcessing
0x2050	FocusInfo	Olympus FocusInfo
	FocusInfoIFD	Olympus FocusInfo
	CameraParameters	undef
0x2100	Olympus2100	Olympus FE
	Olympus2100IFD	Olympus FE
0x2200	Olympus2200	Olympus FE
	Olympus2200IFD	Olympus FE
0x2300	Olympus2300	Olympus FE
	Olympus2300IFD	Olympus FE
0x2400	Olympus2400	Olympus FE
	Olympus2400IFD	Olympus FE
0x2500	Olympus2500	Olympus FE
	Olympus2500IFD	Olympus FE
0x2600	Olympus2600	Olympus FE
	Olympus2600IFD	Olympus FE
0x2700	Olympus2700	Olympus FE
	Olympus2700IFD	Olympus FE
0x2800	Olympus2800	Olympus FE
	Olympus2800IFD	Olympus FE
0x2900	Olympus2900	Olympus FE
	Olympus2900IFD	Olympus FE
0x3000	RawInfo	Olympus RawInfo
	RawInfoIFD	Olympus RawInfo
0x4000	MainInfo	Olympus
	MainInfoIFD	Olympus
0x5000	UnknownInfo	Olympus UnknownInfo
	UnknownInfoIFD	Olympus UnknownInfo

Olympus TextInfo Tags

This information is in text format (similar to APP12 information, but with spaces instead of linefeeds). Below are tags which have been observed, but any information found here will be extracted, even if the tag is not listed.

Tag ID	Tag Name	Writable
'Resolution'	Resolution	no
'Type'	CameraType	no

Olympus Equipment Tags

Tag ID	Tag Name	Writable
0x0000	EquipmentVersion	undef[4]
0x0100	CameraType2	string[6]
0x0101	SerialNumber	string[32]
0x0102	InternalSerialNumber	string[32]
0x0103	FocalPlaneDiagonal	rational64u
0x0104	BodyFirmwareVersion	int32u
0x0201	LensType	int8u[6]
0x0202	LensSerialNumber	string[32]
0x0203	LensModel	string
0x0204	LensFirmwareVersion	int32u
0x0205	MaxApertureAtMinFocal	int16u
0x0206	MaxApertureAtMaxFocal	int16u
0x0207	MinFocalLength	int16u
0x0208	MaxFocalLength	int16u
0x020a	MaxAperture	int16u
0x020b	LensProperties	int16u
0x0301	Extender	int8u[6]
0x0302	ExtenderSerialNumber	string[32]
0x0303	ExtenderModel	string
0x0304	ExtenderFirmwareVersion	int32u
0x0403	ConversionLens	string
0x1000	FlashType	int16u
0x1001	FlashModel	int16u
0x1002	FlashFirmwareVersion	int32u
0x1003	FlashSerialNumber	string[32]

Olympus CameraSettings Tags

Tag ID	Tag Name	Writable
0x0000	CameraSettingsVersion	undef[4]
0x0100	PreviewImageValid	int32u
0x0101	PreviewImageStart	int32u*
0x0102	PreviewImageLength	int32u*
0x0200	ExposureMode	int16u
0x0201	AELock	int16u
0x0202	MeteringMode	int16u
0x0203	ExposureShift	rational64s
0x0204	NDFilter	yes
0x0300	MacroMode	int16u
0x0301	FocusMode	int16u[n]
0x0302	FocusProcess	int16u[n]
0x0303	AFSearch	int16u
0x0304	AFAreas	int32u[64]~
0x0305	AFPointSelected	rational64s[5]
0x0306	AFFineTune	int8u
0x0307	AFFineTuneAdj	int16s[3]
0x0308	FocusBracketStepSize	int8u
0x0309	AISubjectTrackingMode	int16u
0x030a	AFTargetInfo	Olympus AFTargetInfo
0x030b	SubjectDetectInfo	Olympus SubjectDetectInfo
0x0400	FlashMode	int16u
0x0401	FlashExposureComp	rational64s
0x0403	FlashRemoteControl	int16u

0x0404	FlashControlMode	int16u[n]
0x0405	FlashIntensity	rational64s[n]
0x0406	ManualFlashStrength	rational64s[n]
0x0500	WhiteBalance2	int16u
0x0501	WhiteBalanceTemperature	int16u
0x0502	WhiteBalanceBracket	int16s
	WhiteBalanceFineTune	int16s[2]
0x0503	CustomSaturation	int16s[3]~
0x0504	ModifiedSaturation	int16u
0x0505	ContrastSetting	int16s[3]
0x0506	SharpnessSetting	int16s[3]
0x0507	ColorSpace	int16u
0x0509	SceneMode	int16u
0x050a	NoiseReduction	int16u
0x050b	DistortionCorrection	int16u
0x050c	ShadingCompensation	int16u
0x050d	CompressionFactor	rational64u
0x050f	Gradation	int16s[n]
0x0520	PictureMode	int16u[n]
0x0521	PictureModeSaturation	int16s[3]
0x0522	PictureModeHue?	int16s
0x0523	PictureModeContrast	int16s[3]
0x0524	PictureModeSharpness	int16s[3]
0x0525	PictureModeBWFilter	int16s
0x0526	PictureModeTone	int16s
0x0527	NoiseFilter	int16s[3]
0x0529	ArtFilter	int16u[4]
0x052c	MagicFilter	int16u[4]
0x052d	PictureModeEffect	int16s[3]
0x052e	ToneLevel	yes
0x052f	ArtFilterEffect	int16u[20]
0x0532	ColorCreatorEffect	int16s[6]
0x0537	MonochromeProfileSettings	int16s[6]
0x0538	FilmGrainEffect	int16s
0x0539	ColorProfileSettings	int16s[14]
0x053a	MonochromeVignetting	int16s
0x053b	MonochromeColor	int16s
0x0600	DriveMode	int16u[n]~
0x0601	PanoramaMode	int16u~
0x0603	ImageQuality2	int16u
0x0604	ImageStabilization	int32u
0x0804	StackedImage	int32u[2]
0x0821	ISOAutoSettings	int16u[2]
0x0900	ManometerPressure	int16u
0x0901	ManometerReading	int32s[2]
0x0902	ExtendedWBDetect	int16u
0x0903	RollAngle	int16s[2]
0x0904	PitchAngle	int16s[2]
0x0908	DateTimeUTC	string

Olympus AFTargetInfo Tags

Position and size of selected AF Area and focus areas for OM cameras.

Index2	Tag Name	Writable
0	AFFrameSize	int16u[2]
2	AFFocusArea	int16u[4]
6	AFSelectedArea	int16u[4]

Olympus SubjectDetectInfo Tags

Subject Detection data for OM cameras. These tags contain the areas of a subject and its elements detected by Subject Detection, or the main face and eyes detected by Face Detection. These elements can be either L1 details (level 1, such as head, chassis, airplane nose, etc.) or L2 details (level 2, such as eye, driver, airplane cockpit, etc.).

Index2	Tag Name	Writable
0	SubjectDetectFrameSize	int16u[2]
2	SubjectDetectArea	int16u[4]
6	SubjectDetectDetail	int16u[4]
10	SubjectDetectStatus	int16u

Olympus RawDevelopment Tags

Tag ID	Tag Name	Writable
0x0000	RawDevVersion	undef[4]
0x0100	RawDevExposureBiasValue	rational64s
0x0101	RawDevWhiteBalanceValue	int16u
0x0102	RawDevWBFineAdjustment	int16s
0x0103	RawDevGrayPoint	int16u[3]
0x0104	RawDevSaturationEmphasis	int16s[3]
0x0105	RawDevMemoryColorEmphasis	int16u
0x0106	RawDevContrastValue	int16s[3]
0x0107	RawDevSharpnessValue	int16s[3]
0x0108	RawDevColorSpace	int16u
0x0109	RawDevEngine	int16u
0x010a	RawDevNoiseReduction	int16u
0x010b	RawDevEditStatus	int16u
0x010c	RawDevSettings	int16u

Olympus RawDevelopment2 Tags

Tag ID	Tag Name	Writable
0x0000	RawDevVersion	undef[4]
0x0100	RawDevExposureBiasValue	rational64s
0x0101	RawDevWhiteBalance	int16u
0x0102	RawDevWhiteBalanceValue	int16u
0x0103	RawDevWBFineAdjustment	int16s
0x0104	RawDevGrayPoint	int16u[3]
0x0105	RawDevContrastValue	int16s[3]
0x0106	RawDevSharpnessValue	int16s[3]
0x0107	RawDevSaturationEmphasis	int16s[3]
0x0108	RawDevMemoryColorEmphasis	int16u
0x0109	RawDevColorSpace	int16u
0x010a	RawDevNoiseReduction	int16u
0x010b	RawDevEngine	int16u
0x010c	RawDevPictureMode	int16u
0x010d	RawDevPMSaturation	int16s[3]
0x010e	RawDevPMContrast	int16s[3]

0x010f	RawDevPMSharpness	int16s[3]
0x0110	RawDevPM_BWFilter	int16u
0x0111	RawDevPMPictureTone	int16u
0x0112	RawDevGradation	int16s[3]
0x0113	RawDevSaturation3	int16s[3]
0x0119	RawDevAutoGradation	int16u
0x0120	RawDevPMNoiseFilter	int16u
0x0121	RawDevArtFilter	int16u[4]
0x8000	RawDevSubIFD	Olympus RawDevSubIFD

Olympus RawDevSubIFD Tags

Tag ID	Tag Name	Writable
[no tags known]		

Olympus ImageProcessing Tags

Tag ID	Tag Name	Writable
0x0000	ImageProcessingVersion	undef[4]
0x0100	WB_RBLevels	int16u[n]
0x0102	WB_RBLevels3000K	int16u[n]
0x0103	WB_RBLevels3300K	int16u[n]
0x0104	WB_RBLevels3600K	int16u[n]
0x0105	WB_RBLevels3900K	int16u[n]
0x0106	WB_RBLevels4000K	int16u[n]
0x0107	WB_RBLevels4300K	int16u[n]
0x0108	WB_RBLevels4500K	int16u[n]
0x0109	WB_RBLevels4800K	int16u[n]
0x010a	WB_RBLevels5300K	int16u[n]
0x010b	WB_RBLevels6000K	int16u[n]
0x010c	WB_RBLevels6600K	int16u[n]
0x010d	WB_RBLevels7500K	int16u[n]
0x010e	WB_RBLevelsCWB1	int16u[n]
0x010f	WB_RBLevelsCWB2	int16u[n]
0x0110	WB_RBLevelsCWB3	int16u[n]
0x0111	WB_RBLevelsCWB4	int16u[n]
0x0113	WB_GLevel3000K	int16u
0x0114	WB_GLevel3300K	int16u
0x0115	WB_GLevel3600K	int16u
0x0116	WB_GLevel3900K	int16u
0x0117	WB_GLevel4000K	int16u
0x0118	WB_GLevel4300K	int16u
0x0119	WB_GLevel4500K	int16u
0x011a	WB_GLevel4800K	int16u
0x011b	WB_GLevel5300K	int16u
0x011c	WB_GLevel6000K	int16u
0x011d	WB_GLevel6600K	int16u
0x011e	WB_GLevel7500K	int16u
0x011f	WB_GLevel	int16u
0x0200	ColorMatrix	int16u[9]
0x0300	Enhancer	int16u
0x0301	EnhancerValues	int16u[7]
0x0310	CoringFilter	int16u
0x0311	CoringValues	int16u[7]
0x0600	BlackLevel2	int16u[4]

0x0610	GainBase	int16u
0x0611	ValidBits	int16u[2]
0x0612	CropLeft	int16u[2]
0x0613	CropTop	int16u[2]
0x0614	CropWidth	int32u
0x0615	CropHeight	int32u
0x0635	UnknownBlock1?	undef
0x0636	UnknownBlock2?	undef
0x0805	SensorCalibration	int16s[2]
0x1010	NoiseReduction2	int16u
0x1011	DistortionCorrection2	int16u
0x1012	ShadingCompensation2	int16u
0x101c	MultipleExposureMode	int16u[2]
0x1103	UnknownBlock3?	undef
0x1104	UnknownBlock4?	undef
0x1112	AspectRatio	int8u[2]
0x1113	AspectFrame	int16u[4]
0x1200	FacesDetected	int32u[n]
0x1201	FaceDetectArea	int16s[n]
0x1202	MaxFaces	int32u[3]
0x1203	FaceDetectFrameSize	int16u[6]
0x1207	FaceDetectFrameCrop	int16s[12]
0x1306	CameraTemperature	no
0x1900	KeystoneCompensation	int8u[2]
0x1901	KeystoneDirection	int8u[2]
0x1906	KeystoneValue	int16s[3]
0x2110	GNDFilterType	int8u

Olympus FocusInfo Tags

Tag ID	Tag Name	Writable
0x0000	FocusInfoVersion	undef[4]
0x0209	AutoFocus?	int16u
0x0210	SceneDetect	int16u
0x0211	SceneArea?	int32u[8]
0x0212	SceneDetectData?	int32u[720]
0x0300	ZoomStepCount	int16u
0x0301	FocusStepCount	int16u
0x0303	FocusStepInfinity	int16u
0x0304	FocusStepNear	int16u
0x0305	FocusDistance	rational64u
0x0308	AFPoint	int16u
0x031b	AFPointDetails	no
	AFPointDetails	int16u
0x0328	AFInfo	Olympus AFInfo
0x1201	ExternalFlash	int16u[2]
0x1203	ExternalFlashGuideNumber?	rational64s
0x1204	ExternalFlashBounce	int16u
0x1205	ExternalFlashZoom	rational64u
0x1208	InternalFlash	int16u[n]
0x1209	ManualFlash	int16u[2]~
0x120a	MacroLED	int16u
0x1500	SensorTemperature	int16s
0x1600	ImageStabilization	undef~
0x2100	AntiShockWaitingTime	yes

Olympus AFInfo Tags

Index1	Tag Name	Writable
1580	CAFSensitivity	no

Olympus FE Tags

Some FE models write a large number of tags here, but most of this information remains unknown.

Tag ID	Tag Name	Writable
0x0100	BodyFirmwareVersion	string

Olympus RawInfo Tags

These tags are found only in ORF images of some models (eg. C8080WZ).

Tag ID	Tag Name	Writable
0x0000	RawInfoVersion	undef[4]
0x0100	WB_RBLevelsUsed	int16u[2]
0x0110	WB_RBLevelsAuto	int16u[2]
0x0120	WB_RBLevelsShade	int16u[2]
0x0121	WB_RBLevelsCloudy	int16u[2]
0x0122	WB_RBLevelsFineWeather	int16u[2]
0x0123	WB_RBLevelsTungsten	int16u[2]
0x0124	WB_RBLevelsEveningSunlight	int16u[2]
0x0130	WB_RBLevelsDaylightFluor	int16u[2]
0x0131	WB_RBLevelsDayWhiteFluor	int16u[2]
0x0132	WB_RBLevelsCoolWhiteFluor	int16u[2]
0x0133	WB_RBLevelsWhiteFluorescent	int16u[2]
0x0200	ColorMatrix2	int16u[9]
0x0310	CoringFilter	int16u
0x0311	CoringValues	int16u[11]
0x0600	BlackLevel2	int16u[4]
0x0601	YCbCrCoefficients	no
0x0611	ValidPixelDepth	int16u[2]
0x0612	CropLeft	int16u
0x0613	CropTop	int16u
0x0614	CropWidth	int32u
0x0615	CropHeight	int32u
0x1000	LightSource	int16u
0x1001	WhiteBalanceComp	int16s[3]
0x1010	SaturationSetting	int16s[3]
0x1011	HueSetting	int16s[3]
0x1012	ContrastSetting	int16s[3]
0x1013	SharpnessSetting	int16s[3]
0x2000	CMExposureCompensation	rational64s
0x2001	CMWhiteBalance	int16u
0x2002	CMWhiteBalanceComp	int16s
0x2010	CMWhiteBalanceGrayPoint	int16u[3]
0x2020	CMSaturation	int16s[3]
0x2021	CMHue	int16s[3]
0x2022	CMContrast	int16s[3]
0x2023	CMSharpness	int16s[3]

Olympus UnknownInfo Tags

Tag ID	Tag Name	Writable
[no tags known]		

Olympus DSS Tags

Information extracted from DSS/DS2 files and the ID3 XOLY frame of MP3 files written by some Olympus voice recorders.

Index1	Tag Name	Writable
12	Model	no
38	StartTime	no
50	EndTime	no
62	Duration	no
798	Comment	no

Olympus AVI Tags

This information is found in Olympus AVI videos.

Index1	Tag Name	Writable
18	Make	no
44	Model	no
94	FNumber	no
131	DateTime1	no
157	DateTime2	no
297	ThumbInfo	Olympus thmb2

Olympus thmb2 Tags

Index1	Tag Name	Writable
0	ThumbnailWidth	no
2	ThumbnailHeight	no
4	ThumbnailLength	no
8	ThumbnailImage	no

Olympus WAV Tags

This information is found in WAV files from Olympus PCM linear recorders like the LS-5, LS-10, LS-11.

Index1	Tag Name	Writable
12	Model	no
28	FileNumber	no
38	DateTimeOriginal	no
50	DateTimeEnd	no
62	RecordingTime	no
512	Duration	no
522	Index01	no
532	Index02	no
542	Index03	no
552	Index04	no
562	Index05	no
572	Index06	no
582	Index07	no
592	Index08	no
602	Index09	no
612	Index10	no

622	Index11	no
632	Index12	no
642	Index13	no
652	Index14	no
662	Index15	no
672	Index16	no

Olympus MOV1 Tags

This information is found in MOV videos from Olympus models such as the D540Z, D595Z, FE100, FE110, FE115, FE170 and FE200.

Index1	Tag Name	Writable
0	Make	no
24	Model	no
38	ExposureUnknown?	no
42	FNumber	no
50	ExposureCompensation	no
72	FocalLength	no

Olympus MOV2 Tags

This information is found in MOV videos from Olympus models such as the FE120, FE140 and FE190.

Index1	Tag Name	Writable
0	Make	no
24	Model	no
54	ExposureTime	no
58	FNumber	no
66	ExposureCompensation	no
88	FocalLength	no
193	ISO	no

Olympus MP4 Tags

This information is found in MP4 videos from Olympus models such as the u7040 and u9010.

Index1	Tag Name	Writable
0	Make	no
24	Model	no
40	FNumber	no
48	ExposureCompensation	no
104	MovableInfo	Olympus MovableInfo
114	MovableInfo	Olympus MovableInfo

Olympus MovableInfo Tags

Index1	Tag Name	Writable
4	ISO	no
44	EncoderVersion	no
60	DecoderVersion	no
131	Thumbnail	Olympus Thumbnail

Olympus Thumbnail Tags

Index4	Tag Name	Writable
1	ThumbnailWidth	no
2	ThumbnailHeight	no
3	ThumbnailLength	no
4	ThumbnailOffset	no

Olympus MOV3 Tags

QuickTime information found in the TAGS atom of MOV videos from the E−M5.

Tag ID	Tag Name	Writable
'OLYM'	OlympusAtom	Olympus OLYM2

Olympus OLYM2 Tags

Tag ID	Tag Name	Writable
'prms'	MakerNotes	Olympus prms
'scrn'	PreviewInfo	Olympus scrn2
'thmb'	ThumbInfo	Olympus thmb2

Olympus prms Tags

Information extracted from the ‘‘prms’’ atom in MOV videos from Olympus models such as the OM E−M5.

Index1	Tag Name	Writable
18	Make	no
44	Model	no
131	DateTime1	no
157	DateTime2	no
383	LensModel	no

Olympus scrn2 Tags

Index1	Tag Name	Writable
2	OlympusPreview	Olympus scrn

Olympus scrn Tags

Information extracted from the ‘‘scrn’’ atom of Olympus MP4 videos.

Index1	Tag Name	Writable
0	PreviewImageLength	no
4	PreviewImage	no

Olympus thmb Tags

Information extracted from the ‘‘thmb’’ atom of Olympus MP4 videos.

Index1	Tag Name	Writable
0	ThumbnailLength	no
4	ThumbnailImage	no

Olympus OLYM Tags

Tags found in the OLYM atom of MP4 videos from the TG−810.

Index1	Tag Name	Writable
14	Make	no
40	Model	no
90	FNumber	no
127	DateTimeOriginal	no
153	DateTime2	no
265	ThumbnailWidth	no
267	ThumbnailHeight	no

Panasonic Tags

These tags are used in Panasonic/Leica cameras.

Tag ID	Tag Name	Writable
0x0001	ImageQuality	int16u
0x0002	FirmwareVersion	undef
0x0003	WhiteBalance	int16u
0x0007	FocusMode	int16u
0x000f	AFAreaMode	int8u[2]
0x001a	ImageStabilization	int16u
0x001c	MacroMode	int16u
0x001f	ShootingMode	int16u
0x0020	Audio	int16u
0x0021	DataDump	no
0x0023	WhiteBalanceBias	int16s
0x0024	FlashBias	int16s
0x0025	InternalSerialNumber	undef[16]
0x0026	PanasonicExifVersion	undef
0x0027	VideoFrameRate	int16u
0x0028	ColorEffect	int16u
0x0029	TimeSincePowerOn	int32u
0x002a	BurstMode	int16u
0x002b	SequenceNumber	int32u
0x002c	ContrastMode	int16u
0x002d	NoiseReduction	int16u
0x002e	SelfTimer	int16u
0x0030	Rotation	int16u
0x0031	AFAssistLamp	int16u
0x0032	ColorMode	int16u
0x0033	BabyAge	string
0x0034	OpticalZoomMode	int16u
0x0035	ConversionLens	int16u
0x0036	TravelDay	int16u
0x0038	BatteryLevel	int16u
0x0039	Contrast	int16u
0x003a	WorldTimeLocation	int16u
0x003b	TextStamp	int16u
0x003c	ProgramISO	int16u
0x003d	AdvancedSceneType	int16u
0x003e	TextStamp	int16u
0x003f	FacesDetected	int16u
0x0040	Saturation	int16u
0x0041	Sharpness	int16u
0x0042	FilmMode	int16u
0x0043	JPEGQuality	int16u

0x0044	ColorTempKelvin	int16u
0x0045	BracketSettings	int16u
0x0046	WBShiftAB	int16u
0x0047	WBShiftGM	int16u
0x0048	FlashCurtain	int16u
0x0049	LongExposureNoiseReduction	int16u
0x004b	PanasonicImageWidth	int32u
0x004c	PanasonicImageHeight	int32u
0x004d	AFPointPosition	rational64u[2]
0x004e	FaceDetInfo	Panasonic FaceDetInfo
0x0051	LensType	string
0x0052	LensSerialNumber	string
0x0053	AccessoryType	string
0x0054	AccessorySerialNumber	string
0x0059	Transform	undef[4]
0x005d	IntelligentExposure	int16u
0x0060	LensFirmwareVersion	undef[4]
0x0061	FaceRecInfo	Panasonic FaceRecInfo
0x0062	FlashWarning	int16u
0x0063	RecognizedFaceFlags?	undef[4]
0x0065	Title	undef
0x0066	BabyName	undef
0x0067	Location	undef
0x0069	Country	undef
0x006b	State	undef
0x006d	City	undef
0x006f	Landmark	undef
0x0070	IntelligentResolution	int8u
0x0076	MergedImages	int16u
0x0077	BurstSpeed	int16u
0x0079	IntelligentD-Range	int16u
0x007c	ClearRetouch	int16u
0x0080	City2	undef
0x0086	ManometerPressure	int16u
0x0089	PhotoStyle	int16u
0x008a	ShadingCompensation	int16u
0x008b	WBShiftIntelligentAuto	int16u
0x008c	AccelerometerZ	int16u
0x008d	AccelerometerX	int16u
0x008e	AccelerometerY	int16u
0x008f	CameraOrientation	int8u
0x0090	RollAngle	int16u
0x0091	PitchAngle	int16u
0x0092	WBShiftCreativeControl	int8u
0x0093	SweepPanoramaDirection	int8u
0x0094	SweepPanoramaFieldOfView	int16u
0x0096	TimerRecording	int8u
0x009d	InternalNDFilter	rational64u
0x009e	HDR	int16u
0x009f	ShutterType	int16u
0x00a1	FilterEffect	rational64u[0.5]
0x00a3	ClearRetouchValue	rational64u
0x00a7	OutputLUT	yes
0x00ab	TouchAE	int16u

0x00ac	MonochromeFilterEffect	int16u
0x00ad	HighlightShadow	int16u[2]
0x00af	TimeStamp	string
0x00b3	VideoBurstResolution	int16u
0x00b4	MultiExposure	int16u
0x00b9	RedEyeRemoval	int16u
0x00bb	VideoBurstMode	int32u
0x00bc	DiffractionCorrection	int16u
0x00bd	FocusBracket	int16u
0x00be	LongExposureNRUsed	int16u
0x00bf	PostFocusMerging	int32u[2]
0x00c1	VideoPreburst	int16u
0x00c4	LensTypeMake	int16u
0x00c5	LensTypeModel	int16u
0x00ca	SensorType	int16u
0x00d1	ISO	int32u
0x00d2	MonochromeGrainEffect	int16u
0x00d4	HybridLogGamma	int16u
0x00d6	NoiseReductionStrength	rational64s
0x00de	AFAreaSize	rational64u[2]
0x00e4	LensTypeModel	int16u
0x00e8	MinimumISO	int32u
0x00e9	AFSubjectDetection	int16u
0x00ee	DynamicRangeBoost	int16u
0x00f1	LUT1Name	string
0x00f3	LUT1Opacity	int8u
0x00f4	LUT2Name	string
0x00f5	LUT2Opacity	int8u
0x0e00	PrintIM	PrintIM
0x2003	TimeInfo	Panasonic TimeInfo
0x8000	MakerNoteVersion	undef
0x8001	SceneMode	int16u
0x8002	HighlightWarning	int16u
0x8003	DarkFocusEnvironment	int16u
0x8004	WBRedLevel	int16u
0x8005	WBGreenLevel	int16u
0x8006	WBBlueLevel	int16u
0x8008	TextStamp	int16u
0x8009	TextStamp	int16u
0x8010	BabyAge	string
0x8012	Transform	undef[4]

Panasonic DSA Tags

XMP Digital Shift Assistant tags written by some Leica cameras.

These tags belong to the ExifTool XMP-xmpDSA family 1 group.

Tag Name	Writable
ApplyAutomatically	boolean/
CorrectionAlreadyApplied	boolean/
FocalLength35mm	real/
NormalizedCropCorners	real/+
PitchAngle	real/
RollAngle	real/
ScalingFactorHeight	real/
TargetAspectRatio	real/
ValidCropCorners	boolean/
Version	string/

Panasonic FaceDetInfo Tags

Face detection position information.

Index2	Tag Name	Writable
0	NumFacePositions	int16u
1	Face1Position	int16u[4]
5	Face2Position	int16u[4]
9	Face3Position	int16u[4]
13	Face4Position	int16u[4]
17	Face5Position	int16u[4]

Panasonic FaceRecInfo Tags

Tags written by cameras with facial recognition. These cameras not only detect faces in an image, but also recognize specific people based a user-supplied set of known faces.

Index1	Tag Name	Writable
0	FacesRecognized	int16u
4	RecognizedFace1Name	string[20]
24	RecognizedFace1Position	int16u[4]
32	RecognizedFace1Age	string[20]
52	RecognizedFace2Name	string[20]
72	RecognizedFace2Position	int16u[4]
80	RecognizedFace2Age	string[20]
100	RecognizedFace3Name	string[20]
120	RecognizedFace3Position	int16u[4]
128	RecognizedFace3Age	string[20]

Panasonic TimeInfo Tags

Index1	Tag Name	Writable
0	PanasonicDateTime	undef[8]
16	TimeLapseShotNumber	int32u

Panasonic Leica2 Tags

These tags are used by the Leica M8.

Tag ID	Tag Name	Writable
0x0300	Quality	int16u
0x0302	UserProfile	int32u
0x0303	SerialNumber	int32u
0x0304	WhiteBalance	int16u
0x0310	LensType	int32u
0x0311	ExternalSensorBrightnessValue	rational64s
0x0312	MeasuredLV	rational64s
0x0313	ApproximateFNumber	rational64u
0x0320	CameraTemperature	int32s
0x0321	ColorTemperature	int32u
0x0322	WBRedLevel	rational64u
0x0323	WBGreenLevel	rational64u
0x0324	WBBlueLevel	rational64u
0x0325	UV-IRFilterCorrection	int32u
0x0330	CCDVersion	int32u
0x0331	CCDBoardVersion	int32u
0x0332	ControllerBoardVersion	int32u
0x0333	M16CVersion	int32u
0x0340	ImageIDNumber	int32u

Panasonic Leica3 Tags

These tags are used by the Leica R8 and R9 digital backs.

Tag ID	Tag Name	Writable
0x000b	SerialInfo	Panasonic SerialInfo
0x000d	WB_RGBLevels	int16u[3]

Panasonic SerialInfo Tags

Index1	Tag Name	Writable
4	SerialNumber	no

Panasonic Leica4 Tags

This information is written by the M9.

Tag ID	Tag Name	Writable
0x3000	Subdir3000	Panasonic Subdir
0x3100	Subdir3100	Panasonic Subdir
0x3400	Subdir3400	Panasonic Subdir
0x3900	Subdir3900	Panasonic Subdir

Panasonic Subdir Tags

Tag ID	Tag Name	Writable
0x300a	Contrast	int32u
0x300b	Sharpening	int32u
0x300d	Saturation	int32u
0x3033	WhiteBalance	int32u
0x3034	JPEGQuality	int32u
0x3036	WB_RGBLevels	rational64u[3]
0x3038	UserProfile	string
0x303a	JPEGSize	int32u

0x3103	SerialNumber	string
0x3109	FirmwareVersion	string
0x312a	BaseISO	int32u
0x312b	SensorWidth	int32u
0x312c	SensorHeight	int32u
0x312d	SensorBitDepth	int32u
0x3402	CameraTemperature	int32s
0x3405	LensType	int32u
0x3406	ApproximateFNumber	rational64u
0x3407	MeasuredLV	int32s
0x3408	ExternalSensorBrightnessValue	int32s
0x3901	Data1	Panasonic Data1
0x3902	Data2	Panasonic Data2

Panasonic Data1 Tags

Index1	Tag Name	Writable
22	LensType	int32u

Panasonic Data2 Tags

Index1	Tag Name	Writable
[no tags known]		

Panasonic Leica5 Tags

This information is written by the X1, X2, X VARIO and T.

Tag ID	Tag Name	Writable
0x0303	LensType	string
0x0305	SerialNumber	int32u
0x0407	OriginalFileName	string
0x0408	OriginalDirectory	string
0x040a	FocusInfo	Panasonic FocusInfo
0x040d	ExposureMode	int8u[4]
0x0410	ShotInfo	Panasonic ShotInfo
0x0412	FilmMode	string
0x0413	WB_RGBLevels	rational64u[3]
0x0500	InternalSerialNumber	undef
0x05ff	CameraIFD	PanasonicRaw CameraIFD

Panasonic FocusInfo Tags

Index2	Tag Name	Writable
0	FocusDistance	int16u
1	FocalLength	int16u

Panasonic ShotInfo Tags

Index1	Tag Name	Writable
0	FileIndex	int16u

Panasonic Leica6 Tags

This information is written by the S2 and M (Typ 240), as a trailer in JPEG images.

Tag ID	Tag Name	Writable
0x0300	PreviewImage	undef
0x0301	UnknownBlock?	no
0x0303	LensType	string
0x0304	FocusDistance	int32u
0x0311	ExternalSensorBrightnessValue	rational64s
0x0312	MeasuredLV	rational64s
0x0320	FirmwareVersion	int8u[4]
0x0321	LensSerialNumber	int32u

Panasonic Leica9 Tags

This information is written by the Leica S (Typ 007) and M10 models.

Tag ID	Tag Name	Writable
0x0304	FocusDistance	int32u
0x0311	ExternalSensorBrightnessValue	rational64s
0x0312	MeasuredLV	rational64s
0x034c	UserProfile	string
0x0359	ISOSelected	int32s
0x035a	FNumber	int32s
0x035b	CorrelatedColorTemp	int16u
0x035c	ColorTint	int16s
0x035d	WhitePoint	rational64u[2]
0x0370	LensProfileName	string

Panasonic Type2 Tags

This type of maker notes is used by models such as the NV−DS65, PV−D2002, PV−DC3000, PV−DV203, PV−DV401, PV−DV702, PV−L2001, PV−SD4090, PV−SD5000 and iPalm.

Index2	Tag Name	Writable
0	MakerNoteType	no
3	Gain	no

Panasonic PANA Tags

Tags extracted from the PANA and LEIC user data found in MP4 videos from various Panasonic and Leica models.

Index1	Tag Name	Writable
0	Make	no
4	Model	no
12	Model	no
16	JPEG−likeData	EXIF
22	Model	no
52	Version1	no
62	Version2	no
80	MakerNoteLeica5	Panasonic Leica5
88	ThumbnailWidth	no
90	ThumbnailHeight	no
92	ThumbnailImage	no
1334	ThumbnailWidth	no
1338	ThumbnailHeight	no
1342	ThumbnailLength	no
1350	ThumbnailImage	no

1358	ThumbnailWidth	no
1362	ThumbnailHeight	no
1366	ThumbnailLength	no
1374	ThumbnailImage	no
16488	ExifData	EXIF
16512	ExifData	EXIF
0x00200080	ExifData	EXIF

Pentax Tags

These tags are used in Pentax/Asahi/Ricoh cameras.

Tag ID	Tag Name	Writable
0x0000	PentaxVersion	int8u[4]
0x0001	PentaxModelType	int16u
0x0002	PreviewImageSize	int16u[2]
0x0003	PreviewImageLength	int32u*
0x0004	PreviewImageStart	int32u*
0x0005	PentaxModelID	int32u
0x0006	Date	undef[4]
0x0007	Time	undef[3]
0x0008	Quality	int16u
0x0009	PentaxImageSize	int16u
0x000b	PictureMode	int16u[n]
0x000c	FlashMode	int16u[n]
0x000d	FocusMode	int16u
0x000e	AFPointSelected	int16u
0x000f	AFPointsInFocus	int32u
	AFPointsInFocus	int16u
0x0010	FocusPosition	int16u
0x0012	ExposureTime	int32u
0x0013	FNumber	int16u
0x0014	ISO	int16u
0x0015	LightReading	int16u
0x0016	ExposureCompensation	int16u
	ExposureCompensation	int16u[2]
0x0017	MeteringMode	int16u
0x0018	AutoBracketing	int16u[n]
0x0019	WhiteBalance	int16u
0x001a	WhiteBalanceMode	int16u
0x001b	BlueBalance	int16u
0x001c	RedBalance	int16u
0x001d	FocalLength	int32u
0x001e	DigitalZoom	int16u
0x001f	Saturation	int16u[n]
0x0020	Contrast	int16u[n]
0x0021	Sharpness	int16u[n]
0x0022	WorldTimeLocation	int16u
0x0023	HometownCity	int16u
0x0024	DestinationCity	int16u
0x0025	HometownDST	int16u
0x0026	DestinationDST	int16u
0x0027	DSPFirmwareVersion	undef
0x0028	CPUFirmwareVersion	undef
0x0029	FrameNumber	int32u
0x002d	EffectiveLV	int16u

	EffectiveLV	int32u
0x0032	ImageEditing	undef[4]
0x0033	PictureMode	int8u[3]
0x0034	DriveMode	int8u[4]
0x0035	SensorSize	int16u[2]
0x0037	ColorSpace	int16u
0x0038	ImageAreaOffset	int16u[2]
0x0039	RawImageSize	int16u[2]~
0x003c	AFPointsInFocus	no
0x003d	DataScaling	int16u
0x003e	PreviewImageBorders	int8u[4]
0x003f	LensRec	Pentax LensRec
0x0040	SensitivityAdjust	int16u
0x0041	ImageEditCount	int16u
0x0047	CameraTemperature	int8s
0x0048	AELock	int16u
0x0049	NoiseReduction	int16u
0x004d	FlashExposureComp	int32s
	FlashExposureComp	int8s[2]
0x004f	ImageTone	int16u
0x0050	ColorTemperature	int16u
0x0053	ColorTempDaylight	undef[4]
0x0054	ColorTempShade	undef[4]
0x0055	ColorTempCloudy	undef[4]
0x0056	ColorTempTungsten	undef[4]
0x0057	ColorTempFluorescentD	undef[4]
0x0058	ColorTempFluorescentN	undef[4]
0x0059	ColorTempFluorescentW	undef[4]
0x005a	ColorTempFlash	undef[4]
0x005c	ShakeReductionInfo	Pentax SRInfo
		Pentax SRInfo2
0x005d	ShutterCount	undef[4]
0x0060	FaceInfo	Pentax FaceInfo
0x0062	RawDevelopmentProcess	int16u
0x0067	Hue	int16u
0x0068	AWBInfo	Pentax AWBInfo
0x0069	DynamicRangeExpansion	undef[4]
0x006b	TimeInfo	Pentax TimeInfo
0x006c	HighLowKeyAdj	int16s[2]
0x006d	ContrastHighlight	int16s[2]
0x006e	ContrastShadow	int16s[2]
0x006f	ContrastHighlightShadowAdj	int8u
0x0070	FineSharpness	int8u[n]
0x0071	HighISONoiseReduction	int8u
0x0072	AFAdjustment	int16s
0x0073	MonochromeFilterEffect	int16u
0x0074	MonochromeToning	int16u
0x0076	FaceDetect	int8u[2]
0x0077	FaceDetectFrameSize	int16u[2]
0x0079	ShadowCorrection	int8u[n]
0x007a	ISOAutoMinSpeed	int8u[2]
0x007b	CrossProcess	int8u
0x007d	LensCorr	Pentax LensCorr
0x007e	WhiteLevel	int32u

0x007f	BleachBypassToning	int16u
0x0080	AspectRatio	yes
0x0082	BlurControl	int8u[4]
0x0085	HDR	int8u[4]
0x0087	ShutterType	int8u
0x0088	NeutralDensityFilter	int8u[n]
0x008b	ISO	int32u
0x0092	IntervalShooting	int16u[2]
0x0095	SkinToneCorrection	int8s[2]
	SkinToneCorrection	int8s[3]
0x0096	ClarityControl	int8s[2]
0x0099	SnapFocusDistance	int8u[3]
0x009e	HDF	int8u
0x0200	BlackPoint	int16u[4]
0x0201	WhitePoint	int16u[4]
0x0203	ColorMatrixA	int16s[9]
0x0204	ColorMatrixB	int16s[9]
0x0205	CameraSettings	Pentax CameraSettings
	CameraSettingsUnknown	Pentax CameraSettingsUnknown
0x0206	AEInfo	Pentax AEInfo
	AEInfo2	Pentax AEInfo2
	AEInfo3	Pentax AEInfo3
	AEInfoUnknown	Pentax AEInfoUnknown
0x0207	LensInfo	Pentax LensInfo
		Pentax LensInfo2
		Pentax LensInfo3
		Pentax LensInfo4
		Pentax LensInfo5
0x0208	FlashInfo	Pentax FlashInfo
	FlashInfoUnknown	Pentax FlashInfoUnknown
0x0209	AEMeteringSegments	int8u[n]
0x020a	FlashMeteringSegments	int8u[n]
0x020b	SlaveFlashMeteringSegments	int8u[n]
0x020d	WB_RGGBLevelsDaylight	int16u[4]
0x020e	WB_RGGBLevelsShade	int16u[4]
0x020f	WB_RGGBLevelsCloudy	int16u[4]
0x0210	WB_RGGBLevelsTungsten	int16u[4]
0x0211	WB_RGGBLevelsFluorescentD	int16u[4]
0x0212	WB_RGGBLevelsFluorescentN	int16u[4]
0x0213	WB_RGGBLevelsFluorescentW	int16u[4]
0x0214	WB_RGGBLevelsFlash	int16u[4]
0x0215	CameraInfo	Pentax CameraInfo
0x0216	BatteryInfo	Pentax BatteryInfo
0x021b	SaturationInfo?	no
0x021c	ColorMatrixA2	undef[18]
0x021d	ColorMatrixB2	undef[18]
0x021f	AFInfo	Pentax AFInfo
0x0220	HuffmanTable?	no
0x0221	KelvinWB	Pentax KelvinWB
0x0222	ColorInfo	Pentax ColorInfo
0x0224	EVStepInfo	Pentax EVStepInfo
0x0226	ShotInfo	Pentax ShotInfo
0x0227	FacePos	Pentax FacePos
0x0228	FaceSize	Pentax FaceSize

0x0229	SerialNumber	string
0x022a	FilterInfo	Pentax FilterInfo
		Pentax FilterInfo
0x022b	LevelInfoK3III	Pentax LevelInfoK3III
	LevelInfo	Pentax LevelInfo
0x022d	WBLevels	Pentax WBLevels
0x022e	Artist	string
0x022f	Copyright	string
0x0230	FirmwareVersion	string
0x0231	ContrastDetectAFArea	int16u[4]
0x0235	CrossProcessParams	undef[10]
0x0238	CAFPointInfo	Pentax CAFPointInfo
0x0239	LensInfoQ	Pentax LensInfoQ
0x023f	Model	string
0x0243	PixelShiftInfo	Pentax PixelShiftInfo
0x0245	AFPointInfo	Pentax AFPointInfo
0x03fe	DataDump	no
0x03ff	TempInfo	Pentax TempInfo
	UnknownInfo	Pentax UnknownInfo
0x0402	ToneCurve	yes~
0x0403	ToneCurves	yes~
0x0405	UnknownBlock?	undef
0x040b	FaceInfoK3III	Pentax FaceInfoK3III
0x040c	AFInfoK3III	Pentax AFInfoK3III
0x0e00	PrintIM	PrintIM

Pentax LensRec Tags

This record stores the LensType, plus one or two unknown bytes for some models.

Index1	Tag Name	Writable
0	LensType	int8u[2]
3	ExtenderStatus	int8u

Pentax SRInfo Tags

Shake reduction information.

Index1	Tag Name	Writable
0	SRResult	int8u
1	ShakeReduction	int8u
2	SRHalfPressTime	int8u
3	SRFocalLength	int8u

Pentax SRInfo2 Tags

Shake reduction information for the K−3.

Index1	Tag Name	Writable
0	SRResult?	int8u
1	ShakeReduction	int8u

Pentax FaceInfo Tags

Index1	Tag Name	Writable
0	FacesDetected	int8u
2	FacePosition	int8u[2]

Pentax AWBInfo Tags

Index1	Tag Name	Writable
0	WhiteBalanceAutoAdjustment	int8u
1	TungstenAWB	int8u

Pentax TimeInfo Tags

Index1	Tag Name	Writable
0.1	WorldTimeLocation	int8u & 0x01
0.2	HometownDST	int8u & 0x02
0.3	DestinationDST	int8u & 0x04
2	HometownCity	int8u
3	DestinationCity	int8u

Pentax LensCorr Tags

Index1	Tag Name	Writable
0	DistortionCorrection	int8u
1	ChromaticAberrationCorrection	int8u
2	PeripheralIlluminationCorr	int8u
3	DiffractionCorrection	int8u

Pentax CameraSettings Tags

Camera settings information written by Pentax DSLR cameras.

Index1	Tag Name	Writable
0	PictureMode2	int8u
1.1	ProgramLine	int8u & 0x03
1.2	EVSteps	int8u & 0x20
1.3	E-DialInProgram	int8u & 0x40
1.4	ApertureRingUse	int8u & 0x80
2	FlashOptions	int8u & 0xf0
2.1	MeteringMode2	int8u & 0x0f
3	AFPointMode	int8u & 0xf0
3.1	FocusMode2	int8u & 0x0f
4	AFPointSelected2	int16u
6	ISOFloor	int8u
7	DriveMode2	int8u
8	ExposureBracketStepSize	int8u
9	BracketShotNumber	int8u
10	WhiteBalanceSet	int8u & 0xf0
10.1	MultipleExposureSet	int8u & 0x0f
13	RawAndJpgRecording	int8u
14.1	JpgRecordedPixels	int8u & 0x03
14.2	LinkAEToAFPoint	int8u & 0x01
14.3	SensitivitySteps	int8u & 0x02
14.4	ISOAuto	int8u & 0x04
16	FlashOptions2	int8u & 0xf0
16.1	MeteringMode3	int8u & 0x0f

17.1	SRActive	int8u & 0x80
17.2	Rotation	int8u & 0x60
17.3	ISOSetting	int8u & 0x04
17.4	SensitivitySteps	int8u & 0x02
18	TvExposureTimeSetting	int8u
19	AvApertureSetting	int8u
20	SvISOSetting	int8u
21	BaseExposureCompensation	int8u

Pentax CameraSettingsUnknown Tags

This information has not yet been decoded for models such as the K−01.

Index1	Tag Name	Writable
[no tags known]		

Pentax AEInfo Tags

Auto-exposure information for most Pentax models.

Index1	Tag Name	Writable
0	AEExposureTime	int8u
1	AEAperture	int8u
2	AE_ISO	int8u
3	AEXv	int8u
4	AEBXv	int8s
5	AEMinExposureTime	int8u
6	AEProgramMode	int8u
7	AEFlags	no
8	AEApertureSteps	int8u
9	AEMaxAperture	int8u
10	AEMaxAperture2	int8u
11	AEMinAperture	int8u
12	AEMeteringMode	int8u
13	AEWhiteBalance	int8u & 0xf0
13.1	AEMeteringMode2	int8u & 0x0f
14	FlashExposureCompSet	int8s
21	LevelIndicator	int8u

Pentax AEInfo2 Tags

Auto-exposure information for the K−01.

Index1	Tag Name	Writable
2	AEExposureTime	int8u
3	AEAperture	int8u
4	AE_ISO	int8u
5	AEXv	int8u
6	AEBXv	int8s
8	AEError	int8s
11	AEApertureSteps	int8u
15	SceneMode	int8u
16	AEMaxAperture	int8u
17	AEMaxAperture2	int8u
18	AEMinAperture	int8u
19	AEMinExposureTime	int8u

Pentax AEInfo3 Tags

Auto-exposure information for the K−1mkII, K−3, K−30, K−50, K−70, K−500 and KP.

Index1	Tag Name	Writable
16	AEExposureTime	int8u
17	AEAperture	int8u
18	AE_ISO	int8u
28	AEMaxAperture	int8u
29	AEMaxAperture2	int8u
30	AEMinAperture	int8u
31	AEMinExposureTime	int8u

Pentax AEInfoUnknown Tags

Index1	Tag Name	Writable
[no tags known]		

Pentax LensInfo Tags

Pentax lens information structure for models such as the *istD.

Index1	Tag Name	Writable
0	LensType	int8u[2]
3	LensData	Pentax LensData

Pentax LensData Tags

Pentax lens data information. Some of these tags require interesting binary gymnastics to decode them into useful values.

Index1	Tag Name	Writable
0.1	AutoAperture	int8u & 0x01
0.2	MinAperture	int8u & 0x06
0.3	LensFStops	int8u & 0x70
1	LensKind?	int8u
2	LC1?	int8u
3	MinFocusDistance	int8u & 0xf8
3.1	FocusRangeIndex	int8u & 0x07
4	LC3?	int8u
5	LC4?	int8u
6	LC5?	int8u
7	LC6?	int8u
8	LC7?	int8u
9	LensFocalLength	int8u
	LC8?	int8u
10	NominalMaxAperture	int8u & 0xf0
10.1	NominalMinAperture	int8u & 0x0f
11	LC10?	int8u
12	LC11?	int8u
13	LC12?	int8u
14.1	MaxAperture	int8u & 0x7f
15	LC14?	int8u
16	LC15?	int8u

Pentax LensInfo2 Tags

Pentax lens information structure for models such as the K10D and K20D.

Index1	Tag Name	Writable
0	LensType	int8u[4]
4	LensData	Pentax LensData

Pentax LensInfo3 Tags

Pentax lens information structure for 645D.

Index1	Tag Name	Writable
1	LensType	int8u[4]
13	LensData	Pentax LensData

Pentax LensInfo4 Tags

Pentax lens information structure for models such as the K−5 and K−r.

Index1	Tag Name	Writable
1	LensType	int8u[4]
12	LensData	Pentax LensData

Pentax LensInfo5 Tags

Pentax lens information structure for the K−01 and newer models.

Index1	Tag Name	Writable
1	LensType	int8u[5]
15	LensData	Pentax LensData

Pentax FlashInfo Tags

Flash information tags for the K10D, K20D and K200D.

Index1	Tag Name	Writable
0	FlashStatus	int8u
1	InternalFlashMode	int8u
2	ExternalFlashMode	int8u
3	InternalFlashStrength	int8u
4	TTL_DA_AUp	int8u
5	TTL_DA_ADown	int8u
6	TTL_DA_BUp	int8u
7	TTL_DA_BDown	int8u
24.1	ExternalFlashGuideNumber	int8u & 0x1f
25	ExternalFlashExposureComp	int8u
26	ExternalFlashBounce	int8u

Pentax FlashInfoUnknown Tags

Index1	Tag Name	Writable
[no tags known]		

Pentax CameraInfo Tags

Index4	Tag Name	Writable
0	PentaxModelID	int32u
1	ManufactureDate	int32u
2	ProductionCode	int32u[2]
4	InternalSerialNumber	int32u

Pentax BatteryInfo Tags

Index1	Tag Name	Writable
0.1	PowerSource	int8u & 0x0f
0.2	PowerAvailable	int8u & 0xf0
1.1	BodyBatteryState	int8u & 0xf0
1.2	GripBatteryState	int8u & 0x0f
2	BodyBatteryADNoLoad	int8u
	BodyBatteryVoltage1	int16u
	BodyBatteryState	int8u
3	BodyBatteryADLoad	int8u
	BodyBatteryPercent	int8u
4	GripBatteryADNoLoad	int8u
	BodyBatteryVoltage2	int16u
	BodyBatteryVoltage	int32u
5	GripBatteryADLoad	int8u
6	BodyBatteryVoltage3	int16u
8	BodyBatteryVoltage4	int16u
16	GripBatteryState	int8u
17	GripBatteryPercent	int8u
18	GripBatteryVoltage	int32u

Pentax AFInfo Tags

Index1	Tag Name	Writable
0	AFPointsUnknown1?	int16u
2	AFPointsUnknown2?	int16u
4	AFPredictor	int16s
6	AFDefocus	int8u
7	AFIntegrationTime	int8u
11	AFPointsInFocus	int8u
20	AFPointValues?	no
298	AFPointsSelected	int8u[101]~
399	AFPointsUnknown?	int8u[101]~
506	LiveView	int8u
509	AFHold	int8u
543	FirstFrameActionInAFC	int8u
544	ActionInAFCCont	int8u
545	AFCHold	int8u & 0x03
545.1	AFCPointTracking	int8u & 0x0c
545.2	AFCSensitivity	int8u & 0x70
2400	SubjectRecognition	int8u

Pentax KelvinWB Tags

White balance Blue/Red gains as a function of color temperature.

Index2	Tag Name	Writable
1	KelvinWB_Daylight	int16u[4]
5	KelvinWB_01	int16u[4]
9	KelvinWB_02	int16u[4]
13	KelvinWB_03	int16u[4]
17	KelvinWB_04	int16u[4]
21	KelvinWB_05	int16u[4]
25	KelvinWB_06	int16u[4]
29	KelvinWB_07	int16u[4]
33	KelvinWB_08	int16u[4]
37	KelvinWB_09	int16u[4]
41	KelvinWB_10	int16u[4]
45	KelvinWB_11	int16u[4]
49	KelvinWB_12	int16u[4]
53	KelvinWB_13	int16u[4]
57	KelvinWB_14	int16u[4]
61	KelvinWB_15	int16u[4]
65	KelvinWB_16	int16u[4]

Pentax ColorInfo Tags

Index1	Tag Name	Writable
16	WBShiftAB	int8s
17	WBShiftGM	int8s

Pentax EVStepInfo Tags

Index1	Tag Name	Writable
0	EVSteps	int8u
1	SensitivitySteps	int8u
3	LiveView	int8u

Pentax ShotInfo Tags

Index1	Tag Name	Writable
1	CameraOrientation	int8u

Pentax FacePos Tags

Index2	Tag Name	Writable
0	Face1Position	int16u[2]
2	Face2Position	int16u[2]
4	Face3Position	int16u[2]
6	Face4Position	int16u[2]
8	Face5Position	int16u[2]
10	Face6Position	int16u[2]
12	Face7Position	int16u[2]
14	Face8Position	int16u[2]
16	Face9Position	int16u[2]
18	Face10Position	int16u[2]
20	Face11Position	int16u[2]
22	Face12Position	int16u[2]
24	Face13Position	int16u[2]
26	Face14Position	int16u[2]

28	Face15Position	int16u[2]
30	Face16Position	int16u[2]
32	Face17Position	int16u[2]
34	Face18Position	int16u[2]
36	Face19Position	int16u[2]
38	Face20Position	int16u[2]
40	Face21Position	int16u[2]
42	Face22Position	int16u[2]
44	Face23Position	int16u[2]
46	Face24Position	int16u[2]
48	Face25Position	int16u[2]
50	Face26Position	int16u[2]
52	Face27Position	int16u[2]
54	Face28Position	int16u[2]
56	Face29Position	int16u[2]
58	Face30Position	int16u[2]
60	Face31Position	int16u[2]
62	Face32Position	int16u[2]

Pentax FaceSize Tags

Index2	Tag Name	Writable
0	Face1Size	int16u[2]
2	Face2Size	int16u[2]
4	Face3Size	int16u[2]
6	Face4Size	int16u[2]
8	Face5Size	int16u[2]
10	Face6Size	int16u[2]
12	Face7Size	int16u[2]
14	Face8Size	int16u[2]
16	Face9Size	int16u[2]
18	Face10Size	int16u[2]
20	Face11Size	int16u[2]
22	Face12Size	int16u[2]
24	Face13Size	int16u[2]
26	Face14Size	int16u[2]
28	Face15Size	int16u[2]
30	Face16Size	int16u[2]
32	Face17Size	int16u[2]
34	Face18Size	int16u[2]
36	Face19Size	int16u[2]
38	Face20Size	int16u[2]
40	Face21Size	int16u[2]
42	Face22Size	int16u[2]
44	Face23Size	int16u[2]
46	Face24Size	int16u[2]
48	Face25Size	int16u[2]
50	Face26Size	int16u[2]
52	Face27Size	int16u[2]
54	Face28Size	int16u[2]
56	Face29Size	int16u[2]
58	Face30Size	int16u[2]
60	Face31Size	int16u[2]
62	Face32Size	int16u[2]

Pentax FilterInfo Tags

The parameters associated with each type of digital filter are unique, and these settings are also extracted with the DigitalFilter tag. Information is not extracted for filters that are ‘‘Off’’ unless the Unknown option is used.

Index1	Tag Name	Writable
0	SourceDirectoryIndex	int16u
2	SourceFileIndex	int16u
5	DigitalFilter01	undef[17]
22	DigitalFilter02	undef[17]
39	DigitalFilter03	undef[17]
56	DigitalFilter04	undef[17]
73	DigitalFilter05	undef[17]
90	DigitalFilter06	undef[17]
107	DigitalFilter07	undef[17]
124	DigitalFilter08	undef[17]
141	DigitalFilter09	undef[17]
158	DigitalFilter10	undef[17]
175	DigitalFilter11	undef[17]
192	DigitalFilter12	undef[17]
209	DigitalFilter13	undef[17]
226	DigitalFilter14	undef[17]
243	DigitalFilter15	undef[17]
260	DigitalFilter16	undef[17]
277	DigitalFilter17	undef[17]
294	DigitalFilter18	undef[17]
311	DigitalFilter19	undef[17]
328	DigitalFilter20	undef[17]

Pentax LevelInfoK3III Tags

Tags decoded from the electronic level information for the K−3 III.

Index1	Tag Name	Writable
1	CameraOrientation	int8s
3	RollAngle	int16s
5	PitchAngle	int16s

Pentax LevelInfo Tags

Tags decoded from the electronic level information for the K−5. May not be valid for other models.

Index1	Tag Name	Writable
0	LevelOrientation	int8s & 0x0f
0.1	CompositionAdjust	int8s & 0xf0
1	RollAngle	int8s
2	PitchAngle	int8s
5	CompositionAdjustX	int8s
6	CompositionAdjustY	int8s
7	CompositionAdjustRotation	int8s

Pentax WBLevels Tags

Index1	Tag Name	Writable
2	WB_RGGBLevelsDaylight	int16u[4]
11	WB_RGGBLevelsShade	int16u[4]
20	WB_RGGBLevelsCloudy	int16u[4]
29	WB_RGGBLevelsTungsten	int16u[4]
38	WB_RGGBLevelsFluorescentD	int16u[4]
47	WB_RGGBLevelsFluorescentN	int16u[4]
56	WB_RGGBLevelsFluorescentW	int16u[4]
65	WB_RGGBLevelsFlash	int16u[4]
74	WB_RGGBLevelsFluorescentL	int16u[4]
83	WB_RGGBLevelsUnknown?	int16u[4]
92	WB_RGGBLevelsUserSelected	int16u[4]

Pentax CAFPointInfo Tags

Contrast-detect AF-point information for the K−01 and later models.

Index1	Tag Name	Writable
1	NumCAFPoints	no
1.1	CAFGridSize	no
2	CAFPointsInFocus	no
2.1	CAFPointsSelected	no

Pentax LensInfoQ Tags

More lens information stored by the Pentax Q.

Index1	Tag Name	Writable
12	LensModel	string[30]
42	LensInfo	string[20]

Pentax PixelShiftInfo Tags

Pixel shift information stored by the K−3 II.

Index1	Tag Name	Writable
0	PixelShiftResolution	int8u

Pentax AFPointInfo Tags

AF point information written by the K−1.

Index1	Tag Name	Writable
2	NumAFPoints	int16u
4	AFPointsInFocus	no
4.1	AFPointsSelected	no
4.2	AFPointsSpecial	no

Pentax TempInfo Tags

A number of additional temperature readings are extracted from this 256−byte binary-data block in images from models such as the K−01, K−3, K−5, K−50 and K−500. It is currently not known where the corresponding temperature sensors are located in the camera.

Index1	Tag Name	Writable
10	ShotNumber	no
12	SensorTemperature	int16s
14	SensorTemperature2	int16s
20	CameraTemperature4	int16s
22	CameraTemperature5	int16s
42	SensorTemperature	int16s

Pentax UnknownInfo Tags

Index1	Tag Name	Writable
[no tags known]		

Pentax FaceInfoK3III Tags

Index4	Tag Name	Writable
0	FaceImageSize	int32u[2]
0.1	FaceInfoK3III?	int32u[$size/4]
2	CAFArea	int32u[4]
6	FacesDetectedA	int32u
8	FacesDetectedB	int32u
10	Face1AArea	int32u[4]
14	Face1AEye1	int32u[4]
18	Face1AEye2	int32u[4]
30	Face2AArea	int32u[4]
34	Face2AEye1	int32u[4]
38	Face2AEye2	int32u[4]
50	Face3AArea	int32u[4]
54	Face3AEye1	int32u[4]
58	Face3AEye2	int32u[4]
70	Face4AArea	int32u[4]
74	Face4AEye1	int32u[4]
78	Face4AEye2	int32u[4]
90	Face5AArea	int32u[4]
94	Face5AEye1	int32u[4]
98	Face5AEye2	int32u[4]
110	Face6AArea	int32u[4]
114	Face6AEye1	int32u[4]
118	Face6AEye2	int32u[4]
130	Face7AArea	int32u[4]
134	Face7AEye1	int32u[4]
138	Face7AEye2	int32u[4]
150	Face8AArea	int32u[4]
154	Face8AEye1	int32u[4]
158	Face8AEye2	int32u[4]
170	Face9AArea	int32u[4]
174	Face9AEye1	int32u[4]
178	Face9AEye2	int32u[4]
190	Face10AArea	int32u[4]
194	Face10AEye1	int32u[4]
198	Face10AEye2	int32u[4]
210	Face1BArea	int32u[4]
214	Face1BEye1	int32u[4]
218	Face1BEye2	int32u[4]

230	Face2BArea	int32u[4]
234	Face2BEye1	int32u[4]
238	Face2BEye2	int32u[4]
250	Face3BArea	int32u[4]
254	Face3BEye1	int32u[4]
258	Face3BEye2	int32u[4]
270	Face4BArea	int32u[4]
274	Face4BEye1	int32u[4]
278	Face4BEye2	int32u[4]
290	Face5BArea	int32u[4]
294	Face5BEye1	int32u[4]
298	Face5BEye2	int32u[4]
310	Face6BArea	int32u[4]
314	Face6BEye1	int32u[4]
318	Face6BEye2	int32u[4]
330	Face7BArea	int32u[4]
334	Face7BEye1	int32u[4]
338	Face7BEye2	int32u[4]
350	Face8BArea	int32u[4]
354	Face8BEye1	int32u[4]
358	Face8BEye2	int32u[4]
370	Face9BArea	int32u[4]
374	Face9BEye1	int32u[4]
378	Face9BEye2	int32u[4]
390	Face10BArea	int32u[4]
394	Face10BEye1	int32u[4]
398	Face10BEye2	int32u[4]

Pentax AFInfoK3III Tags

AF tags written by the K−3 Mark III, GR III, GR IIIx and GR IV.

Index2	Tag Name	Writable
0	AFInfoK3III?	int16u[$size/2]
0.1	AFMode	int16u
1	AFSelectionMode	int16u
2	MaxNumAFPoints	int16u
3	NumAFPoints	int16u
7	AFFrameSize	no
7.1	AFAreas	no+
11	AFAreaSize	no

Pentax Type2 Tags

These tags are used by the Pentax Optio 330 and 430, and are similar to the tags used by Casio.

Tag ID	Tag Name	Writable
0x0001	RecordingMode	int16u
0x0002	Quality	int16u
0x0003	FocusMode	int16u
0x0004	FlashMode	int16u
0x0007	WhiteBalance	int16u
0x000a	DigitalZoom	int32u
0x000b	Sharpness	int16u
0x000c	Contrast	int16u
0x000d	Saturation	int16u

0x0014	ISO	int16u
0x0017	ColorFilter	int16u
0x0e00	PrintIM	PrintIM
0x1000	HometownCityCode	undef[4]
0x1001	DestinationCityCode	undef[4]

Pentax Type4 Tags

The following few tags are extracted from the wealth of information available in maker notes of the Optio E20 and E25. These maker notes are stored as ASCII text in a format very similar to some HP models.

Tag ID	Tag Name	Writable
'F/W Version'	FirmwareVersion	no

Pentax S1 Tags

Tags extracted from the maker notes of AVI videos from the Optio S1.

Tag ID	Tag Name	Writable
0x0000	MakerNoteVersion	no

Pentax Junk Tags

Tags found in the JUNK chunk of AVI videos from the RS1000.

Index1	Tag Name	Writable
12	Model	no

Pentax Junk2 Tags

This information is found in AVI videos from the Optio RZ18.

Index1	Tag Name	Writable
18	Make	no
44	Model	no
94	FNumber	no
131	DateTime1	no
157	DateTime2	no
299	ThumbnailWidth	no
301	ThumbnailHeight	no
303	ThumbnailLength	no
307	ThumbnailImage	no

Pentax AVI Tags

Pentax-specific RIFF tags found in AVI videos.

Tag ID	Tag Name	Writable
'hymn'	MakerNotes	Pentax
'mknt'	MakerNotes	Pentax

Pentax PENT Tags

Tags found in the PENT atom of MOV videos from the Optio WG-2 GPS.

Index1	Tag Name	Writable
0	Make	no
26	Model	no
56	ExposureTime	no
60	FNumber	no
68	ExposureCompensation	no
84	FocalLength	no
113	DateTime1	no
139	DateTime2	no
167	ISO	no
199	GPSVersionID	no
207	GPSLatitudeRef	no
209	GPSLatitude	no
233	GPSLongitudeRef	no
235	GPSLongitude	no
259	GPSAltitudeRef	no
260	GPSAltitude	no
284	GPSTimeStamp	no
308	GPSSatellites	no
311	GPSStatus	no
313	GPSMeasureMode	no
315	GPSMapDatum	no
322	GPSDateStamp	no
371	AudioCodecID	no
2003	PreviewImage	no

Pentax PXTH Tags

Tags found in the PXTH atom of MOV videos from the K−01.

Index1	Tag Name	Writable
0	PreviewImageLength	no
4	PreviewImage	no

Pentax MOV Tags

This information is found in MOV videos from cameras such as the Optio WP.

Index1	Tag Name	Writable
0	Make	no
38	ExposureTime	no
42	FNumber	no
50	ExposureCompensation	no
68	WhiteBalance	no
72	FocalLength	no
175	ISO	no

PhaseOne Tags

These tags are extracted from the maker notes of Phase One images.

Tag ID	Tag Name	Writable
0x0100	CameraOrientation	no
0x0102	SerialNumber	string
0x0105	ISO	int32s
0x0106	ColorMatrix1	float[9]
0x0107	WB_RGBLevels	float[3]
0x0108	SensorWidth	int32s
0x0109	SensorHeight	int32s
0x010a	SensorLeftMargin	int32s
0x010b	SensorTopMargin	int32s
0x010c	ImageWidth	int32s
0x010d	ImageHeight	int32s
0x010e	RawFormat	int32s
0x010f	RawData	no
0x0110	SensorCalibration	PhaseOne SensorCalibration
0x0112	DateTimeOriginal	no
0x0113	ImageNumber	int32s
0x0203	Software	string
0x0204	System	string
0x0210	SensorTemperature	float
0x0211	SensorTemperature2	float
0x0212	UnknownDate?	int32u
0x021c	StripOffsets	no
0x021d	BlackLevel	int32s
0x0222	SplitColumn	int32s
0x0223	BlackLevelData	int16u[n]
0x0226	ColorMatrix2	float[9]
0x0262	SequenceID	string
0x0263	SequenceKind	int32s
0x0264	SequenceFrameNumber	int32s
0x0265	SequenceFrameCount	int32s
0x0267	AFAdjustment	float
0x0301	FirmwareVersions	string
0x0400	ShutterSpeedValue	float
0x0401	ApertureValue	float
0x0402	ExposureCompensation	float
0x0403	FocalLength	float
0x0410	CameraModel	string
0x0412	LensModel	string
0x0414	MaxApertureValue	float
0x0415	MinApertureValue	float
0x0455	Viewfinder	string

PhaseOne SensorCalibration Tags

Tag ID	Tag Name	Writable
0x0400	SensorDefects	no
0x0401	AllColorFlatField1?	no
0x0407	SerialNumber	string
0x040b	RedBlueFlatField?	no
0x0410	AllColorFlatField2?	no
0x0416	AllColorFlatField3?	no
0x0419	LinearizationCoefficients1	no
0x041a	LinearizationCoefficients2	no

Reconyx Tags

Reconyx HyperFire Tags

The following tags are extracted from the maker notes of Reconyx RapidFire and HyperFire models such as the HC500, HC600 and PC900.

Index2	Tag Name	Writable
0	MakerNoteVersion	no
1	FirmwareVersion	no
4	FirmwareDate	int16u[2]
6	TriggerMode	string[2]
7	Sequence	int16u[2]
9	EventNumber	int16u[2]
11	DateTimeOriginal	int16u[6]
18	MoonPhase	int16u
19	AmbientTemperatureFahrenheit	int16s
20	AmbientTemperature	int16s
21	SerialNumber	unicode[15]
36	Contrast	int16u
37	Brightness	int16u
38	Sharpness	int16u
39	Saturation	int16u
40	InfraredIlluminator	int16u
41	MotionSensitivity	int16u
42	BatteryVoltage	int16u
43	UserLabel	string[22]

Reconyx UltraFire Tags

Maker notes tags for Reconyx UltraFire models.

Index1	Tag Name	Writable
24	FirmwareVersion	undef[7]
31	Micro1Version	undef[7]
38	BootLoaderVersion	undef[7]
45	Micro2Version	undef[7]
52	TriggerMode	undef[1]
53	Sequence	int8u[2]
55	EventNumber	int32u
59	DateTimeOriginal	int8u[7]
66	DayOfWeek	int8u
67	MoonPhase	int8u
68	AmbientTemperatureFahrenheit	int16s
70	AmbientTemperature	int16s
72	Illumination	int8u

73	BatteryVoltage	int16u
75	SerialNumber	string[15]
90	UserLabel	string[21]

Reconyx HyperFire2 Tags

Maker notes tags for Reconyx HyperFire 2 models.

Index1	Tag Name	Writable
16	FileNumber	int16u
18	DirectoryNumber	int16u
20	DirectoryCreateDate	int16u[2]
42	FirmwareVersion	int16u[3]
48	FirmwareDate	int16u[2]
52	TriggerMode	string[2]
54	Sequence	int16u[2]
58	EventNumber	int16u[2]
62	DateTimeOriginal	int16u[6]
74	DayOfWeek	int16u
76	MoonPhase	int16u
78	AmbientTemperatureFahrenheit	int16s
80	AmbientTemperature	int16s
82	Contrast	int16u
84	Brightness	int16u
86	Sharpness	int16u
88	Saturation	int16u
90	Flash	int16u
92	AmbientInfrared	int16u
94	AmbientLight	int16u
96	MotionSensitivity	int16u
98	BatteryVoltage	int16u
100	BatteryVoltageAvg	int16u
102	BatteryType	int16u
104	UserLabel	string[22]
126	SerialNumber	unicode[15]

Reconyx MicroFire Tags

Maker notes tags for Reconyx MicroFire cameras.

Index1	Tag Name	Writable
16	FileNumber	int16u
18	DirectoryNumber	int16u
20	DirectoryCreateDate	int16u[2]
24	SDCardID	int16u[8]~
42	FirmwareVersion	int16u[3]
48	FirmwareDate	int16u[2]
52	BluetoothFirmwareVersion	int16u[3]
58	BluetoothFirmwareDate	int16u
60	WifiFirmwareVersion	int16u[3]
66	WifiFirmwareDate	int16u
68	TriggerMode	string[2]
70	Sequence	int16u[2]
74	EventNumber	int16u[2]
78	DateTimeOriginal	int16u[6]
90	DayOfWeek	int16u

92	MoonPhase	int16u
94	AmbientTemperatureFahrenheit	int16s
96	AmbientTemperature	int16s
98	Contrast	int16u
100	Brightness	int16u
102	Sharpness	int16u
104	Saturation	int16u
106	Flash	int8u
108	AmbientInfrared	int16u
110	AmbientLight	int16u
112	MotionSensitivity	int16u
114	BatteryVoltage	int16u
116	BatteryType	int16u
118	UserLabel	string[22]
140	SerialNumber	unicode[15]

Reconyx HyperFire4K Tags

Maker notes tags for Reconyx HyperFire 4K models.

Index1	Tag Name	Writable
26	FirmwareVersion	undef[7]
33	UIBFirmwareVersion	undef[7]
40	TriggerMode	undef[1]
41	Sequence	int8u[2]
43	EventNumber	int32u
47	DateTimeOriginal	undef[7]
54	DayOfWeek	int8u
55	MoonPhase	int8u
56	AmbientTemperatureFahrenheit	int16s
58	AmbientTemperature	int16s
60	Contrast	int16u
62	Brightness	int16u
64	Sharpness	int16u
66	Saturation	int16u
68	Flash	int8u
69	AmbientLight	int32u
73	MotionSensitivity	int16u
75	BatteryVoltage	int16u
77	BatteryVoltageAvg	int16u
79	BatteryType	int16u
81	UserLabel	string[51]
132	SerialNumber	string[15]
147	DirectoryNumber	int16u
149	FileNumber	int16u

Ricoh Tags

Tag ID	Tag Name	Writable
0x0001	MakerNoteType	string
0x0002	FirmwareVersion	string
0x0005	SerialNumber	undef[16]
	InternalSerialNumber	undef[16]
0x0e00	PrintIM	PrintIM
0x1000	RecordingFormat	int16u
0x1001	ImageInfo	Ricoh ImageInfo
	ExposureProgram	int16u
0x1002	DriveMode	int16u
0x1003	Sharpness	int32u
	WhiteBalance	int16u
0x1004	WhiteBalanceFineTune	int16u
0x1006	FocusMode	int16u
0x1007	AutoBracketing	int16u
0x1009	MacroMode	int16u
0x100a	FlashMode	int16u
0x100b	FlashExposureComp	rational64s
0x100c	ManualFlashOutput	rational64s
0x100d	FullPressSnap	int16u
0x100e	DynamicRangeExpansion	int16u
0x100f	NoiseReduction	int16u
0x1010	ImageEffects	int16u
0x1011	Vignetting	int16u
0x1012	Contrast	int32u
0x1013	Saturation	int32u
0x1014	Sharpness	int32u
0x1015	ToningEffect	int16u
0x1016	HueAdjust	int16u
0x1017	WideAdapter	int16u
0x1018	CropMode	int16u
0x1019	NDFilter	int16u
0x101a	WBBracketShotNumber	int16u
0x1200	AFStatus	int16u
0x1201	AFAreaXPosition1	int32u
0x1202	AFAreaYPosition1	int32u
0x1203	AFAreaXPosition	int32u
0x1204	AFAreaYPosition	int32u
0x1205	AFAreaMode	int16u
0x1307	ColorTempKelvin	int32u
0x1308	ColorTemperature	int32u
0x1500	FocalLength	rational64u
0x1601	SensorWidth	int32u
0x1602	SensorHeight	int32u
0x1603	CroppedImageWidth	int32u
0x1604	CroppedImageHeight	int32u
0x2001	RicohSubdir	Ricoh Subdir
	RicohSubdirIFD	Ricoh Subdir
	RicohRR1Subdir	Ricoh Subdir
0x4001	ThetaSubdir	Ricoh ThetaSubdir

Ricoh ImageInfo Tags

Index1	Tag Name	Writable
0	RicohImageWidth	int16u
2	RicohImageHeight	int16u
6	RicohDate	int8u[7]
28	PreviewImageStart	int16u*
30	PreviewImageLength	int16u*
32	FlashMode	int8u
33	Macro	int8u
34	Sharpness	int8u
38	WhiteBalance	int8u
39	ISOSetting	int8u
40	Saturation	int8u

Ricoh Subdir Tags

Tag ID	Tag Name	Writable
0x0004	ManufactureDate1	string[20]
0x0005	ManufactureDate2	string[20]
0x001a	FaceInfo	Ricoh FaceInfo
0x0029	FirmwareInfo	Ricoh FirmwareInfo
0x002a	NoiseReduction	int32u
0x002c	SerialInfo	Ricoh SerialInfo

Ricoh FaceInfo Tags

Index1	Tag Name	Writable
181	FacesDetected	int8u
182	FaceDetectFrameSize	int16u[2]
188	Face1Position	int16u[4]
200	Face2Position	int16u[4]
212	Face3Position	int16u[4]
224	Face4Position	int16u[4]
236	Face5Position	int16u[4]
248	Face6Position	int16u[4]
260	Face7Position	int16u[4]
272	Face8Position	int16u[4]

Ricoh FirmwareInfo Tags

Index1	Tag Name	Writable
0	FirmwareRevision	string[12]
12	FirmwareRevision2	string[12]

Ricoh SerialInfo Tags

This information is found in images from the GXR.

Index1	Tag Name	Writable
0	BodyFirmware	string[16]
16	BodySerialNumber	string[16]
32	LensFirmware	string[16]
48	LensSerialNumber	string[16]

Ricoh ThetaSubdir Tags

Tag ID	Tag Name	Writable
0x0003	Accelerometer	rational64s[2]
0x0004	Compass	rational64u
0x000a	TimeZone	string

Ricoh Type2 Tags

Tags written by models such as the Ricoh HZ15 and the Pentax XG-1. These are not writable due to numerous formatting errors as written by these cameras.

Tag ID	Tag Name	Writable
0x0207	RicohModel	no
0x0300	RicohMake	no

Ricoh Text Tags

Some Ricoh DC and RDC models use a text-based format for their maker notes instead of the IFD format used by the Caplio models. Below is a list of known tags in this information.

Tag ID	Tag Name	Writable
'Bg'	BlueGain	no
'Gg'	GreenGain	no
'Rev'	FirmwareVersion	no
'Rg'	RedGain	no
'Rv'	FirmwareVersion	no

Ricoh RMETA Tags

The Ricoh Caplio Pro G3 has the ability to add custom fields to the APP5 "RMETA" segment of JPEG images. While only a few observed tags have been defined below, ExifTool will extract any information found here.

Tag ID	Tag Name	Writable
'Azimuth'	Azimuth	no
'Condition'	Condition	no
'Lit'	Lit	no
'Location'	Location	no
'Sign type'	SignType	no
'_audio'	SoundFile	no
'_barcode'	Barcodes	no+

Ricoh AVI Tags

Tag ID	Tag Name	Writable
'mnrt'	MakerNoteRicoh	Ricoh
'rdc2'	RicohRDC2?	no
'thum'	ThumbnailImage	no
'ucmt'	Comment	no

Ricoh RDTA Tags

Tag ID	Tag Name	Writable
0x0000	Accelerometer	no
0x0010	TimeStamp	no

Ricoh RDTB Tags

Tag ID	Tag Name	Writable
0x0000	Gyroscope	no
0x0010	TimeStamp	no

Ricoh RDTC Tags

Tag ID	Tag Name	Writable
0x0000	MagneticField	no
0x0010	TimeStamp	no

Ricoh RDTG Tags

Tag ID	Tag Name	Writable
0x0000	TimeStamp	no
0x0064	FrameNumber	no

Ricoh RDTL Tags

Tag ID	Tag Name	Writable
0x0000	GPSDateTime	no
0x0008	GPSLatitude	no
0x0010	GPSLongitude	no
0x0018	GPSAltitude	no

Samsung Tags

Tags found in the binary ''STMN'' format maker notes written by a number of Samsung models.

Index4	Tag Name	Writable
0	MakerNoteVersion	undef[8]
2	PreviewImageStart	int32u*
3	PreviewImageLength	int32u*
11	SamsungIFD	Samsung IFD

Samsung IFD Tags

This is a standard-format IFD found in the maker notes of some Samsung models, except that the entry count is a 4−byte integer and the offsets are relative to the end of the IFD. Currently, no tags in this IFD are known, so the Unknown (−u) or Verbose (−v) option must be used to see this information.

Tag ID	Tag Name	Writable

[no tags known]

Samsung Type2 Tags

Tags found in the EXIF-format maker notes of newer Samsung models.

Tag ID	Tag Name	Writable
0x0001	MakerNoteVersion	undef[4]
0x0002	DeviceType	int32u
0x0003	SamsungModelID	int32u
0x0011	OrientationInfo	Samsung OrientationInfo
0x0020	SmartAlbumColor	int16u[2]
0x0021	PictureWizard	Samsung PictureWizard
0x0030	LocalLocationName	string
0x0031	LocationName	string
0x0035	PreviewIFD	Nikon PreviewIFD

		Nikon PreviewIFD
0x0040	RawDataByteOrder	yes
0x0041	WhiteBalanceSetup	int32u
0x0043	CameraTemperature	rational64s
0x0050	RawDataCFAPattern	yes
0x0100	FaceDetect	int16u
0x0120	FaceRecognition	int32u
0x0123	FaceName	string
0xa001	FirmwareName	string
0xa002	SerialNumber	string
0xa003	LensType	int16u[n]
0xa004	LensFirmware	string
0xa005	InternalLensSerialNumber	string
0xa010	SensorAreas	int32u[8]
0xa011	ColorSpace	int16u
0xa012	SmartRange	int16u
0xa013	ExposureCompensation	rational64s
0xa014	ISO	int32u
0xa018	ExposureTime	rational64u
0xa019	FNumber	rational64u
0xa01a	FocalLengthIn35mmFormat	int32u
0xa020	EncryptionKey	int32u[11]!
0xa021	WB_RGGBLevelsUncorrected	int32u[4]
0xa022	WB_RGGBLevelsAuto	int32u[4]
0xa023	WB_RGGBLevelsIlluminator1	int32u[4]
0xa024	WB_RGGBLevelsIlluminator2	int32u[4]
0xa025	HighlightLinearityLimit	int32u
0xa028	WB_RGGBLevelsBlack	int32s[4]
0xa030	ColorMatrix	int32s[9]
0xa031	ColorMatrixSRGB	int32s[9]
0xa032	ColorMatrixAdobeRGB	int32s[9]
0xa033	CbCrMatrixDefault	int32s[4]
0xa034	CbCrMatrix	int32s[4]
0xa035	CbCrGainDefault	int32u[2]
0xa036	CbCrGain	int32u[2]
0xa040	ToneCurveSRGBDefault	int32u[23]
0xa041	ToneCurveAdobeRGBDefault	int32u[23]
0xa042	ToneCurveSRGB	int32u[23]
0xa043	ToneCurveAdobeRGB	int32u[23]
0xa048	RawData?	int32s[12]
0xa050	Distortion?	int32s[8]
0xa051	ChromaticAberration?	int16u[22]
0xa052	Vignetting?	int16u[15]
0xa053	VignettingCorrection?	int16u[15]
0xa054	VignettingSetting?	int16u[15]

Samsung OrientationInfo Tags

Camera orientation information written by the Gear 360 (SM−C200).

Index8	Tag Name	Writable
0	YawAngle?	rational64s
1	PitchAngle	rational64s
2	RollAngle	rational64s

Samsung PictureWizard Tags

Index2	Tag Name	Writable
0	PictureWizardMode	int16u
1	PictureWizardColor	int16u
2	PictureWizardSaturation	int16u
3	PictureWizardSharpness	int16u
4	PictureWizardContrast	int16u

Samsung APP5 Tags

Tag ID	Tag Name	Writable
'ssuniqueid'	UniqueID	no

Samsung Trailer Tags

Tags extracted from the SEFT trailer of JPEG and PNG images written when using certain features (such as ‘‘Sound & Shot’’ or ‘‘Shot & More’’) from Samsung models such as the Galaxy S4 and Tab S, and from the ’sefd’ atom in HEIC images from models such as the S10+.

Tag Name	Writable
DepthMapData	no
DepthMapData2	no
DepthMapName	no
DualCameraImage	no
DualCameraImageName	no
DualShotExtra	Samsung DualShotExtra
EmbeddedAudioFile	no
EmbeddedAudioFileName	no
EmbeddedImage	no
EmbeddedImage2	no
EmbeddedImageName	no
EmbeddedVideoOffsetSize	no
EmbeddedVideoFile	no
EmbeddedVideoType	no
MCCData	no
MotionPhotoAutoPlayVideo	no
PEg_Info	Samsung PEgInfo
ReEditData	Samsung ReEditData
OriginalPathHashKey	no
RemasterInfo	no
SamsungCaptureInfo	no
SamsungMotionPhotoVersion	no
SingleShotDepthMap	no
SingleShotMeta	Samsung SingleShotMeta
SurroundShotVideo	no
SurroundShotVideoName	no
TimeStamp	no
VideoEditedTimeZone	no

Samsung DualShotExtra Tags

Index4	Tag Name	Writable
16	DepthMapWidth	no
17	DepthMapHeight	no

Samsung PEgInfo Tags

Tag ID	Tag Name	Writable
'connectorType'	ConnectorType	no
'genImageVersion'	GenImageVersion	no

Samsung ReEditData Tags

Tag ID	Tag Name	Writable
'adjustmentValue'	AdjustmentValue	no
'clipInfoValue'	ClipInfoValue	Samsung ClipInfo
'effectValue'	EffectValue	Samsung EffectInfo
'endMotionVideo'	EndMotionVideo	no
'isAIFilterReEditOnly'	IsAIFilterReEditOnly	no
'isApplyShapeCorrection'	IsApplyShapeCorrection	no
'isBlending'	IsBlending	no
'isDecoReEditOnly'	IsDecoReEditOnly	no
'isMotionVideoMute'	IsMotionVideoMute	no
'isNewReEditOnly'	IsNewReEditOnly	no
'isNotReEdit'	IsNotReEdit	no
'isScaleAI'	IsScaleAI	no
'isTrimMotionVideo'	IsTrimMotionVideo	no
'ndeVersion'	NDEVersion	no
'originalPath'	OriginalPath	no
'portraitEffectValue'	PortraitEffectValue	Samsung PortraitEffect
'reSize'	ReSize	no
'representativeFrameLoc'	RepresentativeFrameLoc	no
'rotation'	Rotation	no
'sepVersion'	SEPVersion	no
'startMotionVideo'	StartMotionVideo	no
'toneValue'	ToneValue	Samsung ToneInfo

Samsung ClipInfo Tags

Tag ID	Tag Name	Writable
'mCenterX'	ClipCenterX	no
'mCenterY'	ClipCenterY	no
'mHFlip'	ClipHFlip	no
'mHFlipEffect'	ClipHFlipEffect	no
'mHeight'	ClipHeight	no
'mHozPerspective'	ClipHozPerspective	no
'mRotate'	ClipRotate	no
'mRotateEffect'	ClipRotateEffect	no
'mRotation'	ClipRotation	no
'mRotationEffect'	ClipRotationEffect	no
'mVFlip'	ClipVFlip	no
'mVFlipEffect'	ClipVFlipEffect	no
'mVerPerspective'	ClipVerPerspective	no
'mWidth'	ClipWidth	no

Samsung EffectInfo Tags

Tag ID	Tag Name	Writable
'alphaValue'	AlphaValue	no
'filterIndication'	FilterIndication	no
'filterType'	FilterType	no

Samsung PortraitEffect Tags

Tag ID	Tag Name	Writable
'effectId'	PortraitEffectID	no
'effectIdOriginal'	PortraitEffectIDOriginal	no
'effectLevel'	PortraitEffectLevel	no
'effectLevelOriginal'	EffectLevelOriginal	no
'exifRotation'	PortraitExifRotation	no
'lightLevel'	PortraitLightLevel	no
'lightLevelOriginal'	LightLevelOriginal	no
'refocusX'	PortraitRefocusX	no
'refocusXOriginal'	RefocusXOriginal	no
'refocusY'	PortraitRefocusY	no
'refocusYOriginal'	RefocusYOriginal	no
'touchX'	PortraitTouchX	no
'touchXOriginal'	TouchXOriginal	no
'touchY'	PortraitTouchY	no
'touchYOriginal'	TouchYOriginal	no
'waterMarkRemoved'	WaterMarkRemoved	no
'waterMarkRemovedOriginal'	WaterMarkRemovedOriginal	no

Samsung ToneInfo Tags

Tag ID	Tag Name	Writable
'brightness'	Brightness	no
'contrast'	Contrast	no
'definition'	Definition	no
'exposure'	Exposure	no
'highlight'	Highlight	no
'hue'	Hue	no
'isBrightnessIPE'	IsBrightnessIPE	no
'isContrastIPE'	IsContrastIPE	no
'isExposureIPE'	IsExposureIPE	no
'isSaturationIPE'	IsSaturationIPE	no
'lightbalance'	Lightbalance	no
'saturation'	Saturation	no
'shadow'	Shadow	no
'sharpness'	Sharpness	no
'tint'	Tint	no
'wbMode'	WBMode	no
'wbTemperature'	WBTemperature	no

Samsung SingleShotMeta Tags

Tag ID	Tag Name	Writable
'beautyColorLevel'	BeautyColorLevel	no
'beautyRetouchLevel'	BeautyRetouchLevel	no
'blurStrength'	BlurStrength	no
'bokehShape'	BokehShape	no
'colorpopStrength'	ColorpopStrength	no
'depthHWHeight'	DepthHWHeight	no
'depthHWWidth'	DepthHWWidth	no
'depthSWHeight'	DepthSWHeight	no
'depthSWWidth'	DepthSWWidth	no
'deviceOrientation'	DeviceOrientation	no
'effectStrength'	EffectStrength	no
'effectType'	EffectType	no
'flipStatus'	FlipStatus	no
'inputHeight'	InputHeight	no
'inputWidth'	InputWidth	no
'isArtBokeh'	IsArtBokeh	no
'lensFacing'	LensFacing	no
'monoStrength'	MonoStrength	no
'objectOrientation'	ObjectOrientation	no
'outputHeight'	OutputHeight	no
'outputWidth'	OutputWidth	no
'perfMode'	PerfMode	no
'segHeight'	SegHeight	no
'segWidth'	SegWidth	no
'sidelightStrength'	SidelightStrength	no
'spinStrength'	SpinStrength	no
'vintageStrength'	VintageStrength	no
'zoomStrength'	ZoomStrength	no

Samsung sec Tags

This information is found in the `@sec` atom of Samsung MP4 videos from models such as the WB30F.

Index1	Tag Name	Writable
0	Make	no
32	Model	no
512	ThumbnailWidth	no
516	ThumbnailHeight	no
520	ThumbnailLength	no
524	ThumbnailImage	no

Samsung INFO Tags

This information is found in MP4 videos from Samsung models such as the SMX-C20N.

Tag ID	Tag Name	Writable
'EFCT'	Effect	no
'QLTY'	Quality	no

Samsung MP4 Tags

This information is found in Samsung MP4 videos from models such as the WP10.

Index1	Tag Name	Writable
0	Make	no
24	Model	no
46	ExposureTime	no
50	FNumber	no
58	ExposureCompensation	no
106	ISO	no
125	Software	no
244	Thumbnail	Samsung Thumbnail

Samsung Thumbnail Tags

Index4	Tag Name	Writable
1	ThumbnailWidth	no
2	ThumbnailHeight	no
3	ThumbnailLength	no
4	ThumbnailOffset	no

Samsung smta Tags

This information is found in the smta atom of Samsung MP4 videos from models such as the Galaxy S4.

Tag ID	Tag Name	Writable
'mdln'	SamsungModel	no
'svss'	SamsungSvss	Samsung svss

Samsung svss Tags

This information is found in the svss atom of Samsung MP4 videos from models such as the Galaxy S4.

Tag ID	Tag Name	Writable
[no tags known]		

Sanyo Tags

Tag ID	Tag Name	Writable
0x00ff	MakerNoteOffset	int32u
0x0100	SanyoThumbnail	undef
0x0200	SpecialMode	int32u[3]
0x0201	SanyoQuality	int16u
0x0202	Macro	int16u
0x0204	DigitalZoom	rational64u
0x0207	SoftwareVersion	yes
0x0208	PictInfo	yes
0x0209	CameraID	yes
0x020e	SequentialShot	int16u
0x020f	WideRange	int16u
0x0210	ColorAdjustmentMode	int16u
0x0213	QuickShot	int16u
0x0214	SelfTimer	int16u
0x0216	VoiceMemo	int16u
0x0217	RecordShutterRelease	int16u
0x0218	FlickerReduce	int16u
0x0219	OpticalZoomOn	int16u
0x021b	DigitalZoomOn	int16u
0x021d	LightSourceSpecial	int16u

0x021e	Resaved	int16u
0x021f	SceneSelect	int16u
0x0223	ManualFocusDistance	rational64u
	FaceInfo	–
0x0224	SequenceShotInterval	int16u
0x0225	FlashMode	int16u
0x0e00	PrintIM	PrintIM
0x0f00	DataDump	no

Sanyo FaceInfo Tags

Index4	Tag Name	Writable
0	FacesDetected	int32u
4	FacePosition	int32u[4]

Sanyo MOV Tags

This information is found in Sanyo MOV videos.

Index1	Tag Name	Writable
0	Make	no
24	Model	no
38	ExposureTime	no
42	FNumber	no
50	ExposureCompensation	no
68	WhiteBalance	no
72	FocalLength	no

Sanyo MP4 Tags

This information is found in Sanyo MP4 videos.

Index1	Tag Name	Writable
0	Make	no
24	Model	no
50	FNumber	no
58	ExposureCompensation	no
106	ISO	no
209	Software	no
210	Software	no
241	Thumbnail	Sanyo Thumbnail
242	Thumbnail	Sanyo Thumbnail

Sanyo Thumbnail Tags

Index4	Tag Name	Writable
1	ThumbnailWidth	no
2	ThumbnailHeight	no
3	ThumbnailLength	no
4	ThumbnailOffset	no

Sigma Tags

These tags are written by Sigma/Foveon cameras. In the early days Sigma was a class leader by releasing their maker note specification to the public, but since then they have deviated from this standard and newer camera models are less than consistent about their metadata formats.

Tag ID	Tag Name	Writable
0x0002	SerialNumber	string
0x0003	DriveMode	string
0x0004	ResolutionMode	string
0x0005	AFMode	string
0x0006	FocusSetting	string
0x0007	WhiteBalance	string
0x0008	ExposureMode	string
0x0009	MeteringMode	string
0x000a	LensFocalRange	string
0x000b	ColorSpace	string
0x000c	ExposureCompensation	string
	ExposureAdjust?	rational64s
0x000d	Contrast	string
	Contrast	rational64s
0x000e	Shadow	string
	Shadow	rational64s
0x000f	Highlight	string
	Highlight	rational64s
0x0010	Saturation	string
	Saturation	rational64s
0x0011	Sharpness	string
	Sharpness	rational64s
0x0012	X3FillLight	string
	X3FillLight	rational64s
0x0014	ColorAdjustment	string
	ColorAdjustment	rational64s[3]
0x0015	AdjustmentMode	string
0x0016	Quality	string
0x0017	Firmware	string
0x0018	Software	string
0x0019	AutoBracket	string
0x001a	PreviewImageStart	int32u*
	ChrominanceNoiseReduction	string
0x001b	PreviewImageLength	int32u*
	LuminanceNoiseReduction	string
0x001c	PreviewImageSize	int16u[2]
	PreviewImageStart	int32u*
0x001d	MakerNoteVersion	undef
	PreviewImageLength	int32u*
0x001e	PreviewImageSize	int16u[2]
0x001f	AFPoint	string
	MakerNoteVersion	undef
0x0022	FileFormat	string
0x0024	Calibration	string
0x0026	FileFormat	string
0x0027	LensType	string
	LensType	– Sigma LensType
0x002a	LensFocalRange	rational64u[2]
0x002b	LensMaxApertureRange	rational64u[2]
0x002c	ColorMode	int32u
0x0030	LensApertureRange	string

	Calibration	string
0x0031	FNumber	rational64u
0x0032	ExposureTime	rational64u
0x0033	ExposureTime2	string
0x0034	BurstShot	int32u
0x0035	ExposureCompensation	rational64s
0x0039	SensorTemperature	string
0x003a	FlashExposureComp	rational64s
0x003b	Firmware	string
0x003c	WhiteBalance	string
0x003d	PictureMode	string
0x0047	ExposureCompensation	rational64s
0x0048	LensApertureRange	string
0x0049	FNumber	rational64u
0x004a	ExposureTime	rational64u
0x004b	ExposureTime2	string
0x004d	ExposureCompensation	rational64s
0x0055	SensorTemperature	string
0x0056	FlashExposureComp	rational64s
0x0057	Firmware2	string
0x0058	WhiteBalance	string
0x0059	DigitalFilter	string
0x0084	Model	string
0x0086	ISO	int16u
0x0087	ResolutionMode	string
0x0088	WhiteBalance	string
0x008c	Firmware	string
0x0113	PictureModeStrength	int32s
0x011f	CameraCalibration	float[9]
0x0120	WBSettings	Sigma WBSettings
0x0121	WBSettings2	Sigma WBSettings2
0x0138	Fade	rational64u
0x0139	Vignette	rational64u

Sigma WBSettings Tags

Index4	Tag Name	Writable
0	WB_RGBLevelsAuto	float[3]
3	WB_RGBLevelsDaylight	float[3]
6	WB_RGBLevelsShade	float[3]
9	WB_RGBLevelsOvercast	float[3]
12	WB_RGBLevelsIncandescent	float[3]
15	WB_RGBLevelsFluorescent	float[3]
18	WB_RGBLevelsFlash	float[3]
21	WB_RGBLevelsCustom1	float[3]
24	WB_RGBLevelsCustom2	float[3]
27	WB_RGBLevelsCustom3	float[3]

Sigma WBSettings2 Tags

Index4	Tag Name	Writable
0	WB_RGBLevelsUnknown0?	float[3]
3	WB_RGBLevelsUnknown1?	float[3]
6	WB_RGBLevelsUnknown2?	float[3]
9	WB_RGBLevelsUnknown3?	float[3]
12	WB_RGBLevelsUnknown4?	float[3]
15	WB_RGBLevelsUnknown5?	float[3]
18	WB_RGBLevelsUnknown6?	float[3]
21	WB_RGBLevelsUnknown7?	float[3]
24	WB_RGBLevelsUnknown8?	float[3]
27	WB_RGBLevelsUnknown9?	float[3]

Sony Tags

The following information has been decoded from the MakerNotes of Sony cameras. Some of these tags have been inherited from the Minolta MakerNotes.

Tag ID	Tag Name	Writable
0x0010	CameraInfo	Sony CameraInfo
	CameraInfo2	Sony CameraInfo2
	CameraInfo3	Sony CameraInfo3
	CameraInfoUnknown	Sony CameraInfoUnknown
0x0020	FocusInfo	Sony FocusInfo
	MoreInfo	Sony MoreInfo
0x0102	Quality	int32u
0x0104	FlashExposureComp	rational64s
0x0105	Teleconverter	int32u
0x0112	WhiteBalanceFineTune	int32u
0x0114	CameraSettings	Sony CameraSettings
	CameraSettings2	Sony CameraSettings2
	CameraSettings3	Sony CameraSettings3
	CameraSettingsUnknown	Sony CameraSettingsUnknown
0x0115	WhiteBalance	int32u
0x0116	ExtraInfo	Sony ExtraInfo
	ExtraInfo2	Sony ExtraInfo2
	ExtraInfo3	Sony ExtraInfo3
0x0e00	PrintIM	PrintIM
0x1000	MultiBurstMode	undef
0x1001	MultiBurstImageWidth	int16u
0x1002	MultiBurstImageHeight	int16u
0x1003	Panorama	Sony Panorama
0x2001	PreviewImage	undef
0x2002	Rating	int32u
0x2004	Contrast	int32s
0x2005	Saturation	int32s
0x2006	Sharpness	int32s
0x2007	Brightness	int32s
0x2008	LongExposureNoiseReduction	int32u
0x2009	HighISONoiseReduction	int16u
0x200a	HDR	int32u
0x200b	MultiFrameNoiseReduction	int32u
0x200e	PictureEffect	int16u
0x200f	SoftSkinEffect	int32u
0x2010	Tag2010a	Sony Tag2010a
	Tag2010b	Sony Tag2010b

	Tag2010c	Sony Tag2010c
	Tag2010d	Sony Tag2010d
	Tag2010e	Sony Tag2010e
	Tag2010f	Sony Tag2010f
	Tag2010g	Sony Tag2010g
	Tag2010h	Sony Tag2010h
	Tag2010i	Sony Tag2010i
0x2011	VignettingCorrection	int32u
0x2012	LateralChromaticAberration	int32u
0x2013	DistortionCorrectionSetting	int32u
0x2014	WBShiftAB_GM	int32s[2]
0x2016	AutoPortraitFramed	int16u
0x2017	FlashAction	int32u
0x201a	ElectronicFrontCurtainShutter	int32u
0x201b	FocusMode	int8u
0x201c	AFAreaModeSetting	int8u
0x201d	FlexibleSpotPosition	int16u[2]
0x201e	AFPointSelected	int8u
0x2020	AFPointsUsed	no
0x2021	AFTracking	int8u
0x2022	FocalPlaneAFPointsUsed	no
0x2023	MultiFrameNREffect	int32u
0x2026	WBShiftAB_GM_Precise	int32s[2]~
0x2027	FocusLocation	int16u[4]
0x2028	VariableLowPassFilter	int16u[2]
0x2029	RAWFileType	int16u
0x202a	Tag202a	Sony Tag202a
0x202b	PrioritySetInAWB	int8u
0x202c	MeteringMode2	int16u
0x202d	ExposureStandardAdjustment	rational64s
0x202e	Quality	int16u[2]
0x202f	PixelShiftInfo	undef
0x2031	SerialNumber	string
0x2032	Shadows	int32s
0x2033	Highlights	int32s
0x2034	Fade	int32s
0x2035	SharpnessRange	int32s
0x2036	Clarity	int32s
0x2037	FocusFrameSize	no
0x2039	JPEG-HEIFSwitch	int16u
0x2044	HiddenInfo	Sony HiddenInfo
0x204a	FocusLocation2	int16u[4]
0x205c	StepCropShooting	int8u
0x3000	ShotInfo	Sony ShotInfo
0x900b	Tag900b	Sony Tag900b
0x9050	Tag9050a	Sony Tag9050a
	Tag9050b	Sony Tag9050b
	Tag9050c	Sony Tag9050c
	Tag9050d	Sony Tag9050d
0x9400	Tag9400a	Sony Tag9400a
	Tag9400b	Sony Tag9400b
	Tag9400c	Sony Tag9400c
0x9401	Tag9401	Sony Tag9401
0x9402	Tag9402	Sony Tag9402

0x9403	Tag9403	Sony Tag9403
0x9404	Tag9404a	Sony Tag9404a
	Tag9404b	Sony Tag9404b
	Tag9404c	Sony Tag9404c
0x9405	Tag9405a	Sony Tag9405a
	Tag9405b	Sony Tag9405b
0x9406	Tag9406	Sony Tag9406
	Tag9406b	Sony Tag9406b
0x940a	Tag940a	Sony Tag940a
0x940c	Tag940c	Sony Tag940c
0x940e	AFInfo	Sony AFInfo
	Tag940e	Sony Tag940e
0x9416	Sony_0x9416	Sony Tag9416
0xb000	FileFormat	int8u[4]
0xb001	SonyModelID	int16u
0xb020	CreativeStyle	string
0xb021	ColorTemperature	int32u
0xb022	ColorCompensationFilter	int32u
0xb023	SceneMode	int32u
0xb024	ZoneMatching	int32u
0xb025	DynamicRangeOptimizer	int32u
0xb026	ImageStabilization	int32u
0xb027	LensType	int32u
0xb028	MinoltaMakerNote	Minolta
0xb029	ColorMode	int32u
0xb02a	LensSpec	int8u[8]
0xb02b	FullImageSize	int32u[2]
0xb02c	PreviewImageSize	int32u[2]
0xb040	Macro	int16u
0xb041	ExposureMode	int16u
0xb042	FocusMode	int16u
0xb043	AFAreaMode	int16u
0xb044	AFIlluminator	int16u
0xb047	JPEGQuality	int16u
0xb048	FlashLevel	int16s
0xb049	ReleaseMode	int16u
0xb04a	SequenceNumber	int16u
0xb04b	Anti-Blur	int16u
0xb04e	FocusMode	int16u
0xb04f	DynamicRangeOptimizer	int16u
0xb050	HighISONoiseReduction2	int16u
0xb052	IntelligentAuto	int16u
0xb054	WhiteBalance	int16u

Sony CameraInfo Tags

Camera information for the A700, A850 and A900.

Index1	Tag Name	Writable
0	LensSpec	undef[8]
20	FocusModeSetting	int8u
21	AFPointSelected	int8u
25	AFPoint	int8u
30	AFStatusActiveSensor	int16s
32	AFStatusUpper-left	int16s
34	AFStatusLeft	int16s
36	AFStatusLower-left	int16s
38	AFStatusFarLeft	int16s
40	AFStatusBottomAssist-left	int16s
42	AFStatusBottom	int16s
44	AFStatusBottomAssist-right	int16s
46	AFStatusCenter-7	int16s
48	AFStatusCenter-horizontal	int16s
50	AFStatusCenter-9	int16s
52	AFStatusCenter-10	int16s
54	AFStatusCenter-11	int16s
56	AFStatusCenter-12	int16s
58	AFStatusCenter-vertical	int16s
60	AFStatusCenter-14	int16s
62	AFStatusTopAssist-left	int16s
64	AFStatusTop	int16s
66	AFStatusTopAssist-right	int16s
68	AFStatusFarRight	int16s
70	AFStatusUpper-right	int16s
72	AFStatusRight	int16s
74	AFStatusLower-right	int16s
76	AFStatusCenterF2-8	int16s
304	AFMicroAdjValue	int8u
305	AFMicroAdjMode	int8u & 0x80
305.1	AFMicroAdjRegisteredLenses	int8u & 0x7f

Sony CameraInfo2 Tags

Camera information for the DSLR-A200, A230, A290, A300, A330, A350, A380 and A390.

Index1	Tag Name	Writable
0	LensSpec	undef[8]
20	AFPointSelected	int8u
21	FocusModeSetting	int8u
24	AFPoint	int8u
27	AFStatusActiveSensor	int16s
29	AFStatusTop-right	int16s
31	AFStatusBottom-right	int16s
33	AFStatusBottom	int16s
35	AFStatusMiddleHorizontal	int16s
37	AFStatusCenterVertical	int16s
39	AFStatusTop	int16s
41	AFStatusTop-left	int16s
43	AFStatusBottom-left	int16s
45	AFStatusLeft	int16s
47	AFStatusCenterHorizontal	int16s
49	AFStatusRight	int16s

Sony CameraInfo3 Tags

Camera information stored by the A33, A35, A55, A450, A500, A550, A560, A580, NEX−3/5/5C/C3 and VG10E. Some tags are valid only for some of these models.

Index1	Tag Name	Writable
0	LensSpec	undef[8]
14	FocalLength	int16u
16	FocalLengthTeleZoom	int16u
20	AFPointSelected	int8u
21	FocusMode	int8u
24	AFPoint	int8u
25	FocusStatus	int8u
27	AFStatusActiveSensor	int16s
28	AFPointSelected	int8u
29	FocusMode	int8u
	AFStatusTop−right	int16s
31	AFStatusBottom−right	int16s
32	AFPoint	int8u
33	AFStatusActiveSensor	int16s
	AFStatusBottom	int16s
35	AFStatus15	Sony AFStatus15
	AFStatusMiddleHorizontal	int16s
37	AFStatusCenterVertical	int16s
39	AFStatusTop	int16s
41	AFStatusTop−left	int16s
43	AFStatusBottom−left	int16s
45	AFStatusLeft	int16s
47	AFStatusCenterHorizontal	int16s
49	AFStatusRight	int16s

Sony AFStatus15 Tags

AF Status information for models with 15−point AF.

Index1	Tag Name	Writable
0	AFStatusUpper−left	int16s
2	AFStatusLeft	int16s
4	AFStatusLower−left	int16s
6	AFStatusFarLeft	int16s
8	AFStatusTopHorizontal	int16s
10	AFStatusNearRight	int16s
12	AFStatusCenterHorizontal	int16s
14	AFStatusNearLeft	int16s
16	AFStatusBottomHorizontal	int16s
18	AFStatusTopVertical	int16s
20	AFStatusCenterVertical	int16s
22	AFStatusBottomVertical	int16s
24	AFStatusFarRight	int16s
26	AFStatusUpper−right	int16s
28	AFStatusRight	int16s
30	AFStatusLower−right	int16s
32	AFStatusUpper−middle	int16s
34	AFStatusLower−middle	int16s

Sony CameraInfoUnknown Tags

Index1	Tag Name	Writable
[no tags known]		

Sony FocusInfo Tags

More camera settings and focus information decoded for models such as the A200, A230, A290, A300, A330, A350, A380, A390, A700, A850 and A900.

Index1	Tag Name	Writable
14	DriveMode2	int8u
16	Rotation	int8u
20	ImageStabilizationSetting	int8u
21	DynamicRangeOptimizerMode	int8u
43	BracketShotNumber	int8u
44	WhiteBalanceBracketing	int8u
45	BracketShotNumber2	int8u
46	DynamicRangeOptimizerBracket	int8u
47	ExposureBracketShotNumber	int8u
63	ExposureProgram	int8u
65	CreativeStyle	int8u
109	ISOSetting	int8u
111	ISO	int8u
119	DynamicRangeOptimizerMode	int8u
121	DynamicRangeOptimizerLevel	int8u
2118	ShutterCount	int32u
2491	FocusPosition	int8u
4368	TiffMeteringImage	no

Sony MoreInfo Tags

More camera settings information decoded for the A450, A500, A550, A560, A580, A33, A35, A55, NEX−3/5/C3 and VG10E.

Tag ID	Tag Name	Writable
0x0001	MoreSettings	Sony MoreSettings
0x0002	FaceInfo	Sony FaceInfo
	FaceInfoA	Sony FaceInfoA
0x0107	TiffMeteringImage	no
0x0201	MoreInfo0201	Sony MoreInfo0201
0x0401	MoreInfo0401	Sony MoreInfo0401

Sony MoreSettings Tags

Index1	Tag Name	Writable
1	DriveMode2	int8u
2	ExposureProgram	int8u
3	MeteringMode	int8u
4	DynamicRangeOptimizerSetting	int8u
5	DynamicRangeOptimizerLevel	int8u
6	ColorSpace	int8u
7	CreativeStyleSetting	int8u
8	ContrastSetting	int8s
9	SaturationSetting	int8s
10	SharpnessSetting	int8s
13	WhiteBalanceSetting	int8u

14	ColorTemperatureSetting	int8u
15	ColorCompensationFilterSet	int8s
16	FlashMode	int8u
17	LongExposureNoiseReduction	int8u
18	HighISONoiseReduction	int8u
19	FocusMode	int8u
21	MultiFrameNoiseReduction	int8u
22	HDRSetting	int8u
23	HDRLevel	int8u
24	ViewingMode	int8u
25	FaceDetection	int8u
26	CustomWB_RBLevels	int16uRev[2]
30	BrightnessValue	int8u
	ExposureCompensationSet	int8u
31	ISO	int8u
	FlashExposureCompSet	int8u
32	FNumber	int8u
	LiveViewAFMethod	int8u
33	ExposureTime	int8u
	ISO	int8u
34	FNumber	int8u
35	FocalLength2	int8u
	ExposureTime	int8u
36	ExposureCompensation2	int16s
37	FocalLength2	int8u
	ISO	int8u
38	FlashExposureCompSet2	int16s
	ExposureCompensation2	int16s
	FNumber	int8u
39	ExposureTime	int8u
40	Orientation2	int8u
41	FocusPosition2	int8u
	FocalLength2	int8u
42	FlashAction	int8u
	ExposureCompensation2	int16s
43	FocusPosition2	int8u
44	FocusMode2	int8u
	FlashAction	int8u
	FlashExposureCompSet2	int16s
46	FocusMode2	int8u
	Orientation2	int8u
47	FocusPosition2	int8u
48	FlashAction	int8u
50	FocusMode2	int8u
119	FlashAction2	int8u
120	FlashActionExternal	int8u
124	FlashActionExternal	int8u
130	FlashStatus	int8u
134	FlashStatus	int8u

Sony FaceInfo Tags

Index2	Tag Name	Writable
0	FacesDetected	int16s
1	Face1Position	int16u[4]
6	Face2Position	int16u[4]
11	Face3Position	int16u[4]
16	Face4Position	int16u[4]
21	Face5Position	int16u[4]
26	Face6Position	int16u[4]
31	Face7Position	int16u[4]
36	Face8Position	int16u[4]

Sony FaceInfoA Tags

Index2	Tag Name	Writable
3	FacesDetected	no
11	PotentialFace1Position	int16u[4]
21	PotentialFace2Position	int16u[4]
31	PotentialFace3Position	int16u[4]
41	PotentialFace4Position	int16u[4]
51	PotentialFace5Position	int16u[4]
61	PotentialFace6Position	int16u[4]
71	PotentialFace7Position	int16u[4]
81	PotentialFace8Position	int16u[4]
91	Face1Position	int16u[4]
101	Face2Position	int16u[4]
111	Face3Position	int16u[4]
121	Face4Position	int16u[4]

Sony MoreInfo0201 Tags

Index1	Tag Name	Writable
283	ImageCount	int32u
293	ShutterCount	int32u
330	ShutterCount	int32u

Sony MoreInfo0401 Tags

Index1	Tag Name	Writable
1102	ShotNumberSincePowerUp	int32u

Sony CameraSettings Tags

Camera settings for the A200, A300, A350, A700, A850 and A900.

Index2	Tag Name	Writable
0	ExposureTime	int16u
1	FNumber	int16u
2	HighSpeedSync	int16u
3	ExposureCompensationSet	int16u
4	DriveMode	int16u & 0xff
5	WhiteBalanceSetting	int16u
6	WhiteBalanceFineTune	int16u
7	ColorTemperatureSet	int16u
8	ColorCompensationFilterSet	int16u
12	ColorTemperatureCustom	int16u

13	ColorCompensationFilterCustom	int16u
15	WhiteBalance	int16u
16	FocusModeSetting	int16u
17	AFAreaMode	int16u
18	AFPointSetting	int16u
19	FlashMode	int16u
20	FlashExposureCompSet	int16u
21	MeteringMode	int16u
22	ISOSetting	int16u
24	DynamicRangeOptimizerMode	int16u
25	DynamicRangeOptimizerLevel	int16u
26	CreativeStyle	int16u
27	ColorSpace	int16u
28	Sharpness	int16u
29	Contrast	int16u
30	Saturation	int16u
31	ZoneMatchingValue	int16u
34	Brightness	int16u
35	FlashControl	int16u
40	PrioritySetupShutterRelease	int16u
41	AFIlluminator	int16u
42	AFWithShutter	int16u
43	LongExposureNoiseReduction	int16u
44	HighISONoiseReduction	int16u
45	ImageStyle	int16u
46	FocusModeSwitch	int16u
47	ShutterSpeedSetting	int16u
48	ApertureSetting	int16u
60	ExposureProgram	int16u
61	ImageStabilizationSetting	int16u
62	FlashAction	int16u
63	Rotation	int16u
64	AELock	int16u
76	FlashAction2	int16u
77	FocusMode	int16u
80	BatteryState	int16u
81	BatteryLevel	int16u
83	FocusStatus	int16u
84	SonyImageSize	int16u
85	AspectRatio	int16u
86	Quality	int16u
88	ExposureLevelIncrements	int16u
106	RedEyeReduction	int16u
154	FolderNumber	int16u & 0x3ff
155	ImageNumber	int16u & 0x3fff

Sony CameraSettings2 Tags

Camera settings for the A230, A290, A330, A380 and A390.

Index2	Tag Name	Writable
0	ExposureTime	int16u
1	FNumber	int16u
2	HighSpeedSync	int16u
3	ExposureCompensationSet	int16u
4	WhiteBalanceSetting	int16u
5	WhiteBalanceFineTune	int16u
6	ColorTemperatureSet	int16u
7	ColorCompensationFilterSet	int16u
8	CustomWB_RGBLevels	int16u[3]
11	ColorTemperatureCustom	int16u
12	ColorCompensationFilterCustom	int16u
14	WhiteBalance	int16u
15	FocusModeSetting	int16u
16	AFAreaMode	int16u
17	AFPointSetting	int16u
18	FlashExposureCompSet	int16u
19	MeteringMode	int16u
20	ISOSetting	int16u
22	DynamicRangeOptimizerMode	int16u
23	DynamicRangeOptimizerLevel	int16u
24	CreativeStyle	int16u
25	Sharpness	int16u
26	Contrast	int16u
27	Saturation	int16u
31	FlashControl	int16u
37	LongExposureNoiseReduction	int16u
38	HighISONoiseReduction	int16u
39	ImageStyle	int16u
40	ShutterSpeedSetting	int16u
41	ApertureSetting	int16u
60	ExposureProgram	int16u
61	ImageStabilizationSetting	int16u
62	FlashAction	int16u
63	Rotation	int16u
64	AELock	int16u
76	FlashAction2	int16u
77	FocusMode	int16u
83	FocusStatus	int16u
84	SonyImageSize	int16u
85	AspectRatio	int16u
86	Quality	int16u
88	ExposureLevelIncrements	int16u
126	DriveMode	int16u & 0xff
127	FlashMode	int16u
131	ColorSpace	int16u

Sony CameraSettings3 Tags

Camera settings for models such as the A33, A35, A55, A450, A500, A550, A560, A580, NEX−3, NEX−5, NEX−C3 and NEX−VG10E.

Index1	Tag Name	Writable
0	ShutterSpeedSetting	int8u
1	ApertureSetting	int8u
2	ISOSetting	int8u
3	ExposureCompensationSet	int8u
4	DriveModeSetting	int8u
5	ExposureProgram	int8u
6	FocusModeSetting	int8u
7	MeteringMode	int8u
9	SonyImageSize	int8u
10	AspectRatio	int8u
11	Quality	int8u
12	DynamicRangeOptimizerSetting	int8u
13	DynamicRangeOptimizerLevel	int8u
14	ColorSpace	int8u
15	CreativeStyleSetting	int8u
16	ContrastSetting	int8s
17	SaturationSetting	int8s
18	SharpnessSetting	int8s
22	WhiteBalanceSetting	int8u
23	ColorTemperatureSetting	int8u
24	ColorCompensationFilterSet	int8s
25	CustomWB_RGBLevels	int16uRev[3]
32	FlashMode	int8u
33	FlashControl	int8u
35	FlashExposureCompSet	int8u
36	AFAreaMode	int8u
37	LongExposureNoiseReduction	int8u
38	HighISONoiseReduction	int8u
39	SmileShutterMode	int8u
40	RedEyeReduction	int8u
45	HDRSetting	int8u
46	HDRLevel	int8u
47	ViewingMode	int8u
48	FaceDetection	int8u
49	SmileShutter	int8u
50	SweepPanoramaSize	int8u
51	SweepPanoramaDirection	int8u
52	DriveMode	int8u
53	MultiFrameNoiseReduction	int8u
54	LiveViewAFSetting	int8u
56	PanoramaSize3D	int8u
131	AFButtonPressed	int8u
132	LiveViewMetering	int8u
133	ViewingMode2	int8u
134	AELock	int8u
135	FlashStatusBuilt-in	int8u
136	FlashStatusExternal	int8u
139	LiveViewFocusMode	int8u
153	LensMount	int8u
268	SequenceNumber	int8u
276	FolderNumber	int32u & 0xffc000
276.1	ImageNumber	int32u & 0x3fff

512	ShotNumberSincePowerUp2	int32u
643	AFButtonPressed	int8u
644	LiveViewMetering	int8u
645	ViewingMode2	int8u
646	AELock	int8u
647	FlashStatusBuilt-in	int8u
648	FlashStatusExternal	int8u
651	LiveViewFocusMode	int8u
780	SequenceNumber	int8u
788	ImageNumber	int16u & 0x3fff
790	FolderNumber	int16u & 0x3ff
1008	LensE-mountVersion	int16u
1011	LensFirmwareVersion	int16u~
1015	LensType2	int16u
1024	ImageNumber	int16u & 0x3fff
1026	FolderNumber	int16u & 0x3ff

Sony CameraSettingsUnknown Tags

Index2	Tag Name	Writable
[no tags known]		

Sony ExtraInfo Tags

Extra hardware information for the A850 and A900.

Index1	Tag Name	Writable
1	BatteryTemperature	int8u
2	BatteryUnknown?	no
8	BatteryVoltage?	no
10	ImageStabilization2?	int8u
12	BatteryLevel	int8u
26	ExtraInfoVersion	int8u[4]

Sony ExtraInfo2 Tags

Extra hardware information for the A230/290/330/380/390.

Index1	Tag Name	Writable
4	BatteryLevel	int8u
18	ImageStabilization	int8u

Sony ExtraInfo3 Tags

Extra hardware information for the A33, A35, A55, A450, A500, A550, A560, A580 and NEX-3/5/C3/VG10.

Index1	Tag Name	Writable
0	BatteryUnknown?	int16u
2	BatteryTemperature	int8u
4	BatteryLevel	int8u
6	BatteryVoltage1	int16u
8	BatteryVoltage2	int16u
17	ImageStabilization	int8u
20	BatteryState	int8u
	ExposureProgram	int8u
	ModeDialPosition	int8u

22	MemoryCardConfiguration	int8u & 0xc0
	CameraOrientation	int8u
24	CameraOrientation	int8u & 0x30

Sony Panorama Tags

Tags found in panorama images from various Sony DSC, NEX, SLT and DSLR cameras. The width/height values of these tags are not affected by camera rotation — the width is always the longer dimension.

Index4	Tag Name	Writable
1	PanoramaFullWidth	int32u
2	PanoramaFullHeight	int32u
3	PanoramaDirection	int32u
4	PanoramaCropLeft	int32u
5	PanoramaCropTop	int32u
6	PanoramaCropRight	int32u
7	PanoramaCropBottom	int32u
8	PanoramaFrameWidth	int32u
9	PanoramaFrameHeight	int32u
10	PanoramaSourceWidth	int32u
11	PanoramaSourceHeight	int32u

Sony Tag2010a Tags

Valid for NEX−5N.

Index1	Tag Name	Writable
1200	MeterInfo?	Sony MeterInfo
4392	ReleaseMode3	int8u
4396	ReleaseMode2	int8u
4404	SelfTimer	int8u
4408	FlashMode	int8u
4414	StopsAboveBaseISO	int16u
4416	BrightnessValue	int16u
4420	DynamicRangeOptimizer	int8u
4424	HDRSetting	int8u
4428	ExposureCompensation	int16s
4446	PictureProfile	int8u
4447	PictureProfile	int8u
4451	PictureEffect2	int8u
4464	Quality2	int8u
4468	MeteringMode	int8u
4469	ExposureProgram	int8u
4476	WB_RGBLevels	int16u[3]

Sony MeterInfo Tags

Information possibly related to metering. Extracted only if the Unknown option is used.

Index1	Tag Name	Writable
0	MeterInfo1Row1	int32u[27]
108	MeterInfo1Row2	int32u[27]
216	MeterInfo1Row3	int32u[27]
324	MeterInfo1Row4	int32u[27]
432	MeterInfo1Row5	int32u[27]
540	MeterInfo1Row6	int32u[27]
648	MeterInfo1Row7	int32u[27]
756	MeterInfo2Row1	int32u[33]
888	MeterInfo2Row2	int32u[33]
1020	MeterInfo2Row3	int32u[33]
1152	MeterInfo2Row4	int32u[33]
1284	MeterInfo2Row5	int32u[33]
1416	MeterInfo2Row6	int32u[33]
1548	MeterInfo2Row7	int32u[33]
1680	MeterInfo2Row8	int32u[33]
1812	MeterInfo2Row9	int32u[33]

Sony Tag2010b Tags

Valid for SLT−A65/A77, NEX−7/VG20E.

Index1	Tag Name	Writable
0	SequenceImageNumber	int32u
4	SequenceFileNumber	int32u
8	ReleaseMode2	int32u
438	SonyDateTime	undef[7]
804	DynamicRangeOptimizer	int8u
1204	MeterInfo?	Sony MeterInfo
4392	ReleaseMode3	int8u
4396	ReleaseMode2	int8u
4404	SelfTimer	int8u
4408	FlashMode	int8u
4414	StopsAboveBaseISO	int16u
4416	BrightnessValue	int16u
4420	DynamicRangeOptimizer	int8u
4424	HDRSetting	int8u
4428	ExposureCompensation	int16s
4450	PictureProfile	int8u
4451	PictureProfile	int8u
4455	PictureEffect2	int8u
4468	Quality2	int8u
4472	MeteringMode	int8u
4473	ExposureProgram	int8u
4480	WB_RGBLevels	int16u[3]
4632	SonyISO	int16u
6691	DistortionCorrParams	int16s[16]

Sony Tag2010c Tags

Valid for SLT−A37/A57 and NEX−F3.

Index1	Tag Name	Writable
0	SequenceImageNumber	int32u
4	SequenceFileNumber	int32u
8	ReleaseMode2	int32u
512	DigitalZoomRatio	int8u
528	SonyDateTime	undef[7]
768	DynamicRangeOptimizer	int8u
1168	MeterInfo?	Sony MeterInfo
4356	ReleaseMode3	int8u
4360	ReleaseMode2	int8u
4368	SelfTimer	int8u
4372	FlashMode	int8u
4378	StopsAboveBaseISO	int16u
4380	BrightnessValue	int16u
4384	DynamicRangeOptimizer	int8u
4388	HDRSetting	int8u
4392	ExposureCompensation	int16s
4414	PictureProfile	int8u
4415	PictureProfile	int8u
4419	PictureEffect2	int8u
4432	Quality2	int8u
4436	MeteringMode	int8u
4437	ExposureProgram	int8u
4444	WB_RGBLevels	int16u[3]
4596	SonyISO	int16u

Sony Tag2010d Tags

Valid for DSC−HX10V/HX20V/HX200V/TX66/TX200V/TX300V/WX50/WX100/WX150, but not valid for panorama images.

Index1	Tag Name	Writable
0	SequenceImageNumber	int32u
4	SequenceFileNumber	int32u
8	ReleaseMode2	int32u
510	SonyDateTime	undef[7]
892	DynamicRangeOptimizer	int8u
1292	MeterInfo?	Sony MeterInfo
4480	ReleaseMode3	int8u
4484	ReleaseMode2	int8u
4492	SelfTimer	int8u
4496	FlashMode	int8u
4502	StopsAboveBaseISO	int16u
4504	BrightnessValue	int16u
4508	DynamicRangeOptimizer	int8u
4512	HDRSetting	int8u
4538	PictureProfile	int8u
4539	PictureProfile	int8u
4543	PictureEffect2	int8u
4560	MeteringMode	int8u
4561	ExposureProgram	int8u
4568	WB_RGBLevels	int16u[3]
4720	SonyISO	int16u

Sony Tag2010e Tags

Valid for SLT−A58/A99, ILCE−3000/3500, NEX−3N/5R/5T/6/VG30E/VG900, DSC−RX100, DSC−RX1/RX1R. Also valid for DSC−HX300/HX50V/TX30/WX60/WX200/ WX300, but not for panorama images.

Index1	Tag Name	Writable
0	SequenceImageNumber	int32u
4	SequenceFileNumber	int32u
8	ReleaseMode2	int32u
540	DigitalZoomRatio	int8u
556	SonyDateTime	undef[7]
808	DynamicRangeOptimizer	int8u
1208	MeterInfo?	Sony MeterInfo
4444	ReleaseMode3	int8u
4448	ReleaseMode2	int8u
4456	SelfTimer	int8u
4460	FlashMode	int8u
4466	StopsAboveBaseISO	int16u
4468	BrightnessValue	int16u
4472	DynamicRangeOptimizer	int8u
4476	HDRSetting	int8u
4480	ExposureCompensation	int16s
4502	PictureProfile	int8u
4503	PictureProfile	int8u
4507	PictureEffect2	int8u
4520	Quality2	int8u
4524	MeteringMode	int8u
4525	ExposureProgram	int8u
4532	WB_RGBLevels	int16u[3]
4692	SonyISO	int16u
4696	SonyISO	int16u
4728	FocalLength	int16u
4730	MinFocalLength	int16u
4732	MaxFocalLength	int16u
4736	SonyISO	int16u
6256	DistortionCorrParams	int16s[16]
6289	LensFormat	int8u
6290	LensMount	int8u
6291	LensType2	int16u
6294	LensType	int16u
6296	DistortionCorrParamsPresent	int8u
6297	DistortionCorrParamsNumber	int8u
6444	AspectRatio	int8u
6792	AspectRatio	int8u

Sony Tag2010f Tags

Valid for DSC−RX100M2, DSC−QX10/QX100.

Index1	Tag Name	Writable
4	ReleaseMode2	int32u
80	DynamicRangeOptimizer	int8u
480	MeterInfo?	Sony MeterInfo
4116	ReleaseMode3	int8u
4120	ReleaseMode2	int8u
4128	SelfTimer	int8u
4132	FlashMode	int8u
4138	StopsAboveBaseISO	int16u
4140	BrightnessValue	int16u
4144	DynamicRangeOptimizer	int8u
4148	HDRSetting	int8u
4152	ExposureCompensation	int16s
4174	PictureProfile	int8u
4175	PictureProfile	int8u
4179	PictureEffect2	int8u
4192	Quality2	int8u
4196	MeteringMode	int8u
4197	ExposureProgram	int8u
4204	WB_RGBLevels	int16u[3]
4404	FocalLength	int16u
4406	MinFocalLength	int16u
4408	MaxFocalLength	int16u
4412	SonyISO	int16u
6444	AspectRatio	int8u

Sony Tag2010g Tags

Valid for DSC−HX60V/HX350/HX400V/QX30/RX10/RX100M3/WX220/WX350, ILCE−7/7R/7S/7M2/5000/5100/6000/QX1, ILCA−68/77M2.

Index1	Tag Name	Writable
4	ReleaseMode2	int32u
80	DynamicRangeOptimizer	int8u
524	ReleaseMode3	int8u
528	ReleaseMode2	int8u
536	SelfTimer	int8u
540	FlashMode	int8u
546	StopsAboveBaseISO	int16u
548	BrightnessValue	int16u
552	DynamicRangeOptimizer	int8u
556	HDRSetting	int8u
560	ExposureCompensation	int16s
582	PictureProfile	int8u
583	PictureProfile	int8u
587	PictureEffect2	int8u
600	Quality2	int8u
604	MeteringMode	int8u
605	ExposureProgram	int8u
612	WB_RGBLevels	int16u[3]
812	FocalLength	int16u
814	MinFocalLength	int16u
816	MaxFocalLength	int16u
836	SonyISO	int16u

904	MeterInfo?	Sony MeterInfo
6300	DistortionCorrParams	int16s[16]
6333	LensFormat	int8u
6334	LensMount	int8u
6335	LensType2	int16u
6338	LensType	int16u
6340	DistortionCorrParamsPresent	int8u
6341	DistortionCorrParamsNumber	int8u
6488	AspectRatio	int8u

Sony Tag2010h Tags

Valid for DSC−HX80/HX90V/RX0/RX1RM2/RX10M2/RX10M3/RX100M4/RX100M5/WX500, ILCE−6300/6500/7RM2/7SM2, ILCA−99M2.

Index1	Tag Name	Writable
4	ReleaseMode2	int32u
80	DynamicRangeOptimizer	int8u
524	ReleaseMode3	int8u
528	ReleaseMode2	int8u
536	SelfTimer	int8u
540	FlashMode	int8u
546	StopsAboveBaseISO	int16u
548	BrightnessValue	int16u
552	DynamicRangeOptimizer	int8u
556	HDRSetting	int8u
560	ExposureCompensation	int16s
582	PictureProfile	int8u
583	PictureProfile	int8u
587	PictureEffect2	int8u
600	Quality2	int8u
604	MeteringMode	int8u
605	ExposureProgram	int8u
612	WB_RGBLevels	int16u[3]
812	FocalLength	int16u
814	MinFocalLength	int16u
816	MaxFocalLength	int16u
838	SonyISO	int16u
904	MeterInfo?	Sony MeterInfo
920	MeterInfo?	Sony MeterInfo
6348	DistortionCorrParams	int16s[16]
6381	LensFormat	int8u
6382	LensMount	int8u
6383	LensType2	int16u
6386	LensType	int16u
6388	DistortionCorrParamsPresent	int8u
6389	DistortionCorrParamsNumber	int8u
6444	AspectRatio	int8u

Sony Tag2010i Tags

Valid for ILCE−6100/6400/6600/7C/7M3/7RM3/7RM4/9/9M2, DSC−RX0M2/RX10M4/RX100M6/RX100M5A/RX100M7/HX99.

Index1	Tag Name	Writable
4	ReleaseMode2	int32u
78	DynamicRangeOptimizer	int8u
516	ReleaseMode3	int8u
520	ReleaseMode2	int8u
528	SelfTimer	int8u
529	FlashMode	int8u
535	StopsAboveBaseISO	int16u
537	BrightnessValue	int16u
539	DynamicRangeOptimizer	int8u
543	HDRSetting	int8u
547	ExposureCompensation	int16s
567	PictureProfile	int8u
568	PictureProfile	int8u
572	PictureEffect2	int8u
583	Quality2	int8u
587	MeteringMode	int8u
588	ExposureProgram	int8u
594	WB_RGBLevels	int16u[3]
778	FocalLength	int16u
780	MinFocalLength	int16u
782	MaxFocalLength	int16u
800	SonyISO	int16u
877	MeterInfo?	Sony MeterInfo9
6096	DistortionCorrParams	int16s[16]
6129	LensFormat	int8u
6130	LensMount	int8u
6131	LensType2	int16u
6134	LensType	int16u
6136	DistortionCorrParamsPresent	int8u
6137	DistortionCorrParamsNumber	int8u
6284	AspectRatio	int8u

Sony MeterInfo9 Tags

Information possibly related to metering. Extracted only if the Unknown option is used.

Index1	Tag Name	Writable
0	MeterInfo1Row1	no
90	MeterInfo1Row2	no
180	MeterInfo1Row3	no
270	MeterInfo1Row4	no
360	MeterInfo1Row5	no
450	MeterInfo1Row6	no
540	MeterInfo1Row7	no
630	MeterInfo2Row1	no
740	MeterInfo2Row2	no
850	MeterInfo2Row3	no
960	MeterInfo2Row4	no
1070	MeterInfo2Row5	no
1180	MeterInfo2Row6	no
1290	MeterInfo2Row7	no
1400	MeterInfo2Row8	no
1510	MeterInfo2Row9	no

Sony Tag202a Tags

Index1	Tag Name	Writable
1	FocalPlaneAFPointsUsed	int8u
2	FocalPlaneAFPointArea	int16u[2]
6	FocalPlaneAFPointLocation1	int16u[2]
10	FocalPlaneAFPointLocation2	int16u[2]
14	FocalPlaneAFPointLocation3	int16u[2]
18	FocalPlaneAFPointLocation4	int16u[2]
22	FocalPlaneAFPointLocation5	int16u[2]
26	FocalPlaneAFPointLocation6	int16u[2]
30	FocalPlaneAFPointLocation7	int16u[2]
34	FocalPlaneAFPointLocation8	int16u[2]
38	FocalPlaneAFPointLocation9	int16u[2]
42	FocalPlaneAFPointLocation10	int16u[2]
46	FocalPlaneAFPointLocation11	int16u[2]
50	FocalPlaneAFPointLocation12	int16u[2]
54	FocalPlaneAFPointLocation13	int16u[2]
58	FocalPlaneAFPointLocation14	int16u[2]
62	FocalPlaneAFPointLocation15	int16u[2]

Sony HiddenInfo Tags

Index4	Tag Name	Writable
0	HiddenDataOffset	int32u
1	HiddenDataLength	int32u

Sony ShotInfo Tags

Index1	Tag Name	Writable
2	FaceInfoOffset	no
6	SonyDateTime	string[20]
26	SonyImageHeight	int16u
28	SonyImageWidth	int16u
48	FacesDetected	int16u
50	FaceInfoLength	no
52	MetaVersion	string[16]
72	FaceInfo1	Sony FaceInfo1
94	FaceInfo2	Sony FaceInfo2

Sony FaceInfo1 Tags

Index1	Tag Name	Writable
0	Face1Position	int16u[4]
32	Face2Position	int16u[4]
64	Face3Position	int16u[4]
96	Face4Position	int16u[4]
128	Face5Position	int16u[4]
160	Face6Position	int16u[4]
192	Face7Position	int16u[4]
224	Face8Position	int16u[4]

Sony FaceInfo2 Tags

Index1	Tag Name	Writable
0	Face1Position	int16u[4]
37	Face2Position	int16u[4]
74	Face3Position	int16u[4]
111	Face4Position	int16u[4]
148	Face5Position	int16u[4]
185	Face6Position	int16u[4]
222	Face7Position	int16u[4]
259	Face8Position	int16u[4]

Sony Tag900b Tags

Index1	Tag Name	Writable
2	FacesDetected	no
189	FaceDetection	no

Sony Tag9050a Tags

Data for tags 0x9050, 0x94xx and 0x2010 is encrypted by a simple substitution cipher, but the deciphered values are listed below.

Index1	Tag Name	Writable
0	SonyMaxAperture	int8u
1	SonyMinAperture	int8u
32	Shutter	int16u[3]
49	FlashStatus	int8u
50	ShutterCount	int32u
58	SonyExposureTime	int16u
60	SonyFNumber	int16u
63	ReleaseMode2	int8u
76	ShutterCount2	int32u
81	SonyDateTime2	undef[6]
103	ReleaseMode2	int8u
124	InternalSerialNumber	int8u[4]~
240	InternalSerialNumber	int8u[5]
261	LensMount	int8u
262	LensFormat	int8u
263	LensType2	int16u
265	LensType	int16u
267	DistortionCorrParamsPresent	int8u
276	APS-CSizeCapture	int8u
277	LensSpecFeatures	undef[2]
278	LensSpecFeatures	undef[2]
416	ShutterCount3	int32u
426	ShutterCount3	int32u
445	ShutterCount3	int32u

Sony Tag9050b Tags

Valid from July 2015 for ILCE-6100/6300/6400/6500/6600/7C/7M3/7RM2/7RM3/7RM4/ 7SM2/9/9M2, ILCA-99M2.

Index1	Tag Name	Writable
0	SonyMaxAperture	int8u
1	SonyMinAperture	int8u
38	Shutter	int16u[3]
57	FlashStatus	int8u
58	ShutterCount	int32u
70	SonyExposureTime	int16u
72	SonyFNumber	int16u
75	ReleaseMode2	int8u
80	ShutterCount2	int32u
82	ShutterCount2	int32u
88	ShutterCount2	int32u
97	SonyTimeMinSec	no
107	ReleaseMode2	int8u
109	ReleaseMode2	int8u
115	ReleaseMode2	int8u
136	InternalSerialNumber	int8u[6]~
261	LensMount	int8u
262	LensFormat	int8u
263	LensType2	int16u
265	LensType	int16u
267	DistortionCorrParamsPresent	int8u
276	APS-CSizeCapture	int8u
278	LensSpecFeatures	undef[2]
415	ShutterCount3	int32u
459	ShutterCount3	int32u
461	ShutterCount3	int32u
491	APS-CSizeCapture	int8u
493	LensSpecFeatures	undef[2]
494	APS-CSizeCapture	int8u
496	LensSpecFeatures	undef[2]
538	APS-CSizeCapture	int8u
540	LensSpecFeatures	undef[2]
	APS-CSizeCapture	int8u
542	LensSpecFeatures	undef[2]

Sony Tag9050c Tags

Valid from July 2020 for ILCE-1/7SM3, ILME-FX3.

Index1	Tag Name	Writable
38	Shutter	int16u[3]
57	FlashStatus	int8u
58	ShutterCount	int32u
70	SonyExposureTime	int16u
72	SonyFNumber	int16u
75	ReleaseMode2	int8u
80	ShutterCount2	int32u
102	SonyExposureTime	int16u
104	SonyFNumber	int16u
107	ReleaseMode2	int8u
136	InternalSerialNumber	int8u[6]~
138	InternalSerialNumber	int8u[6]~

Sony Tag9050d Tags

Valid for ILCE−6700/7CM2/7CR/ZV−E1. Also for ILCE−1M2/7M5/7RM6 when using mechanical shutter.

Index1	Tag Name	Writable
10	ShutterCount	int32u
26	SonyExposureTime	int16u
28	SonyFNumber	int16u
31	ReleaseMode2	int8u
56	InternalSerialNumber	int8u[6]˜

Sony Tag9400a Tags

Valid for many DSC, NEX and SLT models

Index1	Tag Name	Writable
8	SequenceImageNumber	int32u
12	SequenceFileNumber	int32u
16	ReleaseMode2	int8u
18	DigitalZoom	int8u
26	ShotNumberSincePowerUp	int32u
34	SequenceLength	int8u
40	CameraOrientation	int8u
41	Quality2	int8u
68	SonyImageHeight	int16u˜
82	ModelReleaseYear	int8u˜

Sony Tag9400b Tags

Valid for NEX−3N, ILCE−3000/3500, SLT−A58, DSC−WX60, DSC−WX300, DSC−RX100M2, DSC−HX50V, DSC−QX10/QX100.

Index1	Tag Name	Writable
8	SequenceImageNumber	int32u
12	SequenceFileNumber	int32u
16	ReleaseMode2	int8u
18	DigitalZoom	int8u
22	ShotNumberSincePowerUp	int32u
30	SequenceLength	int8u
36	CameraOrientation	int8u
37	Quality2	int8u
63	SonyImageHeight	int16u˜
70	ModelReleaseYear	int8u˜

Sony Tag9400c Tags

Valid for DSC−HX60V/HX80/HX90V/HX99/HX350/HX400V/QX30/RX0/RX1RM2/RX10/RX10M2/RX10M3/RX10M4/RX100M3/RX100M4/RX100M5/RX100M5A/RX100M6/RX100M7/WX220/WX350/WX500, ILCE−1/7/7C/7R/7S/7M2/7M3/7RM2/7RM3/7RM4/7SM2/7SM3/9/9M2/5000/5100/6000/6100/6300/6400/6500/6600/QX1, ILCA−68/77M2/99M2.

Index1	Tag Name	Writable
9	ReleaseMode2	int8u
10	ShotNumberSincePowerUp	int32u
18	SequenceImageNumber	int32u
22	SequenceLength	int8u
26	SequenceFileNumber	int32u
30	SequenceLength	int8u
41	CameraOrientation	int8u
42	Quality2	int8u
83	ModelReleaseYear	int8u~
307	ShutterType	int8u
313	ShutterType	int8u
319	ShutterType	int8u

Sony Tag9401 Tags

Index1	Tag Name	Writable
994	ISOInfo	Sony ISOInfo
1012	ISOInfo	Sony ISOInfo
1102	ISOInfo	Sony ISOInfo
1107	ISOInfo	Sony ISOInfo
1176	ISOInfo	Sony ISOInfo
1181	ISOInfo	Sony ISOInfo
1182	ISOInfo	Sony ISOInfo
1185	ISOInfo	Sony ISOInfo
1186	ISOInfo	Sony ISOInfo
1210	ISOInfo	Sony ISOInfo
1437	ISOInfo	Sony ISOInfo
1588	ISOInfo	Sony ISOInfo
1590	ISOInfo	Sony ISOInfo
1612	ISOInfo	Sony ISOInfo
1619	ISOInfo	Sony ISOInfo
1656	ISOInfo	Sony ISOInfo
1720	ISOInfo	Sony ISOInfo
1758	ISOInfo	Sony ISOInfo
1767	ISOInfo	Sony ISOInfo

Sony ISOInfo Tags

Index1	Tag Name	Writable
0	ISOSetting	int8u
2	ISOAutoMin	int8u
4	ISOAutoMax	int8u

Sony Tag9402 Tags

Index1	Tag Name	Writable
4	AmbientTemperature	int8s
22	FocusMode	int8u & 0x7f
23	AFAreaMode	int8u
45	FocusPosition2	int8u

Sony Tag9403 Tags

Index1	Tag Name	Writable
5	CameraTemperature	int8s

Sony Tag9404a Tags

Index1	Tag Name	Writable
11	ExposureProgram	int8u
13	IntelligentAuto	int8u
25	LensZoomPosition	int16u

Sony Tag9404b Tags

Index1	Tag Name	Writable
12	ExposureProgram	int8u
14	IntelligentAuto	int8u
30	LensZoomPosition	int16u
32	FocusPosition2	int8u

Sony Tag9404c Tags

Index1	Tag Name	Writable
11	ExposureProgram	int8u
13	IntelligentAuto	int8u

Sony Tag9405a Tags

Valid for SLT, NEX, ILCE−3000/3500 and several DSC models.

Index1	Tag Name	Writable
1536	DistortionCorrParamsPresent	int8u
1537	DistortionCorrection	int8u
1539	LensFormat	int8u
1540	LensMount	int8u
1541	LensType2	int16u
1544	LensType	int16u
1610	VignettingCorrParams	int16s[16]
1642	ChromaticAberrationCorrParams	int16s[32]
1738	DistortionCorrParams	int16s[16]

Sony Tag9405b Tags

Valid for DSC−HX60V/HX80/HX90V/HX99/HX350/HX400V/QX30/RX0/RX10/RX10M2/RX10M3/RX10M4/RX100M3/RX100M4/RX100M5/RX100M5A/RX100M6/RX100M7/WX220/WX350, ILCE−7/7M2/7M3/7R/7RM2/7RM3/7RM4/7S/7SM2/9/9M2/5000/5100/6000/6100/6300/6400/6500/6600/QX1, ILCA−68/77M2/99M2.

Index1	Tag Name	Writable
4	SonyISO	int16u
6	BaseISO	int16u
10	StopsAboveBaseISO	int16u
14	SonyExposureTime2	int16u
16	ExposureTime	rational32u
20	SonyFNumber	int16u
22	SonyMaxApertureValue	int16u
36	SequenceImageNumber	int32u
52	ReleaseMode2	int8u

62	SonyImageWidthMax	int16u
64	SonyImageHeightMax	int16u
66	HighISONoiseReduction	int8u
68	LongExposureNoiseReduction	int8u
70	PictureEffect2	int8u
72	ExposureProgram	int8u
74	CreativeStyle	int8u
82	Sharpness	int8s
90	DistortionCorrParamsPresent	int8u
91	DistortionCorrection	int8u
93	LensFormat	int8u
94	LensMount	int8u
96	LensType2	int16u
98	LensType	int16u
100	DistortionCorrParams	int16s[16]
834	LensZoomPosition	int16u
842	VignettingCorrParams	int16s[16]
846	LensZoomPosition	int16u
848	VignettingCorrParams	int16s[16]
858	LensZoomPosition	int16u
860	VignettingCorrParams	int16s[16]
872	VignettingCorrParams	int16s[16]
892	ChromaticAberrationCorrParams	int16s[32]
900	ChromaticAberrationCorrParams	int16s[32]
924	ChromaticAberrationCorrParams	int16s[32]
944	ChromaticAberrationCorrParams	int16s[32]
952	ChromaticAberrationCorrParams	int16s[32]

Sony Tag9406 Tags

Index1	Tag Name	Writable
5	BatteryTemperature	int8u
6	BatteryLevelGrip1	int8u
7	BatteryLevel	int8u
8	BatteryLevelGrip2	int8u

Sony Tag9406b Tags

Index1	Tag Name	Writable
5	BatteryLevel	int8u
7	BatteryLevel2	int8u

Sony Tag940a Tags

These tags are currently extracted for SLT models only.

Index1	Tag Name	Writable
4	AFPointsSelected	int32u

Sony Tag940c Tags

E−mount cameras only.

Index1	Tag Name	Writable
8	LensMount2	int8u
9	LensType3	int16u
11	CameraE-mountVersion	int16u
13	LensE-mountVersion	int16u
20	LensFirmwareVersion	int16u~

Sony AFInfo Tags

These tags are currently extracted for SLT models only.

Index1	Tag Name	Writable
2	AFType	int8u
4	AFStatusActiveSensor	int16s
5	FocusMode	int8u
7	AFPoint	int8u
8	AFPointInFocus	int8u
9	AFPointAtShutterRelease	int8u
10	AFAreaMode	int8u
11	FocusMode	int8u
16	AFPointsUsed	int8u[10]
17	AFStatus15	Sony AFStatus15
	AFStatus19	Sony AFStatus19
55	AFPoint	int8u
56	AFPointInFocus	int8u
57	AFPointAtShutterRelease	int8u
58	AFAreaMode	int8u
59	AFStatusActiveSensor	int16s
67	ExposureProgram	int8u
80	AFMicroAdj	int8s
125	AFStatus79	Sony AFStatus79
366	AFPointsUsed	int32u
381	AFMicroAdj	int8s
382	ExposureProgram	int8u

Sony AFStatus19 Tags

AF Status information for models with 19-point AF.

Index1	Tag Name	Writable
0	AFStatusUpperFarLeft	int16s
2	AFStatusUpper-leftHorizontal	int16s
4	AFStatusFarLeftHorizontal	int16s
6	AFStatusLeftHorizontal	int16s
8	AFStatusLowerFarLeft	int16s
10	AFStatusLower-leftHorizontal	int16s
12	AFStatusUpper-leftVertical	int16s
14	AFStatusLeftVertical	int16s
16	AFStatusLower-leftVertical	int16s
18	AFStatusFarLeftVertical	int16s
20	AFStatusTopHorizontal	int16s
22	AFStatusNearRight	int16s
24	AFStatusCenterHorizontal	int16s
26	AFStatusNearLeft	int16s
28	AFStatusBottomHorizontal	int16s

30	AFStatusTopVertical	int16s
32	AFStatusUpper−middle	int16s
34	AFStatusCenterVertical	int16s
36	AFStatusLower−middle	int16s
38	AFStatusBottomVertical	int16s
40	AFStatusUpperFarRight	int16s
42	AFStatusUpper−rightHorizontal	int16s
44	AFStatusFarRightHorizontal	int16s
46	AFStatusRightHorizontal	int16s
48	AFStatusLowerFarRight	int16s
50	AFStatusLower−rightHorizontal	int16s
52	AFStatusFarRightVertical	int16s
54	AFStatusUpper−rightVertical	int16s
56	AFStatusRightVertical	int16s
58	AFStatusLower−rightVertical	int16s

Sony AFStatus79 Tags

AF Status information for models with 79−point AF.

Index1	Tag Name	Writable
0	AFStatus_00_B4	int16s
2	AFStatus_01_C4	int16s
4	AFStatus_02_D4	int16s
6	AFStatus_03_E4	int16s
8	AFStatus_04_F4	int16s
10	AFStatus_05_G4	int16s
12	AFStatus_06_H4	int16s
14	AFStatus_07_B3	int16s
16	AFStatus_08_C3	int16s
18	AFStatus_09_D3	int16s
20	AFStatus_10_E3	int16s
22	AFStatus_11_F3	int16s
24	AFStatus_12_G3	int16s
26	AFStatus_13_H3	int16s
28	AFStatus_14_B2	int16s
30	AFStatus_15_C2	int16s
32	AFStatus_16_D2	int16s
34	AFStatus_17_E2	int16s
36	AFStatus_18_F2	int16s
38	AFStatus_19_G2	int16s
40	AFStatus_20_H2	int16s
42	AFStatus_21_C1	int16s
44	AFStatus_22_D1	int16s
46	AFStatus_23_E1	int16s
48	AFStatus_24_F1	int16s
50	AFStatus_25_G1	int16s
52	AFStatus_26_A7_Vertical	int16s
54	AFStatus_27_A6_Vertical	int16s
56	AFStatus_28_A5_Vertical	int16s
58	AFStatus_29_C7_Vertical	int16s
60	AFStatus_30_C6_Vertical	int16s
62	AFStatus_31_C5_Vertical	int16s
64	AFStatus_32_E7_Vertical	int16s
66	AFStatus_33_E6_Center_Vertical	int16s

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 68    AFStatus_34_E5_Vertical             int16s
 70    AFStatus_35_G7_Vertical             int16s
 72    AFStatus_36_G6_Vertical             int16s
 74    AFStatus_37_G5_Vertical             int16s
 76    AFStatus_38_I7_Vertical             int16s
 78    AFStatus_39_I6_Vertical             int16s
 80    AFStatus_40_I5_Vertical             int16s
 82    AFStatus_41_A7                      int16s
 84    AFStatus_42_B7                      int16s
 86    AFStatus_43_C7                      int16s
 88    AFStatus_44_D7                      int16s
 90    AFStatus_45_E7                      int16s
 92    AFStatus_46_F7                      int16s
 94    AFStatus_47_G7                      int16s
 96    AFStatus_48_H7                      int16s
 98    AFStatus_49_I7                      int16s
100    AFStatus_50_A6                      int16s
102    AFStatus_51_B6                      int16s
104    AFStatus_52_C6                      int16s
106    AFStatus_53_D6                      int16s
108    AFStatus_54_E6_Center               int16s
110    AFStatus_55_F6                      int16s
112    AFStatus_56_G6                      int16s
114    AFStatus_57_H6                      int16s
116    AFStatus_58_I6                      int16s
118    AFStatus_59_A5                      int16s
120    AFStatus_60_B5                      int16s
122    AFStatus_61_C5                      int16s
124    AFStatus_62_D5                      int16s
126    AFStatus_63_E5                      int16s
128    AFStatus_64_F5                      int16s
130    AFStatus_65_G5                      int16s
132    AFStatus_66_H5                      int16s
134    AFStatus_67_I5                      int16s
136    AFStatus_68_C11                     int16s
138    AFStatus_69_D11                     int16s
140    AFStatus_70_E11                     int16s
142    AFStatus_71_F11                     int16s
144    AFStatus_72_G11                     int16s
146    AFStatus_73_B10                     int16s
148    AFStatus_74_C10                     int16s
150    AFStatus_75_D10                     int16s
152    AFStatus_76_E10                     int16s
154    AFStatus_77_F10                     int16s
156    AFStatus_78_G10                     int16s
158    AFStatus_79_H10                     int16s
160    AFStatus_80_B9                      int16s
162    AFStatus_81_C9                      int16s
164    AFStatus_82_D9                      int16s
166    AFStatus_83_E9                      int16s
168    AFStatus_84_F9                      int16s
170    AFStatus_85_G9                      int16s
172    AFStatus_86_H9                      int16s
174    AFStatus_87_B8                      int16s
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176	AFStatus_88_C8	int16s
178	AFStatus_89_D8	int16s
180	AFStatus_90_E8	int16s
182	AFStatus_91_F8	int16s
184	AFStatus_92_G8	int16s
186	AFStatus_93_H8	int16s
188	AFStatus_94_E6_Center_F2-8	int16s

Sony Tag940e Tags

E−mount models.

Index1	Tag Name	Writable
6662	TiffMeteringImageWidth	no
6663	TiffMeteringImageHeight	no
6664	TiffMeteringImage	no

Sony Tag9416 Tags

Valid for the ILCE−1/6700/7CM2/7CR/7M4/7M5/7RM5/7RM6/7SM3/9M3, ILME−FX2/FX3/FX30, ZV−E1/E10M2, but ILCE−7M5 has different offsets.

Index1	Tag Name	Writable
4	SonyISO	no
6	StopsAboveBaseISO	no
10	SonyExposureTime2	no
12	ExposureTime	no
16	SonyFNumber2	no
18	SonyMaxApertureValue	no
29	SequenceImageNumber	no
43	ReleaseMode2	no
53	ExposureProgram	no
55	CreativeStyle	no
72	LensMount	no
73	LensFormat	no
74	LensMount	no
75	LensType2	no
77	LensType	no
79	DistortionCorrParams	no
112	PictureProfile	no
113	FocalLength	no
115	MinFocalLength	no
117	MaxFocalLength	no
1794	VignettingCorrParams	no
1800	VignettingCorrParams	no
1866	APS−CSizeCapture	no
1871	APS−CSizeCapture	no
2107	ChromaticAberrationCorrParams	no
2115	ChromaticAberrationCorrParams	no
2191	VignettingCorrParams	no
2193	VignettingCorrParams	no
2205	VignettingCorrParams	no
2229	APS−CSizeCapture	no
2231	APS−CSizeCapture	no
2277	APS−CSizeCapture	no
2324	ChromaticAberrationCorrParams	no

2326	ChromaticAberrationCorrParams	no
2373	ChromaticAberrationCorrParams	no

Sony PIC Tags

The TextInfo data is extracted as a block to preserve the formatting, and some of the more interesting information is extracted as separate tags.

Tag ID	Tag Name	Writable
'BC:'	Barcode	no
'BarCode:'	Barcode	no
'Capt:'	SensorTemperature	no
'FWVer:'	FirmwareVersion	no
'IFD'	PIC_IFD	Sony
'Temp:'	CameraTemperature	no
'Temp:Clbt:'	BoardTemperature	no
'TextInfo1'	TextInfo1	no
'TextInfo2'	TextInfo2	no
'VR Enable C:'	VibrationReduction	no
'barcode:'	Barcode	no

Sony Ericsson Tags

Maker notes found in images from some Sony Ericsson phones.

Tag ID	Tag Name	Writable
0x0201	PreviewImageStart	int32u*
0x0202	PreviewImageLength	int32u*
0x2000	MakerNoteVersion	undef[4]

Sony SRF Tags

The maker notes in SRF (Sony Raw Format) images contain 7 IFD's with family 1 group names SRF0 through SRF6. SRF0 and SRF1 use the tags in this table, while SRF2 through SRF5 use the tags in the next table, and SRF6 uses standard EXIF tags. All information other than SRF0 is encrypted, but thanks to Dave Coffin the decryption algorithm is known. SRF images are written by the Sony DSC−F828 and DSC−V3.

Tag ID	Tag Name	Writable
0x0000	SRF2Key	no
0x0001	DataKey	no

Sony SR2Private Tags

The SR2 format uses the DNGPrivateData tag to reference a private IFD containing these tags. SR2 images are written by the Sony DSC−R1, but this information is also written to ARW images by other models.

Tag ID	Tag Name	Writable
0x7200	SR2SubIFDOffset	no
0x7201	SR2SubIFDLength	no
0x7221	SR2SubIFDKey	no
0x7240	IDC_IFD	SonyIDC
0x7241	IDC2_IFD	SonyIDC
0x7250	MRWInfo	MinoltaRaw

Sony SRF2 Tags

These tags are found in the SRF2 through SRF5 IFD's.

Tag ID	Tag Name	Writable
0x0002	SRF6Offset	no
0x0003	SRFDataOffset?	no
0x0004	RawDataOffset	no
0x0005	RawDataLength	no
0x0043	MaxApertureAtMaxFocal	no
0x0044	MaxApertureAtMinFocal	no
0x0045	MinFocalLength	no
0x0046	MaxFocalLength	no
0x00c0	WBRedDaylight	no
0x00c1	WBGreenDaylight	no
0x00c2	WBBlueDaylight	no
0x00c3	WBRedCloudy	no
0x00c4	WBGreenCloudy	no
0x00c5	WBBlueCloudy	no
0x00c6	WBRedFluorescent	no
0x00c7	WBGreenFluorescent	no
0x00c8	WBBlueFluorescent	no
0x00c9	WBRedTungsten	no
0x00ca	WBGreenTungsten	no
0x00cb	WBBlueTungsten	no
0x00cc	WBRedFlash	no
0x00cd	WBGreenFlash	no
0x00ce	WBBlueFlash	no
0x00d0	WBRedAsShot	no
0x00d1	WBGreenAsShot	no
0x00d2	WBBlueAsShot	no

Sony SR2SubIFD Tags

Tags in the encrypted SR2SubIFD

Tag ID	Tag Name	Writable
0x7300	BlackLevel	int16u[4]!
0x7302	WB_GRBGLevelsAuto	int16s[4]!
0x7303	WB_GRBGLevels	int16s[4]!
0x7310	BlackLevel	int16u[4]!
0x7312	WB_RGGBLevelsAuto	int16s[4]!
0x7313	WB_RGGBLevels	int16s[4]!
0x7480	WB_RGBLevelsDaylight	int16s[4]!
0x7481	WB_RGBLevelsCloudy	int16s[4]!
0x7482	WB_RGBLevelsTungsten	int16s[4]!
0x7483	WB_RGBLevelsFlash	int16s[4]!
0x7484	WB_RGBLevels4500K	int16s[4]!
0x7486	WB_RGBLevelsFluorescent	int16s[4]!
0x74a0	MaxApertureAtMaxFocal	no
0x74a1	MaxApertureAtMinFocal	no
0x74a2	MaxFocalLength	no
0x74a3	MinFocalLength	no
0x74c0	SR2DataIFD	Sony SR2DataIFD
0x7800	ColorMatrix	no
0x7820	WB_RGBLevelsDaylight	int16s[3]!
0x7821	WB_RGBLevelsCloudy	int16s[3]!
0x7822	WB_RGBLevelsTungsten	int16s[3]!

0x7823	WB_RGBLevelsFlash	int16s[3]!
0x7824	WB_RGBLevels4500K	int16s[3]!
0x7825	WB_RGBLevelsShade	int16s[3]!
0x7826	WB_RGBLevelsFluorescent	int16s[3]!
0x7827	WB_RGBLevelsFluorescentP1	int16s[3]!
0x7828	WB_RGBLevelsFluorescentP2	int16s[3]!
0x7829	WB_RGBLevelsFluorescentM1	int16s[3]!
0x782a	WB_RGBLevels8500K	int16s[3]!
0x782b	WB_RGBLevels6000K	int16s[3]!
0x782c	WB_RGBLevels3200K	int16s[3]!
0x782d	WB_RGBLevels2500K	int16s[3]!
0x787f	WhiteLevel	int16u[3]!
0x797d	VignettingCorrParams	no
0x7980	ChromaticAberrationCorrParams	no
0x7982	DistortionCorrParams	no

Sony SR2DataIFD Tags

Tag ID	Tag Name	Writable
0x7770	ColorMode	no

Sony PMP Tags

These tags are written in the proprietary-format header of PMP images from the DSC−F1.

Index1	Tag Name	Writable
8	JpgFromRawStart	no
12	JpgFromRawLength	no
22	SonyImageWidth	no
24	SonyImageHeight	no
27	Orientation	no
29	ImageQuality	no
52	Comment	no
76	DateTimeOriginal	no
84	ModifyDate	no
102	ExposureTime	no
106	FNumber	no
108	ExposureCompensation	no
112	FocalLength	no
118	Flash	no

Sony rtmd Tags

These tags are extracted from the ’rtmd’ timed metadata of MP4 videos from some models when the ExtractEmbedded option is used.

Tag ID	Tag Name	Writable
0x8000	FNumber	no
0x8106	FrameRate	no
0x8109	ExposureTime	no
0x810a	MasterGainAdjustment	no
0x810b	ISO	no
0x810c	ElectricalExtenderMagnification	no
0x8114	SerialNumber	no
0x8500	GPSVersionID	no
0x8501	GPSLatitudeRef	no

0x8502	GPSLatitude	no
0x8503	GPSLongitudeRef	no
0x8504	GPSLongitude	no
0x8507	GPSTimeStamp	no
0x8509	GPSStatus	no
0x850a	GPSMeasureMode	no
0x8512	GPSMapDatum	no
0x851d	GPSDateStamp	no
0xe303	WhiteBalance	no
0xe304	DateTime	no
0xe43b	PitchRollYaw	no
0xe44b	Accelerometer	no

SonyIDC Tags

Tags written by the Sony Image Data Converter utility in ARW images.

Tag ID	Tag Name	Writable
0x0201	IDCPreviewStart	int32u*
0x0202	IDCPreviewLength	int32u*
0x8000	IDCCreativeStyle	int32u
0x8001	CreativeStyleWasChanged	int32u
0x8002	PresetWhiteBalance	int32u
0x8013	ColorTemperatureAdj	int16u
0x8014	PresetWhiteBalanceAdj	int32s
0x8015	ColorCorrection	int32s
0x8016	SaturationAdj	int32s
0x8017	ContrastAdj	int32s
0x8018	BrightnessAdj	int32s
0x8019	HueAdj	int32s
0x801a	SharpnessAdj	int32s
0x801b	SharpnessOvershoot	int32s
0x801c	SharpnessUndershoot	int32s
0x801d	SharpnessThreshold	int32s
0x801e	NoiseReductionMode	int16u
0x8021	GrayPoint	int16u[4]
0x8022	D-RangeOptimizerMode	int16u
0x8023	D-RangeOptimizerValue	int32s
0x8024	D-RangeOptimizerHighlight	int32s
0x8026	HighlightColorDistortReduct	int16u
0x8027	NoiseReductionValue	int32s
0x8028	EdgeNoiseReduction	int32s
0x8029	ColorNoiseReduction	int32s
0x802d	D-RangeOptimizerShadow	int32s
0x8030	PeripheralIllumCentralRadius	int32s
0x8031	PeripheralIllumCentralValue	int32s
0x8032	PeripheralIllumPeriphValue	int32s
0x8040	DistortionCompensation	int32s
0x9000	ToneCurveBrightnessX	int16u[n]
0x9001	ToneCurveRedX	int16u[n]
0x9002	ToneCurveGreenX	int16u[n]
0x9003	ToneCurveBlueX	int16u[n]
0x9004	ToneCurveBrightnessY	int16u[n]
0x9005	ToneCurveRedY	int16u[n]
0x9006	ToneCurveGreenY	int16u[n]
0x9007	ToneCurveBlueY	int16u[n]

0x900d	ChromaticAberrationCorrection	int32s
0x900e	InclinationCorrection	int32u
0x900f	InclinationAngle	int32s
0x9010	Cropping	int32u
0x9011	CropArea	int32u[4]
0x9012	PreviewImageSize	int32u[2]
0x9013	PxShiftPeriphEdgeNR	int32s
0x9014	PxShiftPeriphEdgeNRValue	int32s
0x9017	WhitesAdj	int32s
0x9018	BlacksAdj	int32s
0x9019	HighlightsAdj	int32s
0x901a	ShadowsAdj	int32s
0xd000	CurrentVersion	int32u
0xd001	VersionIFD	SonyIDC
0xd100	VersionCreateDate	string
0xd101	VersionModifyDate	string

Unknown Tags

The following tags are decoded in unsupported maker notes. Use the Unknown (−u) option to display other unknown tags.

Tag ID	Tag Name	Writable
0x0e00	PrintIM	PrintIM

DNG Tags

The main DNG tags are found in the EXIF table. The tables below define only information found within structures of these main DNG tag values. See <https://helpx.adobe.com/camera−raw/digital−negative.html> for the official DNG specification.

DNG AdobeData Tags

This information is found in the ‘‘Adobe’’ DNGPrivateData.

The maker notes (’MakN’) are processed by ExifTool, but some information may have been lost by the Adobe DNG Converter. This is because the Adobe DNG Converter (as of version 6.3) doesn’t properly handle information referenced from inside the maker notes that lies outside the original maker notes block. This information is lost when only the maker note block is copied to the DNG image. While this doesn’t effect all makes of cameras, it is a problem for some major brands such as Olympus and Sony.

Other entries in this table represent proprietary information that is extracted from the original RAW image and restructured to a different (but still proprietary) Adobe format.

Tag ID	Tag Name	Writable
'CRW '	AdobeCRW	CanonRaw
'Koda'	AdobeKoda	Kodak IFD
'Leaf'	AdobeLeaf	Leaf SubIFD
'MRW '	AdobeMRW	MinoltaRaw
'MakN'	MakerNoteApple	Apple
	MakerNoteNikon	Nikon
	MakerNoteCanon	Canon
	MakerNoteCasio	Casio
	MakerNoteCasio2	Casio Type2
	MakerNoteDJIInfo	DJI Info
	MakerNoteDJI	DJI
	MakerNoteFLIR	FLIR
	MakerNoteFujiFilm	FujiFilm
	MakerNoteGE	GE

MakerNoteGE2	FujiFilm
MakerNoteGoogle	Google HDRPlusMakerNote
MakerNoteHasselblad	Unknown
MakerNoteHP	HP
MakerNoteHP2	HP Type2
MakerNoteHP4	HP Type4
MakerNoteHP6	HP Type6
MakerNoteISL	Unknown
MakerNoteJVC	JVC
MakerNoteJVCText	JVC Text
MakerNoteKodak1a	Kodak
MakerNoteKodak1b	Kodak
MakerNoteKodak2	Kodak Type2
MakerNoteKodak3	Kodak Type3
MakerNoteKodak4	Kodak Type4
MakerNoteKodak5	Kodak Type5
MakerNoteKodak6a	Kodak Type6
MakerNoteKodak6b	Kodak Type6
MakerNoteKodak7	Kodak Type7
MakerNoteKodak8a	Kodak Type8
MakerNoteKodak8b	Kodak Type8
MakerNoteKodak8c	Kodak Type8
MakerNoteKodak9	Kodak Type9
MakerNoteKodak10	Kodak Type10
MakerNoteKodak11	Kodak Type11
MakerNoteKodak12	Kodak Type11
MakerNoteKodakUnknown	Kodak Unknown
MakerNoteKyocera	Unknown
MakerNoteMinolta	Minolta
MakerNoteMinolta2	Olympus
MakerNoteMinolta3	undef
MakerNoteMotorola	Motorola
MakerNoteNikon2	Nikon Type2
MakerNoteNikon3	Nikon
MakerNoteNintendo	Nintendo
MakerNoteOlympus	Olympus
MakerNoteOlympus2	Olympus
MakerNoteOlympus3	Olympus
MakerNoteLeica	Panasonic
MakerNoteLeica2	Panasonic Leica2
MakerNoteLeica3	Panasonic Leica3
MakerNoteLeica4	Panasonic Leica4
MakerNoteLeica5	Panasonic Leica5
MakerNoteLeica6	Panasonic Leica6
MakerNoteLeica7	Panasonic Leica6
MakerNoteLeica8	Panasonic Leica5
MakerNoteLeica9	Panasonic Leica9
MakerNoteLeica10	Panasonic
MakerNotePanasonic	Panasonic
MakerNotePanasonic2	Panasonic Type2
MakerNotePanasonic3	Panasonic
MakerNotePentax	Pentax
MakerNotePentax2	Pentax Type2
MakerNotePentax3	Casio Type2

	MakerNotePentax4	Pentax Type4
	MakerNotePentax5	Pentax
	MakerNotePentax6	Pentax S1
	MakerNotePhaseOne	PhaseOne
	MakerNoteReconyxHyperFire	Reconyx HyperFire
	MakerNoteReconyxUltraFire	Reconyx UltraFire
	MakerNoteReconyxHyperFire2	Reconyx HyperFire2
	MakerNoteReconyxMicroFire	Reconyx MicroFire
	MakerNoteReconyxHyperFire4K	Reconyx HyperFire4K
	MakerNoteRicohPentax	Pentax
	MakerNoteRicoh	Ricoh
	MakerNoteRicoh2	Ricoh Type2
	MakerNoteRicohText	Ricoh Text
	MakerNoteSamsung1a	undef
	MakerNoteSamsung1b	Samsung
	MakerNoteSamsung2	Samsung Type2
	MakerNoteSanyo	Sanyo
	MakerNoteSanyoC4	Sanyo
	MakerNoteSanyoPatch	Sanyo
	MakerNoteSigma	Sigma
	MakerNoteSony	Sony
	MakerNoteSony2	Olympus
	MakerNoteSony3	Olympus
	MakerNoteSony4	Sony PIC
	MakerNoteSony5	Sony
	MakerNoteSonyEricsson	Sony Ericsson
	MakerNoteSonySRF	Sony SRF
	MakerNoteUnknownText	undef
	MakerNoteUnknownBinary	undef
	MakerNoteUnknown	Unknown
'Pano'	AdobePano	PanasonicRaw
'RAF '	AdobeRAF	FujiFilm RAF
'SR2 '	AdobeSR2	Sony SR2Private

DNG OriginalRaw Tags

This table defines tags extracted from the DNG OriginalRawFileData information.

Tag ID	Tag Name	Writable
0x0000	OriginalRawImage	no
0x0001	OriginalRawResource	no
0x0002	OriginalRawFileType	no
0x0003	OriginalRawCreator	no
0x0004	OriginalTHMImage	no
0x0005	OriginalTHMResource	no
0x0006	OriginalTHMFileType	no
0x0007	OriginalTHMCreator	no

DNG ImageSeq Tags

Index1	Tag Name	Writable
0	SeqID	no
1	SeqType	no
2	SeqFrameInfo	no
3	SeqIndex	no
7	SeqCount	no
11	SeqFinal	no

DNG ProfileDynamicRange Tags

Index1	Tag Name	Writable
0	PDRVersion	no
2	DynamicRange	no
4	HintMaxOutputValue	no

JSON Tags

Other than a few tags in the table below, JSON tags have not been pre-defined. However, ExifTool will read any existing tags from basic JSON-formatted files.

Tag Name	Writable
AdjustmentsSettingsStatisticsLightMap	no
ON1_SettingsData	PLIST
ON1_SettingsMetadataCreated	no
ON1_SettingsMetadataModified	no
ON1_SettingsMetadataName	no
ON1_SettingsMetadataPluginID	no
ON1_SettingsMetadataTimestamp	no
ON1_SettingsMetadataUsage	no
ON1_SettingsMetadataVisibleToUser	no

CBOR Tags

The tags below are extracted from CBOR (Concise Binary Object Representation) metadata. The C2PA specification uses this format for some metadata. As well as these tags, ExifTool will read any existing tags.

Tag Name	Writable
AuthorIdentifier	no
AuthorName	no
DocumentID	no
Format	no
InstanceID	no
Relationship	no
ThumbnailHash	no+
ThumbnailURL	no
Title	no

PLIST Tags

Apple Property List tags. ExifTool reads both XML and binary-format PLIST files, and will extract any existing tags even if they aren't listed below. These tags belong to the family 0 ''PLIST'' group, but family 1 group may be either ''XML'' or ''PLIST'' depending on whether the format is XML or binary.

```
Tag ID     Tag Name                              Writable
------     --------                              --------
'FrameworkVersions/CMCaptureCore'
           CMCaptureCoreVersion                  no
'FrameworkVersions/CoreMedia'
           CoreMediaVersion                      no
'FrameworkVersions/CoreMotion'
           CoreMotionVersion                     no
'FrameworkVersions/H16ISPServices'
           H16ISPServicesVersion                 no
'LivePhotoMetadataSetupDataVersion'
           LivePhotoMetadataSetupDataVersion     no
'MetaDataList//DateTimeOriginal'
           DateTimeOriginal                      no
'MetaDataList//Duration' Duration                no
'MetaDataList//Geolocation/Latitude'
           GPSLatitude                           no
'MetaDataList//Geolocation/Longitude'
           GPSLongitude                          no
'MetaDataList//Geolocation/MapDatum'
           GPSMapDatum                           no
'SystemVersion/ProductBuildVersion'
           ProductBuildVersion                   no
'SystemVersion/ProductName' ProductName          no
'SystemVersion/ProductVersion' ProductVersion    no
'XMLFileType' XMLFileType                        no
'adjustmentData' AdjustmentData                  PLIST
'cast//name' Cast                                no+
'codirectors//name' Codirectors                  no+
'directors//name' Directors                      no+
'producers//name' Producers                      no+
'screenwriters//name' Screenwriters              no+
'slowMotion/rate' SlowMotionRate                 no
'slowMotion/regions' SlowMotionRegions           no
'slowMotion/regions/timeRange/duration/epoch'
           SlowMotionRegionsDurationEpoch        no
'slowMotion/regions/timeRange/duration/flags'
           SlowMotionRegionsDurationFlags        no
'slowMotion/regions/timeRange/duration/timescale'
           SlowMotionRegionsDurationTimeScale    no
'slowMotion/regions/timeRange/duration/value'
           SlowMotionRegionsDurationValue        no
'slowMotion/regions/timeRange/start/epoch'
           SlowMotionRegionsStartTimeEpoch       no
'slowMotion/regions/timeRange/start/flags'
           SlowMotionRegionsStartTimeFlags       no
'slowMotion/regions/timeRange/start/timescale'
           SlowMotionRegionsStartTimeScale       no
'slowMotion/regions/timeRange/start/value'
           SlowMotionRegionsStartTimeValue       no
'studio//name' Studio                            no+
```

CanonRaw Tags

These tags apply to CRW-format Canon RAW files and information in the APP0 "CIFF" segment of JPEG images. When writing CanonRaw/CIFF information, the length of the information is preserved (and the

new information is truncated or padded as required) unless **Writable** is `resize`. Currently, only JpgFromRaw and ThumbnailImage are allowed to change size. See <https://exiftool.org/canon_raw.html> for a description of the Canon CRW format.

CRW images also support the addition of a CanonVRD trailer, which in turn supports XMP. This trailer is created automatically if necessary when ExifTool is used to write XMP to a CRW image.

Tag ID	Tag Name	Writable
0x0000	NullRecord	undef
0x0001	FreeBytes	undef
0x0032	CanonColorInfo1	no
0x0805	CanonFileDescription	string[32]
	UserComment	string[256]
0x080a	CanonRawMakeModel	CanonRaw MakeModel
0x080b	CanonFirmwareVersion	string[32]
0x080c	ComponentVersion	string
0x080d	ROMOperationMode	string[8]
0x0810	OwnerName	string[32]
0x0815	CanonImageType	string[32]
0x0816	OriginalFileName	string[32]
0x0817	ThumbnailFileName	string[32]
0x100a	TargetImageType	int16u
0x1010	ShutterReleaseMethod	int16u
0x1011	ShutterReleaseTiming	int16u
0x1016	ReleaseSetting	int16u
0x101c	BaseISO	int16u
0x1028	CanonFlashInfo?	int16u[4]
0x1029	CanonFocalLength	Canon FocalLength
0x102a	CanonShotInfo	Canon ShotInfo
0x102c	CanonColorInfo2	no
0x102d	CanonCameraSettings	Canon CameraSettings
0x1030	WhiteSample	CanonRaw WhiteSample
0x1031	SensorInfo	Canon SensorInfo
0x1033	CustomFunctions10D	CanonCustom Functions10D
	CustomFunctionsD30	CanonCustom FunctionsD30
	CustomFunctionsD60	CanonCustom FunctionsD30
	CustomFunctionsUnknown	CanonCustom FuncsUnknown
0x1038	CanonAFInfo	Canon AFInfo
0x1093	CanonFileInfo	Canon FileInfo
0x10a9	ColorBalance	Canon ColorBalance
0x10ae	ColorTemperature	int16u
0x10b4	ColorSpace	int16u
0x10b5	RawJpgInfo	CanonRaw RawJpgInfo
0x1803	ImageFormat	CanonRaw ImageFormat
0x1804	RecordID	int32u
0x1806	SelfTimerTime	int32u
0x1807	TargetDistanceSetting	float
0x180b	SerialNumber	int32u
	UnknownNumber?	yes
0x180e	TimeStamp	CanonRaw TimeStamp
0x1810	ImageInfo	CanonRaw ImageInfo
0x1813	FlashInfo	CanonRaw FlashInfo
0x1814	MeasuredEV	float
0x1817	FileNumber	int32u
0x1818	ExposureInfo	CanonRaw ExposureInfo

0x1834	CanonModelID	int32u
0x1835	DecoderTable	CanonRaw DecoderTable
0x183b	SerialNumberFormat	int32u
0x2005	RawData	no
0x2007	JpgFromRaw	resize^
0x2008	ThumbnailImage	resize^
0x2804	ImageDescription	CanonRaw
0x2807	CameraObject	CanonRaw
0x3002	ShootingRecord	CanonRaw
0x3003	MeasuredInfo	CanonRaw
0x3004	CameraSpecification	CanonRaw
0x300a	ImageProps	CanonRaw
0x300b	ExifInformation	CanonRaw

CanonRaw MakeModel Tags

Index1	Tag Name	Writable
0	Make	string[6]
6	Model	string

CanonRaw WhiteSample Tags

Index2	Tag Name	Writable
1	WhiteSampleWidth	no
2	WhiteSampleHeight	no
3	WhiteSampleLeftBorder	no
4	WhiteSampleTopBorder	no
5	WhiteSampleBits	no
55	BlackLevels	no

CanonRaw RawJpgInfo Tags

Index2	Tag Name	Writable
1	RawJpgQuality	int16u
2	RawJpgSize	int16u
3	RawJpgWidth	int16u
4	RawJpgHeight	int16u

CanonRaw ImageFormat Tags

Index4	Tag Name	Writable
0	FileFormat	int32u
1	TargetCompressionRatio	float

CanonRaw TimeStamp Tags

Index4	Tag Name	Writable
0	DateTimeOriginal	int32u
1	TimeZoneCode	int32s
2	TimeZoneInfo	int32u

CanonRaw ImageInfo Tags

Index4	Tag Name	Writable
0	ImageWidth	no
1	ImageHeight	no
2	PixelAspectRatio	no
3	Rotation	int32s
4	ComponentBitDepth	no
5	ColorBitDepth	no
6	ColorBW	no

CanonRaw FlashInfo Tags

Index4	Tag Name	Writable
0	FlashGuideNumber	float
1	FlashThreshold	float

CanonRaw ExposureInfo Tags

Index4	Tag Name	Writable
0	ExposureCompensation	float
1	ShutterSpeedValue	float
2	ApertureValue	float

CanonRaw DecoderTable Tags

Index4	Tag Name	Writable
0	DecoderTableNumber	no
2	CompressedDataOffset	no
3	CompressedDataLength	no

KyoceraRaw Tags

Tags for Kyocera Contax N Digital RAW images.

Index1	Tag Name	Writable
1	FirmwareVersion	no
12	Model	no
25	Make	no
33	DateTimeOriginal	no
52	ISO	no
56	ExposureTime	no
60	WB_RGGBLevels	no
88	FNumber	no
104	MaxAperture	no
112	FocalLength	no
124	Lens	no

MinoltaRaw Tags

These tags are used in Minolta RAW format (MRW) images.

Tag ID	Tag Name	Writable
"\0PRD"	MinoltaPRD	MinoltaRaw PRD
"\0RIF"	MinoltaRIF	MinoltaRaw RIF
"\0TTW"	MinoltaTTW	EXIF
"\0WBG"	MinoltaWBG	MinoltaRaw WBG

MinoltaRaw PRD Tags

Index1	Tag Name	Writable
0	FirmwareID	string[8]
8	SensorHeight	int16u
10	SensorWidth	int16u
12	ImageHeight	int16u
14	ImageWidth	int16u
16	RawDepth	int8u
17	BitDepth	int8u
18	StorageMethod	int8u
23	BayerPattern	int8u

MinoltaRaw RIF Tags

Index1	Tag Name	Writable
1	Saturation	int8s
2	Contrast	int8s
3	Sharpness	int8s
4	WBMode	int8u~
5	ProgramMode	int8u
6	ISOSetting	int8u
7	ColorMode	int8u
8	WB_RBLevelsTungsten	int16u[2]
12	WB_RBLevelsDaylight	int16u[2]
16	WB_RBLevelsCloudy	int16u[2]
20	WB_RBLevelsCoolWhiteF	int16u[2]
24	WB_RBLevelsFlash	int16u[2]
28	WB_RBLevelsCustom	int16u[2]
32	WB_RBLevelsShade	int16u[2]
36	WB_RBLevelsDaylightF	int16u[2]
40	WB_RBLevelsDayWhiteF	int16u[2]
44	WB_RBLevelsWhiteF	int16u[2]
56	ColorFilter	int8s
57	BWFilter	int8u
58	ZoneMatching	int8u
59	Hue	int8s
60	ColorTemperature	int8u
74	ZoneMatching	int8u
76	ColorTemperature	int8u
77	ColorFilter	int8u
78	ColorTemperature	int8u
79	ColorFilter	int8u
80	RawDataLength	no

MinoltaRaw WBG Tags

Index1	Tag Name	Writable
0	WBScale	int8u[4]
4	WB_GBRGLevels	int16u[4]
	WB_RGGBLevels	int16u[4]

PanasonicRaw Tags

These tags are found in IFD0 of Panasonic/Leica RAW, RW2 and RWL images.

Tag ID	Tag Name	Writable
0x0001	PanasonicRawVersion	undef
0x0002	SensorWidth	no
0x0003	SensorHeight	no
0x0004	SensorTopBorder	no
0x0005	SensorLeftBorder	no
0x0006	SensorBottomBorder	no
0x0007	SensorRightBorder	no
0x0008	SamplesPerPixel	int16u!
0x0009	CFAPattern	int16u!
0x000a	BitsPerSample	int16u!
0x000b	Compression	int16u!
0x000e	LinearityLimitRed	int16u
0x000f	LinearityLimitGreen	int16u
0x0010	LinearityLimitBlue	int16u
0x0011	RedBalance	int16u
0x0012	BlueBalance	int16u
0x0013	WBInfo	PanasonicRaw WBInfo
0x0017	ISO	int16u
0x0018	HighISOMultiplierRed	int16u
0x0019	HighISOMultiplierGreen	int16u
0x001a	HighISOMultiplierBlue	int16u
0x001b	NoiseReductionParams	undef[n]!
0x001c	BlackLevelRed	int16u
0x001d	BlackLevelGreen	int16u
0x001e	BlackLevelBlue	int16u
0x0024	WBRedLevel	int16u
0x0025	WBGreenLevel	int16u
0x0026	WBBlueLevel	int16u
0x0027	WBInfo2	PanasonicRaw WBInfo2
0x002d	RawFormat	int16u!
0x002e	JpgFromRaw	JPEG
0x002f	CropTop	int16u
0x0030	CropLeft	int16u
0x0031	CropBottom	int16u
0x0032	CropRight	int16u
0x0037	ISO	int32u
0x010f	Make	string
0x0110	Model	string
0x0111	StripOffsets	no
0x0112	Orientation	int16u
0x0116	RowsPerStrip	no
0x0117	StripByteCounts	no
0x0118	RawDataOffset	no
0x0119	DistortionInfo	PanasonicRaw DistortionInfo
0x011c	Gamma	int16u
0x0120	CameraIFD	PanasonicRaw CameraIFD
0x0121	Multishot	int32u
0x0127	JpgFromRaw2	no
0x013b	Artist	string
0x02bc	ApplicationNotes	XMP
0x8298	Copyright	string
0x83bb	IPTC-NAA	IPTC

0x8769	ExifOffset	EXIF
0x8825	GPSInfo	GPS

PanasonicRaw CameraIFD Tags

Tag ID	Tag Name	Writable
0x1001	MultishotOn	no
0x1100	FocusStepNear	no
0x1101	FocusStepCount	no
0x1102	FlashFired	no
0x1105	ZoomPosition	no
0x1200	LensAttached	no
0x1201	LensTypeMake	no
0x1202	LensTypeModel	no
0x1203	FocalLengthIn35mmFormat	no
0x1301	ApertureValue	no
0x1302	ShutterSpeedValue	no
0x1303	SensitivityValue	no
0x1305	HighISOMode	no
0x1412	FacesDetected	no
0x3200	WB_CFA0_LevelDaylight	no
0x3201	WB_CFA1_LevelDaylight	no
0x3202	WB_CFA2_LevelDaylight	no
0x3203	WB_CFA3_LevelDaylight	no
0x3300	WhiteBalanceSet	no
0x3420	WB_RedLevelAuto	no
0x3421	WB_BlueLevelAuto	no
0x3501	Orientation	no
0x3600	WhiteBalanceDetected	no

PanasonicRaw WBInfo Tags

Index2	Tag Name	Writable
0	NumWBEntries	int16u
1	WBType1	int16u
2	WB_RBLevels1	int16u[2]
4	WBType2	int16u
5	WB_RBLevels2	int16u[2]
7	WBType3	int16u
8	WB_RBLevels3	int16u[2]
10	WBType4	int16u
11	WB_RBLevels4	int16u[2]
13	WBType5	int16u
14	WB_RBLevels5	int16u[2]
16	WBType6	int16u
17	WB_RBLevels6	int16u[2]
19	WBType7	int16u
20	WB_RBLevels7	int16u[2]

PanasonicRaw WBInfo2 Tags

Index2	Tag Name	Writable
0	NumWBEntries	int16u
1	WBType1	int16u
2	WB_RGBLevels1	int16u[3]
5	WBType2	int16u
6	WB_RGBLevels2	int16u[3]
9	WBType3	int16u
10	WB_RGBLevels3	int16u[3]
13	WBType4	int16u
14	WB_RGBLevels4	int16u[3]
17	WBType5	int16u
18	WB_RGBLevels5	int16u[3]
21	WBType6	int16u
22	WB_RGBLevels6	int16u[3]
25	WBType7	int16u
26	WB_RGBLevels7	int16u[3]

PanasonicRaw DistortionInfo Tags

Lens distortion correction information.

Tag ID	Tag Name	Writable
0x0002	DistortionParam02	int16s
0x0004	DistortionParam04	int16s
0x0005	DistortionScale	int16s
7.1	DistortionCorrection	int16s & 0x0f
0x0008	DistortionParam08	int16s
0x0009	DistortionParam09	int16s
0x000b	DistortionParam11	int16s
0x000c	DistortionN?	int16s

SigmaRaw Tags

These tags are used in Sigma and Foveon RAW (.X3F) images. Metadata is also extracted from the JpgFromRaw image if it exists (all models but the SD9 and SD10). Currently, metadata may only be written to the embedded JpgFromRaw.

Tag ID	Tag Name	Writable
'Header'	Header	SigmaRaw Header
'Header4'	Header4	SigmaRaw Header4
'HeaderExt'	HeaderExt	SigmaRaw HeaderExt
'IMA2'	PreviewImage	no
	JpgFromRaw	no
'IMAG'	PreviewImage	no
'PROP'	Properties	SigmaRaw Properties

SigmaRaw Header Tags

Information extracted from the header of an X3F file.

Tag ID	Tag Name	Writable
0x0001	FileVersion	no
0x0002	ImageUniqueID	no
0x0006	MarkBits	no
0x0007	ImageWidth	no
0x0008	ImageHeight	no
0x0009	Rotation	no
0x000a	WhiteBalance	no
0x0012	SceneCaptureType	no

SigmaRaw Header4 Tags

Header information for version 4.0 or greater X3F.

Index4	Tag Name	Writable
1	FileVersion	no
10	ImageWidth	no
11	ImageHeight	no
12	Rotation	no

SigmaRaw HeaderExt Tags

Extended header data found in version 2.1 and 2.2 files

Tag ID	Tag Name	Writable
0x0000	Unused	no
0x0001	ExposureAdjust	no
0x0002	Contrast	no
0x0003	Shadow	no
0x0004	Highlight	no
0x0005	Saturation	no
0x0006	Sharpness	no
0x0007	RedAdjust	no
0x0008	GreenAdjust	no
0x0009	BlueAdjust	no
0x000a	X3FillLight	no

SigmaRaw Properties Tags

Tag ID	Tag Name	Writable
'AEMODE'	MeteringMode	no
'AFAREA'	AFArea	no
'AFINFOCUS'	AFInFocus	no
'AFMODE'	FocusMode	no
'APERTURE'	FNumber	no
'AP_DESC'	ApertureDisplayed	no
'BRACKET'	BracketShot	no
'BURST'	BurstShot	no
'CAMMANUF'	Make	no
'CAMMODEL'	Model	no
'CAMNAME'	CameraName	no
'CAMSERIAL'	SerialNumber	no
'CM_DESC'	SceneCaptureType	no
'COLORSPACE'	ColorSpace	no
'DRIVE'	DriveMode	no

'EVAL_STATE'	EvalState	no
'EXPCOMP'	ExposureCompensation	no
'EXPNET'	NetExposureCompensation	no
'EXPTIME'	IntegrationTime	no
'FIRMVERS'	FirmwareVersion	no
'FLASH'	FlashMode	no
'FLASHEXPCOMP'	FlashExpComp	no
'FLASHPOWER'	FlashPower	no
'FLASHTTLMODE'	FlashTTLMode	no
'FLASHTYPE'	FlashType	no
'FLENGTH'	FocalLength	no
'FLEQ35MM'	FocalLengthIn35mmFormat	no
'FOCUS'	Focus	no
'IMAGEBOARDID'	ImageBoardID	no
'IMAGERBOARDID'	ImagerBoardID	no
'IMAGERTEMP'	SensorTemperature	no
'ISO'	ISO	no
'LENSARANGE'	LensApertureRange	no
'LENSFRANGE'	LensFocalRange	no
'LENSMODEL'	LensType	no
'PMODE'	ExposureProgram	no
'RESOLUTION'	Quality	no
'SENSORID'	SensorID	no
'SHUTTER'	ExposureTime	no
'SH_DESC'	ShutterSpeedDisplayed	no
'TIME'	DateTimeOriginal	no
'VERSION_BF'	VersionBF	no
'WB_DESC'	WhiteBalance	no

JFIF Tags

The following information is extracted from the JPEG JFIF header. See <https://www.w3.org/Graphics/JPEG/jfif3.pdf> for the JFIF 1.02 specification.

Index1	Tag Name	Writable
0	JFIFVersion	no:
2	ResolutionUnit	int8u:
3	XResolution	int16u:
5	YResolution	int16u:
7	ThumbnailWidth	no
8	ThumbnailHeight	no
9	ThumbnailTIFF	no

JFIF Extension Tags

Thumbnail images extracted from the JFXX segment.

Tag ID	Tag Name	Writable
0x0010	ThumbnailImage	no
0x0011	ThumbnailTIFF	no
0x0013	ThumbnailTIFF	no

FlashPix Tags

The FlashPix file format, introduced in 1996, was developed by Kodak, Hewlett-Packard and Microsoft. Internally the FPX file structure mimics that of an old DOS disk with fixed-sized ''sectors'' (usually 512 bytes) and a ''file allocation table'' (FAT). No wonder this image format never became popular. However, some of the structures used in FlashPix streams are part of the EXIF specification, and are still being used in

the APP2 FPXR segment of JPEG images by some digital cameras from manufacturers such as FujiFilm, Hewlett-Packard, Kodak and Sanyo.

ExifTool extracts FlashPix information from both FPX images and the APP2 FPXR segment of JPEG images. As well, FlashPix information is extracted from DOC, PPT, XLS (Microsoft Word, PowerPoint and Excel) documents, VSD (Microsoft Visio) drawings, and FLA (Macromedia/Adobe Flash project) files since these are based on the same file format as FlashPix (the Windows Compound Binary File format). Note that ExifTool identifies any unrecognized Windows Compound Binary file as a FlashPix (FPX) file. See <http://graphcomp.com/info/specs/livepicture/fpx.pdf> for the FlashPix specification.

Note that Microsoft is not consistent with the time zone used for some date/time tags, and it may be either UTC or local time depending on the software used to create the file.

Tag ID	Tag Name	Writable
"\x01CompObj"	CompObj	FlashPix CompObj
"\x05Audio Info"	AudioInfo	FlashPix AudioInfo
"\x05Data Object"	DataObject	FlashPix DataObject
"\x05DocumentSummaryInformation"	DocumentInfo	FlashPix DocumentInfo
"\x05Extension List"	Extensions	FlashPix Extensions
"\x05Global Info"	GlobalInfo	FlashPix GlobalInfo
"\x05Image Contents"	Image	FlashPix Image
"\x05Image Info"	ImageInfo	FlashPix ImageInfo
"\x05Operation"	Operation	FlashPix Operation
"\x05Screen Nail"	ScreenNail	no
"\x05SummaryInformation"	SummaryInfo	FlashPix SummaryInfo
"\x05Transform"	Transform	FlashPix Transform
'Audio Stream'	AudioStream	no
'BasicFileInfo'	BasicFileInfo	no
'Contents'	Contents	XMP
'Current User'	CurrentUser	no
'ICC Profile 0001'	ICC_Profile	ICC_Profile
'IeImg'	EmbeddedImage	no
'IeImg_class'	EmbeddedImageClass	no
'IeImg_rect'	EmbeddedImageRectangle	no
'Preview'	PreviewImage	no
'Property'	PreviewInfo	FlashPix PreviewInfo
'Subimage 0000 Header'	SubimageHdr	FlashPix SubimageHdr
'WordDocument'	WordDocument	FlashPix WordDocument
'_eeJPG'	EmbeddedImage	no
'_eeLink'	LinkedFileName	no
'_eePNG'	EmbeddedPNG	no

FlashPix CompObj Tags

Index4	Tag Name	Writable
0	CompObjUserTypeLen	no
1	CompObjUserType	no

FlashPix AudioInfo Tags

Tag ID	Tag Name	Writable

[no tags known]

FlashPix DataObject Tags

Tag ID	Tag Name	Writable
0x10000	DataObjectID	no
0x10002	LockedPropertyList	no
0x10003	DataObjectTitle	no
0x10004	LastModifier	no
0x10005	RevisionNumber	no
0x10006	DataCreateDate	no
0x10007	DataModifyDate	no
0x10008	CreatingApplication	no
0x10100	DataObjectStatus	no
0x10101	CreatingTransform	no
0x10102	UsingTransforms	no
0x10000000	CachedImageHeight	no
0x10000001	CachedImageWidth	no

FlashPix DocumentInfo Tags

The DocumentSummaryInformation property set includes a UserDefined property set for which only the Hyperlinks and HyperlinkBase tags are pre-defined. However, ExifTool will also extract any other information found in the UserDefined properties.

Tag ID	Tag Name	Writable
0x0002	Category	no
0x0003	PresentationTarget	no
0x0004	Bytes	no
0x0005	Lines	no
0x0006	Paragraphs	no
0x0007	Slides	no
0x0008	Notes	no
0x0009	HiddenSlides	no
0x000a	MMClips	no
0x000b	ScaleCrop	no
0x000c	HeadingPairs	no
0x000d	TitleOfParts	no
0x000e	Manager	no
0x000f	Company	no
0x0010	LinksUpToDate	no
0x0011	CharCountWithSpaces	no
0x0013	SharedDoc	no
0x0016	HyperlinksChanged	no
0x0017	AppVersion	no
0x001a	ContentType	no
0x001b	ContentStatus	no
0x001c	Language	no
0x001d	DocVersion	no
'_PID_HLINKS'	Hyperlinks	no
'_PID_LINKBASE'	HyperlinkBase	no

FlashPix Extensions Tags

Tag ID	Tag Name	Writable
0x0001	ExtensionName	no
0x0002	ExtensionClassID	no
0x0003	ExtensionPersistence	no
0x0004	ExtensionCreateDate	no
0x0005	ExtensionModifyDate	no
0x0006	CreatingApplication	no
0x0007	ExtensionDescription	no
0x1000	Storage-StreamPathname	no
0x2000	FlashPixStreamPathname	no
0x2001	FlashPixStreamFieldOffset	no
0x3000	PropertySetPathname	no
0x3001	PropertySetIDCodes	no
0x3002	PropertyVectorElements	no
0x4000	SubimageResolutions	no
0x10000000	UsedExtensionNumbers	no

FlashPix GlobalInfo Tags

Tag ID	Tag Name	Writable
0x10002	LockedPropertyList	no
0x10003	TransformedImageTitle	no
0x10004	LastModifier	no
0x10100	VisibleOutputs	no
0x10101	MaximumImageIndex	no
0x10102	MaximumTransformIndex	no
0x10103	MaximumOperationIndex	no

FlashPix Image Tags

Tag ID	Tag Name	Writable
0x1000000	NumberOfResolutions	no
0x1000002	ImageWidth	no
0x1000003	ImageHeight	no
0x1000004	DefaultDisplayHeight	no
0x1000005	DefaultDisplayWidth	no
0x1000006	DisplayUnits	no
0x2000000	SubimageWidth	no
0x2000001	SubimageHeight	no
0x2000002	SubimageColor	no
0x2000003	SubimageNumericalFormat	no
0x2000004	DecimationMethod	no
0x2000005	DecimationPrefilterWidth	no
0x2000007	SubimageICC_Profile	no
0x3000001	JPEGTables	no
0x3000002	MaxJPEGTableIndex	no

FlashPix ImageInfo Tags

Tag ID	Tag Name	Writable
0x21000000	FileSource	no
0x21000001	SceneType	no
0x21000002	CreationPathVector	no
0x21000003	SoftwareRelease	no
0x21000004	UserDefinedID	no
0x21000005	SharpnessApproximation	no
0x22000000	Copyright	no
0x22000001	OriginalImageBroker	no
0x22000002	DigitalImageBroker	no
0x22000003	Authorship	no
0x22000004	IntellectualPropertyNotes	no
0x23000000	TestTarget	no
0x23000002	GroupCaption	no
0x23000003	CaptionText	no
0x23000004	People	no
0x23000007	Things	no
0x2300000a	DateTimeOriginal	no
0x2300000b	Events	no
0x2300000c	Places	no
0x2300000f	ContentDescriptionNotes	no
0x24000000	Make	no
0x24000001	Model	no
0x24000002	SerialNumber	no
0x25000000	CreateDate	no
0x25000001	ExposureTime	no
0x25000002	FNumber	no
0x25000003	ExposureProgram	no
0x25000004	BrightnessValue	no
0x25000005	ExposureCompensation	no
0x25000006	SubjectDistance	no
0x25000007	MeteringMode	no
0x25000008	LightSource	no
0x25000009	FocalLength	no
0x2500000a	MaxApertureValue	no
0x2500000b	Flash	no
0x2500000c	FlashEnergy	no
0x2500000d	FlashReturn	no
0x2500000e	Backlight	no
0x2500000f	SubjectLocation	no
0x25000010	ExposureIndex	no
0x25000011	SpecialEffectsOpticalFilter	no
0x25000012	PerPictureNotes	no
0x26000000	SensingMethod	no
0x26000001	FocalPlaneXResolution	no
0x26000002	FocalPlaneYResolution	no
0x26000003	FocalPlaneResolutionUnit	no
0x26000004	SpatialFrequencyResponse	no
0x26000005	CFAPattern	no
0x26000007	ISO	no
0x26000008	Opto-ElectricConvFactor	no
0x27000000	FilmBrand	no
0x27000001	FilmCategory	no

0x27000002	FilmSize	no
0x27000003	FilmRollNumber	no
0x27000004	FilmFrameNumber	no
0x28000000	ScannerMake	no
0x28000001	ScannerModel	no
0x28000002	ScannerSerialNumber	no
0x28000003	ScanSoftware	no
0x28000004	ScanSoftwareRevisionDate	no
0x28000005	ServiceOrganizationName	no
0x28000006	ScanOperatorID	no
0x28000008	ScanDate	no
0x28000009	ModifyDate	no
0x2800000a	ScannerPixelSize	no
0x29000000	OriginalScannedImageSize	no
0x29000001	OriginalDocumentSize	no
0x29000002	OriginalMedium	no
0x29000003	TypeOfOriginal	no

FlashPix Operation Tags

Tag ID	Tag Name	Writable
0x10000	OperationID	no

FlashPix SummaryInfo Tags

The Dictionary, CodePage and LocalIndicator tags are common to all FlashPix property tables, even though they are only listed in the SummaryInfo table.

Tag ID	Tag Name	Writable
0x0000	Dictionary	no
0x0001	CodePage	no
0x0002	Title	no
0x0003	Subject	no
0x0004	Author	no
0x0005	Keywords	no
0x0006	Comments	no
0x0007	Template	no
0x0008	LastModifiedBy	no
0x0009	RevisionNumber	no
0x000a	TotalEditTime	no
0x000b	LastPrinted	no
0x000c	CreateDate	no
0x000d	ModifyDate	no
0x000e	Pages	no
0x000f	Words	no
0x0010	Characters	no
0x0011	ThumbnailClip	no
0x0012	Software	no
0x0013	Security	no
0x0022	CreatedBy	no
0x0023	DocumentID	no
0x80000000	LocaleIndicator	no

FlashPix Transform Tags

Tag ID	Tag Name	Writable
0x10000	TransformNodeID	no
0x10001	OperationClassID	no
0x10002	LockedPropertyList	no
0x10003	TransformTitle	no
0x10004	LastModifier	no
0x10005	RevisionNumber	no
0x10006	TransformCreateDate	no
0x10007	TransformModifyDate	no
0x10008	CreatingApplication	no
0x10100	InputDataObjectList	no
0x10101	OutputDataObjectList	no
0x10102	OperationNumber	no
0x10000000	ResultAspectRatio	no
0x10000001	RectangleOfInterest	no
0x10000002	Filtering	no
0x10000003	SpatialOrientation	no
0x10000004	ColorTwistMatrix	no
0x10000005	ContrastAdjustment	no

FlashPix PreviewInfo Tags

Preview information written by some FujiFilm models.

Index1	Tag Name	Writable
13	PreviewImageWidth	no
23	PreviewImageHeight	no

FlashPix SubimageHdr Tags

Index4	Tag Name	Writable
1	SubimageWidth	no
2	SubimageHeight	no
3	SubimageTileCount	no
4	SubimageTileWidth	no
5	SubimageTileHeight	no
6	NumChannels	no

FlashPix WordDocument Tags

Tags extracted from the Microsoft Word document stream.

Tag ID	Tag Name	Writable
0x0000	Identification	no
0x0003	LanguageCode	no
0x0005	DocFlags	no
9.1	System	no
9.2	Word97	no

FlashPix DocTable Tags

Tags extracted from the Microsoft Word document table.

Tag Name	Writable
CommentBy	no
DOP	FlashPix DOP
LastSavedBy	no
ModifyDate	no

FlashPix DOP Tags

Microsoft office document properties.

Index1	Tag Name	Writable
20	CreateDate	no
24	ModifyDate	no
28	LastPrinted	no
32	RevisionNumber	no
34	TotalEditTime	no
38	Words	no
42	Characters	no
46	Pages	no
48	Paragraphs	no
56	Lines	no

MPF Tags

These tags are part of the CIPA Multi-Picture Format specification, and are found in the APP2 ''MPF'' segment of JPEG images. MPImage data referenced from this segment is stored as a JPEG trailer. The MPF tags are not writable, however the MPF segment may be deleted as a group (with ''MPF:All'') but then the JPEG trailer should also be deleted (with ''Trailer:All''). See <https://web.archive.org/web/20190713230858/http://www.cipa.jp/std/documents/e/DC−007_E.pdf> for the official specification.

Tag ID	Tag Name	Writable
0xb000	MPFVersion	no
0xb001	NumberOfImages	no
0xb002	MPImageList	MPF MPImage
0xb003	ImageUIDList	no
0xb004	TotalFrames	no
0xb101	MPIndividualNum	no
0xb201	PanOrientation	no
0xb202	PanOverlapH	no
0xb203	PanOverlapV	no
0xb204	BaseViewpointNum	no
0xb205	ConvergenceAngle	no
0xb206	BaselineLength	no
0xb207	VerticalDivergence	no
0xb208	AxisDistanceX	no
0xb209	AxisDistanceY	no
0xb20a	AxisDistanceZ	no
0xb20b	YawAngle	no
0xb20c	PitchAngle	no
0xb20d	RollAngle	no

MPF MPImage Tags

The first MPF ''Large Thumbnail'' image is extracted as PreviewImage, and the rest of the embedded MPF images are extracted as MPImage#. The ExtractEmbedded (−ee) option may be used to extract information from these embedded images.

Index1	Tag Name	Writable
0.1	MPImageFlags	no
0.2	MPImageFormat	no
0.3	MPImageType	no
4	MPImageLength	no
8	MPImageStart	no
12	DependentImage1EntryNumber	no
14	DependentImage2EntryNumber	no

InfiRay Tags

InfiRay Version Tags

This table lists tags found in the InfiRay APP2 IJPEG version header, found in JPEGs taken with the P2 Pro camera app.

Index1	Tag Name	Writable
0	IJPEGVersion	no
12	IJPEGOrgType	no
13	IJPEGDispType	no
14	IJPEGRotate	no
15	IJPEGMirrorFlip	no
16	ImageColorSwitchable	no
17	ThermalColorPalette	no
32	IRDataSize	no
40	IRDataFormat	no
42	IRImageWidth	no
44	IRImageHeight	no
46	IRImageBpp	no
48	TempDataSize	no
56	TempDataFormat	no
58	TempImageWidth	no
60	TempImageHeight	no
62	TempImageBpp	no
64	VisibleDataSize	no
72	VisibleDataFormat	no
74	VisibleImageWidth	no
76	VisibleImageHeight	no
78	VisibleImageBpp	no

InfiRay Factory Tags

This table lists tags found in the InfiRay APP4 IJPEG camera factory defaults and calibration data.

Index1	Tag Name	Writable
0	IJPEGTempVersion	no
4	FactDefEmissivity	no
5	FactDefTau	no
6	FactDefTa	no
8	FactDefTu	no
10	FactDefDist	no
12	FactDefA0	no
16	FactDefB0	no
20	FactDefA1	no
24	FactDefB1	no
28	FactDefP0	no

32	FactDefP1	no
36	FactDefP2	no
68	FactRelSensorTemp	no
70	FactRelShutterTemp	no
72	FactRelLensTemp	no
100	FactStatusGain	no
101	FactStatusEnvOK	no
102	FactStatusDistOK	no
103	FactStatusTempMap	no

InfiRay Picture Tags

This table lists tags found in the InfiRay APP5 IJPEG picture temperature information.

Index1	Tag Name	Writable
0	EnvironmentTemp	no
4	Distance	no
8	Emissivity	no
12	Humidity	no
16	ReferenceTemp	no
32	TempUnit	no
33	ShowCenterTemp	no
34	ShowMaxTemp	no
35	ShowMinTemp	no
36	TempMeasureCount	no

InfiRay MixMode Tags

This table lists tags found in the InfiRay APP6 IJPEG visual-infrared mixing mode section.

Index1	Tag Name	Writable
0	MixMode	no
1	FusionIntensity	no
5	OffsetAdjustment	no
9	CorrectionAsix	no

InfiRay OpMode Tags

This table lists tags found in the InfiRay APP7 IJPEG camera operation mode section.

Index1	Tag Name	Writable
0	WorkingMode	no
1	IntegralTime	no
5	IntegratTimeHdr	no
9	GainStable	no
10	TempControlEnable	no
11	DeviceTemp	no

InfiRay Isothermal Tags

This table lists tags found in the InfiRay APP8 IJPEG picture isothermal information.

Index1	Tag Name	Writable
0	IsothermalMax	no
4	IsothermalMin	no
8	ChromaBarMax	no
12	ChromaBarMin	no

InfiRay Sensor Tags

This table lists tags found in the InfiRay APP9 IJPEG sensor information chunk.

Index1	Tag Name	Writable
0	IRSensorManufacturer	no
64	IRSensorName	no
128	IRSensorPartNumber	no
192	IRSensorSerialNumber	no
256	IRSensorFirmware	no
320	IRSensorAperture	no
324	IRFocalLength	no
384	VisibleSensorManufacturer	no
448	VisibleSensorName	no
512	VisibleSensorPartNumber	no
576	VisibleSensorSerialNumber	no
640	VisibleSensorFirmware	no
704	VisibleSensorAperture	no
708	VisibleFocalLength	no

Stim Tags

These tags are part of the CIPA Stereo Still Image specification, and are found in the APP3 ‘‘Stim’’ segment of JPEG images. See <https://web.archive.org/web/20190718152459/http://www.cipa.jp/std/documents/e/DC−006_E.pdf> for the official specification.

Tag ID	Tag Name	Writable
0x0000	StimVersion	no
0x0001	ApplicationData	no
0x0002	ImageArrangement	no
0x0003	ImageRotation	no
0x0004	ScalingFactor	no
0x0005	CropXSize	no
0x0006	CropYSize	no
0x0007	CropX	Stim CropX
0x0008	CropY	Stim CropY
0x0009	ViewType	no
0x000a	RepresentativeImage	no
0x000b	ConvergenceBaseImage	no
0x000c	AssumedDisplaySize	no
0x000d	AssumedDistanceView	no
0x000e	RepresentativeDisparityNear	no
0x000f	RepresentativeDisparityFar	no
0x0010	InitialDisplayEffect	no
0x0011	ConvergenceDistance	no
0x0012	CameraArrangementInterval	no
0x0013	ShootingCount	no

Stim CropX Tags

Index1	Tag Name	Writable
0	CropXCommonOffset	no
2	CropXViewpointNumber	no
3	CropXOffset	no
7	CropXViewpointNumber2	no
8	CropXOffset2	no

Stim CropY Tags

Index1	Tag Name	Writable
0	CropYCommonOffset	no
2	CropYViewpointNumber	no
3	CropYOffset	no
7	CropYViewpointNumber2	no
8	CropYOffset2	no

Scalado Tags

Tags extracted from the JPEG APP4 "SCALADO" segment found in images from HTC, LG and Samsung phones. (Presumably written by Scalado mobile software, <http://www.scalado.com/>.)

Tag ID	Tag Name	Writable
'HGHT'	PreviewImageHeight	no
'QUAL'	PreviewQuality	no
'SPMO'	DataLength?	no
'WDTH'	PreviewImageWidth	no

Qualcomm Tags

The tags below have been observed in the JPEG APP7 "Qualcomm Camera Attributes" segment written by some cameras such as the HP iPAQ Voice Messenger. ExifTool will extract any information found from this segment, even if it is not listed in this table.

Tag Name	Writable
AECAggressiveness	no
AECCurrentExpIndex	no
AECCurrentSensorLuma	no
AECEnable	no
AECExposureIndexAdjStep	no
AECHighLumaRegionCount	no
AECHighLumaRegionThreshold	no
AECIndoorIdx	no
AECLumaTarget	no
AECLumaTolerance	no
AECMode	no
AECOdoorIdx	no
AECOutdoorBrightDiscarded	no
AECOutdoorBrightEnable	no
AECOutdoorBrightReduction	no
AECOutdoorBrightThresholdHI	no
AECOutdoorBrightThresholdLO	no
AECOutdoorGammaIndex	no
AECSnapshotDigitalGain	no
AECSnapshotExposureTimeMs	no
AECSnapshotLineCount	no
AECSnapshotSensorGain	no

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AECVfeLuma                      no
AFBoundary                      no
AFCollectEndStat                no
AFEnable                        no
AFFarEnd                        no
AFFineSrchPoints                no
AFFineStep                      no
AFFocusTime                     no
AFGrossStep                     no
AFMode                          no
AFNearEnd                       no
AFPosDefMacro                   no
AFPosDefNorm                    no
AFPosition                      no
AFProcess                       no
AFREnable                       no
AFRFaster0ExpMod                no
AFRFaster0Trigger               no
AFRFaster1ExpMod                no
AFRFaster1Trigger               no
AFRFaster2ExpMod                no
AFRFaster2Trigger               no
AFRFaster3ExpMod                no
AFRFaster3Trigger               no
AFRFaster4ExpMod                no
AFRFaster4Trigger               no
AFRPossibleFrameCnt             no
AFRSlower0ExpMod                no
AFRSlower0Trigger               no
AFRSlower1ExpMod                no
AFRSlower1Trigger               no
AFRSlower2ExpMod                no
AFRSlower2Trigger               no
AFRSlower3ExpMod                no
AFRSlower3Trigger               no
AFRSlower4ExpMod                no
AFRSlower4Trigger               no
AFResetLensAfterSnap            no
AFStepsNearFar                  no
AFStepsNearInfinity             no
AFTestMode                      no
AFTracePositions00              no
AFTracePositions01              no
AFTracePositions02              no
AFTracePositions03              no
AFTracePositions04              no
AFTracePositions05              no
AFTracePositions06              no
AFTracePositions07              no
AFTracePositions08              no
AFTracePositions09              no
AFTracePositions10              no
AFTracePositions11              no
AFTracePositions12              no
```

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    AFTracePositions13                  no
    AFTracePositions14                  no
    AFTracePositions15                  no
    AFTracePositions16                  no
    AFTracePositions17                  no
    AFTracePositions18                  no
    AFTracePositions19                  no
    AFTracePositions20                  no
    AFTracePositions21                  no
    AFTracePositions22                  no
    AFTracePositions23                  no
    AFTracePositions24                  no
    AFTracePositions25                  no
    AFTracePositions26                  no
    AFTracePositions27                  no
    AFTracePositions28                  no
    AFTracePositions29                  no
    AFTracePositions30                  no
    AFTracePositions31                  no
    AFTracePositions32                  no
    AFTracePositions33                  no
    AFTracePositions34                  no
    AFTracePositions35                  no
    AFTracePositions36                  no
    AFTracePositions37                  no
    AFTracePositions38                  no
    AFTracePositions39                  no
    AFTracePositions40                  no
    AFTracePositions41                  no
    AFTracePositions42                  no
    AFTracePositions43                  no
    AFTracePositions44                  no
    AFTracePositions45                  no
    AFTracePositions46                  no
    AFTracePositions47                  no
    AFTracePositions48                  no
    AFTracePositions49                  no
    AFTraceStats00                      no
    AFTraceStats01                      no
    AFTraceStats02                      no
    AFTraceStats03                      no
    AFTraceStats04                      no
    AFTraceStats05                      no
    AFTraceStats06                      no
    AFTraceStats07                      no
    AFTraceStats08                      no
    AFTraceStats09                      no
    AFTraceStats10                      no
    AFTraceStats11                      no
    AFTraceStats12                      no
    AFTraceStats13                      no
    AFTraceStats14                      no
    AFTraceStats15                      no
    AFTraceStats16                      no
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AFTraceStats17                  no
AFTraceStats18                  no
AFTraceStats19                  no
AFTraceStats20                  no
AFTraceStats21                  no
AFTraceStats22                  no
AFTraceStats23                  no
AFTraceStats24                  no
AFTraceStats25                  no
AFTraceStats26                  no
AFTraceStats27                  no
AFTraceStats28                  no
AFTraceStats29                  no
AFTraceStats30                  no
AFTraceStats31                  no
AFTraceStats32                  no
AFTraceStats33                  no
AFTraceStats34                  no
AFTraceStats35                  no
AFTraceStats36                  no
AFTraceStats37                  no
AFTraceStats38                  no
AFTraceStats39                  no
AFTraceStats40                  no
AFTraceStats41                  no
AFTraceStats42                  no
AFTraceStats43                  no
AFTraceStats44                  no
AFTraceStats45                  no
AFTraceStats46                  no
AFTraceStats47                  no
AFTraceStats48                  no
AFTraceStats49                  no
AFUndershootProtect             no
AFVfeHorzOffset                 no
AFVfeHorzWidth                  no
AFVfeMetricMax                  no
AFVfeVertHeight                 no
AFVfeVertOffset                 no
ASF3EdgeDetect                  no
ASF3EdgeFilterA11               no
ASF3EdgeFilterA12               no
ASF3EdgeFilterA13               no
ASF3EdgeFilterA21               no
ASF3EdgeFilterA22               no
ASF3EdgeFilterA23               no
ASF3EdgeFilterA31               no
ASF3EdgeFilterA32               no
ASF3EdgeFilterA33               no
ASF3Enable                      no
ASF3LowerThreshold              no
ASF3NoiseFilterA11              no
ASF3NoiseFilterA12              no
ASF3NoiseFilterA13              no
```

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ASF3NoiseFilterA21                      no
ASF3NoiseFilterA22                      no
ASF3NoiseFilterA23                      no
ASF3NoiseFilterA31                      no
ASF3NoiseFilterA32                      no
ASF3NoiseFilterA33                      no
ASF3UpperThreshold                      no
ASF5BrtLoThres                          no
ASF5BrtShrpDegF1                        no
ASF5BrtShrpDegF2                        no
ASF5BrtSmthPercent                      no
ASF5BrtUpThres                          no
ASF5Enable                              no
ASF5ExposureIndex1                      no
ASF5ExposureIndex2                      no
ASF5Filter1A11                          no
ASF5Filter1A12                          no
ASF5Filter1A13                          no
ASF5Filter1A14                          no
ASF5Filter1A15                          no
ASF5Filter1A21                          no
ASF5Filter1A22                          no
ASF5Filter1A23                          no
ASF5Filter1A24                          no
ASF5Filter1A25                          no
ASF5Filter1A31                          no
ASF5Filter1A32                          no
ASF5Filter1A33                          no
ASF5Filter1A34                          no
ASF5Filter1A35                          no
ASF5Filter1A41                          no
ASF5Filter1A42                          no
ASF5Filter1A43                          no
ASF5Filter1A44                          no
ASF5Filter1A45                          no
ASF5Filter1A51                          no
ASF5Filter1A52                          no
ASF5Filter1A53                          no
ASF5Filter1A54                          no
ASF5Filter1A55                          no
ASF5Filter2A11                          no
ASF5Filter2A12                          no
ASF5Filter2A13                          no
ASF5Filter2A14                          no
ASF5Filter2A15                          no
ASF5Filter2A21                          no
ASF5Filter2A22                          no
ASF5Filter2A23                          no
ASF5Filter2A24                          no
ASF5Filter2A25                          no
ASF5Filter2A31                          no
ASF5Filter2A32                          no
ASF5Filter2A33                          no
ASF5Filter2A34                          no
```

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ASF5Filter2A35                  no
ASF5Filter2A41                  no
ASF5Filter2A42                  no
ASF5Filter2A43                  no
ASF5Filter2A44                  no
ASF5Filter2A45                  no
ASF5Filter2A51                  no
ASF5Filter2A52                  no
ASF5Filter2A53                  no
ASF5Filter2A54                  no
ASF5Filter2A55                  no
ASF5FilterMode                  no
ASF5LowLoThres                  no
ASF5LowShrpDegF1                no
ASF5LowShrpDegF2                no
ASF5LowSmthPrcnt                no
ASF5LowUpThres                  no
ASF5LumaFilter00                no
ASF5LumaFilter01                no
ASF5LumaFilter02                no
ASF5LumaFilter03                no
ASF5LumaFilter04                no
ASF5LumaFilter05                no
ASF5LumaFilter06                no
ASF5LumaFilter07                no
ASF5LumaFilter08                no
ASF5MaxExposureIndex            no
ASF5NrmLoThres                  no
ASF5NrmShrpDegF1                no
ASF5NrmShrpDegF2                no
ASF5NrmSmthPrcnt                no
ASF5NrmUpThres                  no
ASF5NrmizeFactor1               no
ASF5NrmizeFactor2               no
AWBAggressiveness               no
AWBAgwGridDist2Thresh           no
AWBAlgorithm                    no
AWBAveBgRatio                   no
AWBAveRgRatio                   no
AWBBlueGainAdjRef1              no
AWBBlueGainAdjRef2              no
AWBBlueGainAdjRef3              no
AWBBlueGainAdjRef4              no
AWBBlueGainAdjRef5              no
AWBBlueGainAdjRef6              no
AWBBlueGainAdjRef7              no
AWBBlueGainAdjRef8              no
AWBBlueGainRef1                 no
AWBBlueGainRef2                 no
AWBBlueGainRef3                 no
AWBBlueGainRef4                 no
AWBBlueGainRef5                 no
AWBBlueGainRef6                 no
AWBBlueGainRef7                 no
```

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AWBBlueGainRef8                         no
AWBCcBias                               no
AWBCompactClusterR2                     no
AWBEnable                               no
AWBGreenOffsetBg                        no
AWBGreenOffsetRg                        no
AWBIndoorSampleInfluence                no
AWBLoVfeC1                              no
AWBLoVfeC2                              no
AWBLoVfeC3                              no
AWBLoVfeC4                              no
AWBLoVfeM1                              no
AWBLoVfeM2                              no
AWBLoVfeM3                              no
AWBLoVfeM4                              no
AWBLoVfeMaxY                            no
AWBLoVfeMinY                            no
AWBLowLigColCorEna                      no
AWBMaxBGain                             no
AWBMaxGGain                             no
AWBMaxRGain                             no
AWBMinBGain                             no
AWBMinGGain                             no
AWBMinRGain                             no
AWBNormVfeC1                            no
AWBNormVfeC2                            no
AWBNormVfeC3                            no
AWBNormVfeC4                            no
AWBNormVfeM1                            no
AWBNormVfeM2                            no
AWBNormVfeM3                            no
AWBNormVfeM4                            no
AWBNormVfeMaxY                          no
AWBNormVfeMinY                          no
AWBOudorVfeC1                           no
AWBOudorVfeC2                           no
AWBOudorVfeC3                           no
AWBOudorVfeC4                           no
AWBOudorVfeM1                           no
AWBOudorVfeM2                           no
AWBOudorVfeM3                           no
AWBOudorVfeM4                           no
AWBOudorVfeMaxY                         no
AWBOudorVfeMinY                         no
AWBOutdoorSampleInfluence               no
AWBPrevWbBgain                          no
AWBPrevWbGgain                          no
AWBPrevWbRgain                          no
AWBRedGainAdjRef1                       no
AWBRedGainAdjRef2                       no
AWBRedGainAdjRef3                       no
AWBRedGainAdjRef4                       no
AWBRedGainAdjRef5                       no
AWBRedGainAdjRef6                       no
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AWBRedGainAdjRef7                       no
AWBRedGainAdjRef8                       no
AWBRedGainRef1                          no
AWBRedGainRef2                          no
AWBRedGainRef3                          no
AWBRedGainRef4                          no
AWBRedGainRef5                          no
AWBRedGainRef6                          no
AWBRedGainRef7                          no
AWBRedGainRef8                          no
AWBSampleDecision                       no
AWBSnapshotBGain                        no
AWBSnapshotRGain                        no
AntiBadingPixelClk                      no
AntiBadingPixelClkPerLine               no
AntibandingEnable                       no
BlckLvlEvenCols                         no
BlckLvlOddCols                          no
CamMclkHz                               no
ChroSupChroThres1                       no
ChroSupChroThres2                       no
ChroSupLumaThres1                       no
ChroSupLumaThres2                       no
ChroSupLumaThres3                       no
ChroSupLumaThres4                       no
ChromSupress                            no
ClipToAfRato                            no
CurrResol                               no
DayltConvChrmA_M                        no
DayltConvChrmA_P                        no
DayltConvChrmB_M                        no
DayltConvChrmB_P                        no
DayltConvChrmC_M                        no
DayltConvChrmC_P                        no
DayltConvChrmD_M                        no
DayltConvChrmD_P                        no
DayltConvChrmKCb                        no
DayltConvChrmKCr                        no
DayltConvLumaK                          no
DayltConvLumaV0                         no
DayltConvLumaV1                         no
DayltConvLumaV2                         no
DefConvChrmA_M                          no
DefConvChrmA_P                          no
DefConvChrmB_M                          no
DefConvChrmB_P                          no
DefConvChrmC_M                          no
DefConvChrmC_P                          no
DefConvChrmD_M                          no
DefConvChrmD_P                          no
DefConvChrmKCb                          no
DefConvChrmKCr                          no
DefConvLumaK                            no
DefConvLumaV0                           no
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DefConvLumaV1                                   no
DefConvLumaV2                                   no
DefCorC0                                        no
DefCorC1                                        no
DefCorC2                                        no
DefCorC3                                        no
DefCorC4                                        no
DefCorC5                                        no
DefCorC6                                        no
DefCorC7                                        no
DefCorC8                                        no
DefCorK0                                        no
DefCorK1                                        no
DefCorK2                                        no
DefLumaGammaMode                                no
DefRgbGammaMode                                 no
DefectPixCorEnable                              no
DefectPixMaxThresh                              no
DefectPixMinThresh                              no
DiscardFrstFrm                                  no
FrmSkipPttrn                                    no
GammaEnable                                     no
HJREnable                                       no
HJRMaxNumFrames                                 no
HJROneToTwoOffset                               no
HJRTextureThreshold                             no
HJR_NReductionFlat                              no
HJR_NReductionTexture                           no
IncandConvChrmA_M                               no
IncandConvChrmA_P                               no
IncandConvChrmB_M                               no
IncandConvChrmB_P                               no
IncandConvChrmC_M                               no
IncandConvChrmC_P                               no
IncandConvChrmD_M                               no
IncandConvChrmD_P                               no
IncandConvChrmKCb                               no
IncandConvChrmKCr                               no
IncandConvLumaK                                 no
IncandConvLumaV0                                no
IncandConvLumaV1                                no
IncandConvLumaV2                                no
LADetect                                        no
LAEnable                                        no
MaxPrviewFps                                    no
MaxVideoFps                                     no
NghtshtFps                                      no
NightshotMode                                   no
OutlierDistance                                 no
PclkInvert                                      no
PrviewFps                                       no
PrviewResol                                     no
R2ABlueCtbl00                                   no
R2ABlueCtbl01                                   no
```

```
        R2ABlueCtbl02                                   no
        R2ABlueCtbl03                                   no
        R2ABlueCtbl04                                   no
        R2ABlueCtbl05                                   no
        R2ABlueCtbl06                                   no
        R2ABlueCtbl07                                   no
        R2ABlueCtbl08                                   no
        R2ABlueCtbl09                                   no
        R2ABlueCtbl10                                   no
        R2ABlueCtbl11                                   no
        R2ABlueCtbl12                                   no
        R2ABlueCtbl13                                   no
        R2ABlueCtbl14                                   no
        R2ABlueCtbl15                                   no
        R2ABlueCtbl16                                   no
        R2ABlueCtbl17                                   no
        R2ABlueCtbl18                                   no
        R2ABlueCtbl19                                   no
        R2ABlueCtbl20                                   no
        R2ABlueCtbl21                                   no
        R2ABlueCtbl22                                   no
        R2ABlueCtbl23                                   no
        R2ABlueCtbl24                                   no
        R2ABlueCtbl25                                   no
        R2ABlueCtbl26                                   no
        R2ABlueCtbl27                                   no
        R2ABlueCtbl28                                   no
        R2ABlueCtbl29                                   no
        R2ABlueCtbl30                                   no
        R2ABlueCtbl31                                   no
        R2ABlueStbl00                                   no
        R2ABlueStbl01                                   no
        R2ABlueStbl02                                   no
        R2ABlueStbl03                                   no
        R2ABlueStbl04                                   no
        R2ABlueStbl05                                   no
        R2ABlueStbl06                                   no
        R2ABlueStbl07                                   no
        R2ABlueStbl08                                   no
        R2ABlueStbl09                                   no
        R2ABlueStbl10                                   no
        R2ABlueStbl11                                   no
        R2ABlueStbl12                                   no
        R2ABlueStbl13                                   no
        R2ABlueStbl14                                   no
        R2ABlueStbl15                                   no
        R2ABlueStbl16                                   no
        R2ABlueStbl17                                   no
        R2ABlueStbl18                                   no
        R2ABlueStbl19                                   no
        R2ABlueStbl20                                   no
        R2ABlueStbl21                                   no
        R2ABlueStbl22                                   no
        R2ABlueStbl23                                   no
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        R2ABlueStbl24                                   no
        R2ABlueStbl25                                   no
        R2ABlueStbl26                                   no
        R2ABlueStbl27                                   no
        R2ABlueStbl28                                   no
        R2ABlueStbl29                                   no
        R2ABlueStbl30                                   no
        R2ABlueStbl31                                   no
        R2ACx                                           no
        R2ACy                                           no
        R2AGreenCtbl00                                  no
        R2AGreenCtbl01                                  no
        R2AGreenCtbl02                                  no
        R2AGreenCtbl03                                  no
        R2AGreenCtbl04                                  no
        R2AGreenCtbl05                                  no
        R2AGreenCtbl06                                  no
        R2AGreenCtbl07                                  no
        R2AGreenCtbl08                                  no
        R2AGreenCtbl09                                  no
        R2AGreenCtbl10                                  no
        R2AGreenCtbl11                                  no
        R2AGreenCtbl12                                  no
        R2AGreenCtbl13                                  no
        R2AGreenCtbl14                                  no
        R2AGreenCtbl15                                  no
        R2AGreenCtbl16                                  no
        R2AGreenCtbl17                                  no
        R2AGreenCtbl18                                  no
        R2AGreenCtbl19                                  no
        R2AGreenCtbl20                                  no
        R2AGreenCtbl21                                  no
        R2AGreenCtbl22                                  no
        R2AGreenCtbl23                                  no
        R2AGreenCtbl24                                  no
        R2AGreenCtbl25                                  no
        R2AGreenCtbl26                                  no
        R2AGreenCtbl27                                  no
        R2AGreenCtbl28                                  no
        R2AGreenCtbl29                                  no
        R2AGreenCtbl30                                  no
        R2AGreenCtbl31                                  no
        R2AGreenStbl00                                  no
        R2AGreenStbl01                                  no
        R2AGreenStbl02                                  no
        R2AGreenStbl03                                  no
        R2AGreenStbl04                                  no
        R2AGreenStbl05                                  no
        R2AGreenStbl06                                  no
        R2AGreenStbl07                                  no
        R2AGreenStbl08                                  no
        R2AGreenStbl09                                  no
        R2AGreenStbl10                                  no
        R2AGreenStbl11                                  no
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    R2AGreenStbl12                          no
    R2AGreenStbl13                          no
    R2AGreenStbl14                          no
    R2AGreenStbl15                          no
    R2AGreenStbl16                          no
    R2AGreenStbl17                          no
    R2AGreenStbl18                          no
    R2AGreenStbl19                          no
    R2AGreenStbl20                          no
    R2AGreenStbl21                          no
    R2AGreenStbl22                          no
    R2AGreenStbl23                          no
    R2AGreenStbl24                          no
    R2AGreenStbl25                          no
    R2AGreenStbl26                          no
    R2AGreenStbl27                          no
    R2AGreenStbl28                          no
    R2AGreenStbl29                          no
    R2AGreenStbl30                          no
    R2AGreenStbl31                          no
    R2AHeight                               no
    R2AIntervals                            no
    R2ARedCtbl00                            no
    R2ARedCtbl01                            no
    R2ARedCtbl02                            no
    R2ARedCtbl03                            no
    R2ARedCtbl04                            no
    R2ARedCtbl05                            no
    R2ARedCtbl06                            no
    R2ARedCtbl07                            no
    R2ARedCtbl08                            no
    R2ARedCtbl09                            no
    R2ARedCtbl10                            no
    R2ARedCtbl11                            no
    R2ARedCtbl12                            no
    R2ARedCtbl13                            no
    R2ARedCtbl14                            no
    R2ARedCtbl15                            no
    R2ARedCtbl16                            no
    R2ARedCtbl17                            no
    R2ARedCtbl18                            no
    R2ARedCtbl19                            no
    R2ARedCtbl20                            no
    R2ARedCtbl21                            no
    R2ARedCtbl22                            no
    R2ARedCtbl23                            no
    R2ARedCtbl24                            no
    R2ARedCtbl25                            no
    R2ARedCtbl26                            no
    R2ARedCtbl27                            no
    R2ARedCtbl28                            no
    R2ARedCtbl29                            no
    R2ARedCtbl30                            no
    R2ARedCtbl31                            no
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        R2ARedStbl00                                    no
        R2ARedStbl01                                    no
        R2ARedStbl02                                    no
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        R2ARedStbl18                                    no
        R2ARedStbl19                                    no
        R2ARedStbl20                                    no
        R2ARedStbl21                                    no
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        R2ARedStbl30                                    no
        R2ARedStbl31                                    no
        R2ATbl00                                        no
        R2ATbl01                                        no
        R2ATbl02                                        no
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        R2ATbl17                                        no
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        R2ATbl19                                        no
        R2ATbl20                                        no
        R2ATbl21                                        no
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        R2ATbl27                                    no
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        R2ATbl29                                    no
        R2ATbl30                                    no
        R2ATbl31                                    no
        R2AWidth                                    no
        R2D65BlueCtbl00                             no
        R2D65BlueCtbl01                             no
        R2D65BlueCtbl02                             no
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        R2D65BlueCtbl05                             no
        R2D65BlueCtbl06                             no
        R2D65BlueCtbl07                             no
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        R2D65BlueCtbl09                             no
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        R2D65BlueCtbl11                             no
        R2D65BlueCtbl12                             no
        R2D65BlueCtbl13                             no
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        R2D65BlueCtbl31                             no
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        R2D65BlueStbl07                             no
        R2D65BlueStbl08                             no
        R2D65BlueStbl09                             no
        R2D65BlueStbl10                             no
```

```
    R2D65BlueStbl11                         no
    R2D65BlueStbl12                         no
    R2D65BlueStbl13                         no
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    R2D65BlueStbl15                         no
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    R2D65BlueStbl17                         no
    R2D65BlueStbl18                         no
    R2D65BlueStbl19                         no
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    R2D65BlueStbl21                         no
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    R2D65BlueStbl24                         no
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    R2D65BlueStbl30                         no
    R2D65BlueStbl31                         no
    R2D65Cx                                 no
    R2D65Cy                                 no
    R2D65GreenCtbl00                        no
    R2D65GreenCtbl01                        no
    R2D65GreenCtbl02                        no
    R2D65GreenCtbl03                        no
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    R2D65GreenCtbl26                        no
    R2D65GreenCtbl27                        no
    R2D65GreenCtbl28                        no
    R2D65GreenCtbl29                        no
    R2D65GreenCtbl30                        no
```

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        R2D65GreenCtbl31                        no
        R2D65GreenStbl00                        no
        R2D65GreenStbl01                        no
        R2D65GreenStbl02                        no
        R2D65GreenStbl03                        no
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        R2D65GreenStbl05                        no
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        R2D65GreenStbl30                        no
        R2D65GreenStbl31                        no
        R2D65Height                             no
        R2D65Intervals                          no
        R2D65RedCtbl00                          no
        R2D65RedCtbl01                          no
        R2D65RedCtbl02                          no
        R2D65RedCtbl03                          no
        R2D65RedCtbl04                          no
        R2D65RedCtbl05                          no
        R2D65RedCtbl06                          no
        R2D65RedCtbl07                          no
        R2D65RedCtbl08                          no
        R2D65RedCtbl09                          no
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        R2D65RedCtbl12                          no
        R2D65RedCtbl13                          no
        R2D65RedCtbl14                          no
        R2D65RedCtbl15                          no
        R2D65RedCtbl16                          no
        R2D65RedCtbl17                          no
        R2D65RedCtbl18                          no
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        R2D65RedCtbl19                          no
        R2D65RedCtbl20                          no
        R2D65RedCtbl21                          no
        R2D65RedCtbl22                          no
        R2D65RedCtbl23                          no
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        R2D65RedCtbl25                          no
        R2D65RedCtbl26                          no
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        R2D65RedCtbl29                          no
        R2D65RedCtbl30                          no
        R2D65RedCtbl31                          no
        R2D65RedStbl00                          no
        R2D65RedStbl01                          no
        R2D65RedStbl02                          no
        R2D65RedStbl03                          no
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        R2D65RedStbl06                          no
        R2D65RedStbl07                          no
        R2D65RedStbl08                          no
        R2D65RedStbl09                          no
        R2D65RedStbl10                          no
        R2D65RedStbl11                          no
        R2D65RedStbl12                          no
        R2D65RedStbl13                          no
        R2D65RedStbl14                          no
        R2D65RedStbl15                          no
        R2D65RedStbl16                          no
        R2D65RedStbl17                          no
        R2D65RedStbl18                          no
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        R2D65RedStbl27                          no
        R2D65RedStbl28                          no
        R2D65RedStbl29                          no
        R2D65RedStbl30                          no
        R2D65RedStbl31                          no
        R2D65Tbl00                              no
        R2D65Tbl01                              no
        R2D65Tbl02                              no
        R2D65Tbl03                              no
        R2D65Tbl04                              no
        R2D65Tbl05                              no
        R2D65Tbl06                              no
        R2D65Tbl07                              no
        R2D65Tbl08                              no
```

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    R2D65Tbl09                                  no
    R2D65Tbl10                                  no
    R2D65Tbl11                                  no
    R2D65Tbl12                                  no
    R2D65Tbl13                                  no
    R2D65Tbl14                                  no
    R2D65Tbl15                                  no
    R2D65Tbl16                                  no
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    R2D65Tbl28                                  no
    R2D65Tbl29                                  no
    R2D65Tbl30                                  no
    R2D65Tbl31                                  no
    R2D65Width                                  no
    R2TL84BlueCtbl00                            no
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    R2TL84BlueCtbl02                            no
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    R2TL84BlueCtbl26                            no
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    R2TL84BlueCtbl28                            no
    R2TL84BlueCtbl29                            no
```

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        R2TL84BlueCtbl30                        no
        R2TL84BlueCtbl31                        no
        R2TL84BlueStbl00                        no
        R2TL84BlueStbl01                        no
        R2TL84BlueStbl02                        no
        R2TL84BlueStbl03                        no
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        R2TL84BlueStbl05                        no
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        R2TL84BlueStbl24                        no
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        R2TL84BlueStbl26                        no
        R2TL84BlueStbl27                        no
        R2TL84BlueStbl28                        no
        R2TL84BlueStbl29                        no
        R2TL84BlueStbl30                        no
        R2TL84BlueStbl31                        no
        R2TL84Cx                                no
        R2TL84Cy                                no
        R2TL84GreenCtbl00                       no
        R2TL84GreenCtbl01                       no
        R2TL84GreenCtbl02                       no
        R2TL84GreenCtbl03                       no
        R2TL84GreenCtbl04                       no
        R2TL84GreenCtbl05                       no
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        R2TL84GreenCtbl07                       no
        R2TL84GreenCtbl08                       no
        R2TL84GreenCtbl09                       no
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        R2TL84GreenCtbl12                       no
        R2TL84GreenCtbl13                       no
        R2TL84GreenCtbl14                       no
        R2TL84GreenCtbl15                       no
        R2TL84GreenCtbl16                       no
        R2TL84GreenCtbl17                       no
```

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    R2TL84GreenCtbl18                   no
    R2TL84GreenCtbl19                   no
    R2TL84GreenCtbl20                   no
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    R2TL84GreenStbl31                   no
    R2TL84Height                        no
    R2TL84Intervals                     no
    R2TL84RedCtbl00                     no
    R2TL84RedCtbl01                     no
    R2TL84RedCtbl02                     no
    R2TL84RedCtbl03                     no
    R2TL84RedCtbl04                     no
    R2TL84RedCtbl05                     no
```

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R2TL84RedCtbl06                                 no
R2TL84RedCtbl07                                 no
R2TL84RedCtbl08                                 no
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R2TL84RedCtbl10                                 no
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R2TL84RedCtbl31                                 no
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R2TL84RedStbl25                                 no
R2TL84RedStbl26                                 no
R2TL84RedStbl27                                 no
```

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R2TL84RedStbl28                 no
R2TL84RedStbl29                 no
R2TL84RedStbl30                 no
R2TL84RedStbl31                 no
R2TL84Tbl00                     no
R2TL84Tbl01                     no
R2TL84Tbl02                     no
R2TL84Tbl03                     no
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R2TL84Tbl07                     no
R2TL84Tbl08                     no
R2TL84Tbl09                     no
R2TL84Tbl10                     no
R2TL84Tbl11                     no
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R2TL84Tbl15                     no
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R2TL84Tbl28                     no
R2TL84Tbl29                     no
R2TL84Tbl30                     no
R2TL84Tbl31                     no
R2TL84Width                     no
RolloffEnable                   no
SensorFmt                       no
SensorType                      no
SensrFulHght                    no
SensrFulWdth                    no
SensrQtrHght                    no
SensrQtrWdth                    no
SnapshotResol                   no
TL84ConvChrmA_M                 no
TL84ConvChrmA_P                 no
TL84ConvChrmB_M                 no
TL84ConvChrmB_P                 no
TL84ConvChrmC_M                 no
TL84ConvChrmC_P                 no
TL84ConvChrmD_M                 no
TL84ConvChrmD_P                 no
TL84ConvChrmKCb                 no
```

TL84ConvChrmKCr	no
TL84ConvLumaK	no
TL84ConvLumaV0	no
TL84ConvLumaV1	no
TL84ConvLumaV2	no
VideoFps	no
YhiYloConvChrmA_M	no
YhiYloConvChrmA_P	no
YhiYloConvChrmB_M	no
YhiYloConvChrmB_P	no
YhiYloConvChrmC_M	no
YhiYloConvChrmC_P	no
YhiYloConvChrmD_M	no
YhiYloConvChrmD_P	no
YhiYloConvChrmKCb	no
YhiYloConvChrmKCr	no
YhiYloConvLumaK	no
YhiYloConvLumaV0	no
YhiYloConvLumaV1	no
YhiYloConvLumaV2	no
YhiYloCorC0	no
YhiYloCorC1	no
YhiYloCorC2	no
YhiYloCorC3	no
YhiYloCorC4	no
YhiYloCorC5	no
YhiYloCorC6	no
YhiYloCorC7	no
YhiYloCorC8	no
YhiYloCorK0	no
YhiYloCorK1	no
YhiYloCorK2	no

Qualcomm DualCamera Tags

Found in JPEG APP4 ‘‘Qualcomm Dual Camera Attributes’’ written by some Nokia phones.

Tag Name	Writable
AF_ROIHeight	no
AF_ROILeft	no
AF_ROITop	no
AF_ROIWidth	no
CAMIFCropHeight	no
CAMIFCropLeft	no
CAMIFCropTop	no
CAMIFCropWidth	no
CAMIF_ROIMapHeight	no
CAMIF_ROIMapLeft	no
CAMIF_ROIMapTop	no
CAMIF_ROIMapWidth	no
CPPCropHeight	no
CPPCropLeft	no
CPPCropTop	no
CPPCropWidth	no
CPP_ROIMapHeight	no

CPP_ROIMapLeft	no
CPP_ROIMapTop	no
CPP_ROIMapWidth	no
CurrentPipelineMirrorFlipSetting	no
CurrentPipelineRotationSetting	no
DDMCropHeight	no
DDMCropLeft	no
DDMCropTop	no
DDMCropWidth	no
FocalLengthRatio	no
ISPCropHeight	no
ISPCropLeft	no
ISPCropTop	no
ISPCropWidth	no
ISP_ROIMapHeight	no
ISP_ROIMapLeft	no
ISP_ROIMapTop	no
ISP_ROIMapWidth	no
SensorCropHeight	no
SensorCropLeft	no
SensorCropTop	no
SensorCropWidth	no
SensorROIMapHeight	no
SensorROIMapLeft	no
SensorROIMapTop	no
SensorROIMapWidth	no

Jpeg2000 Tags

The tags below are found in JPEG 2000 images and the C2PA CAI JUMBF metadata in various file types (see below). Note that ExifTool currently writes only EXIF, IPTC and XMP tags in Jpeg2000 images, and EXIF and XMP in JXL images. ExifTool will read/write Brotli-compressed EXIF and XMP in JXL images, but the API Compress option must be set to create new EXIF and XMP in compressed format.

C2PA (Coalition for Content Provenance and Authenticity) CAI (Content Authenticity Initiative) JUMBF (JPEG Universal Metadata Box Format) metdata is currently extracted from JPEG, PNG, TIFF-based (eg. TIFF, DNG), QuickTime-based (eg. MP4, MOV, HEIF, AVIF), RIFF-based (eg. WAV, AVI, WebP), PDF, SVG and GIF files, and ID3v2 metadata. The suggested ExifTool command-line arguments for reading C2PA metadata are `-jumbf:all -G3 -b -j -u -struct`. This metadata may be deleted from writable JPEG, PNG, WebP, TIFF-based, and QuickTime-based files by deleting the JUMBF group with `-jumbf:all=`. The C2PA JUMBF metadata may be extracted as a block via the JUMBF tag. See <https://c2pa.org/specifications/> for the C2PA specification.

Tag ID	Tag Name	Writable
'Exif'	EXIF	EXIF
'asoc'	Association	Jpeg2000
'bfdb'	BinaryDataType	no
'bfil'	BinaryFilter	no
'bidb'	BinaryData	no
'bpcc'	BitsPerComponent	no
'brob'	BrotliXMP	XMP
	BrotliEXIF	EXIF
	BrotliJUMB	Jpeg2000
'c2sh'	C2PASaltHash	no
'cbor'	CBORData	CBOR
'cdef'	ComponentDefinition	no

```
'cgrp'   ColorGroup                          no
'chck'   DigitalSignature                    no
'cmap'   ComponentMapping                    no
'colr'   ColorSpecification                  Jpeg2000 ColorSpec
'comp'   Composition                         no
'copt'   CompositionOptions                  no
'cref'   Cross-Reference                     no
'creg'   CodestreamRegistration              no
'drep'   DesiredReproductions                no
'dtbl'   DataReference                       no
'flst'   FragmentList                        no
'free'   Free                                no
'ftbl'   FragmentTable                       no
'ftyp'   FileType                            Jpeg2000 FileType
'gtso'   GraphicsTechnologyStandardOutput    no
'hrgm'   GainMapImage                        no
'ihdr'   ImageHeader                         Jpeg2000 ImageHeader
'inst'   InstructionSet                      no
'jP  '   JP2Signature                        no
'jp2c'   ContiguousCodestream                no
         PreviewImage                        no
'jp2h'   JP2Header                           Jpeg2000
'jp2i'   IntellectualProperty                XMP
'jpch'   CodestreamHeader                    Jpeg2000
'jplh'   CompositingLayerHeader              Jpeg2000
'json'   JSONData                            JSON
'jumb'   JUMBFBox                            Jpeg2000
'jumd'   JUMBFDescr                          Jpeg2000 JUMD
'jxlc'   JXLCodestream                       no
'jxlp'   PartialJXLCodestream                no
'lbl '   Label                               no
'mdat'   MediaData                           no
'mp7b'   MPEG7Binary                         no
'nlst'   NumberList                          no
'opct'   Opacity                             no
'pclr'   Palette                             no
'prfl'   Profile                             no
'res '   Resolution                          Jpeg2000
'resc'   CaptureResolution                   Jpeg2000 CaptureResolution
'resd'   DisplayResolution                   Jpeg2000 DisplayResolution
'roid'   ROIDescription                      no
'rreq'   ReaderRequirements                  no
'uinf'   UUIDInfo                            Jpeg2000
'ulst'   UUIDList                            no
'url '   URL                                 no
'uuid'   UUID-EXIF                           EXIF
         UUID-EXIF2                          EXIF
         UUID-EXIF_bad                       EXIF
         UUID-IPTC                           IPTC
         UUID-IPTC2                          IPTC
         UUID-XMP                            XMP
         UUID-GeoJP2                         EXIF
         UUID-Photoshop                      Photoshop
         UUID-C2PAClaimSignature             CBOR
```

	UUID-Signature	no
	UUID-Unknown	no
'xml '	XML	XMP XML
	XMP	-
		XMP

Jpeg2000 ColorSpec Tags

The table below contains tags in the color specification (colr) box. This box may be rewritten by writing either ICC_Profile, ColorSpace or ColorSpecData. When writing, any existing colr boxes are replaced with the newly created colr box.

NOTE: Care must be taken when writing this color specification because writing a specification that is incompatible with the image data may make the image undisplayable.

Index1	Tag Name	Writable
0	ColorSpecMethod	int8s!
1	ColorSpecPrecedence	int8s!
2	ColorSpecApproximation	int8s!
3	ICC_Profile	ICC_Profile
	ColorSpace	int32u!
	ColorSpecData	undef[$size-3]!

Jpeg2000 FileType Tags

Index4	Tag Name	Writable
0	MajorBrand	no
1	MinorVersion	no
2	CompatibleBrands	no+

Jpeg2000 ImageHeader Tags

Index1	Tag Name	Writable
0	ImageHeight	no
4	ImageWidth	no
8	NumberOfComponents	no
10	BitsPerComponent	no
11	Compression	no

Jpeg2000 JUMD Tags

Information extracted from the JUMBF description box.

Tag ID	Tag Name	Writable
'id'	JUMDID	no
'label'	JUMDLabel	no
'sig'	JUMDSignature	no
'toggles'	JUMDToggles?	no
'type'	JUMDType	no

Jpeg2000 CaptureResolution Tags

Index1	Tag Name	Writable
0	CaptureYResolution	no
4	CaptureXResolution	no
8	CaptureYResolutionUnit	no
9	CaptureXResolutionUnit	no

Jpeg2000 DisplayResolution Tags

Index1	Tag Name	Writable
0	DisplayYResolution	no
4	DisplayXResolution	no
8	DisplayYResolutionUnit	no
9	DisplayXResolutionUnit	no

APP12 Tags

APP12 PictureInfo Tags

The JPEG APP12 ‘‘Picture Info’’ segment was used by some older cameras, and contains ASCII-based meta information. Below are some tags which have been observed Agfa and Polaroid images, however ExifTool will extract information from any tags found in this segment.

Tag ID	Tag Name	Writable
'Aperture'	Aperture	no
'ColorMode'	ColorMode	no
'ContTake'	ContTake	no
'ExpBias'	ExposureCompensation	no
'FNumber'	FNumber	no
'FWare'	FirmwareVersion	no
'Flash'	Flash	no
'FocusMode'	FocusMode	no
'FocusPos'	FocusPos	no
'ID'	ID	no
'ImageSize'	ImageSize	no
'LightS'	LightS	no
'Macro'	Macro	no
'Protect'	Protect	no
'Quality'	Quality	no
'Resolution'	Resolution	no
'Serial#'	SerialNumber	no
'Shutter'	ExposureTime	no
'StrobeTime'	StrobeTime	no
'TimeDate'	DateTimeOriginal	no
'Type'	CameraType	no
'Version'	Version	no
'Ytarget'	YTarget	no
'Zoom'	Zoom	no
'ZoomPos'	ZoomPos	no
'shtr'	ExposureTime	no
'ylevel'	YLevel	no

APP12 Ducky Tags

Photoshop uses the JPEG APP12 ‘‘Ducky’’ segment to store some information in ‘‘Save for Web’’ images.

Tag ID	Tag Name	Writable
0x0001	Quality	int32u/
0x0002	Comment	string/
0x0003	Copyright	string/

AFCP Tags

AFCP stands for AXS File Concatenation Protocol, and is a poorly designed protocol for appending information to the end of files. This can be used as an auxiliary technique to store IPTC information in images, but is incompatible with some file formats.

ExifTool will read and write (but not create) AFCP IPTC information in JPEG and TIFF images.

See <http://web.archive.org/web/20080828211305/http://www.tocarte.com/media/axs_afcp_spec.pdf> for the AFCP specification.

Tag ID	Tag Name	Writable
'IPTC'	IPTC	IPTC
'Nail'	ThumbnailImage	no
'PrVw'	PreviewImage	no
'TEXT'	Text	no

DarwinCore Tags

Tags defined in the Darwin Core (dwc) XMP namespace. See <http://rs.tdwg.org/dwc/index.htm> for the official specification.

These tags belong to the ExifTool XMP-dwc family 1 group.

Tag Name	Writable
DCTermsLocation	DarwinCore DCTermsLocation Struct
DCContinent	string_
DCCoordinatePrecision	string_
DCCoordinateUncertaintyInMeters	string_
DCCountry	string_
DCCountryCode	string_
DCCounty	string_
DCDecimalLatitude	string_
DCDecimalLongitude	string_
DCFootprintSpatialFit	string_
DCFootprintSRS	string_
DCFootprintWKT	string_
DCGeodeticDatum	string_
DCGeoreferencedBy	string_
DCGeoreferencedDate	string_
DCGeoreferenceProtocol	string_
DCGeoreferenceRemarks	string_
DCGeoreferenceSources	string_
DCGeoreferenceVerificationStatus	string_
DCHigherGeography	string_
DCHigherGeographyID	string_
DCIsland	string_
DCIslandGroup	string_
DCLocality	string_
DCLocationAccordingTo	string_
DCLocationID	string_
DCLocationRemarks	string_
DCMaximumDepthInMeters	string_

```
DCMaximumDistanceAboveSurfaceInMeters        string_
DCMaximumElevationInMeters                   string_
DCMinimumDepthInMeters                       string_
DCMinimumDistanceAboveSurfaceInMeters        string_
DCMinimumElevationInMeters                   string_
DCMunicipality                               string_
DCPointRadiusSpatialFit                      string_
DCStateProvince                              string_
DCVerbatimCoordinates                        string_
DCVerbatimCoordinateSystem                   string_
DCVerbatimDepth                              string_
DCVerbatimElevation                          string_
DCVerbatimLatitude                           string_
DCVerbatimLocality                           string_
DCVerbatimLongitude                          string_
DCVerbatimSRS                                string_
DCVerticalDatum                              string_
DCWaterBody                                  string_
DCEvent                                      DarwinCore Event Struct
EventDay                                     integer_
EventEarliestDate                            date_
EventEndDayOfYear                            integer_
EventDate                                    date_
EventID                                      string/_
EventRemarks                                 lang-alt_
EventTime                                    string_
EventEventType                               string_
EventFieldNotes                              string_
EventFieldNumber                             string_
EventHabitat                                 string_
EventLatestDate                              date_
EventMonth                                   integer_
EventParentEventID                           string_
EventSampleSizeUnit                          string_
EventSampleSizeValue                         string_
EventSamplingEffort                          string_
EventSamplingProtocol                        string_
EventStartDayOfYear                          integer_
EventVerbatimEventDate                       string_
EventYear                                    integer_
FossilSpecimen                               DarwinCore MaterialSample Struct
FossilSpecimenMaterialSampleID               string_
GeologicalContext                           DarwinCore GeologicalContext Struct
GeologicalContextBed                         string_
EarliestAgeOrLowestStage                     string_
EarliestEonOrLowestEonothem                  string_
EarliestEpochOrLowestSeries                  string_
EarliestEraOrLowestErathem                   string_
EarliestPeriodOrLowestSystem                 string_
GeologicalContextFormation                   string_
GeologicalContextID                          string_
GeologicalContextGroup                       string_
HighestBiostratigraphicZone                  string_
LatestAgeOrHighestStage                      string_
```

```
LatestEonOrHighestEonothem                  string_
LatestEpochOrHighestSeries                  string_
LatestEraOrHighestErathem                   string_
LatestPeriodOrHighestSystem                 string_
LithostratigraphicTerms                     string_
LowestBiostratigraphicZone                  string_
GeologicalContextMember                     string_
HumanObservation                            DarwinCore Event Struct
HumanObservationDay                         integer_
HumanObservationEarliestDate                date_
HumanObservationEndDayOfYear                integer_
HumanObservationEventDate                   date_
HumanObservationEventID                     string/_
HumanObservationEventRemarks                lang-alt_
HumanObservationEventTime                   string_
HumanObservationEventType                   string_
HumanObservationFieldNotes                  string_
HumanObservationFieldNumber                 string_
HumanObservationHabitat                     string_
HumanObservationLatestDate                  date_
HumanObservationMonth                       integer_
HumanObservationParentEventID               string_
HumanObservationSampleSizeUnit              string_
HumanObservationSampleSizeValue             string_
HumanObservationSamplingEffort              string_
HumanObservationSamplingProtocol            string_
HumanObservationStartDayOfYear              integer_
HumanObservationVerbatimEventDate           string_
HumanObservationYear                        integer_
Identification                              DarwinCore Identification Struct
DateIdentified                              date_
IdentificationID                            string_
IdentificationQualifier                     string_
IdentificationReferences                    string_
IdentificationRemarks                       string_
IdentificationVerificationStatus            string_
IdentifiedBy                                string_
IdentifiedByID                              string_
TypeStatus                                  string_
VerbatimIdentification                      string_
LivingSpecimen                              DarwinCore MaterialSample Struct
LivingSpecimenMaterialSampleID              string_
MachineObservation                          DarwinCore Event Struct
MachineObservationDay                       integer_
MachineObservationEarliestDate              date_
MachineObservationEndDayOfYear              integer_
MachineObservationEventDate                 date_
MachineObservationEventID                   string/_
MachineObservationEventRemarks              lang-alt_
MachineObservationEventTime                 string_
MachineObservationEventType                 string_
MachineObservationFieldNotes                string_
MachineObservationFieldNumber               string_
MachineObservationHabitat                   string_
```

```
MachineObservationLatestDate                date_
MachineObservationMonth                     integer_
MachineObservationParentEventID             string_
MachineObservationSampleSizeUnit            string_
MachineObservationSampleSizeValue           string_
MachineObservationSamplingEffort            string_
MachineObservationSamplingProtocol          string_
MachineObservationStartDayOfYear            integer_
MachineObservationVerbatimEventDate         string_
MachineObservationYear                      integer_
MaterialSample                              DarwinCore MaterialSample Struct
MaterialSampleID                            string_
MeasurementOrFact                          DarwinCore MeasurementOrFact Struct
MeasurementAccuracy                         string_
MeasurementDeterminedBy                     string_
MeasurementDeterminedDate                   date_
MeasurementID                               string_
MeasurementMethod                           string_
MeasurementRemarks                          string_
MeasurementType                             string_
MeasurementUnit                             string_
MeasurementValue                            string_
ParentMeasurementID                         string_
Occurrence                                  DarwinCore Occurrence Struct
OccurrenceAssociatedMedia                   string_
OccurrenceAssociatedOccurrences             string_
OccurrenceAssociatedReferences              string_
OccurrenceAssociatedSequences               string_
OccurrenceAssociatedTaxa                    string_
OccurrenceBehavior                          string_
OccurrenceCaste                             string_
OccurrenceCatalogNumber                     string_
OccurrenceDegreeOfEstablishment             string_
OccurrenceDisposition                       string_
OccurrenceEstablishmentMeans                string_
OccurrenceGeoreferenceVerificationStatus    string_
OccurrenceIndividualCount                   string_
OccurrenceIndividualID                      string_
OccurrenceLifeStage                         string_
OccurrenceDetails                           string_
OccurrenceID                                string_
OccurrenceRemarks                           string_
OccurrenceStatus                            string_
OccurrenceOrganismQuantity                  string_
OccurrenceOrganismQuantityType              string_
OccurrenceOtherCatalogNumbers               string_
OccurrencePathway                           string_
OccurrencePreparations                      string_
OccurrencePreviousIdentifications           string_
OccurrenceRecordedBy                        string_
OccurrenceRecordedByID                      string_
OccurrenceRecordNumber                      string_
OccurrenceReproductiveCondition             string_
OccurrenceSex                               string_
```

```
    OccurrenceVitality                          string_
    Organism                                    DarwinCore Organism Struct
    OrganismAssociatedOccurrences               string_
    OrganismAssociatedOrganisms                 string_
    OrganismID                                  string_
    OrganismName                                string_
    OrganismRemarks                             string_
    OrganismScope                               string_
    OrganismPreviousIdentifications             string_
    PreservedSpecimen                           DarwinCore MaterialSample Struct
    PreservedSpecimenMaterialSampleID           string_
    Record                                      DarwinCore Record Struct
    RecordBasisOfRecord                         string_
    RecordCollectionCode                        string_
    RecordCollectionID                          string_
    RecordDataGeneralizations                   string_
    RecordDatasetID                             string_
    RecordDatasetName                           string_
    RecordDynamicProperties                     string_
    RecordInformationWithheld                   string_
    RecordInstitutionCode                       string_
    RecordInstitutionID                         string_
    RecordOwnerInstitutionCode                  string_
    ResourceRelationship                      DarwinCore ResourceRelationship Struct
    RelatedResourceID                           string_
    RelationshipAccordingTo                     string_
    RelationshipEstablishedDate                 date_
    RelationshipOfResource                      string_
    RelationshipOfResourceID                    string_
    RelationshipRemarks                         string_
    ResourceID                                  string_
    ResourceRelationshipID                      string_
    Taxon                                       DarwinCore Taxon Struct
    TaxonAcceptedNameUsage                      string_
    TaxonAcceptedNameUsageID                    string_
    TaxonClass                                  string_
    TaxonCultivarEpithet                        string_
    TaxonFamily                                 string_
    TaxonGenericName                            string_
    TaxonGenus                                  string_
    TaxonHigherClassification                   string_
    TaxonInfragenericEpithet                    string_
    TaxonInfraspecificEpithet                   string_
    TaxonKingdom                                string_
    TaxonNameAccordingTo                        string_
    TaxonNameAccordingToID                      string_
    TaxonNamePublishedIn                        string_
    TaxonNamePublishedInID                      string_
    TaxonNamePublishedInYear                    string_
    TaxonNomenclaturalCode                      string_
    TaxonNomenclaturalStatus                    string_
    TaxonOrder                                  string_
    TaxonOriginalNameUsage                      string_
    TaxonOriginalNameUsageID                    string_
```

TaxonParentNameUsage	string_
TaxonParentNameUsageID	string_
TaxonPhylum	string_
TaxonScientificName	string_
TaxonScientificNameAuthorship	string_
TaxonScientificNameID	string_
TaxonSpecificEpithet	string_
TaxonSubFamily	string_
TaxonSubgenus	string_
TaxonSubTribe	string_
TaxonSuperFamily	string_
TaxonConceptID	string_
TaxonID	string_
TaxonTaxonomicStatus	string_
TaxonRank	string_
TaxonRemarks	string_
TaxonTribe	string_
TaxonVerbatimTaxonRank	string_
TaxonVernacularName	lang-alt_

DarwinCore DCTermsLocation Struct

Field Name	Writable
Continent	string
CoordinatePrecision	string
CoordinateUncertaintyInMeters	string
Country	string
CountryCode	string
County	string
DecimalLatitude	string
DecimalLongitude	string
FootprintSRS	string
FootprintSpatialFit	string
FootprintWKT	string
GeodeticDatum	string
GeoreferenceProtocol	string
GeoreferenceRemarks	string
GeoreferenceSources	string
GeoreferenceVerificationStatus	string
GeoreferencedBy	string
GeoreferencedDate	string
HigherGeography	string
HigherGeographyID	string
Island	string
IslandGroup	string
Locality	string
LocationAccordingTo	string
LocationID	string
LocationRemarks	string
MaximumDepthInMeters	string
MaximumDistanceAboveSurfaceInMeters	string
MaximumElevationInMeters	string
MinimumDepthInMeters	string
MinimumDistanceAboveSurfaceInMeters	string
MinimumElevationInMeters	string

Municipality	string
PointRadiusSpatialFit	string
StateProvince	string
VerbatimCoordinateSystem	string
VerbatimCoordinates	string
VerbatimDepth	string
VerbatimElevation	string
VerbatimLatitude	string
VerbatimLocality	string
VerbatimLongitude	string
VerbatimSRS	string
VerticalDatum	string
WaterBody	string

DarwinCore Event Struct

Field Name	Writable
Day	integer
EarliestDate	date
EndDayOfYear	integer
EventDate	date
EventID	string
EventRemarks	lang-alt
EventTime	string
EventType	string
FieldNotes	string
FieldNumber	string
Habitat	string
LatestDate	date
Month	integer
ParentEventID	string
SampleSizeUnit	string
SampleSizeValue	string
SamplingEffort	string
SamplingProtocol	string
StartDayOfYear	integer
VerbatimEventDate	string
Year	integer

DarwinCore MaterialSample Struct

Field Name	Writable
MaterialSampleID	string

DarwinCore GeologicalContext Struct

Field Name	Writable
Bed	string
EarliestAgeOrLowestStage	string
EarliestEonOrLowestEonothem	string
EarliestEpochOrLowestSeries	string
EarliestEraOrLowestErathem	string
EarliestPeriodOrLowestSystem	string
Formation	string
GeologicalContextID	string
Group	string
HighestBiostratigraphicZone	string
LatestAgeOrHighestStage	string
LatestEonOrHighestEonothem	string
LatestEpochOrHighestSeries	string
LatestEraOrHighestErathem	string
LatestPeriodOrHighestSystem	string
LithostratigraphicTerms	string
LowestBiostratigraphicZone	string
Member	string

DarwinCore Identification Struct

Field Name	Writable
DateIdentified	date
IdentificationID	string
IdentificationQualifier	string
IdentificationReferences	string
IdentificationRemarks	string
IdentificationVerificationStatus	string
IdentifiedBy	string
IdentifiedByID	string
TypeStatus	string
VerbatimIdentification	string

DarwinCore MeasurementOrFact Struct

Field Name	Writable
MeasurementAccuracy	string
MeasurementDeterminedBy	string
MeasurementDeterminedDate	date
MeasurementID	string
MeasurementMethod	string
MeasurementRemarks	string
MeasurementType	string
MeasurementUnit	string
MeasurementValue	string
ParentMeasurementID	string

DarwinCore Occurrence Struct

Field Name	Writable
AssociatedMedia	string
AssociatedOccurrences	string
AssociatedReferences	string
AssociatedSequences	string
AssociatedTaxa	string
Behavior	string
Caste	string
CatalogNumber	string
DegreeOfEstablishment	string
Disposition	string
EstablishmentMeans	string
GeoreferenceVerificationStatus	string
IndividualCount	string
IndividualID	string
LifeStage	string
OccurrenceDetails	string
OccurrenceID	string
OccurrenceRemarks	string
OccurrenceStatus	string
OrganismQuantity	string
OrganismQuantityType	string
OtherCatalogNumbers	string
Pathway	string
Preparations	string
PreviousIdentifications	string
RecordNumber	string
RecordedBy	string
RecordedByID	string
ReproductiveCondition	string
Sex	string
Vitality	string

DarwinCore Organism Struct

Field Name	Writable
AssociatedOccurrences	string
AssociatedOrganisms	string
OrganismID	string
OrganismName	string
OrganismRemarks	string
OrganismScope	string
PreviousIdentifications	string

DarwinCore Record Struct

Field Name	Writable
BasisOfRecord	string
CollectionCode	string
CollectionID	string
DataGeneralizations	string
DatasetID	string
DatasetName	string
DynamicProperties	string
InformationWithheld	string
InstitutionCode	string
InstitutionID	string
OwnerInstitutionCode	string

DarwinCore ResourceRelationship Struct

Field Name	Writable
RelatedResourceID	string
RelationshipAccordingTo	string
RelationshipEstablishedDate	date
RelationshipOfResource	string
RelationshipOfResourceID	string
RelationshipRemarks	string
ResourceID	string
ResourceRelationshipID	string

DarwinCore Taxon Struct

Field Name	Writable
AcceptedNameUsage	string
AcceptedNameUsageID	string
Class	string
CultivarEpithet	string
Family	string
GenericName	string
Genus	string
HigherClassification	string
InfragenericEpithet	string
InfraspecificEpithet	string
Kingdom	string
NameAccordingTo	string
NameAccordingToID	string
NamePublishedIn	string
NamePublishedInID	string
NamePublishedInYear	string
NomenclaturalCode	string
NomenclaturalStatus	string
Order	string
OriginalNameUsage	string
OriginalNameUsageID	string
ParentNameUsage	string
ParentNameUsageID	string
Phylum	string
ScientificName	string
ScientificNameAuthorship	string

ScientificNameID	string
SpecificEpithet	string
SubFamily	string
SubTribe	string
Subgenus	string
SuperFamily	string
TaxonConceptID	string
TaxonID	string
TaxonRank	string
TaxonRemarks	string
TaxonomicStatus	string
Tribe	string
VerbatimTaxonRank	string
VernacularName	lang-alt

FotoStation Tags

The following tables define information found in the FotoWare FotoStation trailer.

Tag ID	Tag Name	Writable
0x0001	IPTC	IPTC
0x0002	SoftEdit	FotoStation SoftEdit
0x0003	ThumbnailImage	yes
0x0004	PreviewImage	yes

FotoStation SoftEdit Tags

Index4	Tag Name	Writable
0	OriginalImageWidth	int32s
1	OriginalImageHeight	int32s
2	ColorPlanes	int32s
3	XYResolution	int32s
4	Rotation	int32s
6	CropLeft	int32s
7	CropTop	int32s
8	CropRight	int32s
9	CropBottom	int32s
11	CropRotation	int32s

PhotoMechanic Tags

The Photo Mechanic trailer contains data in an IPTC-format structure, with soft edit information stored under record number 2.

Record	Tag Name	Writable
2	SoftEdit	PhotoMechanic SoftEdit

PhotoMechanic SoftEdit Tags

Tag ID	Tag Name	Writable
209	RawCropLeft	int32s
210	RawCropTop	int32s
211	RawCropRight	int32s
212	RawCropBottom	int32s
213	ConstrainedCropWidth	int32s
214	ConstrainedCropHeight	int32s
215	FrameNum	int32s
216	Rotation	int32s
217	CropLeft	int32s
218	CropTop	int32s
219	CropRight	int32s
220	CropBottom	int32s
221	Tagged	int32s
222	ColorClass	int32s
223	Rating	int32s
236	PreviewCropLeft	int32s
237	PreviewCropTop	int32s
238	PreviewCropRight	int32s
239	PreviewCropBottom	int32s

PhotoMechanic XMP Tags

Below is a list of the observed PhotoMechanic XMP tags. The actual namespace prefix is ‘‘photomechanic’’ but ExifTool shortens this in the family 1 group name.

These tags belong to the ExifTool XMP-photomech family 1 group.

Tag Name	Writable
ColorClass	integer
CountryCode	string/
CreatorIdentity	string+
EditStatus	string
PMVersion	string
Prefs	string
Tagged	boolean
TimeCreated	string/

Microsoft Tags

Microsoft XMP Tags

Microsoft Photo 1.0 schema XMP tags. This is likely not a complete list, but represents tags which have been observed in sample images. The actual namespace prefix is ‘‘MicrosoftPhoto’’, but ExifTool shortens this in the family 1 group name.

These tags belong to the ExifTool XMP-microsoft family 1 group.

Tag Name	Writable
CameraSerialNumber	string
CreatorAppID	string
CreatorOpenWithUIOptions	string
DateAcquired	date
FlashManufacturer	string
FlashModel	string
ItemSubType	string
LastKeywordIPTC	string+
LastKeywordXMP	string+
LensManufacturer	string
LensModel	string/
RatingPercent	string

Microsoft MP Tags

Microsoft Photo 1.2 schema XMP tags which have been observed.

These tags belong to the ExifTool XMP-MP family 1 group.

Tag Name	Writable
RegionInfoDateRegionsValid	date_
RegionInfoMP	Microsoft RegionInfo Struct
RegionInfoRegions	Microsoft Regions Struct_+
RegionPersonDisplayName	string_+
RegionPersonEmailDigest	string_+
RegionPersonLiveIdCID	string_+
RegionPersonSourceID	string_+
RegionRectangle	string_+

Microsoft RegionInfo Struct

Field Name	Writable
DateRegionsValid	date
Regions	Microsoft Regions Struct+

Microsoft Regions Struct

Note that PersonLiveIdCID element is called PersonLiveCID according to the Microsoft specification, but in practice their software actually writes PersonLiveIdCID, so ExifTool uses this too.

Field Name	Writable
PersonDisplayName	string
PersonEmailDigest	string
PersonLiveIdCID	string
PersonSourceID	string
Rectangle	string

Microsoft MP1 Tags

Microsoft Photo 1.1 schema XMP tags which have been observed.

These tags belong to the ExifTool XMP−MP1 family 1 group.

Tag Name	Writable
Brightness	string/
CameraModelID	string/
Contrast	string/
ExposureCompensation	string/
PanoramicStitchCameraMotion	string
PanoramicStitchMapType	string
PanoramicStitchPhi0	real
PanoramicStitchPhi1	real
PanoramicStitchTheta0	real
PanoramicStitchTheta1	real
PipelineVersion	string
StreamType	string
WhiteBalance0	real
WhiteBalance1	real
WhiteBalance2	real

Microsoft Stitch Tags

Information found in the Microsoft custom EXIF tag 0x4748, as written by Windows Live Photo Gallery.

Index4	Tag Name	Writable
0	PanoramicStitchVersion	int32u
1	PanoramicStitchCameraMotion	int32u
2	PanoramicStitchMapType	int32u
3	PanoramicStitchTheta0	float
4	PanoramicStitchTheta1	float
5	PanoramicStitchPhi0	float
6	PanoramicStitchPhi1	float

Microsoft Xtra Tags

Tags found in the Microsoft ‘‘Xtra’’ atom of QuickTime videos. Tag ID’s are not shown because some are unruly GUID’s. Currently most of these tags are not writable because the Microsoft documentation is poor and samples were not available, but more tags may be made writable in the future if samples are provided. Note that writable tags in this table are are flagged to ‘‘Avoid’’, which means that other more common tags will be written instead if possible unless the Microsoft group is specified explicitly.

Tag Name	Writable
Abstract	no
AccountName	no
AcquisitionTime	no
AcquisitionTimeDay	no
AcquisitionTimeMonth	no
AcquisitionTimeYear	no
AcquisitionTimeYearMonth	no
AcquisitionTimeYearMonthDay	no
AlbumArtist	Unicode/
AlbumArtist	no
AlbumArtistSortOrder	no
AlbumCoverURL	Unicode/
AlbumID	no
AlbumIDAlbumArtist	no
AlbumTitle	Unicode/
AlbumTitle	no

```
AlbumTitleSortOrder                     no
AlternateSourceURL                      no
Anniversary                             no
Artist                                  no
AssistantsName                          no
AssistantsPhone                         no
Attachments                             no
Attributes                              no
AudioBitrate                            no
AudioFormat                             no
AudioSampleRate                         no
AudioSampleSize                         no
Author                                  no
Author                                  no
AuthorSortOrder                         no
AuthorURL                               Unicode/
AutoSummary                             no
AverageLevel                            no
BccAddresses                            no
BccNames                                no
Beats-per-minute                        no
BeatsPerMinute                          no
BillingInformation                      no
Birthday                                no
BitDepth                                no
Bitrate                                 no
Bitrate                                 no
BroadcastDate                           no
BusinessAddress                         no
BusinessCity                            no
BusinessCountry-Region                  no
BusinessFax                             no
BusinessHomePage                        no
BusinessPOBox                           no
BusinessPhone                           no
BusinessPostalCode                      no
BusinessStateOrProvince                 no
BusinessStreet                          no
BuyNow                                  no
BuyTickets                              no
CDTrackEnabled                          no
CallLetters                             no
CallbackNumber                          no
CameraMaker                             no
CameraManufacturer                      no
CameraModel                             no
CameraModel                             no
CarPhone                                no
Category                                Unicode/+
Category                                no
CcAddresses                             no
CcNames                                 no
CellPhone                               no
ChannelNumber                           no
```

```
Channels                                no
Channels                                no
ChapterNum                              no
Children                                no
City                                    no
ClientID                                no
ClosedCaptioning                        no
Color                                   no
Comment                                 no
Comments                                no
Company                                 no
CompanyMainPhone                        no
Complete                                no
Composer                                Unicode/
Composers                               no
Computer                                no
Conductor                               Unicode/+
Conductors                              no
ContactNames                            no
ContentDistributor                      Unicode/
ContentDistributorDuration              no
ContentDistributorType                  no
ContentGroupDescription                 no
ContentType                             no
Contributors                            no
ConversationID                          no
Copyright                               no
Copyright                               no
Count                                   no
Country-Region                          no
Creator                                 no
CurrentBitrate                          no
DLNAServerUDN                           no
DLNASourceURI                           no
DRMIndividualizedVersion                no
DRMKeyID                                no
DTCPIPHost                              no
DTCPIPPort                              no
DVDID                                   no
DataRate                                no
Date                                    no
DateAccessed                            no
DateAcquired                            vt_filetime/
DateArchived                            no
DateCompleted                           no
DateCreated                             no
DateImported                            no
DateLastSaved                           no
DateModified                            no
DatePictureTaken                        no
DateReceived                            no
DateReleased                            no
DateSent                                no
DateVisited                             no
```

```
Department                      no
Description                     Unicode/
Description                     no
Description                     no
Dimensions                      no
Director                        Unicode/+
Directors                       no
DisplayArtist                   no
Division                        no
DocumentID                      no
DueDate                         no
Duration                        no
Duration                        no
Duration                        no
E-mail2                         no
E-mail3                         no
E-mailAddress                   no
E-mailDisplayName               no
E-mailList                      no
EncodedBy                       Unicode/
EncodedBy                       no
EncodingTime                    date/
EndDate                         no
EntryType                       no
EpisodeName                     no
Event                           no
Event                           no
ExifVersion                     no
ExposureBias                    no
ExposureProgram                 no
ExposureTime                    no
F-stop                          no
FileAs                          no
FileCount                       no
FileSize                        no
FileType                        no
FileVersion                     no
FirstName                       no
FlagColor                       no
FlagStatus                      no
FlashMode                       no
FocalLength                     no
FocalLength35mm                 no
Folder                          no
FolderName                      no
FolderPath                      no
FormatTag                       no
FourCC                          no
FrameHeight                     no
FrameRate                       no
FrameRate                       no
FrameWidth                      no
Free-busyStatus                 no
Frequency                       no
```

```
FromAddresses                           no
FromNames                               no
FullName                                no
Gender                                  no
Genre                                   no
Genre                                   no
GenreID                                 no
GivenName                               no
HasAttachments                          no
HasFlag                                 no
Hobbies                                 no
HomeAddress                             no
HomeCity                                no
HomeCountry-Region                      no
HomeFax                                 no
HomePOBox                               no
HomePhone                               no
HomePostalCode                          no
HomeStateOrProvince                     no
HomeStreet                              no
HorizontalResolution                    no
IMAddresses                             no
ISOSpeed                                no
Importance                              no
Incomplete                              no
InitialKey                              Unicode/
InitialKey                              no
Initials                                no
IsAttachment                            no
IsCompleted                             no
IsDeleted                               no
IsNetworkFeed                           no
IsOnline                                no
IsProtected                             no
IsRecurring                             no
IsVBR                                   no
JobTitle                                no
Keywords                                no
Kinds                                   no
Label                                   no
Language                                no
Language                                no
LastName                                no
LastPrinted                             no
LeadPerformer                           no
LegalTrademarks                         no
LensMaker                               no
LensModel                               no
LibraryID                               no
LibraryName                             no
LightSource                             no
LinkStatus                              no
LinkTarget                              no
Location                                no
```

```
Location                                no
Lyrics                                  no
MCDI                                    no
MailingAddress                          no
MaxAperture                             no
MediaClassPrimaryID                     GUID/
MediaClassSecondaryID                   GUID/
MediaContentTypes                       no
MediaCreated                            no
MediaOriginalBroadcastDateTime          no
MediaOriginalChannel                    no
MediaStationName                        no
MediaType                               no
MeteringMode                            no
MiddleName                              no
Mileage                                 no
ModifiedBy                              no
Mood                                    Unicode/
Mood                                    no
MoreInfo                                no
Name                                    no
Nickname                                no
OfficeLocation                          no
OfflineAvailability                     no
OfflineStatus                           no
OptionalAttendeeAddresses               no
OptionalAttendees                       no
OrganizerAddress                        no
OrganizerName                           no
Orientation                             no
OriginalAlbumTitle                      Unicode/
OriginalArtist                          Unicode/
OriginalLyricist                        Unicode/
OtherAddress                            no
OtherCity                               no
OtherCountry-Region                     no
OtherPOBox                              no
OtherPostalCode                         no
OtherStateOrProvince                    no
OtherStreet                             no
Owner                                   no
POBox                                   no
Pager                                   no
Pages                                   no
ParentalRating                          Unicode/
ParentalRating                          no
ParentalRatingReason                    no
PartOfSet                               no
PartOfSet                               no
PartOfSet                               no
Participants                            no
Path                                    no
PeakValue                               no
PerceivedType                           no
```

```
Period                                  Unicode/
Period                                  no
PersonalTitle                           no
PixelAspectRatioX                       no
PixelAspectRatioY                       no
PlaylistIndex                           no
PostalCode                              no
PrimaryE-mail                           no
PrimaryPhone                            no
Priority                                no
Producer                                Unicode/+
Producers                               no
ProductName                             no
ProductVersion                          no
Profession                              no
ProgramDescription                      no
ProgramMode                             no
ProgramName                             no
Project                                 no
PromotionURL                            Unicode/
Protected                               no
ProtectionType                          no
Provider                                no
Provider                                Unicode/
ProviderLogoURL                         no
ProviderRating                          no
ProviderStyle                           no
ProviderURL                             no
Publisher                               Unicode/
Publisher                               no
RadioBand                               no
RadioFormat                             no
Rating                                  no
RatingOrg                               no
ReadStatus                              no
RecordingTime                           no
RecordingTime                           no
RecordingTimeDay                        no
RecordingTimeMonth                      no
RecordingTimeYear                       no
RecordingTimeYearMonth                  no
RecordingTimeYearMonthDay               no
ReleaseDate                             no
ReleaseDateDay                          no
ReleaseDateMonth                        no
ReleaseDateYear                         no
ReleaseDateYearMonth                    no
ReleaseDateYearMonthDay                 no
ReminderTime                            no
RequestState                            no
RequiredAttendeeAddresses               no
RequiredAttendees                       no
Rerun                                   no
Resources                               no
```

```
SAP                                 no
Saturation                          no
SearchRanking                       no
SenderAddress                       no
SenderName                          no
Sensitivity                         no
ShadowFilePath                      no
Shared                              no
SharedUserRating                    int64u/
SharedWith                          no
Size                                no
Slides                              no
Source                              no
SourceURL                           no
SpaceFree                           no
SpaceUsed                           no
Spouse                              no
StartDate                           no
StateOrProvince                     no
StationCallSign                     no
StationName                         no
Status                              no
Status                              no
Store                               no
Street                              no
Subject                             no
Subject                             no
SubjectDistance                     no
SubscriptionContentID               no
Subtitle                            Unicode/
Subtitle                            no
SubtitleDescription                 no
Suffix                              no
Summary                             no
Sync01                              no
Sync02                              no
Sync03                              no
Sync04                              no
Sync05                              no
Sync06                              no
Sync07                              no
Sync08                              no
Sync09                              no
Sync10                              no
Sync11                              no
Sync12                              no
Sync13                              no
Sync14                              no
Sync15                              no
Sync16                              no
SyncOnly                            no
SyncState                           no
TTY-TTDPhone                        no
TaskOwner                           no
```

Telex	no
Temporary	no
Title	no
Title	no
TitleNum	no
TitleSortOrder	no
ToAddresses	no
ToDoTitle	no
ToNames	no
TotalBitrate	no
TotalDuration	no
TotalEditingTime	no
TotalFileSize	no
TotalSize	no
TrackNumber	no
TrackNumber	no
TrackingID	no
Type	no
Type	no
URL	no
UniqueFileIdentifier	no
Untitled0	no
Untitled1	no
Untitled2	no
UserCustom1	no
UserCustom2	no
UserEffectiveRating	no
UserLastPlayedTime	no
UserPlayCount	no
UserPlaycountAfternoon	no
UserPlaycountEvening	no
UserPlaycountMorning	no
UserPlaycountNight	no
UserPlaycountWeekday	no
UserPlaycountWeekend	no
UserRating	no
UserServiceRating	no
UserWebURL	no
VerticalResolution	no
VideoBitrate	no
VideoCompression	no
VideoFormat	no
VideoFrameRate	no
VideoHeight	no
VideoWidth	no
WMCollectionGroupID	no
WMCollectionID	no
WMContentID	no
WMShadowFileSourceDRMType	no
WMShadowFileSourceFileType	no
Webpage	no
WhiteBalance	no
WindowsFileName	no
WordCount	no

Writer	Unicode/
Writers	no
Year	no
Year	no

GIMP Tags

The GNU Image Manipulation Program (GIMP) writes these tags in its native XCF (eXperimental Computing Facilty) images.

Tag ID	Tag Name	Writable
'header'	Header	GIMP Header
0x0011	Compression	no
0x0013	Resolution	GIMP Resolution
0x0014	Tattoo	no
0x0015	Parasites	GIMP Parasite
0x0016	Units	no

GIMP Header Tags

Index1	Tag Name	Writable
9	XCFVersion	no
14	ImageWidth	no
18	ImageHeight	no
22	ColorMode	no

GIMP Resolution Tags

Index4	Tag Name	Writable
0	XResolution	no
1	YResolution	no

GIMP Parasite Tags

Tag ID	Tag Name	Writable
'exif-data'	ExifData	EXIF
'gimp-comment'	Comment	no
'gimp-image-metadata'	XML	XMP XML
'gimp-metadata'	XMP	XMP
'icc-profile'	ICC_Profile	ICC_Profile
'icc-profile-name'	ICCProfileName	no
'iptc-data'	IPTCData	IPTC
'jpeg-exif-data'	JPEGExifData	EXIF

MIE Tags

MIE is a flexible format which may be used as a stand-alone meta information format, for encapsulation of other files and information, or as a trailer appended to other file formats. The tables below represent currently defined MIE tags, however ExifTool will also extract any other information present in a MIE file.

When writing MIE information, some special features are supported:

1) String values may be written as ASCII (ISO 8859-1) or UTF-8. ExifTool automatically detects the presence of wide characters and treats the string appropriately. Internally, UTF-8 text may be converted to UTF-16 or UTF-32 and stored in this format in the file if it is more compact.

2) All MIE string-value tags support localized text. Localized values are written by adding a language/country code to the tag name in the form `TAG-xx_YY`, where `TAG` is the tag name, `xx` is a 2-character lower case ISO 639-1 language code, and `YY` is a 2-character upper case ISO 3166-1 alpha 2 country code (eg. `Title-en_US`). But as usual, the user interface is case-insensitive, and ExifTool will

write the correct case to the file.

3) Some numerical MIE tags allow units of measurement to be specified. For these tags, units may be added in brackets immediately following the value (eg. `55(mi/h)`). If no units are specified, the default units are written.

4) ExifTool writes compressed metadata to MIE files if the Compress (−z) option is used and Compress::Zlib is available.

See <https://exiftool.org/MIE1.1−20070121.pdf> for the official MIE specification.

Tag ID	Tag Name	Writable
'0Type'	SubfileType	string
'0Vers'	MIEVersion	string
'1Directory'	SubfileDirectory	string
'1Name'	SubfileName	string
'2MIME'	SubfileMIMEType	string
'Meta'	Meta	MIE Meta
'data'	SubfileData	undef
'rsrc'	SubfileResource	undef
'zmd5'	MD5Digest	string
'zmie'	TrailerSignature	undef

MIE Meta Tags

Tag ID	Tag Name	Writable
'Audio'	Audio	MIE Audio
'Camera'	Camera	MIE Camera
'Document'	Document	MIE Doc
'EXIF'	EXIF	EXIF
'Geo'	Geo	MIE Geo
'ICCProfile'	ICC_Profile	ICC_Profile
'ID3'	ID3	ID3
'IPTC'	IPTC	IPTC
'Image'	Image	MIE Image
'MakerNotes'	MakerNotes	MIE MakerNotes
'Preview'	Preview	MIE Preview
'Thumbnail'	Thumbnail	MIE Thumbnail
'Video'	Video	MIE Video
'XMP'	XMP	XMP

MIE Audio Tags

For the Audio group (and any other group containing a 'data' element), tags refer to the contained data if present, otherwise they refer to the main SubfileData. The `0Type` and `1Name` elements should exist only if `data` is present.

Tag ID	Tag Name	Writable
'0Type'	RelatedAudioFileType	string
'1Name'	RelatedAudioFileName	string
'Channels'	Channels	int8u
'Compression'	AudioCompression	string
'Duration'	Duration	rational64u~
'SampleBits'	SampleBits	int16u
'SampleRate'	SampleRate	int32u
'data'	RelatedAudioFile	undef

MIE Camera Tags

Tag ID	Tag Name	Writable
'Brightness'	Brightness	int8s
'ColorBalance'	ColorBalance	rational64u[3]
'ColorTemperature'	ColorTemperature	int32u
'Contrast'	Contrast	int8s
'DigitalZoom'	DigitalZoom	rational64u
'ExposureComp'	ExposureCompensation	rational64s
'ExposureMode'	ExposureMode	string
'ExposureTime'	ExposureTime	rational64u
'FirmwareVersion'	FirmwareVersion	string
'Flash'	Flash	MIE Flash
'FocusMode'	FocusMode	string
'ISO'	ISO	int16u
'ISOSetting'	ISOSetting	int16u
'ImageNumber'	ImageNumber	int32u
'ImageQuality'	ImageQuality	string
'ImageStabilization'	ImageStabilization	int8u
'Lens'	Lens	MIE Lens
'Make'	Make	string
'MeasuredEV'	MeasuredEV	rational64s
'Model'	Model	string
'Orientation'	Orientation	MIE Orient
'OwnerName'	OwnerName	string
'Saturation'	Saturation	int8s
'SensorSize'	SensorSize	rational64u[2]
'SerialNumber'	SerialNumber	string
'Sharpness'	Sharpness	int8s
'ShootingMode'	ShootingMode	string

MIE Flash Tags

Tag ID	Tag Name	Writable
'ExposureComp'	FlashExposureComp	rational64s
'Fired'	FlashFired	int8u
'GuideNumber'	FlashGuideNumber	string
'Make'	FlashMake	string
'Mode'	FlashMode	string
'Model'	FlashModel	string
'SerialNumber'	FlashSerialNumber	string
'Type'	FlashType	string

MIE Lens Tags

All recorded lens parameters (focal length, aperture, etc) include the effects of the extender if present.

Tag ID	Tag Name	Writable
'Extender'	Extender	MIE Extender
'FNumber'	FNumber	rational64u
'FocalLength'	FocalLength	rational64u
'FocusDistance'	FocusDistance	rational64u
'Make'	LensMake	string
'MaxAperture'	MaxAperture	rational64u
'MaxApertureAtMaxFocal'	MaxApertureAtMaxFocal	rational64u
'MaxFocalLength'	MaxFocalLength	rational64u
'MinAperture'	MinAperture	rational64u
'MinFocalLength'	MinFocalLength	rational64u
'Model'	LensModel	string
'OpticalZoom'	OpticalZoom	rational64u
'SerialNumber'	LensSerialNumber	string

MIE Extender Tags

Tag ID	Tag Name	Writable
'Magnification'	ExtenderMagnification	rational64s
'Make'	ExtenderMake	string
'Model'	ExtenderModel	string
'SerialNumber'	ExtenderSerialNumber	string

MIE Orient Tags

These tags describe the camera orientation.

Tag ID	Tag Name	Writable
'Azimuth'	Azimuth	rational64s
'Declination'	Declination	rational64s
'Elevation'	Elevation	rational64s
'RightAscension'	RightAscension	rational64s
'Rotation'	Rotation	rational64s

MIE Doc Tags

Information describing the main document, image or file.

Tag ID	Tag Name	Writable
'Author'	Author	string
'Comment'	Comment	string
'Contributors'	Contributors	string+
'Copyright'	Copyright	string
'CreateDate'	CreateDate	string
'EMail'	Email	string
'Keywords'	Keywords	string+
'ModifyDate'	ModifyDate	string
'OriginalDate'	DateTimeOriginal	string
'Phone'	PhoneNumber	string
'References'	References	string+
'Software'	Software	string
'Title'	Title	string
'URL'	URL	string

MIE Geo Tags

Information related to geographic location.

Tag ID	Tag Name	Writable
'Address'	Address	string
'City'	City	string
'Country'	Country	string
'GPS'	GPS	MIE GPS
'PostalCode'	PostalCode	string
'State'	State	string
'UTM'	UTM	MIE UTM

MIE GPS Tags

Tag ID	Tag Name	Writable
'Altitude'	GPSAltitude	rational64s
'Bearing'	GPSDestBearing	rational64s
'DateTime'	GPSDateTime	string
'Datum'	GPSMapDatum	string
'Differential'	GPSDifferential	int8u
'Distance'	GPSDestDistance	rational64s
'Heading'	GPSTrack	rational64s
'Latitude'	GPSLatitude	rational64s[n]
'Longitude'	GPSLongitude	rational64s[n]
'MeasureMode'	GPSMeasureMode	int8u
'Satellites'	GPSSatellites	string
'Speed'	GPSSpeed	rational64s

MIE UTM Tags

Tag ID	Tag Name	Writable
'Datum'	UTMMapDatum	string
'Easting'	UTMEasting	string
'Northing'	UTMNorthing	string
'Zone'	UTMZone	int8s

MIE Image Tags

Tag ID	Tag Name	Writable
'0Type'	FullSizeImageType	string
'1Name'	FullSizeImageName	string
'BitDepth'	BitDepth	int16u
'ColorSpace'	ColorSpace	string
'Components'	ComponentsConfiguration	string
'Compression'	CompressionRatio	rational32u
'ImageSize'	ImageSize	int16u[n]
'OriginalImageSize'	OriginalImageSize	int16u[n]
'Resolution'	Resolution	rational64u[n]
'data'	FullSizeImage	undef

MIE MakerNotes Tags

MIE maker notes are contained within separate groups for each manufacturer to avoid name conflicts.

Tag ID	Tag Name	Writable
'Canon'	Canon	MIE Canon
'Casio'	Casio	MIE Unknown
'FujiFilm'	FujiFilm	MIE Unknown
'Kodak'	Kodak	MIE Unknown
'KonicaMinolta'	KonicaMinolta	MIE Unknown
'Nikon'	Nikon	MIE Unknown
'Olympus'	Olympus	MIE Unknown
'Panasonic'	Panasonic	MIE Unknown
'Pentax'	Pentax	MIE Unknown
'Ricoh'	Ricoh	MIE Unknown
'Sigma'	Sigma	MIE Unknown
'Sony'	Sony	MIE Unknown

MIE Canon Tags

Tag ID	Tag Name	Writable
'VRD'	CanonVRD	CanonVRD

MIE Unknown Tags

Tag ID	Tag Name	Writable
[no tags known]		

MIE Preview Tags

Tag ID	Tag Name	Writable
'0Type'	PreviewImageType	string
'1Name'	PreviewImageName	string
'ImageSize'	PreviewImageSize	int16u[n]
'data'	PreviewImage	undef

MIE Thumbnail Tags

Tag ID	Tag Name	Writable
'0Type'	ThumbnailImageType	string
'1Name'	ThumbnailImageName	string
'ImageSize'	ThumbnailImageSize	int16u[n]
'data'	ThumbnailImage	undef

MIE Video Tags

Tag ID	Tag Name	Writable
'0Type'	RelatedVideoFileType	string
'1Name'	RelatedVideoFileName	string
'Codec'	Codec	string
'Duration'	Duration	rational64u~
'data'	RelatedVideoFile	undef

Trailer Tags

Trailer Vivo Tags

Information written in JPEG trailer by some Vivo phones.

Tag Name	Writable
HDRImage	no
HiddenData	no
JSONInfo	no

Trailer OnePlus Tags

Information written in JPEG trailer by some OnePlus phones.

Tag ID	Tag Name	Writable
'JSONInfo'	JSONInfo	no
'private.emptyspace'	OnePlusTrailerLen?	no
'watermark.device'	Device	no

Trailer Google Tags

Google-defined information written in the trailer of JPEG images by some phones. This information is referenced by DirectoryItem entries in the XMP. Note that some of this information may also be referenced from other metadata formats, and hence may be extracted twice. For example, MotionPhotoVideo may also exist within a Samsung trailer as EmbbededVideoFile, or GainMapImage may also exist in an MPF trailer as MPImage2.

Tag ID	Tag Name	Writable
'Confidence'	ConfidenceMapImage	no
'Depth'	DepthMapImage	no
'GainMap'	GainMapImage	no
'MotionPhoto'	MotionPhotoVideo	no
'android/confidencemap'	ConfidenceMapImage	no
'android/depthmap'	DepthMapImage	no

GIF Tags

This table lists information extracted from GIF images. See <http://www.w3.org/Graphics/GIF/spec−gif89a.txt> for the official GIF89a specification.

Tag Name	Writable
Comment	yes
Duration	no
Extensions	GIF Extensions
FrameCount	no
GIFVersion	no
ScreenDescriptor	GIF Screen
Text	no
TransparentColor	no

GIF Extensions Tags

Tags extracted from GIF89a application extensions.

Tag ID	Tag Name	Writable
'C2PA_GIF/'	JUMBF	Jpeg2000
'ICCRGBG1/012'	ICC_Profile	ICC_Profile
'MIDICTRL/Jon'	MIDIControl	GIF MIDIControl
'MIDISONG/Dm7'	MIDISong	no
'NETSCAPE/2.0'	Animation	GIF Animation
'XMP Data/XMP'	XMP	XMP

GIF MIDIControl Tags

Information extracted from the MIDI control block extension.

Index1	Tag Name	Writable
0	MIDIControlVersion	no
1	SequenceNumber	no
2	MelodicPolyphony	no
3	PercussivePolyphony	no
4	ChannelUsage	no
6	DelayTime	no

GIF Animation Tags

Information extracted from the ‘‘NETSCAPE2.0’’ animation extension.

Index1	Tag Name	Writable
1	AnimationIterations	no

GIF Screen Tags

Information extracted from the GIF logical screen descriptor.

Index1	Tag Name	Writable
0	ImageWidth	no
2	ImageHeight	no
4.1	HasColorMap	no
4.2	ColorResolutionDepth	no
4.3	BitsPerPixel	no
5	BackgroundColor	no
6	PixelAspectRatio	no

BMP Tags

There really isn’t much meta information in a BMP file as such, just a bit of image related information.

Index1	Tag Name	Writable
0	BMPVersion	no
4	ImageWidth	no
8	ImageHeight	no
12	Planes	no
14	BitDepth	no
16	Compression	no
20	ImageLength	no
24	PixelsPerMeterX	no
28	PixelsPerMeterY	no
32	NumColors	no
36	NumImportantColors	no
40	RedMask	no
44	GreenMask	no
48	BlueMask	no
52	AlphaMask	no
56	ColorSpace	no
60	RedEndpoint	no
72	GreenEndpoint	no
84	BlueEndpoint	no
96	GammaRed	no
100	GammaGreen	no
104	GammaBlue	no

108	RenderingIntent	no
112	ProfileDataOffset	no
116	ProfileSize	no

BMP OS2 Tags

Information extracted from OS/2−format BMP images.

Index1	Tag Name	Writable
0	BMPVersion	no
4	ImageWidth	no
6	ImageHeight	no
8	Planes	no
10	BitDepth	no

BMP Extra Tags

Extra information extracted from some BMP images.

Tag Name	Writable
EmbeddedJPG	no
EmbeddedPNG	no
ICC_Profile	ICC_Profile
LinkedProfileName	no

BPG Tags

The information listed below is extracted from BPG (Better Portable Graphics) images. See <http://bellard.org/bpg/> for the specification.

Index1	Tag Name	Writable
4	PixelFormat	no
4.1	Alpha	no
4.2	BitDepth	no
4.3	ColorSpace	no
4.4	Flags	no
6	ImageWidth	no
7	ImageHeight	no
8	ImageLength	no

BPG Extensions Tags

Tag ID	Tag Name	Writable
0x0001	EXIF	EXIF
0x0002	ICC_Profile	ICC_Profile
0x0003	XMP	XMP
0x0004	ThumbnailBPG	no
0x0005	AnimationControl?	no

WPG Tags

Tags extracted from WordPerfect Graphics (WPG) images.

Tag Name	Writable
ImageHeightInches	no
ImageWidthInches	no
Records	no+
RecordsV2	no+
WPGVersion	no

ICO Tags

Information extracted from Windows ICO (icon) and CUR (cursor) files.

Index1	Tag Name	Writable
2	ImageType	no
4	ImageCount	no
6	IconDir	ICO IconDir

ICO IconDir Tags

Index1	Tag Name	Writable
0	ImageWidth	no
1	ImageHeight	no
2	NumColors	no
4	ColorPlanes	no
	HotspotX	no
6	BitsPerPixel	no
	HotspotY	no
8	ImageLength	no

PICT Tags

The PICT format contains no true meta information, except for the possible exception of the LongComment opcode. By default, only ImageWidth, ImageHeight and X/YResolution are extracted from a PICT image. Tags in the following table represent image opcodes. Extraction of these tags is experimental, and is only enabled with the Verbose or Unknown options.

Tag ID	Tag Name	Writable
0x0000	Nop	no
0x0001	ClipRgn	no
0x0002	BkPat	no
0x0003	TxFont	no
0x0004	TxFace	no
0x0005	TxMode	no
0x0006	SpExtra	no
0x0007	PnSize	no
0x0008	PnMode	no
0x0009	PnPat	no
0x000a	FillPat	no
0x000b	OvSize	no
0x000c	Origin	no
0x000d	TxSize	no
0x000e	FgColor	no
0x000f	BkColor	no
0x0010	TxRatio	no
0x0011	VersionOp	no
0x0012	BkPixPat	no
0x0013	PnPixPat	no

```
0x0014   FillPixPat                    no
0x0015   PnLocHFrac                    no
0x0016   ChExtra                       no
0x0017   Reserved                      no
0x001a   RGBFgCol                      no
0x001b   RGBBkCol                      no
0x001c   HiliteMode                    no
0x001d   HiliteColor                   no
0x001e   DefHilite                     no
0x001f   OpColor                       no
0x0020   Line                          no
0x0021   LineFrom                      no
0x0022   ShortLine                     no
0x0023   ShortLineFrom                 no
0x0024   Reserved                      no
0x0028   LongText                      no
0x0029   DHText                        no
0x002a   DVText                        no
0x002b   DHDVText                      no
0x002c   FontName                      no
0x002d   LineJustify                   no
0x002e   GlyphState                    no
0x002f   Reserved                      no
0x0030   FrameRect                     no
0x0031   PaintRect                     no
0x0032   EraseRect                     no
0x0033   InvertRect                    no
0x0034   FillRect                      no
0x0035   Reserved                      no
0x0038   FrameSameRect                 no
0x0039   PaintSameRect                 no
0x003a   EraseSameRect                 no
0x003b   InvertSameRect                no
0x003c   FillSameRect                  no
0x003d   Reserved                      no
0x0040   FrameRRect                    no
0x0041   PaintRRect                    no
0x0042   EraseRRect                    no
0x0043   InvertRRect                   no
0x0044   FillRRect                     no
0x0045   Reserved                      no
0x0048   FrameSameRRect                no
0x0049   PaintSameRRect                no
0x004a   EraseSameRRect                no
0x004b   InvertSameRRect               no
0x004c   FillSameRRect                 no
0x004d   Reserved                      no
0x0050   FrameOval                     no
0x0051   PaintOval                     no
0x0052   EraseOval                     no
0x0053   InvertOval                    no
0x0054   FillOval                      no
0x0055   Reserved                      no
0x0058   FrameSameOval                 no
```

```
0x0059   PaintSameOval                  no
0x005a   EraseSameOval                  no
0x005b   InvertSameOval                 no
0x005c   FillSameOval                   no
0x005d   Reserved                       no
0x0060   FrameArc                       no
0x0061   PaintArc                       no
0x0062   EraseArc                       no
0x0063   InvertArc                      no
0x0064   FillArc                        no
0x0065   Reserved                       no
0x0068   FrameSameArc                   no
0x0069   PaintSameArc                   no
0x006a   EraseSameArc                   no
0x006b   InvertSameArc                  no
0x006c   FillSameArc                    no
0x006d   Reserved                       no
0x0070   FramePoly                      no
0x0071   PaintPoly                      no
0x0072   ErasePoly                      no
0x0073   InvertPoly                     no
0x0074   FillPoly                       no
0x0075   Reserved                       no
0x0078   FrameSamePoly                  no
0x0079   PaintSamePoly                  no
0x007a   EraseSamePoly                  no
0x007b   InvertSamePoly                 no
0x007c   FillSamePoly                   no
0x007d   Reserved                       no
0x0080   FrameRgn                       no
0x0081   PaintRgn                       no
0x0082   EraseRgn                       no
0x0083   InvertRgn                      no
0x0084   FillRgn                        no
0x0085   Reserved                       no
0x0088   FrameSameRgn                   no
0x0089   PaintSameRgn                   no
0x008a   EraseSameRgn                   no
0x008b   InvertSameRgn                  no
0x008c   FillSameRgn                    no
0x008d   Reserved                       no
0x0090   BitsRect                       no
0x0091   BitsRgn                        no
0x0092   Reserved                       no
0x0098   PackBitsRect                   no
0x0099   PackBitsRgn                    no
0x009a   DirectBitsRect                 no
0x009b   DirectBitsRgn                  no
0x009c   Reserved                       no
0x009d   Reserved                       no
0x009e   Reserved                       no
0x009f   Reserved                       no
0x00a0   ShortComment                   no
0x00a1   LongComment                    Photoshop
```

		ICC_Profile
0x00a2	Reserved	no
0x00b0	Reserved	no
0x00d0	Reserved	no
0x00ff	OpEndPic	no
0x0100	Reserved	no
0x0200	Reserved	no
0x02ff	Version	no
0x0300	Reserved	no
0x0bff	Reserved	no
0x0c00	HeaderOp	no
0x0c01	Reserved	no
0x7f00	Reserved	no
0x8000	Reserved	no
0x8100	Reserved	no
0x8200	CompressedQuickTime	no
0x8201	UncompressedQuickTime	no
0xffff	Reserved	no

PNG Tags

Tags extracted from PNG images. See <http://www.libpng.org/pub/png/spec/1.2/> for the official PNG 1.2 specification.

According to the specification, a PNG file should end at the IEND chunk, however ExifTool will preserve any data found after this when writing unless it is specifically deleted with `-Trailer:All=`. When reading, a minor warning is issued if this trailer exists, and ExifTool will attempt to parse this data as additional PNG chunks.

Also according to the PNG specification, there is no restriction on the location of text-type chunks (tEXt, zTXt and iTXt). However, certain utilities (including some Apple and Adobe utilities) won't read the XMP iTXt chunk if it comes after the IDAT chunk, and at least one utility won't read other text chunks here. For this reason, when writing, ExifTool 11.63 and later create new text chunks (including XMP) before IDAT, and move existing text chunks to before IDAT.

The PNG format contains CRC checksums that are validated when reading with either the Verbose or Validate option. When writing, these checksums are validated by default, but the FastScan option may be used to bypass this check if speed is more of a concern.

Tag ID	Tag Name	Writable
'IHDR'	ImageHeader	PNG ImageHeader
'PLTE'	Palette	no
'acTL'	AnimationControl	PNG AnimationControl
'bKGD'	BackgroundColor	no
'cHRM'	PrimaryChromaticities	PNG PrimaryChromaticities
'cICP'	CICodePoints	PNG CICodePoints
'caBX'	JUMBF	Jpeg2000
'cpIp'	OLEInfo	FlashPix
'dSIG'	DigitalSignature	no
'eXIf'	eXIf	EXIF
'fRAc'	FractalParameters	no
'gAMA'	Gamma	yes!
'gIFg'	GIFGraphicControlExtension	no
'gIFt'	GIFPlainTextExtension	no
'gIFx'	GIFApplicationExtension	no
'gdAT'	GainMapImage	no
'hIST'	PaletteHistogram	no

'iCCP'	ICC_Profile	ICC_Profile
'iCCP-name'	ProfileName	yes
'iDOT'	AppleDataOffsets	no
'iTXt'	InternationalText	PNG TextualData
'meTa'	MeTa	XMP XML
'oFFs'	ImageOffset	no
'pCAL'	PixelCalibration	no
'pHYs'	PhysicalPixel	PNG PhysicalPixel
'sBIT'	SignificantBits	no
'sCAL'	SubjectScale	PNG SubjectScale
'sPLT'	SuggestedPalette	no
'sRGB'	SRGBRendering	yes!
'sTER'	StereoImage	PNG StereoImage
'seAl'	SEAL	XMP SEAL
'tEXt'	TextualData	PNG TextualData
'tIME'	ModifyDate	yes
'tRNS'	Transparency	no
'tXMP'	XMP	XMP
'vpAg'	VirtualPage	PNG VirtualPage
'zTXt'	CompressedText	PNG TextualData
'zxIf'	zxIf	EXIF

PNG ImageHeader Tags

Index1	Tag Name	Writable
0	ImageWidth	no
4	ImageHeight	no
8	BitDepth	no
9	ColorType	no
10	Compression	no
11	Filter	no
12	Interlace	no

PNG AnimationControl Tags

Tags found in the Animation Control chunk. See <https://wiki.mozilla.org/APNG_Specification> for details.

Index4	Tag Name	Writable
0	AnimationFrames	no
1	AnimationPlays	no

PNG PrimaryChromaticities Tags

Index4	Tag Name	Writable
0	WhitePointX	no
1	WhitePointY	no
2	RedX	no
3	RedY	no
4	GreenX	no
5	GreenY	no
6	BlueX	no
7	BlueY	no

PNG CICodePoints Tags

These tags are found in the PNG cICP chunk and belong to the PNG-cICP family 1 group.

Index1	Tag Name	Writable
0	ColorPrimaries	no
1	TransferCharacteristics	no
2	MatrixCoefficients	no
3	VideoFullRangeFlag	no

PNG TextualData Tags

The PNG TextualData format allows arbitrary tag names to be used. The tags listed below are the only ones that can be written (unless new user-defined tags are added via the configuration file), however ExifTool will extract any other TextualData tags that are found. All TextualData tags (including tags not listed below) are removed when deleting all PNG tags.

These tags may be stored as tEXt, zTXt or iTXt chunks in the PNG image. By default ExifTool writes new string-value tags as as uncompressed tEXt, or compressed zTXt if the Compress (−z) option is used and Compress::Zlib is available. Alternate language tags and values containing special characters (unless the Latin character set is used) are written as iTXt, and compressed if the Compress option is used and Compress::Zlib is available. Raw profile information is always created as compressed zTXt if Compress::Zlib is available, or tEXt otherwise. Standard XMP is written as uncompressed iTXt. User-defined tags may set an 'iTXt' flag in the tag definition to be written only as iTXt.

Alternate languages are accessed by suffixing the tag name with a '−', followed by an RFC 3066 language code (eg. ''PNG:Comment−fr'', or ''Title-en-US''). See <http://www.ietf.org/rfc/rfc3066.txt> for the RFC 3066 specification.

Some of the tags below are not registered as part of the PNG specification, but are included here because they are generated by other software such as ImageMagick.

Tag ID	Tag Name	Writable
'Artist'	Artist	string
'Author'	Author	string
'Collection'	Collection	string
'Comment'	Comment	string
'Copyright'	Copyright	string
'Creation Time'	CreationTime	string
'Description'	Description	string
'Disclaimer'	Disclaimer	string
'Document'	Document	string
'Label'	Label	string
'Make'	Make	string
'Model'	Model	string
'Raw profile type 8bim'	Photoshop_Profile	Photoshop
'Raw profile type APP1'	APP1_Profile	EXIF XMP
'Raw profile type exif'	EXIF_Profile	EXIF
'Raw profile type icc'	ICC_Profile	ICC_Profile
'Raw profile type icm'	ICC_Profile	ICC_Profile
'Raw profile type iptc'	IPTC_Profile	Photoshop
'Raw profile type xmp'	XMP_Profile	XMP
'Software'	Software	string
'Source'	Source	string
'TimeStamp'	TimeStamp	string
'Title'	Title	string
'URL'	URL	string
'Warning'	PNGWarning	string
'XML:com.adobe.xmp'	XMP	XMP

'aesthetic_score'	AestheticScore	string
'create-date'	CreateDate	string
'modify-date'	ModDate	string
'parameters'	Parameters	string

PNG PhysicalPixel Tags

These tags are found in the PNG pHYs chunk and belong to the PNG-pHYs family 1 group. They are all created together with default values if necessary when any of these tags is written, and may only be deleted as a group.

Index1	Tag Name	Writable
0	PixelsPerUnitX	int32u
4	PixelsPerUnitY	int32u
8	PixelUnits	int8u

PNG SubjectScale Tags

Index1	Tag Name	Writable
0	SubjectUnits	no
1	SubjectPixelWidth	no
2	SubjectPixelHeight	no

PNG StereoImage Tags

Index1	Tag Name	Writable
0	StereoMode	no

PNG VirtualPage Tags

Index4	Tag Name	Writable
0	VirtualImageWidth	no
1	VirtualImageHeight	no
2	VirtualPageUnits	no

MNG Tags

This table contains definitions for tags found in MNG and JNG images. MNG is a superset of PNG and JNG, so a MNG image may contain any of these tags as well as any PNG tags. Conversely, only some of these tags are valid for JNG images.

Tag ID	Tag Name	Writable
'BACK'	Background	MNG Background
'BASI'	BasisObject	MNG BasisObject
'CLIP'	ClipObjects	MNG ClipObjects
'CLON'	CloneObject	MNG CloneObject
'DBYK'	DropByKeyword	no
'DEFI'	DefineObject	MNG DefineObject
'DHDR'	DeltaPNGHeader	MNG DeltaPNGHeader
'DISC'	DiscardObjects	no
'DROP'	DropChunks	no
'FRAM'	Frame	no
'JHDR'	JNGHeader	MNG JNGHeader
'LOOP'	Loop	MNG Loop
'MAGN'	MagnifyObject	MNG MagnifyObject
'MHDR'	MNGHeader	MNG MNGHeader
'MOVE'	MoveObjects	MNG MoveObjects

'ORDR'	OrderingRestrictions	no
'PAST'	PasteImage	MNG PasteImage
'PPLT'	PartialPalette	no
'PROM'	PromoteParent	MNG PromoteParent
'SAVE'	SaveObjects	no
'SEEK'	SeekPoint	no
'SHOW'	ShowObjects	MNG ShowObjects
'TERM'	TerminationAction	MNG TerminationAction
'eXPi'	ExportImage	MNG ExportImage
'fPRI'	FramePriority	MNG FramePriority
'nEED'	ResourcesNeeded	no
'pHYg'	GlobalPixelSize	PNG PhysicalPixel

MNG Background Tags

Index1	Tag Name	Writable
0	BackgroundColor	no
6	MandatoryBackground	no
7	BackgroundImageID	no
9	BackgroundTiling	no

MNG BasisObject Tags

Index1	Tag Name	Writable
0	ImageWidth	no
4	ImageHeight	no
8	BitDepth	no
9	ColorType	no
10	Compression	no
11	Filter	no
12	Interlace	no
13	RedSample	no
17	GreenSample	no
21	BlueSample	no
25	AlphaSample	no
26	Viewable	no

MNG ClipObjects Tags

Index1	Tag Name	Writable
0	FirstObject	no
2	LastObject	no
4	DeltaType	no
5	ClipBoundary	no

MNG CloneObject Tags

Index1	Tag Name	Writable
0	SourceID	no
2	CloneID	no
4	CloneType	no
5	DoNotShow	no
6	ConcreteFlag	no
7	LocalDeltaType	no
8	DeltaXY	no

MNG DefineObject Tags

Index1	Tag Name	Writable
0	ObjectID	no
2	DoNotShow	no
3	ConcreteFlag	no
4	XYLocation	no
12	ClippingBoundary	no

MNG DeltaPNGHeader Tags

Index1	Tag Name	Writable
0	ObjectID	no
2	ImageType	no
3	DeltaType	no
4	BlockSize	no
12	BlockLocation	no

MNG JNGHeader Tags

Index1	Tag Name	Writable
0	ImageWidth	no
4	ImageHeight	no
8	ColorType	no
9	BitDepth	no
10	Compression	no
11	Interlace	no
12	AlphaBitDepth	no
13	AlphaCompression	no
14	AlphaFilter	no
15	AlphaInterlace	no

MNG Loop Tags

Index1	Tag Name	Writable
0	NestLevel	no
1	IterationCount	no
5	TerminationCondition	no
6	IterationMinMax	no
14	SignalNumber	no

MNG MagnifyObject Tags

Index1	Tag Name	Writable
0	FirstObjectID	no
2	LastObjectID	no
4	XMethod	no
5	XMag	no
7	YMag	no
9	LeftMag	no
11	RightMag	no
13	TopMag	no
15	BottomMag	no
17	YMethod	no

MNG MNGHeader Tags

Index4	Tag Name	Writable
0	ImageWidth	no
1	ImageHeight	no
2	TicksPerSecond	no
3	NominalLayerCount	no
4	NominalFrameCount	no
5	NominalPlayTime	no
6	SimplicityProfile	no

MNG MoveObjects Tags

Index1	Tag Name	Writable
0	FirstObject	no
2	LastObject	no
4	DeltaType	no
5	DeltaXY	no

MNG PasteImage Tags

Index1	Tag Name	Writable
0	DestinationID	no
2	TargetDeltaType	no
3	TargetXY	no
11	SourceID	no
13	CompositionMode	no
14	Orientation	no
15	OffsetOrigin	no
16	OffsetXY	no
24	BoundaryOrigin	no
25	PastClippingBoundary	no

MNG PromoteParent Tags

Index1	Tag Name	Writable
0	NewColorType	no
1	NewBitDepth	no
2	FillMethod	no

MNG ShowObjects Tags

Index1	Tag Name	Writable
0	FirstObject	no
2	LastObject	no
4	ShowMode	no

MNG TerminationAction Tags

Index1	Tag Name	Writable
0	TerminationAction	no
1	IterationEndAction	no
2	Delay	no
6	IterationMax	no

MNG ExportImage Tags

Index1	Tag Name	Writable
0	SnapshotID	no
2	SnapshotName	no

MNG FramePriority Tags

Index1	Tag Name	Writable
0	DeltaType	no
2	Priority	no

FLIF Tags

Information extracted from Free Lossless Image Format files. See <http://flif.info/> for more information.

Tag ID	Tag Name	Writable
0	ImageType	no
1	BitDepth	no
2	ImageWidth	no
3	ImageHeight	no
4	AnimationFrames	no
5	Encoding	no
'eXif'	EXIF	EXIF
'eXmp'	XMP	XMP
'iCCP'	ICC_Profile	ICC_Profile

DjVu Tags

Information is extracted from the following chunks in DjVu images. See <http://www.djvu.org/> for the DjVu specification.

Tag ID	Tag Name	Writable
'ANTa'	ANTa	DjVu Ant
'ANTz'	CompressedAnnotation	DjVu Ant
'FORM'	FORM	DjVu Form
'INCL'	IncludedFileID	no
'INFO'	INFO	DjVu Info

DjVu Ant Tags

Information extracted from annotation chunks.

Tag ID	Tag Name	Writable
'metadata'	Metadata	DjVu Meta
'xmp'	XMP	XMP

DjVu Meta Tags

This table lists the standard DjVu metadata tags, but ExifTool will extract any tags that exist even if they don't appear here. The DjVu v3 documentation endorses tags borrowed from two standards: 1) BibTeX bibliography system tags (all lowercase Tag ID's in the table below), and 2) PDF DocInfo tags (capitalized Tag ID's).

Tag ID	Tag Name	Writable
'Author'	Author	no
'CreationDate'	CreateDate	no
'Creator'	Creator	no
'Keywords'	Keywords	no
'ModDate'	ModifyDate	no
'Producer'	Producer	no
'Subject'	Subject	no
'Title'	Title	no
'Trapped'	Trapped	no
'address'	Address	no
'annote'	Annotation	no
'author'	Author	no
'booktitle'	BookTitle	no
'chapter'	Chapter	no
'crossref'	CrossRef	no
'edition'	Edition	no
'eprint'	EPrint	no
'howpublished'	HowPublished	no
'institution'	Institution	no
'journal'	Journal	no
'key'	Key	no
'month'	Month	no
'note'	Note	no
'number'	Number	no
'organization'	Organization	no
'pages'	Pages	no
'publisher'	Publisher	no
'school'	School	no
'series'	Series	no
'title'	Title	no
'type'	Type	no
'url'	URL	no
'volume'	Volume	no
'year'	Year	no

DjVu Form Tags

Index1	Tag Name	Writable
0	SubfileType	no

DjVu Info Tags

Index1	Tag Name	Writable
0	ImageWidth	no
2	ImageHeight	no
4	DjVuVersion	no
6	SpatialResolution	no
8	Gamma	no
9	Orientation	no

DPX Tags

Tags extracted from DPX (Digital Picture Exchange) images.

Index1	Tag Name	Writable
0	ByteOrder	no
8	HeaderVersion	no
16	DPXFileSize	no
20	DittoKey	no
36	ImageFileName	no
136	CreateDate	no
160	Creator	no
260	Project	no
460	Copyright	no
660	EncryptionKey	no
768	Orientation	no
770	ImageElements	no
772	ImageWidth	no
776	ImageHeight	no
780	DataSign	no
800	ComponentsConfiguration	no
801	TransferCharacteristic	no
802	ColorimetricSpecification	no
803	BitDepth	no
820	ImageDescription	no
892	Image2Description	no
964	Image3Description	no
1036	Image4Description	no
1108	Image5Description	no
1180	Image6Description	no
1252	Image7Description	no
1324	Image8Description	no
1432	SourceFileName	no
1532	SourceCreateDate	no
1556	InputDeviceName	no
1588	InputDeviceSerialNumber	no
1628	AspectRatio	no
1724	OriginalFrameRate	no
1728	ShutterAngle	no
1732	FrameID	no
1764	SlateInformation	no
1920	TimeCode	no
1940	FrameRate	no
1972	Reserved5?	no
2048	UserID	no

OpenEXR Tags

Information extracted from EXR images. Use the ExtractEmbedded option to extract information from all frames of a multipart image. See <http://www.openexr.com/> for the official specification.

Tag ID	Tag Name	Writable
'_flags'	Flags	no
'_ver'	EXRVersion	no
'adoptedNeutral'	AdoptedNeutral	no
'altitude'	GPSAltitude	no
'aperture'	Aperture	no
'capDate'	DateTimeOriginal	no
'channels'	Channels	no
'chromaticities'	Chromaticities	no
'chunkCount'	ChunkCount	no
'comments'	Comments	no
'compression'	Compression	no
'dataWindow'	DataWindow	no
'displayWindow'	DisplayWindow	no
'envmap'	EnvironmentMap	no
'exif'	EXIF	EXIF
'expTime'	ExposureTime	no
'focus'	FocusDistance	no
'framesPerSecond'	FramesPerSecond	no
'isoSpeed'	ISO	no
'keyCode'	KeyCode	no
'latitude'	GPSLatitude	no
'lineOrder'	LineOrder	no
'longitude'	GPSLongitude	no
'lookModTransform'	LookModTransform	no
'multiView'	MultiView	no
'name'	Name	no
'owner'	Owner	no
'pixelAspectRatio'	PixelAspectRatio	no
'preview'	Preview	no
'renderingTransform'	RenderingTransform	no
'screenWindowCenter'	ScreenWindowCenter	no
'screenWindowWidth'	ScreenWindowWidth	no
'tiles'	Tiles	no
'timeCode'	TimeCode	no
'type'	Type	no
'utcOffset'	TimeZone	no
'version'	Version	no
'whiteLuminance'	WhiteLuminance	no
'worldToCamera'	WorldToCamera	no
'worldToNDC'	WorldToNDC	no
'wrapmodes'	WrapModes	no
'xDensity'	XResolution	no
'xmp'	XMP	XMP

ZISRAW Tags

As well as the header information listed below, ExifTool also extracts the top-level XML-based metadata from Zeiss Integrated Software RAW (ZISRAW) CZI files.

Index1	Tag Name	Writable
32	ZISRAWVersion	no
48	PrimaryFileGUID	no
64	FileGUID	no

MRC Tags

Tags extracted from Medical Research Council (MRC) format imaging files. See <https://www.ccpem.ac.uk/mrc_format/mrc2014.php> for the specification.

Index4	Tag Name	Writable
0	ImageWidth	no
1	ImageHeight	no
2	ImageDepth	no
3	ImageMode	no
4	StartPoint	no
7	GridSize	no
10	CellWidth	no
11	CellHeight	no
12	CellDepth	no
13	CellAlpha	no
14	CellBeta	no
15	CellGamma	no
16	ImageWidthAxis	no
17	ImageHeightAxis	no
18	ImageDepthAxis	no
19	DensityMin	no
20	DensityMax	no
21	DensityMean	no
22	SpaceGroupNumber	no
23	ExtendedHeaderSize	no
26	ExtendedHeaderType	no
27	MRCVersion	no
49	Origin	no
53	MachineStamp	no
54	RMSDeviation	no
55	NumberOfLabels	no
56	Label0	no
76	Label1	no
96	Label2	no
116	Label3	no
136	Label4	no
156	Label5	no
176	Label6	no
196	Label7	no
216	Label8	no
236	Label9	no

MRC FEI12 Tags

Tags extracted from FEI1 and FEI2 extended headers.

Index1	Tag Name	Writable
0	MetadataSize	no
4	MetadataVersion	no
8	Bitmask1	no
12	TimeStamp	no
20	MicroscopeType	no
36	MicroscopeID	no
52	Application	no
68	AppVersion	no
84	HighTension	no
92	Dose	no
100	AlphaTilt	no
108	BetaTilt	no
116	XStage	no
124	YStage	no
132	ZStage	no
140	TiltAxisAngle	no
148	DualAxisRot	no
156	PixelSizeX	no
164	PixelSizeY	no
220	Defocus	no
228	STEMDefocus	no
236	AppliedDefocus	no
244	InstrumentMode	no
248	ProjectionMode	no
252	ObjectiveLens	no
268	HighMagnificationMode	no
284	ProbeMode	no
288	EFTEMOn	no
289	Magnification	no
297	Bitmask2	no
301	CameraLength	no
309	SpotIndex	no
313	IlluminationArea	no
321	Intensity	no
329	ConvergenceAngle	no
337	IlluminationMode	no
353	WideConvergenceAngleRange	no
354	SlitInserted	no
355	SlitWidth	no
363	AccelVoltOffset	no
371	DriftTubeVolt	no
379	EnergyShift	no
387	ShiftOffsetX	no
395	ShiftOffsetY	no
403	ShiftX	no
411	ShiftY	no
419	IntegrationTime	no
427	BinningWidth	no
431	BinningHeight	no
435	CameraName	no
451	ReadoutAreaLeft	no
455	ReadoutAreaTop	no

459	ReadoutAreaRight	no
463	ReadoutAreaBottom	no
467	CetaNoiseReduct	no
468	CetaFramesSummed	no
472	DirectDetElectronCounting	no
473	DirectDetAlignFrames	no
490	Bitmask3	no
518	PhasePlate	no
519	STEMDetectorName	no
535	Gain	no
543	Offset	no
571	DwellTime	no
579	FrameTime	no
587	ScanSizeLeft	no
591	ScanSizeTop	no
595	ScanSizeRight	no
599	ScanSizeBottom	no
603	FullScanFOV_X	no
611	FullScanFOV_Y	no
619	Element	no
635	EnergyIntervalLower	no
643	EnergyIntervalHigher	no
651	Method	no
655	IsDoseFraction	no
656	FractionNumber	no
660	StartFrame	no
664	EndFrame	no
668	InputStackFilename	no
748	Bitmask4	no
752	AlphaTiltMin	no
760	AlphaTiltMax	no
768	ScanRotation	no
776	DiffractionPatternRotation	no
784	ImageRotation	no
792	ScanModeEnumeration	no
796	AcquisitionTimeStamp	no
804	DetectorCommercialName	no
820	StartTiltAngle	no
828	EndTiltAngle	no
836	TiltPerImage	no
844	TitlSpeed	no
852	BeamCenterX	no
856	BeamCenterY	no
860	CFEGFlashTimeStamp	no
868	PhasePlatePosition	no
872	ObjectiveAperture	no

LIF Tags

Tags extracted from Leica Image Format (LIF) imaging files. As well as the tags listed below, all available information is extracted from the XML-format metadata in the LIF header.

Tag Name	Writable
TimeStampList	no

MIFF Tags

The MIFF (Magick Image File Format) format allows aribrary tag names to be used. Only the standard tag names are listed below, however ExifTool will decode any tags found in the image.

Tag ID	Tag Name	Writable
'background-color'	BackgroundColor	no
'blue-primary'	BluePrimary	no
'border-color'	BorderColor	no
'class'	Class	no
'colors'	Colors	no
'colorspace'	ColorSpace	no
'columns'	ImageWidth	no
'compression'	Compression	no
'delay'	Delay	no
'depth'	Depth	no
'dispose'	Dispose	no
'gamma'	Gamma	no
'green-primary'	GreenPrimary	no
'id'	ID	no
'iterations'	Iterations	no
'label'	Label	no
'matt-color'	MattColor	no
'matte'	Matte	no
'montage'	Montage	no
'packets'	Packets	no
'page'	Page	no
'profile-APP1'	APP1_Profile	EXIF XMP
'profile-exif'	EXIF_Profile	EXIF
'profile-icc'	ICC_Profile	ICC_Profile
'profile-iptc'	IPTC_Profile	Photoshop
'profile-xmp'	XMP_Profile	XMP
'red-primary'	RedPrimary	no
'rendering-intent'	RenderingIntent	no
'resolution'	Resolution	no
'rows'	ImageHeight	no
'scene'	Scene	no
'signature'	Signature	no
'units'	Units	no
'white-point'	WhitePoint	no

PCX Tags

Tags extracted from PC Paintbrush images.

Index1	Tag Name	Writable
0	Manufacturer	no
1	Software	no
2	Encoding	no
3	BitsPerPixel	no
4	LeftMargin	no
6	TopMargin	no
8	ImageWidth	no
10	ImageHeight	no
12	XResolution	no

14	YResolution	no
65	ColorPlanes	no
66	BytesPerLine	no
68	ColorMode	no
70	ScreenWidth	no
72	ScreenHeight	no

PGF Tags

The following table lists information extracted from the header of Progressive Graphics File (PGF) images. As well, information is extracted from the embedded PNG metadata image if it exists. See <http://www.libpgf.org/> for the PGF specification.

Index1	Tag Name	Writable
3	PGFVersion	no
8	ImageWidth	no
12	ImageHeight	no
16	PyramidLevels	no
17	Quality	no
18	BitsPerPixel	no
19	ColorComponents	no
20	ColorMode	no
21	BackgroundColor	no

PSP Tags

Tags extracted from Paint Shop Pro images (PSP, PSPIMAGE, PSPFRAME, PSPSHAPE, PSPTUBE and TUB extensions).

Tag ID	Tag Name	Writable
'FileVersion'	FileVersion	no
0x0000	ImageInfo	PSP Image PSP Image
0x0001	CreatorInfo	PSP Creator
0x000a	ExtendedInfo	PSP Ext

PSP Image Tags

Index1	Tag Name	Writable
0	ImageWidth	no
4	ImageHeight	no
8	ImageResolution	no
16	ResolutionUnit	no
17	Compression	no
19	BitsPerSample	no
21	Planes	no
23	NumColors	no

PSP Creator Tags

Tag ID	Tag Name	Writable
0x0000	Title	no
0x0001	CreateDate	no
0x0002	ModifyDate	no
0x0003	Artist	no
0x0004	Copyright	no
0x0005	Description	no
0x0006	CreatorAppID	no
0x0007	CreatorAppVersion	no

PSP Ext Tags

Tag ID	Tag Name	Writable
0x0003	EXIFInfo	EXIF

PhotoCD Tags

Tags extracted from Kodak Photo CD Image Pac (PCD) files.

Index1	Tag Name	Writable
7	SpecificationVersion	no
9	AuthoringSoftwareRelease	no
11	ImageMagnificationDescriptor	no
13	CreateDate	no
17	ModifyDate	no
21	ImageMedium	no
22	ProductType	no
42	ScannerVendorID	no
62	ScannerProductID	no
78	ScannerFirmwareVersion	no
82	ScannerFirmwareDate	no
90	ScannerSerialNumber	no
110	ScannerPixelSize	no
112	ImageWorkstationMake	no
132	CharacterSet	no
133	CharacterEscapeSequence?	no
165	PhotoFinisherName	no
228	SceneBalanceAlgorithmRevision	no
230	SceneBalanceAlgorithmCommand	no
325	SceneBalanceAlgorithmFilmID	no
331	CopyrightStatus	no
332	CopyrightFileName	no
1538	Orientation	no
1538.1	ImageWidth	no
1538.2	ImageHeight	no
1538.3	CompressionClass	no

Radiance Tags

Information extracted from Radiance RGBE HDR images. Tag ID's are all uppercase as stored in the file, but converted to lowercase by when extracting to avoid conflicts with internal ExifTool variables. See <http://radsite.lbl.gov/radiance/refer/filefmts.pdf> and <http://www.graphics.cornell.edu/online/formats/rgbe/> for the specification.

Tag ID	Tag Name	Writable
'_command'	Command	no
'_comment'	Comment	no
'_orient'	Orientation	no
'colorcorr'	ColorCorrection	no
'exposure'	Exposure	no
'format'	Format	no
'gamma'	Gamma	no
'pixaspect'	PixelAspectRatio	no
'primaries'	ColorPrimaries	no
'software'	Software	no
'view'	View	no

Other PFM Tags

Tags extracted from Portable FloatMap images. See <http://www.pauldebevec.com/Research/HDR/PFM/> for the specification.

Tag Name	Writable
ByteOrder	no
ColorSpace	no
ImageHeight	no
ImageWidth	no

PDF Tags

The tags listed in the PDF tables below are those which are used by ExifTool to extract meta information, but they are only a small fraction of the total number of available PDF tags. See <https://web.archive.org/web/20210125064408/https://www.adobe.com/devnet/pdf/pdf_reference.html> for the official PDF specification.

ExifTool supports reading and writing PDF documents up to version 2.0, including support for RC4, AES−128 and AES−256 encryption. A Password option is provided to allow processing of password-protected PDF files.

ExifTool may be used to write native PDF and XMP metadata to PDF files. It uses an incremental update technique that has the advantages of being both fast and reversible. If ExifTool was used to modify a PDF file, the original may be recovered by deleting the `PDF−update` pseudo-group (with `−PDF−update:all=` on the command line). However, there are two main disadvantages to this technique:

1) A linearized PDF file is no longer linearized after the update, so it must be subsequently re-linearized if this is required.

2) All metadata edits are reversible. While this would normally be considered an advantage, it is a potential security problem because old information is never actually deleted from the file. (However, after running ExifTool the old information may be removed permanently using the ‘‘qpdf’’ utility with this command: ‘‘qpdf −−linearize in.pdf out.pdf’’.)

Tag ID	Tag Name	Writable
'Encrypt'	Encrypt	PDF Encrypt
'Info'	Info	PDF Info
'Root'	Root	PDF Root
'_linearized'	Linearized	no

PDF Encrypt Tags

Tags extracted from the document Encrypt dictionary.

Tag ID	Tag Name	Writable
'Filter'	Encryption	no
'P'	UserAccess	no

PDF Info Tags

As well as the tags listed below, the PDF specification allows for user-defined tags to exist in the Info dictionary. These tags, which should have corresponding XMP-pdfx entries in the XMP of the PDF XML Metadata object, are also extracted by ExifTool.

Writable specifies the value format, and may be `string`, `date`, `integer`, `real`, `boolean` or `name` for PDF tags.

Tag ID	Tag Name	Writable
'AAPL:Keywords'	AppleKeywords	string+
'Author'	Author	string
'CreationDate'	CreateDate	date
'Creator'	Creator	string
'Keywords'	Keywords	string+
'ModDate'	ModifyDate	date
'Producer'	Producer	string
'SourceModified'	SourceModified	date
'Subject'	Subject	string
'Title'	Title	string
'Trapped'	Trapped	string!

PDF Root Tags

This is the PDF document catalog.

Tag ID	Tag Name	Writable
'AF'	AF	PDF AF
'AcroForm'	AcroForm	PDF AcroForm
'Lang'	Language	no
'MarkInfo'	MarkInfo	PDF MarkInfo
'Metadata'	Metadata	PDF Metadata
'PageLayout'	PageLayout	no
'PageMode'	PageMode	no
'Pages'	Pages	PDF Pages
'Perms'	Perms	PDF Perms
'Version'	PDFVersion	no

PDF AF Tags

Processed only for C2PA information if AFRelationship is ‘‘/C2PA_Manifest’’.

Tag ID	Tag Name	Writable
'EF'	EF	PDF EF

PDF EF Tags

Tag ID	Tag Name	Writable
'F'	F_	PDF F

PDF F Tags

C2PA JUMBF metadata extracted from ‘‘/C2PA_Manifest’’ file.

Tag ID	Tag Name	Writable
'_stream'	JUMBF	Jpeg2000

PDF AcroForm Tags

Tag ID	Tag Name	Writable
'_has_xfa'	HasXFA	no

PDF MarkInfo Tags

Tag ID	Tag Name	Writable
'Marked'	TaggedPDF	no

PDF Metadata Tags

Tag ID	Tag Name	Writable
'XML_stream'	XMP	XMP

PDF Pages Tags

Tag ID	Tag Name	Writable
'Count'	PageCount	no
'Kids'	Kids	PDF Kids
'MediaBox'	MediaBox	no+

PDF Kids Tags

Tag ID	Tag Name	Writable
'Kids'	Kids	PDF Kids
'Metadata'	Metadata	PDF Metadata
'PieceInfo'	PieceInfo	PDF PieceInfo
'Resources'	Resources	PDF Resources

PDF PieceInfo Tags

Tag ID	Tag Name	Writable
'AdobePhotoshop'	AdobePhotoshop	PDF AdobePhotoshop
'Illustrator'	Illustrator	PDF Illustrator

PDF AdobePhotoshop Tags

Tag ID	Tag Name	Writable
'Private'	Private	PDF Private

PDF Private Tags

Tag ID	Tag Name	Writable
'ImageResources'	ImageResources	PDF ImageResources

PDF ImageResources Tags

Tag ID	Tag Name	Writable
'_stream'	PhotoshopStream	Photoshop

PDF Illustrator Tags

Tag ID	Tag Name	Writable
'Private'	Private	PDF AIPrivate

PDF AIPrivate Tags

Tag ID	Tag Name	Writable
'AIMetaData'	AIMetaData	PDF AIMetaData
'AIPDFPrivateData'	AIPDFPrivateData	PostScript
'AIPrivateData'	AIPrivateData	PostScript
'ContainerVersion'	ContainerVersion	no
'CreatorVersion'	CreatorVersion	no
'RoundTripVersion'	RoundTripVersion	no

PDF AIMetaData Tags

Tag ID	Tag Name	Writable
'_stream'	AIStream	PostScript

PDF Resources Tags

Tag ID	Tag Name	Writable
'ColorSpace'	ColorSpace	PDF ColorSpace
'Properties'	Properties	PDF Properties
'XObject'	XObject	PDF XObject

PDF ColorSpace Tags

Tag ID	Tag Name	Writable
'CS0'	CS0	PDF DefaultRGB
'Cs1'	Cs1	PDF DefaultRGB
'DefaultCMYK'	DefaultCMYK	PDF DefaultRGB
'DefaultRGB'	DefaultRGB	PDF DefaultRGB

PDF DefaultRGB Tags

Tag ID	Tag Name	Writable
'ICCBased'	ICCBased	PDF ICCBased

PDF ICCBased Tags

Tag ID	Tag Name	Writable
'_stream'	ICC_Profile	ICC_Profile

PDF Properties Tags

Tag ID	Tag Name	Writable
'MC'	MC	PDF MC

PDF MC Tags

Tag ID	Tag Name	Writable
'Metadata'	Metadata	PDF Metadata

PDF XObject Tags

Tag ID	Tag Name	Writable
'Im'	Im	PDF Im

PDF Im Tags

Information extracted from embedded images with the ExtractEmbedded option. The EmbeddedImage and its metadata are extracted only for JPEG and Jpeg2000 image formats.

Tag ID	Tag Name	Writable
'ColorSpace'	EmbeddedImageColorSpace	no+
'Filter'	EmbeddedImageFilter	no+
'Height'	EmbeddedImageHeight	no
'Image_stream'	EmbeddedImage	no
'Width'	EmbeddedImageWidth	no

PDF Perms Tags

Additional document permissions imposed by digital signatures.

Tag ID	Tag Name	Writable
'DocMDP'	DocMDP	PDF Signature
'FieldMDP'	FieldMDP	PDF Signature
'UR3'	UR3	PDF Signature

PDF Signature Tags

Tag ID	Tag Name	Writable
'ContactInfo'	SignerContactInfo	no
'Location'	SigningLocation	no
'M'	SigningDate	no
'Name'	SigningAuthority	no
'Prop_AuthTime'	AuthenticationTime	no
'Prop_AuthType'	AuthenticationType	no
'Reason'	SigningReason	no
'Reference'	Reference	PDF Reference

PDF Reference Tags

Tag ID	Tag Name	Writable
'TransformParams'	TransformParams	PDF TransformParams

PDF TransformParams Tags

Tag ID	Tag Name	Writable
'Action'	FieldPermissions	no
'Annots'	AnnotationUsageRights	no+
'Document'	DocumentUsageRights	no+
'EF'	EmbeddedFileUsageRights	no+
'Fields'	FormFields	no+
'Form'	FormUsageRights	no+
'FormEX'	FormExtraUsageRights	no+
'Msg'	UsageRightsMessage	no
'P'	ModificationPermissions	no
'Signature'	SignatureUsageRights	no+

PostScript Tags

Tag ID	Tag Name	Writable
'AI12_BuildNumber'	AIBuildNumber	no
'AI3_ColorUsage'	AIColorUsage	no
'AI5_FileFormat'	AIFileFormat	no
'AI5_NumLayers'	AINumLayers	no
'AI5_RulerUnits'	AIRulerUnits	no
'AI5_TargetResolution'	AITargetResolution	no
'AI8_CreatorVersion'	AICreatorVersion	no
'AI9_ColorModel'	AIColorModel	no
'Author'	Author	string
'BeginDocument'	EmbeddedFile	PostScript
'BeginICCProfile'	ICC_Profile	ICC_Profile
'BeginPhotoshop'	PhotoshopData	Photoshop
'BoundingBox'	BoundingBox	no
'Copyright'	Copyright	string
'CreationDate'	CreateDate	string
'Creator'	Creator	string
'EmbeddedFileName'	EmbeddedFileName	no
'For'	For	string
'ImageData'	ImageData	no
'Keywords'	Keywords	string
'ModDate'	ModifyDate	string
'Pages'	Pages	no
'Routing'	Routing	string
'Subject'	Subject	string
'TIFFPreview'	TIFFPreview	no
'Title'	Title	string
'Version'	Version	string
'begin_xml_packet'	XMP	XMP

ID3 Tags

ExifTool extracts ID3 and Lyrics3 information from MP3, MPEG, WAV, WV, AIFF, OGG, FLAC, APE, DSF, MPC and RealAudio files. ID3v2 tags which support multiple languages (eg. Comment and Lyrics) are extracted by specifying the tag name, followed by a dash ('−'), then a 3−character ISO 639−2 language code (eg. ''Comment-spa''). See <https://id3.org/> for the official ID3 specification and <http://www.loc.gov/standards/iso639−2/php/code_list.php> for a list of ISO 639−2 language codes.

Tag Name	Writable
ID3v1	ID3 v1
ID3v1_Enh	ID3 v1_Enh
ID3v2_2	ID3 v2_2
ID3v2_3	ID3 v2_3
ID3v2_4	ID3 v2_4

ID3 v1 Tags

Index1	Tag Name	Writable
3	Title	no
33	Artist	no
63	Album	no
93	Year	no
97	Comment	no
125	Track	no
127	Genre	no

ID3 v1_Enh Tags

ID3 version 1 ‘‘Enhanced TAG’’ information (not part of the official spec).

Index1	Tag Name	Writable
4	Title2	no
64	Artist2	no
124	Album2	no
184	Speed	no
185	Genre	no
215	StartTime	no
221	EndTime	no

ID3 v2_2 Tags

ExifTool extracts mainly text-based tags from ID3v2 information. The tags in the tables below are those extracted by ExifTool, and don’t represent a complete list of available ID3v2 tags.

ID3 version 2.2 tags. (These are the tags written by iTunes 5.0.)

Tag ID	Tag Name	Writable
'CNT'	PlayCounter	no
'COM'	Comment	no
'GP1'	Grouping	no
'IPL'	InvolvedPeople	no
'ITU'	iTunesU?	no
'MVI'	MovementNumber	no
'MVN'	MovementName	no
'PCS'	Podcast?	no
'PIC'	Picture	no
'PIC-1'	PictureFormat	no
'PIC-2'	PictureType	no
'PIC-3'	PictureDescription	no
'POP'	Popularimeter	no
'RVA'	RelativeVolumeAdjustment	no
'SLT'	SynLyrics	ID3 SynLyrics
'TAL'	Album	no
'TBP'	BeatsPerMinute	no
'TCM'	Composer	no
'TCO'	Genre	no
'TCP'	Compilation	no
'TCR'	Copyright	no
'TDA'	Date	no
'TDY'	PlaylistDelay	no
'TEN'	EncodedBy	no
'TFT'	FileType	no
'TIM'	Time	no

'TKE'	InitialKey	no
'TLA'	Language	no
'TLE'	Length	no
'TMT'	Media	no
'TOA'	OriginalArtist	no
'TOF'	OriginalFileName	no
'TOL'	OriginalLyricist	no
'TOR'	OriginalReleaseYear	no
'TOT'	OriginalAlbum	no
'TP1'	Artist	no
'TP2'	Band	no
'TP3'	Conductor	no
'TP4'	InterpretedBy	no
'TPA'	PartOfSet	no
'TPB'	Publisher	no
'TRC'	ISRC	no
'TRD'	RecordingDates	no
'TRK'	Track	no
'TS2'	AlbumArtistSortOrder	no
'TSA'	AlbumSortOrder	no
'TSC'	ComposerSortOrder	no
'TSI'	Size	no
'TSP'	PerformerSortOrder	no
'TSS'	EncoderSettings	no
'TST'	TitleSortOrder	no
'TT1'	Grouping	no
'TT2'	Title	no
'TT3'	Subtitle	no
'TXT'	Lyricist	no
'TXX'	UserDefinedText	no
'TYE'	Year	no
'ULT'	Lyrics	no
'WAF'	FileURL	no
'WAR'	ArtistURL	no
'WAS'	SourceURL	no
'WCM'	CommercialURL	no
'WCP'	CopyrightURL	no
'WPB'	PublisherURL	no
'WXX'	UserDefinedURL	no

ID3 SynLyrics Tags

The following tags are extracted from synchronized lyrics/text frames.

Tag Name	Writable
SynchronizedLyricsDescription	no
SynchronizedLyricsText	no+
SynchronizedLyricsType	no

ID3 v2_3 Tags

ID3 version 2.3 tags. Includes some non-standard tags written by other software.

Tag ID	Tag Name	Writable
'APIC'	Picture	no
'APIC-1'	PictureMIMEType	no
'APIC-2'	PictureType	no
'APIC-3'	PictureDescription	no
'COMM'	Comment	no
'GEOB'	GeneralEncapsulatedObject	ID3 GEOB
'GRP1'	Grouping	no
'IPLS'	InvolvedPeople	no
'ITNU'	iTunesU?	no
'MCDI'	MusicCDIdentifier	no
'MVIN'	MovementNumber	no
'MVNM'	MovementName	no
'OWNE'	Ownership	no
'PCNT'	PlayCounter	no
'PCST'	Podcast?	no
'POPM'	Popularimeter	no
'PRIV'	Private	ID3 Private
'SYLT'	SynLyrics	ID3 SynLyrics
'TALB'	Album	no
'TBPM'	BeatsPerMinute	no
'TCAT'	PodcastCategory	no
'TCMP'	Compilation	no
'TCOM'	Composer	no
'TCON'	Genre	no
'TCOP'	Copyright	no
'TDAT'	Date	no
'TDES'	PodcastDescription	no
'TDLY'	PlaylistDelay	no
'TENC'	EncodedBy	no
'TEXT'	Lyricist	no
'TFLT'	FileType	no
'TGID'	PodcastID	no
'TIME'	Time	no
'TIT1'	Grouping	no
'TIT2'	Title	no
'TIT3'	Subtitle	no
'TKEY'	InitialKey	no
'TKWD'	PodcastKeywords	no
'TLAN'	Language	no
'TLEN'	Length	no
'TMED'	Media	no
'TOAL'	OriginalAlbum	no
'TOFN'	OriginalFileName	no
'TOLY'	OriginalLyricist	no
'TOPE'	OriginalArtist	no
'TORY'	OriginalReleaseYear	no
'TOWN'	FileOwner	no
'TPE1'	Artist	no
'TPE2'	Band	no
'TPE3'	Conductor	no
'TPE4'	InterpretedBy	no
'TPOS'	PartOfSet	no

'TPUB'	Publisher	no
'TRCK'	Track	no
'TRDA'	RecordingDates	no
'TRSN'	InternetRadioStationName	no
'TRSO'	InternetRadioStationOwner	no
'TSIZ'	Size	no
'TSO2'	AlbumArtistSortOrder	no
'TSOC'	ComposerSortOrder	no
'TSRC'	ISRC	no
'TSSE'	EncoderSettings	no
'TXXX'	UserDefinedText	no
'TYER'	Year	no
'USER'	TermsOfUse	no
'USLT'	Lyrics	no
'WCOM'	CommercialURL	no
'WCOP'	CopyrightURL	no
'WFED'	PodcastURL	no
'WOAF'	FileURL	no
'WOAR'	ArtistURL	no
'WOAS'	SourceURL	no
'WORS'	InternetRadioStationURL	no
'WPAY'	PaymentURL	no
'WPUB'	PublisherURL	no
'WXXX'	UserDefinedURL	no
'XDOR'	OriginalReleaseTime	no
'XOLY'	OlympusDSS	Olympus DSS
'XSOA'	AlbumSortOrder	no
'XSOP'	PerformerSortOrder	no
'XSOT'	TitleSortOrder	no

ID3 GEOB Tags

Tag ID	Tag Name	Writable
'GEOB-Data'	GEOB-Data	no
'GEOB-Desc'	GEOB-Desc	no
'GEOB-File'	GEOB-File	no
'GEOB-Mime'	GEOB-Mime	no
'application/x-c2pa-manifest-store'	JUMBF	Jpeg2000

ID3 Private Tags

ID3 private (PRIV) tags. ExifTool will decode any private tags found, even if they do not appear in this table.

Tag Name	Writable
AverageLevel	no
PeakValue	no
WM_CollectionGroupID	no
WM_CollectionID	no
WM_ContentID	no
WM_MediaClassPrimaryID	no
WM_MediaClassSecondaryID	no
WM_Provider	no
XMP	XMP

ID3 v2_4 Tags

ID3 version 2.4 tags. Includes some non-standard tags written by other software.

Tag ID	Tag Name	Writable
'APIC'	Picture	no
'APIC-1'	PictureMIMEType	no
'APIC-2'	PictureType	no
'APIC-3'	PictureDescription	no
'COMM'	Comment	no
'GEOB'	GeneralEncapsulatedObject	ID3 GEOB
'GRP1'	Grouping	no
'ITNU'	iTunesU?	no
'MCDI'	MusicCDIdentifier	no
'MVIN'	MovementNumber	no
'MVNM'	MovementName	no
'OWNE'	Ownership	no
'PCNT'	PlayCounter	no
'PCST'	Podcast?	no
'POPM'	Popularimeter	no
'PRIV'	Private	ID3 Private
'RVA2'	RelativeVolumeAdjustment	no
'SYLT'	SynLyrics	ID3 SynLyrics
'TALB'	Album	no
'TBPM'	BeatsPerMinute	no
'TCAT'	PodcastCategory	no
'TCMP'	Compilation	no
'TCOM'	Composer	no
'TCON'	Genre	no
'TCOP'	Copyright	no
'TDEN'	EncodingTime	no
'TDES'	PodcastDescription	no
'TDLY'	PlaylistDelay	no
'TDOR'	OriginalReleaseTime	no
'TDRC'	RecordingTime	no
'TDRL'	ReleaseTime	no
'TDTG'	TaggingTime	no
'TENC'	EncodedBy	no
'TEXT'	Lyricist	no
'TFLT'	FileType	no
'TGID'	PodcastID	no
'TIPL'	InvolvedPeople	no
'TIT1'	Grouping	no
'TIT2'	Title	no
'TIT3'	Subtitle	no
'TKEY'	InitialKey	no
'TKWD'	PodcastKeywords	no
'TLAN'	Language	no
'TLEN'	Length	no
'TMCL'	MusicianCredits	no
'TMED'	Media	no
'TMOO'	Mood	no
'TOAL'	OriginalAlbum	no
'TOFN'	OriginalFileName	no
'TOLY'	OriginalLyricist	no
'TOPE'	OriginalArtist	no

'TOWN'	FileOwner	no
'TPE1'	Artist	no
'TPE2'	Band	no
'TPE3'	Conductor	no
'TPE4'	InterpretedBy	no
'TPOS'	PartOfSet	no
'TPRO'	ProducedNotice	no
'TPUB'	Publisher	no
'TRCK'	Track	no
'TRSN'	InternetRadioStationName	no
'TRSO'	InternetRadioStationOwner	no
'TSO2'	AlbumArtistSortOrder	no
'TSOA'	AlbumSortOrder	no
'TSOC'	ComposerSortOrder	no
'TSOP'	PerformerSortOrder	no
'TSOT'	TitleSortOrder	no
'TSRC'	ISRC	no
'TSSE'	EncoderSettings	no
'TSST'	SetSubtitle	no
'TXXX'	UserDefinedText	no
'USER'	TermsOfUse	no
'USLT'	Lyrics	no
'WCOM'	CommercialURL	no
'WCOP'	CopyrightURL	no
'WFED'	PodcastURL	no
'WOAF'	FileURL	no
'WOAR'	ArtistURL	no
'WOAS'	SourceURL	no
'WORS'	InternetRadioStationURL	no
'WPAY'	PaymentURL	no
'WPUB'	PublisherURL	no
'WXXX'	UserDefinedURL	no
'XDOR'	OriginalReleaseTime	no
'XOLY'	OlympusDSS	Olympus DSS
'XSOA'	AlbumSortOrder	no
'XSOP'	PerformerSortOrder	no
'XSOT'	TitleSortOrder	no

ID3 Lyrics3 Tags

ExifTool extracts Lyrics3 version 1.00 and 2.00 tags from any file that supports ID3. See <https://id3.org/Lyrics3> for the specification.

Tag ID	Tag Name	Writable
'AUT'	Author	no
'CRC'	CRC	no
'EAL'	ExtendedAlbumName	no
'EAR'	ExtendedArtistName	no
'ETT'	ExtendedTrackTitle	no
'IMG'	AssociatedImageFile	no
'IND'	Indications	no
'INF'	AdditionalInfo	no
'LYR'	Lyrics	no

ITC Tags

This information is found in iTunes Cover Flow data files.

Tag ID	Tag Name	Writable
'data'	ImageData	no
'itch'	Itch	ITC Header
'item'	Item	ITC Item

ITC Header Tags

Index1	Tag Name	Writable
16	DataType	no

ITC Item Tags

Index4	Tag Name	Writable
0	LibraryID	no
2	TrackID	no
4	DataLocation	no
5	ImageType	no
7	ImageWidth	no
8	ImageHeight	no

QuickTime Tags

The QuickTime format is used for many different types of audio, video and image files (most notably, MOV/MP4 videos and HEIC/CR3 images). ExifTool extracts standard meta information and a variety of audio, video and image parameters, as well as proprietary information written by many camera models. Tags with a question mark after their name are not extracted unless the Unknown option is set.

When writing video files, ExifTool creates both QuickTime and XMP tags by default, but the group may be specified to write one or the other separately. If no location is specified, newly created QuickTime tags are added in the ItemList location if possible, otherwise in UserData, and finally in Keys, but this order may be changed by setting the PREFERRED level of the appropriate table in the config file (see example.config in the full distribution for an example). Note that some tags with the same name but different ID's may exist in the same location, but the family 7 group names may be used to differentiate these.

ExifTool currently writes ItemList and UserData only as top-level metadata, but select Keys tags are may be written to the audio or video track. See the AudioKeys and VideoKeys tags for more information.

Alternate language tags may be accessed for ItemList and Keys tags by adding a 3−character ISO 639−2 language code and an optional ISO 3166−1 alpha 2 country code to the tag name (eg. ''ItemList:Artist−deu'' or ''ItemList::Artist−deu−DE''). Most UserData tags support a language code, but without a country code. If no language code is specified when writing, the default language is written and alternate languages for the tag are deleted. Use the ''und'' language code to write the default language without deleting alternate languages. Note that when reading, ''eng'' is also treated as the default language if there is no country code.

According to the specification, integer-format QuickTime date/time tags should be stored as UTC. Unfortunately, digital cameras often store local time values instead (presumably because they don't know the time zone). For this reason, by default ExifTool does not assume a time zone for these values. However, if the API QuickTimeUTC option is set, then ExifTool will assume these values are properly stored as UTC, and will convert them to local time when extracting.

When writing string-based date/time tags, the system time zone is added if the PrintConv option is enabled and no time zone is specified. This is because Apple software may display crazy values if the time zone is missing for some tags.

By default ExifTool will remove null padding from some QuickTime containers in Canon CR3 files when writing, but the QuickTimePad option may be used to preserve the original size by padding with nulls if

necessary.

See <https://developer.apple.com/library/archive/documentation/QuickTime/QTFF/> for the official QuickTime specification.

Tag ID	Tag Name	Writable
'GPS '	GPSDataList2?	no
'IDIT'	DateTimeOriginal	string
'PICT'	PreviewPICT	no
'SEAL'	SEAL	XMP SEAL
'_htc'	HTCInfo	QuickTime HTCInfo
'ardt'	ARDroneFile	no
'cust'	CustomInfo	no
'frea'	Kodak_frea	Kodak frea
'free'	KodakFree	Kodak Free
	Pittasoft	QuickTime Pittasoft
	ThumbnailImage	no
	HighlightMarkers	no
	Free?	no
'ftyp'	FileType	QuickTime FileType
'gdat'	GPSData	QuickTime Stream
'gps0'	GPSTrack	QuickTime Stream
'gsen'	GSensor	QuickTime Stream
'inst'	Insta360Info	QuickTime Stream
'junk'	Junk?	no
'kfix'	KFIX	Kandao
'kstb'	KSTB	Kandao
'kvar'	KVAR	Kandao
'mdat'	MediaData?	no
'mdat-offset'	MediaDataOffset	no
'mdat-size'	MediaDataSize	no
'meco'	OtherMeta	QuickTime OtherMeta
'meta'	Meta	QuickTime Meta
'moof'	MovieFragment	QuickTime MovieFragment
'moov'	Movie	QuickTime Movie
'mpvd'	MotionPhotoVideo	undef
'nbmt'	NextbaseMeta	QuickTime Stream
'pict'	PreviewPICT	no
'pnot'	Preview	QuickTime Preview
'prrt'	ARDroneTelemetry	no
'sefd'	SamsungTrailer	Samsung Trailer
'skip'	CanonSkip	Canon Skip
	PreviewImage	no
	SkipInfo	QuickTime Stream
	LigoGPSInfo	-
	Skip?	no
'thm '	ThumbnailImage	no
'thum'	ThumbnailImage	no
'udat'	GPSLog	no
'udta'	KenwoodData	QuickTime Stream
	LigoJSON	QuickTime Stream
	GKUData	QuickTime Stream
	FLIRData	FLIR UserData
'uuid'	XMP	XMP
	UUID-PROF	QuickTime Profile

	UUID-Flip	QuickTime Flip
	UUID-Canon2	Canon uuid2
	SensorData	QuickTime Tags360Fly
	SensorData	no
	JUMBF	Jpeg2000
	CBOR	CBOR
	PreviewImage	no
	ThumbnailImage	no
	UUID-Unknown?	no
'wide'	Wide?	no

QuickTime Stream Tags

The tags below are extracted from timed metadata in QuickTime and other formats of video files when the ExtractEmbedded option is used. Although most of these tags are combined into the single table below, ExifTool currently reads 128 different types of timed GPS metadata.

Tag ID	Tag Name	Writable
'Accelerometer'	Accelerometer	no
'AccelerometerData'	AccelerometerData	no
'AngularVelocity'	AngularVelocity	no
'CTMD'	CTMD	Canon CTMD
'CameraDateTime'	CameraDateTime	no
'CameraModel'	CameraModel	no
'Car'	Car	no
'DateTimeOriginal'	DateTimeOriginal	no
'DateTimeStamp'	DateTimeStamp	no
'Distance'	Distance	no
'ExposureCompensation'	ExposureCompensation	no
'ExposureTime'	ExposureTime	no
'FNumber'	FNumber	no
'FrameNumber'	FrameNumber	no
'GPSAltitude'	GPSAltitude	no
'GPSDOP'	GPSDOP	no
'GPSDateTime'	GPSDateTime	no
'GPSLatitude'	GPSLatitude	no
'GPSLatitude2'	GPSLatitude2	no
'GPSLongitude'	GPSLongitude	no
'GPSLongitude2'	GPSLongitude2	no
'GPSSatellites'	GPSSatellites	no
'GPSSpeed'	GPSSpeed	no
'GPSSpeedRef'	GPSSpeedRef	no
'GPSTimeStamp'	GPSTimeStamp	no
'GPSTrack'	GPSTrack	no
'GPSTrackRef'	GPSTrackRef	no
'GSensor'	GSensor	no
'INSV'	INSV	QuickTime INSV_MakerNotes
'ISO'	ISO	no
'JPEG'	JpgFromRaw	no
'KiloCalories'	KiloCalories	no
'MagneticVariation'	MagneticVariation	no
'RVMI'	RVMI_gReV	QuickTime RVMI_gReV
	RVMI_sReV	QuickTime RVMI_sReV
'RawGSensor'	RawGSensor	no
'SampleDateTime'	SampleDateTime	no

'SampleDuration'	SampleDuration	no
'SampleTime'	SampleTime	no
'Text'	Text	no
'TimeCode'	TimeCode	no
'Unknown00'	Unknown00?	no
'Unknown01'	Unknown01?	no
'Unknown02'	Unknown02?	no
'Unknown03'	Unknown03?	no
'UserLabel'	UserLabel	no
'VerticalSpeed'	VerticalSpeed	no
'VideoTimeStamp'	VideoTimeStamp	no
'camm'	camm0	QuickTime camm0
	camm1	QuickTime camm1
	camm2	QuickTime camm2
	camm3	QuickTime camm3
	camm4	QuickTime camm4
	camm5	QuickTime camm5
	camm6	QuickTime camm6
	camm7	QuickTime camm7
'dbgi'	DJIDebug?	DJI Protobuf
'djmd'	DJIMetadata	DJI Protobuf
'fdsc'	fdsc	GoPro fdsc
'gpmd'	gpmd_Kingslim	QuickTime Stream
	gpmd_Rove	QuickTime Stream
	gpmd_FMAS	QuickTime Stream
	gpmd_Wolfbox	QuickTime Stream
	gpmd_GoPro	GoPro GPMF
'marl'	marl	GM marl
'mebx'	mebx	QuickTime Keys
'mett'	mett	Parrot mett
'rtmd'	rtmd	Sony rtmd
'ssmd'	RoveGPS	QuickTime RoveGPS
	Accelerometer	no
	PreviewImage	no
'text'	PreviewInfo	QuickTime PreviewInfo
'tx3g'	tx3g	QuickTime tx3g

QuickTime INSV_MakerNotes Tags

Tag ID	Tag Name	Writable
0x000a	SerialNumber	no
0x0012	Model	no
0x001a	Firmware	no
0x002a	Parameters	no

QuickTime RVMI_gReV Tags

GPS information extracted from the RVMI box of MOV videos.

Index1	Tag Name	Writable
4	GPSLatitude	no
8	GPSLongitude	no
16	GPSSpeed	no
18	GPSTrack	no

QuickTime RVMI_sReV Tags

G−sensor information extracted from the RVMI box of MOV videos.

Index1	Tag Name	Writable
4	GSensor	no

QuickTime camm0 Tags

The camm0 through camm7 tables define tags extracted from the Google Street View Camera Motion Metadata of MP4 videos. See <https://developers.google.com/streetview/publish/camm−spec> for the specification.

Tag ID	Tag Name	Writable
0x0004	AngleAxis	no

QuickTime camm1 Tags

Tag ID	Tag Name	Writable
0x0004	PixelExposureTime	no
0x0008	RollingShutterSkewTime	no

QuickTime camm2 Tags

Tag ID	Tag Name	Writable
0x0004	AngularVelocity	no

QuickTime camm3 Tags

Tag ID	Tag Name	Writable
0x0004	Acceleration	no

QuickTime camm4 Tags

Tag ID	Tag Name	Writable
0x0004	Position	no

QuickTime camm5 Tags

Tag ID	Tag Name	Writable
0x0004	GPSLatitude	no
0x000c	GPSLongitude	no
0x0014	GPSAltitude	no

QuickTime camm6 Tags

Tag ID	Tag Name	Writable
0x0004	GPSDateTime	no
0x000c	GPSMeasureMode	no
0x0010	GPSLatitude	no
0x0018	GPSLongitude	no
0x0020	GPSAltitude	no
0x0024	GPSHorizontalAccuracy	no
0x0028	GPSVerticalAccuracy	no
0x002c	GPSVelocityEast	no
0x0030	GPSVelocityNorth	no
0x0034	GPSVelocityUp	no
0x0038	GPSSpeedAccuracy	no

QuickTime camm7 Tags

Tag ID	Tag Name	Writable
0x0004	MagneticField	no

QuickTime Keys Tags

This directory contains a list of key names which are used to decode tags written by the ‘‘mdta’’ handler. Also in this table are a few tags found in timed metadata that are not yet writable by ExifTool. The prefix of ‘‘com.apple.quicktime.’’ has been removed from most TagID’s below. These tags support alternate languages in the same way as the ItemList tags. Note that by default, ItemList and UserData tags are preferred when writing, so to create a tag when a same-named tag exists in either of these tables, either the ‘‘Keys’’ location must be specified (eg. `-Keys:Author=Phil` on the command line), or the PREFERRED level must be changed via the config file.

Tag ID	Tag Name	Writable
'Encoded_With'	EncodedWith	yes
'album'	Album	yes
'apple.photos.variation-identifier'	ApplePhotosVariationIdentifier	int64s
'artist'	Artist	yes
'artwork'	Artwork	yes
'author'	Author	yes
'collection.user'	UserCollection	yes
'com.android.capture.fps'	AndroidCaptureFPS	float
'com.android.manufacturer'	AndroidMake	yes
'com.android.model'	AndroidModel	yes
'com.android.version'	AndroidVersion	yes
'com.xiaomi.hdr10'	XiaomiHDR10	int32s
'com.xiaomi.preview_video_cover'	XiaomiPreviewVideoCover	int32s
'comment'	Comment	yes
'compatible_brands'	CompatibleBrands	yes/
'content.identifier'	ContentIdentifier	yes
'copyright'	Copyright	yes
'creation_time'	CreationTime	yes/
'creationdate'	CreationDate	yes
'description'	Description	yes
'detected-face'	FaceInfo	QuickTime FaceInfo
'detected-face.bounds'	DetectedFaceBounds	no
'detected-face.face-id'	DetectedFaceID	no
'detected-face.roll-angle'	DetectedFaceRollAngle	no
'detected-face.yaw-angle'	DetectedFaceYawAngle	no
'direction.facing'	CameraDirection	yes
'direction.motion'	CameraMotion	yes
'director'	Director	yes
'displayname'	DisplayName	yes
'encoder'	Encoder	yes
'full-frame-rate-playback-intent'	FullFrameRatePlaybackIntent	yes
'genre'	Genre	yes
'information'	Information	yes
'keywords'	Keywords	yes

```
'live-photo-info' LivePhotoInfo               no
'live-photo.auto' LivePhotoAuto               int8u
'live-photo.vitality-score'
             LivePhotoVitalityScore           float
'live-photo.vitality-scoring-version'
             LivePhotoVitalityScoringVersion int64s
'location.ISO6709' GPSCoordinates             yes
'location.accuracy.horizontal'
             LocationAccuracyHorizontal       yes
'location.body' LocationBody                  yes
'location.date' LocationDate                  yes
'location.name' LocationName                  yes
'location.note' LocationNote                  yes
'location.role' LocationRole                  yes
'major_brand' MajorBrand                      yes/
'make'        Make                            yes
'minor_version' MinorVersion                  yes/
'model'       Model                           yes
'player.movie.audio.balance' Balance          yes
'player.movie.audio.bass' Bass                yes
'player.movie.audio.gain' AudioGain           yes
'player.movie.audio.mute' Mute                int8u
'player.movie.audio.pitchshift' PitchShift    yes
'player.movie.audio.treble' Treble            yes
'player.movie.visual.brightness' Brightness   yes
'player.movie.visual.color' Color             yes
'player.movie.visual.contrast' Contrast       yes
'player.movie.visual.tint' Tint               yes
'player.version' PlayerVersion                yes
'producer'    Producer                        yes
'publisher'   Publisher                       yes
'rating.user' UserRating                      yes
'samsung.android.utc_offset' AndroidTimeZone  yes
'scene-illuminance' SceneIlluminance          no
'sdpd'        SDPD                            QuickTime sdpd
'setu'        SETU                            QuickTime setu
'smartstyle-info' SmartStyleInfo              PLIST
'smartstyle.bypassed' SmartstyleBypassed      no
'smartstyle.cast' SmartstyleCast              no
'smartstyle.color' SmartstyleColor            no
'smartstyle.intensity' SmartstyleIntensity    no
'smartstyle.rendering-version'
             SmartstyleRenderingVersion       no
'smartstyle.tone' SmartstyleTone              no
'software'    Software                        yes
'spatial.aggressors-seen'
             SpatialAggressorsSeen            yes
'spatial.format-version' SpatialFormatVersion yes
'still-image-time' StillImageTime             no
'title'       Title                           yes
'version'     Version                         yes
'video-orientation' VideoOrientation          no
'xiaomi.exifInfo.videoinfo' XiaomiExifInfo    yes
'year'        Year                            yes
```

QuickTime AudioKeys Tags

Keys tags written in the audio track by some Apple devices. These tags belong to the ExifTool AudioKeys family 1 gorup.

Tag ID	Tag Name	Writable
'player.movie.audio.balance'	Balance	yes
'player.movie.audio.bass'	Bass	yes
'player.movie.audio.gain'	AudioGain	yes
'player.movie.audio.mute'	Mute	int8u
'player.movie.audio.pitchshift'	PitchShift	yes
'player.movie.audio.treble'	Treble	yes

QuickTime VideoKeys Tags

Keys tags written in the video track. These tags belong to the ExifTool VideoKeys family 1 gorup.

Tag ID	Tag Name	Writable
'camera.focal_length.35mm_equivalent'	FocalLengthIn35mmFormat	yes
'camera.framereadouttimeinmicroseconds'	FrameReadoutTime	yes
'camera.identifier'	CameraIdentifier	yes
'camera.lens_irisfnumber'	LensIrisFNumber	yes
'camera.lens_model'	LensModel	yes
'com.apple.photos.captureMode'	CaptureMode	yes

QuickTime FaceInfo Tags

Tag ID	Tag Name	Writable
'crec'	FaceRec	QuickTime FaceRec

QuickTime FaceRec Tags

Tag ID	Tag Name	Writable
'cits'	FaceItem	QuickTime Keys

QuickTime sdpd Tags

Tag ID	Tag Name	Writable
'sdpi'	SDPI?	no

QuickTime setu Tags

Tag ID	Tag Name	Writable
'cfgv'	CFGV	PLIST
'dims'	Dimensions	no

QuickTime RoveGPS Tags

Index1	Tag Name	Writable
0	GPSLatitude	no
8	GPSLongitude	no
20	GPSSpeed	no
22	GPSDateTime	no

QuickTime PreviewInfo Tags

Preview stored by TomTom Bandit ActionCam.

Index1	Tag Name	Writable
8	PreviewImage	no

QuickTime tx3g Tags

Tags extracted from the tx3g sbtl timed metadata of Yuneec and Autel drones, and subtitle text in some other videos.

Tag ID	Tag Name	Writable
'Alt'	GPSAltitude	no
'DateTime'	DateTime	no
'EV'	ExposureCompensation	no
'F-NUM'	FNumber	no
'GPSDateTime'	GPSDateTime	no
'GimPitch'	GimbalPitch	no
'GimRoll'	GimbalRoll	no
'GimYaw'	GimbalYaw	no
'HomeLat'	GPSHomeLatitude	no
'HomeLon'	GPSHomeLongitude	no
'ISO'	ISO	no
'Lat'	GPSLatitude	no
'Lon'	GPSLongitude	no
'Pitch'	Pitch	no
'Roll'	Roll	no
'SHUTTER'	ExposureTime	no
'Text'	Text	no
'Yaw'	Yaw	no

QuickTime HTCInfo Tags

Tags written by some HTC camera phones.

Tag ID	Tag Name	Writable
'slmt'	Unknown_slmt?	no

QuickTime Pittasoft Tags

Tags found in Pittasoft Blackvue dashcam ‘‘free’’ data.

Tag ID	Tag Name	Writable
'3gf '	AccelData	QuickTime Stream
'cprt'	Copyright	no
'gps '	GPSLog	no
'ptnm'	OriginalFileName	no
'ptrh'	Ptrh	QuickTime Pittasoft
'sttm'	StartTime	no
'thum'	PreviewImage	no

QuickTime FileType Tags

Index4	Tag Name	Writable
0	MajorBrand	no
1	MinorVersion	no
2	CompatibleBrands	no+

QuickTime OtherMeta Tags

Tag ID	Tag Name	Writable
'mere'	MetaRelation	QuickTime MetaRelation
'meta'	Meta	QuickTime Meta

QuickTime MetaRelation Tags

Index4	Tag Name	Writable
[no tags known]		

QuickTime Meta Tags

Tag ID	Tag Name	Writable
'bxml'	BinaryXML?	no
'dinf'	DataInfo	QuickTime DataInfo
'free'	Free?	no
'grpl'	GroupsList	QuickTime GroupsList
'hdlr'	Handler	QuickTime Handler
'idat'	MetaImageSize	no
'iinf'	ItemInformation	QuickTime ItemInfo
		QuickTime ItemInfo
'iloc'	ItemLocation	no
'ilst'	ItemList	QuickTime ItemList
'ipmc'	IPMPControl?	no
'ipro'	ItemProtection?	no
'iprp'	ItemProperties	QuickTime ItemProp
'iref'	ItemReference	QuickTime ItemRef
'keys'	AudioKeys	QuickTime AudioKeys
	VideoKeys	QuickTime VideoKeys
	Keys	QuickTime Keys
'pitm'	PrimaryItemReference	no
'uuid'	MetaVersion	no
	UUID-Unknown?	no
'xml '	XML	XMP XML

QuickTime DataInfo Tags

MP4 data information box.

Tag ID	Tag Name	Writable
'dref'	DataRef	QuickTime DataRef

QuickTime DataRef Tags

MP4 data reference box.

Tag ID	Tag Name	Writable
"url\0"	URL	no
'url '	URL	no
'urn '	URN	no

QuickTime GroupsList Tags

Tag ID	Tag Name	Writable
'ster'	StereoImage	QuickTime StereoImage

QuickTime StereoImage Tags

Index4	Tag Name	Writable
1	StereoImageGroupID	no
2	StereoImageEntities	no
3	StereoImageLeftID	no
4	StereoImageRightID	no

QuickTime Handler Tags

Index1	Tag Name	Writable
4	HandlerClass	no
8	HandlerType	no
12	HandlerVendorID	no
24	HandlerDescription	no

QuickTime ItemInfo Tags

Tag ID	Tag Name	Writable
'infe'	ItemInfoEntry	no

QuickTime ItemList Tags

This is the preferred location for creating new QuickTime tags. Tags in this table support alternate languages which are accessed by adding a 3−character ISO 639−2 language code and an optional ISO 3166−1 alpha 2 country code to the tag name (eg. ‘‘ItemList:Title−fra’’ or ‘‘ItemList::Title−fra−FR’’). When creating a new Meta box to contain the ItemList directory, by default ExifTool adds an ’mdir’ (Metadata) Handler box because Apple software may ignore ItemList tags otherwise, but the API QuickTimeHandler option may be set to 0 to avoid this.

Tag ID	Tag Name	Writable
'----'	iTunesInfo	QuickTime iTunesInfo
'@PST'	ParentShortTitle	string
'@ppi'	ParentProductID	string
'@pti'	ParentTitle	string
'@sti'	ShortTitle	string
'AACR'	Unknown_AACR?	string
'CDEK'	Unknown_CDEK?	string
'CDET'	Unknown_CDET?	string
'GUID'	GUID	string
'VERS'	ProductVersion	string
'aART'	AlbumArtist	string
'akID'	AppleStoreAccountType	int8s
'albm'	Album	string/
'apID'	AppleStoreAccount	string
'atID'	ArtistID	int32s
'auth'	Author	string
'catg'	Category	string
'cmID'	ComposerID	string
'cnID'	AppleStoreCatalogID	int32s
'covr'	CoverArt	string
'cpil'	Compilation	int8s

```
    'cprt'      Copyright                   string
    'desc'      Description                 string/
    'disk'      DiskNumber                  undef
    'dscp'      Description                 string/
    'egid'      EpisodeGlobalUniqueID       string
    'geID'      GenreID                     int32s
    'gnre'      Genre                       undef/
    'grup'      Grouping                    string/
    'gshh'      GoogleHostHeader            string
    'gspm'      GooglePingMessage           string
    'gspu'      GooglePingURL               string
    'gssd'      GoogleSourceData            string
    'gsst'      GoogleStartTime             string
    'gstd'      GoogleTrackDuration         string
    'hdvd'      HDVideo                     int8s
    'itnu'      iTunesU                     int8s
    'keyw'      Keyword                     string
    'ldes'      LongDescription             string
    'ownr'      Owner                       string
    'pcst'      Podcast                     int8s
    'perf'      Performer                   string
    'pgap'      PlayGap                     int8s
    'plID'      AlbumID                     int32s[2]
    'prID'      ProductID                   string
    'purd'      PurchaseDate                string
    'purl'      PodcastURL                  string
    'rate'      RatingPercent               string
    'rldt'      ReleaseDate                 string
    'rtng'      Rating                      int8s
    'sdes'      StoreDescription            string
    'sfID'      AppleStoreCountry           int32s
    'shwm'      ShowMovement                int8s
    'snal'      PreviewImage                string
    'soaa'      SortAlbumArtist             string
    'soal'      SortAlbum                   string
    'soar'      SortArtist                  string
    'soco'      SortComposer                string
    'sonm'      SortName                    string
    'sosn'      SortShow                    string
    'stik'      MediaType                   int8s
    'titl'      Title                       string/
    'tmpo'      BeatsPerMinute              int16s
    'tnal'      ThumbnailImage              string
    'trkn'      TrackNumber                 undef
    'tven'      TVEpisodeID                 string
    'tves'      TVEpisode                   int32s
    'tvnn'      TVNetworkName               string
    'tvsh'      TVShow                      string
    'tvsn'      TVSeason                    int32u
    'xid '      ISRC                        string
    'yrrc'      Year                        string
    "\xa9ART"   Artist                      string
    "\xa9alb"   Album                       string
    "\xa9ard"   ArtDirector                 string
```

```
"\xa9arg"    Arranger                    string
"\xa9aut"    Author                      string/
"\xa9cmt"    Comment                     string
"\xa9com"    Composer                    string/
"\xa9con"    Conductor                   string
"\xa9cpy"    Copyright                   string/
"\xa9day"    ContentCreateDate           string
"\xa9des"    Description                 string
"\xa9dir"    Director                    string
"\xa9enc"    EncodedBy                   string
"\xa9gen"    Genre                       string
"\xa9grp"    Grouping                    string
"\xa9lyr"    Lyrics                      string
"\xa9mvc"    MovementCount               int16s
"\xa9mvi"    MovementNumber              int16s
"\xa9mvn"    MovementName                string
"\xa9nam"    Title                       string
"\xa9nrt"    Narrator                    string
"\xa9ope"    OriginalArtist              string
"\xa9prd"    Producer                    string
"\xa9pub"    Publisher                   string
"\xa9sne"    SoundEngineer               string
"\xa9sol"    Soloist                     string
"\xa9st3"    Subtitle                    string
"\xa9too"    Encoder                     string
"\xa9trk"    Track                       string
"\xa9wrk"    Work                        string
"\xa9wrt"    Composer                    string
"\xa9xpd"    ExecutiveProducer           string
"\xa9xyz"    GPSCoordinates              string
```

QuickTime iTunesInfo Tags

ExifTool will extract any iTunesInfo tags that exist, even if they are not defined in this table. These tags belong to the family 1 ‘‘iTunes’’ group, and are not currently writable.

```
Tag ID                  Tag Name              Writable
------                  --------              --------
'ARTISTS'               Artists               no
'Actors'                Actors                no
'BARCODE'               Barcode               no
'CATALOGNUMBER'         CatalogNumber         no
'COSTUME_DESIGNER'      CostumeDesigner       no
'DIRECTOR'              Director              no
'DIRECTOR_OF_PHOTOGRAPHY'
                        DirectorOfPhotography no
'DISCNUMBER'            DiscNumber            no
'Dynamic Range (DR)'    DynamicRange          no
'Dynamic Range (R128)'  DynamicRangeR128      no
'EDITED_BY'             EditedBy              no
'Encoding Params'       EncodingParams        QuickTime EncodingParams
'IMDB_ID'               IMDB_ID               no
'LABEL'                 Label                 no
'MEDIA'                 Media                 no
'MOOD'                  Mood                  no
'PRODUCER'              Producer              no
```

```
'PRODUCTION_DESIGNER'   ProductionDesigner    no
'Peak Level (R128)'     PeakLevelR128         no
'Peak Level (Sample)'   PeakLevelSample       no
'RATING'                Rating                no
'SCREENPLAY_BY'         ScreenplayBy          no
'SCRIPT'                Script                no
'TIPL'                  TIPL                  no
'TMDB_ID'               TMDB_ID               no
'TRACKNUMBER'           TrackNumber           no
'Volume Level (R128)'   VolumeLevelR128       no
'Volume Level (ReplayGain)' ReplayVolumeLevel no
'iTunEXTC'              ContentRating         no
'iTunMOVI'              iTunMOVI              PLIST
'iTunNORM'              VolumeNormalization   no
'iTunSMPB'              iTunSMPB              no
'iTunes_CDDB_1'         CDDB1Info             no
'iTunes_CDDB_TrackNumber' CDDBTrackNumber     no
'initialkey'            InitialKey            no
'originaldate'          OriginalDate          no
'originalyear'          OriginalYear          no
'popularimeter'         Popularimeter         no
'replaygain_track_gain' ReplayTrackGain       no
'replaygain_track_peak' ReplayTrackPeak       no
'tool'                  iTunTool              no
'˜length'               Length                no
```

QuickTime EncodingParams Tags

```
Tag ID   Tag Name                           Writable
------   --------                           --------
'abrt'   AudioAvailableBitRateRange         no
'acbf'   AudioBitRateControlMode            no
'acef'   AudioExtendFrequencies             no
'brat'   AudioCurrentTargetBitRate          no
'cdcv'   AudioComponentVersion              no
'cmnc'   AudioAvailableNumberChannels       no
'init'   AudioIsInitialized                 no
'lmrc'   AudioDoesSampleRateConversion      no
'mdel'   AudioMinimumDelayMode              no
'mnip'   AudioMinimumNumberInputPackets     no
'mnop'   AudioMinimumNumberOutputPackets    no
'oppr'   AudioOutputPrecedence              no
'pad0'   AudioZeroFramesPadded              no
'pakb'   AudioMaximumPacketByteSize         no
'pakd'   AudioRequiresPacketDescription     no
'pakf'   AudioPacketFrameSize               no
'prmm'   AudioCodecPrimeMethod              no
'srcq'   AudioQualitySetting                no
'tbuf'   AudioInputBufferSize               no
'ubuf'   AudioUsedInputBufferSize           no
'ursr'   AudioUseRecommendedSampleRate      no
'vbrq'   AudioVBRQuality                    no
'vers'   AudioEncodingParamsVersion         no
'vpk?'   AudioHasVariablePacketByteSizes    no
```

QuickTime ItemProp Tags

Tag ID	Tag Name	Writable
'ipco'	ItemPropertyContainer	QuickTime ItemPropCont
'ipma'	ItemPropertyAssociation	no

QuickTime ItemPropCont Tags

Tag ID	Tag Name	Writable
'auxC'	AuxiliaryImageType	no
'av1C'	AV1Configuration	QuickTime AV1Config
'clap'	CleanAperture	no
'clli'	ContentLightLevel	QuickTime ContentLightLevel
'colr'	ICC_Profile	ICC_Profile
	ColorRepresentation	QuickTime ColorRep
'hvcC'	HEVCConfiguration	QuickTime HEVCConfig
'imir'	Mirroring	int8u!
'irot'	Rotation	int8u!
'ispe'	ImageSpatialExtent	no
'pasp'	PixelAspectRatio	int32u[2]!
'pixi'	ImagePixelDepth	no
'rloc'	RelativeLocation	no

QuickTime AV1Config Tags

Index1	Tag Name	Writable
0	AV1ConfigurationVersion	no
1	SeqProfile?	no
1.1	SeqLevelIdx0?	no
2	SeqTier0?	no
2.1	HighBitDepth?	no
2.2	TwelveBit?	no
2.3	ChromaFormat	no
2.4	ChromaSamplePosition	no
3	InitialDelaySamples?	no

QuickTime ContentLightLevel Tags

Index2	Tag Name	Writable
0	MaxContentLightLevel	no
1	MaxPicAverageLightLevel	no

QuickTime ColorRep Tags

Index1	Tag Name	Writable
0	ColorProfiles	no
4	ColorPrimaries	no
6	TransferCharacteristics	no
8	MatrixCoefficients	no
10	VideoFullRangeFlag	no

QuickTime HEVCConfig Tags

Index1	Tag Name	Writable
0	HEVCConfigurationVersion	no
1	GeneralProfileSpace	no
1.1	GeneralTierFlag	no
1.2	GeneralProfileIDC	no
2	GenProfileCompatibilityFlags	no
6	ConstraintIndicatorFlags	no
12	GeneralLevelIDC	no
13	MinSpatialSegmentationIDC	no
15	ParallelismType	no
16	ChromaFormat	no
17	BitDepthLuma	no
18	BitDepthChroma	no
19	AverageFrameRate	no
21	ConstantFrameRate	no
21.1	NumTemporalLayers	no
21.2	TemporalIDNested	no

QuickTime ItemRef Tags

The Item reference entries listed in the table below contain information about the associations between items in the file. This information is used by ExifTool, but these entries are not extracted as tags.

Tag ID	Tag Name	Writable
'auxl'	AuxiliaryImageRef	no
'cdsc'	ContentDescribes	no
'dimg'	DerivedImageRef	no
'thmb'	ThumbnailRef	no

QuickTime MovieFragment Tags

Tag ID	Tag Name	Writable
'meta'	Meta	QuickTime Meta
'mfhd'	MovieFragmentHeader	QuickTime MovieFragHdr
'traf'	TrackFragment	QuickTime TrackFragment

QuickTime MovieFragHdr Tags

Index4	Tag Name	Writable
1	MovieFragmentSequence	no

QuickTime TrackFragment Tags

Tag ID	Tag Name	Writable
'meta'	Meta	QuickTime Meta

QuickTime Movie Tags

Tag ID	Tag Name	Writable
'cmov'	CompressedMovie	QuickTime CMovie
'gps '	GPSDataList?	no
'htka'	HTCTrack	QuickTime Track
'iods'	InitialObjectDescriptor?	no
'meco'	OtherMeta	QuickTime OtherMeta
'meta'	Meta	QuickTime Meta
'mvhd'	MovieHeader	QuickTime MovieHeader
'trak'	Track	QuickTime Track
'udta'	UserData	QuickTime UserData
'uuid'	UUID-USMT	QuickTime UserMedia
	UUID-Canon	Canon uuid
	GarminGPS	QuickTime Stream
	GarminGPS	no
	UUID-Unknown?	no

QuickTime CMovie Tags

Tag ID	Tag Name	Writable
'dcom'	Compression	no

QuickTime Track Tags

Tag ID	Tag Name	Writable
'mdia'	Media	QuickTime Media
'meco'	OtherMeta	QuickTime OtherMeta
'meta'	Meta	QuickTime Meta
'tapt'	TrackAperture	QuickTime TrackAperture
'tkhd'	TrackHeader	QuickTime TrackHeader
'tref'	TrackRef	QuickTime TrackRef
'udta'	UserData	QuickTime UserData
'uuid'	UUID-USMT	QuickTime UserMedia
	SphericalVideoXML	XMP
	UUID-Unknown?	no

QuickTime Media Tags

MP4 media box.

Tag ID	Tag Name	Writable
'elng'	ExtendedLanguageTag	no
'hdlr'	Handler	QuickTime Handler
'mdhd'	MediaHeader	QuickTime MediaHeader
'minf'	MediaInfo	QuickTime MediaInfo

QuickTime MediaHeader Tags

Index4	Tag Name	Writable
0	MediaHeaderVersion	no
1	MediaCreateDate	int32u
2	MediaModifyDate	int32u
3	MediaTimeScale	no
4	MediaDuration	no
5	MediaLanguageCode	no

QuickTime MediaInfo Tags

MP4 media info box.

Tag ID	Tag Name	Writable
'dinf'	DataInfo	QuickTime DataInfo
'gmhd'	GenMediaHeader	QuickTime GenMediaHeader
'hdlr'	Handler	QuickTime Handler
'hmhd'	HintHeader	QuickTime HintHeader
'nmhd'	NullMediaHeader?	no
'smhd'	AudioHeader	QuickTime AudioHeader
'stbl'	SampleTable	QuickTime SampleTable
'vmhd'	VideoHeader	QuickTime VideoHeader

QuickTime GenMediaHeader Tags

Tag ID	Tag Name	Writable
'gmin'	GenMediaInfo	QuickTime GenMediaInfo
'text'	Text?	no
'tmcd'	TimeCode	QuickTime TimeCode

QuickTime GenMediaInfo Tags

Index1	Tag Name	Writable
0	GenMediaVersion	no
1	GenFlags	no
4	GenGraphicsMode	no
6	GenOpColor	no
12	GenBalance	no

QuickTime TimeCode Tags

Tag ID	Tag Name	Writable
'tcmi'	TCMediaInfo	QuickTime TCMediaInfo

QuickTime TCMediaInfo Tags

Index1	Tag Name	Writable
4	TextFont	no
6	TextFace	no
8	TextSize	no
12	TextColor	no
18	BackgroundColor	no
24	FontName	no

QuickTime HintHeader Tags

MP4 hint media header.

Index2	Tag Name	Writable
2	MaxPDUSize	no
3	AvgPDUSize	no
4	MaxBitrate	no
6	AvgBitrate	no

QuickTime AudioHeader Tags

MP4 audio media header.

Index2	Tag Name	Writable
2	Balance	no

QuickTime SampleTable Tags

MP4 sample table box.

Tag ID	Tag Name	Writable
'co64'	ChunkOffset64?	no
'cslg'	CompositionToDecodeTimelineMapping?	no
'ctts'	CompositionTimeToSample?	no
'padb'	SamplePaddingBits?	no
'sbgp'	SampleToGroup?	no
'sdtp'	IdependentAndDisposableSamples?	no
'sgpd'	SampleGroupDescription?	no
'stco'	ChunkOffset?	no
'stdp'	SampleDegradationPriority?	no
'stps'	PartialSyncSamples	no
'stsc'	SampleToChunk?	no
'stsd'	AudioSampleDesc	QuickTime AudioSampleDesc
	VisualSampleDesc	QuickTime VisualSampleDesc
	HintSampleDesc	QuickTime HintSampleDesc
	MetaSampleDesc	QuickTime MetaSampleDesc
	OtherSampleDesc	QuickTime OtherSampleDesc
'stsh'	ShadowSyncSampleTable?	no
'stss'	SyncSampleTable?	no
'stsz'	SampleSizes?	no
'stts'	VideoFrameRate	no
	TimeToSampleTable?	no
'stz2'	CompactSampleSizes?	no
'subs'	Sub-sampleInformation?	no

QuickTime AudioSampleDesc Tags

MP4 audio sample description. This hybrid atom contains both data and child atoms.

ID/Index	Tag Name	Writable
4	AudioFormat	no
20	AudioVendorID	no
24	AudioChannels	no
26	AudioBitsPerSample	no
32	AudioSampleRate	no
'SA3D'	SpatialAudio	QuickTime SpatialAudio
'btrt'	BitrateInfo	QuickTime Bitrate
'chan'	AudioChannelLayout	QuickTime ChannelLayout
'damr'	DecodeConfig	QuickTime DecodeConfig
'pinf'	PurchaseInfo	QuickTime ProtectionInfo
'sinf'	ProtectionInfo	QuickTime ProtectionInfo
'wave'	Wave	QuickTime Wave

QuickTime SpatialAudio Tags

Spatial Audio tags.

Index1	Tag Name	Writable
0	SpatialAudioVersion	no
1	AmbisonicType	no
2	AmbisonicOrder	no
6	AmbisonicChannelOrdering	no
7	AmbisonicNormalization	no
8	AmbisonicChannels	no
12	AmbisonicChannelMap	no

QuickTime Bitrate Tags

Index4	Tag Name	Writable
0	BufferSize	no
1	MaxBitrate	no
2	AverageBitrate	no

QuickTime ChannelLayout Tags

Audio channel layout.

Index1	Tag Name	Writable
4	LayoutFlags	no
6	AudioChannels	no
8	AudioChannelTypes	no
12	NumChannelDescriptions	no
16	Channel1Label	no
20	Channel1Flags	no
24	Channel1Coordinates	no
36	Channel2Label	no
40	Channel2Flags	no
44	Channel2Coordinates	no
56	Channel3Label	no
60	Channel3Flags	no
64	Channel3Coordinates	no
76	Channel4Label	no
80	Channel4Flags	no
84	Channel4Coordinates	no
96	Channel5Label	no
100	Channel5Flags	no
104	Channel5Coordinates	no
116	Channel6Label	no
120	Channel6Flags	no
124	Channel6Coordinates	no
136	Channel7Label	no
140	Channel7Flags	no
144	Channel7Coordinates	no
156	Channel8Label	no
160	Channel8Flags	no
164	Channel8Coordinates	no

QuickTime DecodeConfig Tags

Index1	Tag Name	Writable
0	EncoderVendor	no
4	EncoderVersion	no

QuickTime ProtectionInfo Tags

Child atoms found in ‘‘sinf’’ and/or ‘‘pinf’’ atoms.

Tag ID	Tag Name	Writable
'enda'	Endianness	no
'frma'	OriginalFormat	no
'schi'	SchemeInfo	QuickTime SchemeInfo
'schm'	SchemeType	QuickTime SchemeType

QuickTime SchemeInfo Tags

Tag ID	Tag Name	Writable
'cert'	Certificate	no
'iviv'	InitializationVector	no
'key '	KeyID	no
'name'	UserName	no
'righ'	Rights	QuickTime Rights
'user'	UserID	no

QuickTime Rights Tags

Tag ID	Tag Name	Writable
'aver'	VersionRestrictions	no
'medi'	MediaFlags	no
'mode'	ModeFlags	no
'plat'	Platform	no
'song'	ItemID	no
'tool'	ItemTool	no
'tran'	TransactionID	no
'veID'	ItemVendorID	no

QuickTime SchemeType Tags

Index1	Tag Name	Writable
4	SchemeType	no
8	SchemeVersion	no
10	SchemeURL	no

QuickTime Wave Tags

Tag ID	Tag Name	Writable
'enda'	Endianness	no
'frma'	PurchaseFileFormat	no

QuickTime VisualSampleDesc Tags

ID/Index	Tag Name	Writable
2	CompressorID	no
10	VendorID	no
16	SourceImageWidth	no
17	SourceImageHeight	no
18	XResolution	no
20	YResolution	no
25	CompressorName	no
41	BitDepth	no
'CDI1'	CDI1	Canon CDI1
'CMP1'	CMP1	Canon CMP1
'JPEG'	JPEGInfo?	no
'avcC'	AVCConfiguration?	no
'btrt'	BitrateInfo	QuickTime Bitrate
'clap'	CleanAperture	QuickTime CleanAperture
'colr'	ColorRepresentation	QuickTime ColorRep
'fiel'	VideoFieldOrder	no
'gama'	Gamma	no
'hfov'	HorizontalFieldOfView	no
'pasp'	PixelAspectRatio	no
'st3d'	Stereoscopic3D	no
'sv3d'	SphericalVideo	QuickTime sv3d
'vexu'	VideoExtendedUsage	QuickTime vexu

QuickTime CleanAperture Tags

Index8	Tag Name	Writable
0	CleanApertureWidth	no
1	CleanApertureHeight	no
2	CleanApertureOffsetX	no
3	CleanApertureOffsetY	no

QuickTime sv3d Tags

Tags defined by the Spherical Video V2 specification. See <https://github.com/google/spatial-media/blob/master/docs/spherical-video-v2-rfc.md> for the specification.

Tag ID	Tag Name	Writable
'proj'	Projection	QuickTime proj
'svhd'	MetadataSource	no

QuickTime proj Tags

Tag ID	Tag Name	Writable
'cbmp'	CubemapProj	QuickTime cbmp
'equi'	EquirectangularProj	QuickTime equi
'prhd'	ProjectionHeader	QuickTime prhd
'prji'	ProjectionInfo	no

QuickTime cbmp Tags

Index4	Tag Name	Writable
1	Layout	no
2	Padding	no

QuickTime equi Tags

Index4	Tag Name	Writable
1	ProjectionBoundsTop	no
2	ProjectionBoundsBottom	no
3	ProjectionBoundsLeft	no
4	ProjectionBoundsRight	no

QuickTime prhd Tags

Index4	Tag Name	Writable
1	PoseYawDegrees	no
2	PosePitchDegrees	no
3	PoseRollDegrees	no

QuickTime vexu Tags

Tag ID	Tag Name	Writable
'eyes'	Eyes	QuickTime eyes
'proj'	Projection	QuickTime proj

QuickTime eyes Tags

Tag ID	Tag Name	Writable
'cams'	StereoCameraSystem	QuickTime cams
'cmfy'	StereoComfort	QuickTime cmfy
'stri'	StereoInfo	no

QuickTime cams Tags

Tag ID	Tag Name	Writable
'blin'	Baseline	no

QuickTime cmfy Tags

Tag ID	Tag Name	Writable
'dadj'	DisparityAdjustment	no

QuickTime HintSampleDesc Tags

MP4 hint sample description.

ID/Index	Tag Name	Writable
4	HintFormat	no
16	HintTrackVersion	no
20	MaxPacketSize	no
'snro'	SequenceNumberRandomOffset	no
'tims'	RTPTimeScale	no
'tsro'	TimestampRandomOffset	no

QuickTime MetaSampleDesc Tags

MP4 metadata sample description.

Tag ID	Tag Name	Writable
0x0004	MetaFormat	no
0x0008	MetaType	no
'btrt'	BitrateInfo	QuickTime Bitrate
'keys'	Keys	QuickTime Keys

QuickTime OtherSampleDesc Tags

Tag ID	Tag Name	Writable
0x0004	OtherFormat	no
0x0018	PlaybackFrameRate	no
'ftab'	FontTable	no
'mrld'	MarlinDictionary	GM mrld
'mrlh'	MarlinHeader	GM mrlh
'mrlv'	MarlinValues	GM mrlv
'name'	OtherName	no

QuickTime VideoHeader Tags

MP4 video media header.

Index2	Tag Name	Writable
2	GraphicsMode	no
3	OpColor	no

QuickTime TrackAperture Tags

Tag ID	Tag Name	Writable
'clef'	CleanApertureDimensions	no
'enof'	EncodedPixelsDimensions	no
'prof'	ProductionApertureDimensions	no

QuickTime TrackHeader Tags

Index4	Tag Name	Writable
0	TrackHeaderVersion	no
1	TrackCreateDate	int32u
2	TrackModifyDate	int32u
3	TrackID	no
5	TrackDuration	no
8	TrackLayer	no
9	TrackVolume	no
10	MatrixStructure	fixed32s[9]!
19	ImageWidth	no
20	ImageHeight	no

QuickTime TrackRef Tags

Tag ID	Tag Name	Writable
'cdsc'	ContentDescribes	no
'chap'	ChapterListTrackID	no
'clcp'	ClosedCaptionTrack	no
'fall'	AlternateFormatTrack	no
'folw'	SubtitleTrack	no
'forc'	ForcedSubtitleTrack	no
'mpod'	ElementaryStreamTrack	no
'scpt'	TranscriptTrack	no
'ssrc'	Non-primarySourceTrack	no
'sync'	SyncronizedTrack	no
'tmcd'	TimecodeTrack	no

QuickTime UserData Tags

Tag ID's beginning with the copyright symbol (hex 0xa9) are multi-language text. Alternate language tags are accessed by adding a dash followed by a 3-character ISO 639-2 language code to the tag name. ExifTool will extract any multi-language user data tags found, even if they aren't in this table. Note when creating new tags, ItemList tags are preferred over these, so to create the tag when a same-named ItemList tag exists, either "UserData" must be specified (eg. `-UserData:Artist=Monet` on the command line), or the PREFERRED level must be changed via the config file.

Tag ID	Tag Name	Writable
'@day'	ContentCreateDate	string/
'@mak'	Make	string/
'@mod'	Model	string/
'@sec'	SamsungSec	Samsung sec
'@swr'	SoftwareVersion	string/
'@xyz'	GPSCoordinates	string/
'AllF'	PlayAllFrames	int8u
'CAME'	SerialNumberHash	string
'CNCV'	CompressorVersion	string
'CNFV'	FirmwareVersion	string
'CNMN'	Model	string/
'CNOP'	CanonCNOP	Canon CNOP
'CNTH'	CanonCNTH	Canon CNTH
'DcMD'	KodakDcMD	Kodak DcMD
'FFMV'	FujiFilmFFMV	FujiFilm FFMV
'FIRM'	FirmwareVersion	string/
"FOV\0"	FieldOfView	string
'GPMF'	GoProGPMF	GoPro GPMF
'GoPr'	GoProType	string
'INFO'	SamsungINFO	Samsung INFO
'LEIC'	LeicaLEIC	Panasonic PANA
'LENS'	LensSerialNumber	string
'LOOP'	LoopStyle	int32u
'Lvlm'	LevelMeter?	rational64s
'MMA0'	MinoltaMMA0	Minolta MMA
'MMA1'	MinoltaMMA1	Minolta MMA
'MUID'	MediaUID	no
'MVTG'	FujiFilmMVTG	EXIF
'NCDT'	NikonNCDT	Nikon NCDT
'PANA'	PanasonicPANA	Panasonic PANA
'PENT'	PentaxPENT	Pentax PENT

'PXMN'	MakerNotePentax5b	Pentax
	MakerNotePentax5c	Pentax
	MakerNoteRicohPentax2	Pentax
	MakerNoteRicohPentax3	Pentax
	MakerNotePentaxUnknown	string
'PXTH'	PentaxPreview	Pentax PXTH
'QVMI'	CasioQVMI	EXIF
'RDTA'	RicohRDTA	Ricoh RDTA
'RDTB'	RicohRDTB	Ricoh RDTB
'RDTC'	RicohRDTC	Ricoh RDTC
'RDTG'	RicohRDTG	Ricoh RDTG
'RDTL'	RicohRDTL	Ricoh RDTL
'RICO'	RicohInfo	JPEG
'RMKN'	RicohRMKN	EXIF
'RTHU'	PreviewImage	no
'SDLN'	PlayMode	string
'SIGM'	SigmaEXIF	EXIF
	PreviewImage	string
'SNum'	SerialNumber	string/
'SelO'	PlaySelection	int8u
'TAGS'	FujiFilmTags	FujiFilm MOV
	KodakTags	Kodak MOV
	KonicaMinoltaTags	Minolta MOV1
	MinoltaTags	Minolta MOV2
	NikonTags	Nikon MOV
	OlympusTags1	Olympus MOV1
	OlympusTags2	Olympus MOV2
	OlympusTags3	Olympus MP4
	OlympusTags4	Olympus MOV3
	PentaxTags	Pentax MOV
	SamsungTags	Samsung MP4
	SanyoMOV	Sanyo MOV
	SanyoMP4	Sanyo MP4
	UnknownTags?	string
'TTMD'	TomTomMetaData	QuickTime TomTom
'WLOC'	WindowLocation	int16u
'XMP_'	XMP	XMP
'Xtra'	MicrosoftXtra	Microsoft Xtra
'_cx_'	CX?	rational64s
'_cy_'	CY?	rational64s
'_yaw'	Yaw	rational64s/
'albm'	Album	string/
'albr'	AlbumArtist	string
'angl'	CameraAngle	string
'apmd'	ApertureMode	undef
'auth'	Author	string/
'btec'	GlamourSettings	DJI Glamour
'ccid'	ContentID	string
'cdis'	ContentDistributorID	string
'chpl'	ChapterList	no
'clfn'	ClipFileName	string
'clid'	ClipID	string
'clsf'	Classification	undef/
'cmid'	CameraID	string

```
'cmnm'      Model                       string/
'coll'      CollectionName              string/
'cprt'      Copyright                   string/
'cver'      CodeVersion                 string
'cvru'      CoverURI                    string
'date'      DateTimeOriginal            string
'dscp'      Description                 string/
'finm'      OriginalFileName            no
'fsid'      OriginalFilePath            string
'gnre'      Genre                       string/
'hinf'      HintTrackInfo               QuickTime HintTrackInfo
'hinv'      HintVersion                 string
'hnti'      HintInfo                    QuickTime HintInfo
'htcb'      HTCBinary                   QuickTime HTCBinary
'icnu'      IconURI                     string
'infi'      CameraInfo                  QuickTime Nextbase
'info'      FirmwareVersion             string
'infu'      InfoURL                     string
'kgtt'      TrackType                   string
'kywd'      Keywords                    no
'loci'      LocationInformation         undef/
'lrcu'      LyricsURI                   string
'lvlm'      LevelMeter?                 rational64s
'manu'      Make                        no
'mcvr'      PreviewImage                string
'meta'      Meta                        QuickTime Meta
'modl'      Model                       no
'nail'      ThumbnailTIFF               no
'name'      Name                        string
'perf'      Performer                   string/
'pmcc'      GarminSettings              string
'pose'      pose                        Kodak pose
'ptch'      Pitch                       rational64s/
'ptv '      PrintToVideo                QuickTime Video
'rads'      Rads?                       rational64s
'reel'      ReelName                    string
'roll'      Roll                        rational64s/
'rtng'      Rating                      undef/
'scen'      Scene                       string
'scrn'      OlympusPreview              Olympus scrn
'shot'      ShotName                    string
'slno'      SerialNumber                string
'smta'      SamsungSmta                 Samsung smta
'tags'      Audible_tags                Audible tags
'thmb'      MakerNotePentax5a           Pentax
            OlympusThumbnail            Olympus thmb
            ThumbnailImage              string
            ThumbnailPNG                string
            UnknownThumbnail            string
'time'      TimeStamp                   no
'titl'      Title                       string/
'tnam'      TrackName                   string
'urat'      UserRating                  undef/
'uuid'      GarminSoftware              string
```

```
             GarminModel                    no
             UUID-Unknown?                  no
'vndr'       Vendor                         string
'vrot'       AccelerometerData              no
'yrrc'       Year                           undef/
"\xa9ART"    Artist                         string
"\xa9TIM"    StartTimecode                  string
"\xa9TSC"    StartTimeScale                 string
"\xa9TSZ"    StartTimeSampleSize            string
"\xa9alb"    Album                          string
"\xa9arg"    Arranger                       string
"\xa9ark"    ArrangerKeywords               string
"\xa9cmt"    Comment                        string
"\xa9cok"    ComposerKeywords               string
"\xa9com"    Composer                       string
"\xa9cpy"    Copyright                      string
"\xa9day"    ContentCreateDate              string
"\xa9dir"    Director                       string
"\xa9ed1"    Edit1                          string
"\xa9ed2"    Edit2                          string
"\xa9ed3"    Edit3                          string
"\xa9ed4"    Edit4                          string
"\xa9ed5"    Edit5                          string
"\xa9ed6"    Edit6                          string
"\xa9ed7"    Edit7                          string
"\xa9ed8"    Edit8                          string
"\xa9ed9"    Edit9                          string
"\xa9enc"    EncoderID                      string
"\xa9fmt"    Format                         string
"\xa9fpt"    Pitch                          string
"\xa9frl"    Roll                           string
"\xa9fyw"    Yaw                            string
"\xa9gen"    Genre                          string
"\xa9gpt"    CameraPitch                    string
"\xa9grl"    CameraRoll                     string
"\xa9grp"    Grouping                       string
"\xa9gyw"    CameraYaw                      string
"\xa9inf"    Information                    string
"\xa9isr"    ISRCCode                       string
"\xa9lab"    RecordLabelName                string
"\xa9lal"    RecordLabelURL                 string
"\xa9lyr"    Lyrics                         string
"\xa9mak"    Make                           string
"\xa9mal"    MakerURL                       string
"\xa9mdl"    Model                          string/
"\xa9mod"    Model                          string
"\xa9nam"    Title                          string
"\xa9pdk"    ProducerKeywords               string
"\xa9phg"    RecordingCopyright             string
"\xa9prd"    Producer                       string
"\xa9prf"    Performers                     string
"\xa9prk"    PerformerKeywords              string
"\xa9prl"    PerformerURL                   string
"\xa9req"    Requirements                   string
```

"\xa9snk"	SubtitleKeywords	string
"\xa9snm"	Subtitle	string
"\xa9src"	SourceCredits	string
"\xa9swf"	SongWriter	string
"\xa9swk"	SongWriterKeywords	string
"\xa9swr"	SoftwareVersion	string
"\xa9too"	Encoder	string
"\xa9trk"	Track	string
"\xa9wrt"	Composer	string/
"\xa9xsp"	SpeedX	string
"\xa9xyz"	GPSCoordinates	string
"\xa9ysp"	SpeedY	string
"\xa9zsp"	SpeedZ	string

QuickTime TomTom Tags

Tags found in TomTom Bandit Action Cam MP4 videos.

Tag ID	Tag Name	Writable
'TTAD'	TomTomAD	QuickTime Stream
'TTHL'	TomTomHL?	no
'TTID'	TomTomID	no
'TTVD'	TomTomVD	no+
'TTVI'	TomTomVI?	no

QuickTime HintTrackInfo Tags

Tag ID	Tag Name	Writable
'dimm'	ImmediateDataBytes	no
'dmax'	LargestPacketDuration	no
'dmed'	MediaTrackBytes	no
'drep'	RepeatedDataBytes	no
'maxr'	MaxDataRate	no
'npck'	NumPackets	no
'nump'	NumPackets	no
'payt'	PayloadType	no
'pmax'	LargestPacketSize	no
'tmax'	MaxTransmissionTime	no
'tmin'	MinTransmissionTime	no
'totl'	TotalBytes	no
'tpaY'	TotalBytesNoRTPHeaders	no
'tpay'	TotalBytesNoRTPHeaders	no
'tpyl'	TotalBytesNoRTPHeaders	no
'trpY'	TotalBytes	no
'trpy'	TotalBytes	no

QuickTime HintInfo Tags

Tag ID	Tag Name	Writable
'rtp '	RealtimeStreamingProtocol	no
'sdp '	StreamingDataProtocol	no

QuickTime HTCBinary Tags

Index4	Tag Name	Writable
[no tags known]		

QuickTime Nextbase Tags

Tags found in 'infi' atom from some Nextbase videos. As well as these tags, other existing tags are also extracted. These tags are not currently writable but they may all be removed by deleting the Nextbase group.

Tag ID	Tag Name	Writable
'2nd Cam'	SecondCam	no
'Alerts'	Alerts	no
'Alexa'	Alexa	no
'Alexa − Paired Device Name'	Alexa−PairedDeviceName	no
'Alexa − Pairing'	Alexa−Pairing	no
'Alexa − Privacy Mode'	Alexa−PrivacyMode	no
'Alexa − Wake Word Language'	Alexa−WakeWordLanguage	no
'Audio'	Audio	no
'Auto Power Off'	AutoPowerOff	no
'Battery Status'	BatteryStatus	no
'Bluetooth MAC Address'	BluetoothMACAddress	no
'Bluetooth Name'	BluetoothName	no
'Country'	Country	no
'Default Settings'	DefaultSettings	no
'Device Sounds'	DeviceSounds	no
'Dual Files'	DualFiles	no
'Emergency SOS'	EmergencySOS	no
'Exposure'	Exposure	no
'Extreme Weather Mode'	ExtremeWeatherMode	no
'FCC−ID'	FCC−ID	no
'Firmware'	Firmware	no
'Firmware Version'	FirmwareVersion	no
'Format SD Card'	FormatSDCard	no
'G Sensor'	GSensor	no
'GPS Stamp'	GPSStamp	no
'Image Stabilisation'	ImageStabilisation	no
'Keep User Settings'	KeepUserSettings	no
'Language'	Language	no
'Linux'	Linux	no
'Model'	Model	no
'Model Stamp'	ModelStamp	no
'MyNextbase − Paired Device Name'	MyNextbase−PairedDeviceName	no
'MyNextbase − Pairing'	MyNextbase−Pairing	no
'NBCD'	NBCD	no
'Number / License Plate'	NumberLicensePlate	no
'Parking Mode'	ParkingMode	no
'RTOS'	RTOS	no
'Recording History'	RecordingHistory	no
'Resolution'	Resolution	no
'Reversing Camera'	ReversingCamera	no
'SD Card Class'	SDCardClass	no

'SD Card Format'	SDCardFormat	no
'SD Card Manf Date'	SDCardManfDate	no
'SD Card Manf ID'	SDCardManfID	no
'SD Card Model No'	SDCardModelNo	no
'SD Card OEM ID'	SDCardOEMID	no
'SD Card Serial No'	SDCardSerialNo	no
'SD Card Size'	SDCardSize	no
'SD Card Type'	SDCardType	no
'SD Card Used Space'	SDCardUsedSpace	no
'Screen Dimming'	ScreenDimming	no
'Screen Saver'	ScreenSaver	no
'Serial No'	SerialNumber	no
'Speed Stamp'	SpeedStamp	no
'Speed Units'	SpeedUnits	no
'System Info'	SystemInfo	no
'Time & Date'	TimeAndDate	no
'Time Lapse'	TimeLapse	no
'Time Stamp'	VideoTimeStamp	no
'Time Zone / DST'	TimeZoneDST	no
'Video Length'	VideoLength	no
'Wi-Fi MAC Address'	Wi-FiMACAddress	no
'Wi-Fi Password'	Wi-FiPassword	no
'Wi-Fi SSID'	Wi-FiSSID	no
'what3words'	What3Words	no

QuickTime Video Tags

Index1	Tag Name	Writable
0	DisplaySize	no
6	SlideShow	no

QuickTime UserMedia Tags

Tag ID	Tag Name	Writable
'MTDT'	MetaData	QuickTime MetaData

QuickTime MetaData Tags

Tag ID	Tag Name	Writable
0x0001	Title	no
0x0003	ProductionDate	no
0x0004	Software	no
0x0005	Product	no
0x000a	TrackProperty	no
0x000b	TimeZone	no
0x000c	ModifyDate	no

QuickTime MovieHeader Tags

Index4	Tag Name	Writable
0	MovieHeaderVersion	no
1	CreateDate	int32u
2	ModifyDate	int32u
3	TimeScale	no
4	Duration	no
5	PreferredRate	no
6	PreferredVolume	no
9	MatrixStructure	no
18	PreviewTime	no
19	PreviewDuration	no
20	PosterTime	no
21	SelectionTime	no
22	SelectionDuration	no
23	CurrentTime	no
24	NextTrackID	no

QuickTime Preview Tags

Index2	Tag Name	Writable
0	PreviewDate	int32u
2	PreviewVersion	no
3	PreviewAtomType	no
5	PreviewAtomIndex	no

QuickTime SkipInfo Tags

Tag ID	Tag Name	Writable
'thma'	ThumbnailImage	no
'ver '	Version	no

QuickTime Profile Tags

Tag ID	Tag Name	Writable
'APRF'	AudioProfile	QuickTime AudioProf
'FPRF'	FileGlobalProfile	QuickTime FileProf
'OLYM'	OlympusOLYM	Olympus OLYM
'VPRF'	VideoProfile	QuickTime VideoProf

QuickTime AudioProf Tags

Index4	Tag Name	Writable
0	AudioProfileVersion?	no
1	AudioTrackID	no
2	AudioCodec	no
3	AudioCodecInfo?	no
4	AudioAttributes	no
5	AudioAvgBitrate	no
6	AudioMaxBitrate	no
7	AudioSampleRate	no
8	AudioChannels	no

QuickTime FileProf Tags

Index4	Tag Name	Writable
0	FileProfileVersion?	no
1	FileFunctionFlags	no

QuickTime VideoProf Tags

Index4	Tag Name	Writable
0	VideoProfileVersion?	no
1	VideoTrackID	no
2	VideoCodec	no
3	VideoCodecInfo?	no
4	VideoAttributes	no
5	VideoAvgBitrate	no
6	VideoMaxBitrate	no
7	VideoAvgFrameRate	no
8	VideoMaxFrameRate	no
9	VideoSize	no
10	PixelAspectRatio	no

QuickTime Flip Tags

Found in MP4 files from Flip Video cameras.

Index4	Tag Name	Writable
1	PreviewImageWidth	no
2	PreviewImageHeight	no
13	PreviewImageLength	no
14	SerialNumber	no
28	PreviewImage	no

QuickTime Tags360Fly Tags

Timed metadata found in MP4 videos from the 360Fly.

Tag ID	Tag Name	Writable
0x0001	Accel360Fly	QuickTime Accel360Fly
0x0002	Gyro360Fly	QuickTime Gyro360Fly
0x0003	Mag360Fly	QuickTime Mag360Fly
0x0005	GPS360Fly	QuickTime GPS360Fly
0x0006	Rot360Fly	QuickTime Rot360Fly
0x00fa	Fusion360Fly	QuickTime Fusion360Fly

QuickTime Accel360Fly Tags

Index1	Tag Name	Writable
1	AccelMode?	no
2	SampleTime	no
10	AccelYPR	no

QuickTime Gyro360Fly Tags

Index1	Tag Name	Writable
1	GyroMode?	no
2	SampleTime	no
10	GyroYPR	no

QuickTime Mag360Fly Tags

Index1	Tag Name	Writable
1	MagMode?	no
2	SampleTime	no
10	MagnetometerXYZ	no

QuickTime GPS360Fly Tags

Index1	Tag Name	Writable
1	GPSMode?	no
2	SampleTime	no
10	GPSLatitude	no
14	GPSLongitude	no
18	GPSAltitude	no
22	GPSSpeed	no
24	GPSTrack	no
26	Acceleration	no

QuickTime Rot360Fly Tags

Index1	Tag Name	Writable
1	RotMode?	no
2	SampleTime	no
10	RotationXYZ	no

QuickTime Fusion360Fly Tags

Index1	Tag Name	Writable
1	FusionMode?	no
2	SampleTime	no
10	FusionYPR	no

QuickTime ImageFile Tags

Tags used in QTIF QuickTime Image Files.

Tag ID	Tag Name	Writable
'idat'	ImageData	no
'idsc'	ImageDescription	QuickTime VisualSampleDesc
'iicc'	ICC_Profile	ICC_Profile

RIFF Tags

The RIFF container format is used various types of fines including AVI, WAV, WEBP, LA, OFR, PAC and WV. According to the EXIF specification, Meta information is embedded in two types of RIFF `LIST` chunks: `INFO` and `exif`, and information about the audio content is stored in the `fmt` chunk. As well as this information, some video information and proprietary manufacturer-specific information is also extracted.

Large AVI videos may be a concatenation of two or more RIFF chunks. For these files, information is extracted from subsequent RIFF chunks as sub-documents, but the Duration is calculated for the full video.

ExifTool currently has the ability to write EXIF, XMP and ICC_Profile metadata to WEBP images, but can't yet write to other RIFF-based formats.

Tag ID	Tag Name	Writable
'ALPH'	ALPH	RIFF ALPH
'ANIM'	ANIM	RIFF ANIM
'ANMF'	ANMF	RIFF ANMF
'C2PA'	JUMBF	Jpeg2000
'CSET'	CharacterSet	RIFF CSET
'EXIF'	EXIF	EXIF
	UnknownEXIF	no
'ICCP'	ICC_Profile	ICC_Profile
'ID3 '	ID3-2	ID3
'IDIT'	DateTimeOriginal	no
'JUNK'	OlympusJunk	Olympus AVI
	CasioJunk	EXIF
	RicohJunk	Ricoh AVI
	PentaxJunk	Pentax Junk
	PentaxJunk2	Pentax Junk2
	LucasJunk	QuickTime Stream
	TextJunk	no
'JUNQ'	OldXMP	no
'LIST_INF0'	Info	RIFF Info
'LIST_INFO'	Info	RIFF Info
'LIST_Tdat'	Tdat	RIFF Tdat
'LIST_adtl'	AssociatedDataList	RIFF
'LIST_exif'	Exif	RIFF Exif
'LIST_hdrl'	Hdrl	RIFF Hdrl
'LIST_hydt'	PentaxData	Pentax AVI
'LIST_ncdt'	NikonData	Nikon AVI
'LIST_pntx'	PentaxData2	Pentax AVI
'SEAL'	SEAL	XMP SEAL
'SGLT'	BikeBroAccel	QuickTime Stream
'SLLT'	BikeBroGPS	QuickTime Stream
'VP8 '	VP8Bitstream	RIFF VP8
'VP8L'	VP8L	RIFF VP8L
'VP8X'	VP8X	RIFF VP8X
"XMP\0"	XMP	XMP
'XMP '	XMP	XMP
'_PMX'	XMP	XMP
'aXML'	AXML	XMP XML
'acid'	Acidizer	RIFF Acidizer
'afsp'	Afsp	no
'bext'	BroadcastExtension	RIFF BroadcastExt
'cue '	CuePoints	no
'ds64'	DataSize64	RIFF DS64
'fact'	NumberOfSamples	no
'fmt '	AudioFormat	RIFF AudioFormat
'gps0'	GPSTrack	QuickTime Stream
'gsen'	GSensor	QuickTime Stream
'guan'	Guano	no
'iXML'	IXML	XMP XML
'id3 '	ID3	ID3
'inst'	Instrument	RIFF Instrument
'labl'	CuePointLabel	no
'list'	ListType	no

'ltxt'	LabeledText	no
'note'	CuePointNote	no
'olym'	Olym	Olympus WAV
'plst'	Playlist	no
'smpl'	Sampler	RIFF Sampler
'tx_USER'	UserText	RIFF UserText
'tx_Unknown'	Text	no

RIFF ALPH Tags

WebP alpha chunk.

Index1	Tag Name	Writable
0	AlphaPreprocessing	no
0.1	AlphaFiltering	no
0.2	AlphaCompression	no

RIFF ANIM Tags

WebP animation chunk.

Index1	Tag Name	Writable
0	BackgroundColor	no
4	AnimationLoopCount	no

RIFF ANMF Tags

WebP animation frame chunk.

Index1	Tag Name	Writable
12	Duration	no

RIFF CSET Tags

Index2	Tag Name	Writable
0	CodePage	no
1	CountryCode	no
2	LanguageCode	no
3	Dialect	no

RIFF Info Tags

RIFF INFO tags found in AVI video and WAV audio files. Tags which are part of the EXIF 2.3 specification have an underlined Tag Name in the HTML version of this documentation. Other tags are found in AVI files generated by some software.

Tag ID	Tag Name	Writable
'AGES'	Rated	no
'CMNT'	Comment	no
'CODE'	EncodedBy	no
'COMM'	Comments	no
'DIRC'	Directory	no
'DISP'	SoundSchemeTitle	no
'DTIM'	DateTimeOriginal	no
'GENR'	Genre	no
'IARL'	ArchivalLocation	no
'IART'	Artist	no
'IAS1'	FirstLanguage	no

```
    'IAS2'   SecondLanguage                  no
    'IAS3'   ThirdLanguage                   no
    'IAS4'   FourthLanguage                  no
    'IAS5'   FifthLanguage                   no
    'IAS6'   SixthLanguage                   no
    'IAS7'   SeventhLanguage                 no
    'IAS8'   EighthLanguage                  no
    'IAS9'   NinthLanguage                   no
    'IBSU'   BaseURL                         no
    'ICAS'   DefaultAudioStream              no
    'ICDS'   CostumeDesigner                 no
    'ICMS'   Commissioned                    no
    'ICMT'   Comment                         no
    'ICNM'   Cinematographer                 no
    'ICNT'   Country                         no
    'ICOP'   Copyright                       no
    'ICRD'   DateCreated                     no
    'ICRP'   Cropped                         no
    'IDIM'   Dimensions                      no
    'IDIT'   DateTimeOriginal                no
    'IDPI'   DotsPerInch                     no
    'IDST'   DistributedBy                   no
    'IEDT'   EditedBy                        no
    'IENC'   EncodedBy                       no
    'IENG'   Engineer                        no
    'IGNR'   Genre                           no
    'IKEY'   Keywords                        no
    'ILGT'   Lightness                       no
    'ILGU'   LogoURL                         no
    'ILIU'   LogoIconURL                     no
    'ILNG'   Language                        no
    'IMBI'   MoreInfoBannerImage             no
    'IMBU'   MoreInfoBannerURL               no
    'IMED'   Medium                          no
    'IMIT'   MoreInfoText                    no
    'IMIU'   MoreInfoURL                     no
    'IMUS'   MusicBy                         no
    'INAM'   Title                           no
    'IPDS'   ProductionDesigner              no
    'IPLT'   NumColors                       no
    'IPRD'   Product                         no
    'IPRO'   ProducedBy                      no
    'IRIP'   RippedBy                        no
    'IRTD'   Rating                          no
    'ISBJ'   Subject                         no
    'ISFT'   Software                        no
    'ISGN'   SecondaryGenre                  no
    'ISHP'   Sharpness                       no
    'ISMP'   TimeCode                        no
    'ISRC'   Source                          no
    'ISRF'   SourceForm                      no
    'ISTD'   ProductionStudio                no
    'ISTR'   Starring                        no
    'ITCH'   Technician                      no
```

'ITRK'	TrackNumber	no
'IWMU'	WatermarkURL	no
'IWRI'	WrittenBy	no
'LANG'	Language	no
'LOCA'	Location	no
'PRT1'	Part	no
'PRT2'	NumberOfParts	no
'RATE'	Rate	no
'STAR'	Starring	no
'STAT'	Statistics	no
'TAPE'	TapeName	no
'TCDO'	EndTimecode	no
'TCOD'	StartTimecode	no
'TITL'	Title	no
'TLEN'	Length	no
'TORG'	Organization	no
'TRCK'	TrackNumber	no
'TURL'	URL	no
'TVER'	Version	no
'VMAJ'	VegasVersionMajor	no
'VMIN'	VegasVersionMinor	no
'YEAR'	Year	no

RIFF Tdat Tags

Tag ID	Tag Name	Writable
[no tags known]		

RIFF Exif Tags

These tags are part of the EXIF 2.3 specification for WAV audio files.

Tag ID	Tag Name	Writable
'ecor'	Make	no
'emdl'	Model	no
'emnt'	MakerNotes	no
'erel'	RelatedImageFile	no
'etim'	TimeCreated	no
'eucm'	UserComment	no
'ever'	ExifVersion	no

RIFF Hdrl Tags

Tag ID	Tag Name	Writable
'IDIT'	DateTimeOriginal	no
'ISMP'	TimeCode	no
'LIST_odml'	OpenDML	RIFF OpenDML
'LIST_strl'	Stream	RIFF Stream
'avih'	AVIHeader	RIFF AVIHeader

RIFF OpenDML Tags

Tag ID	Tag Name	Writable
'dmlh'	ExtendedAVIHeader	RIFF ExtAVIHdr

RIFF ExtAVIHdr Tags

Index4	Tag Name	Writable
0	TotalFrameCount	no

RIFF Stream Tags

Tag ID	Tag Name	Writable
'strd'	StreamData	RIFF StreamData
'strf'	AudioFormat	RIFF AudioFormat
	VideoFormat	BMP
'strh'	StreamHeader	RIFF StreamHeader
'strn'	StreamName	no

RIFF StreamData Tags

This chunk is used to store proprietary information in AVI videos from some cameras. The first 4 characters of the data are used as the Tag ID below.

Tag ID	Tag Name	Writable
'AVIF'	AVIF	EXIF
'CASI'	CasioData	Casio AVI
'Zora'	VendorName	no
'unknown'	UnknownData	no

RIFF AudioFormat Tags

Index2	Tag Name	Writable
0	Encoding	no
1	NumChannels	no
2	SampleRate	no
4	AvgBytesPerSec	no
7	BitsPerSample	no

RIFF StreamHeader Tags

Index4	Tag Name	Writable
0	StreamType	no
1	AudioCodec	no
	VideoCodec	no
	Codec	no
5	AudioSampleRate	no
	VideoFrameRate	no
	StreamSampleRate	no
8	AudioSampleCount	no
	VideoFrameCount	no
	StreamSampleCount	no
10	Quality	no
11	SampleSize	no

RIFF AVIHeader Tags

Index4	Tag Name	Writable
0	FrameRate	no
1	MaxDataRate	no
4	FrameCount	no
6	StreamCount	no
8	ImageWidth	no
9	ImageHeight	no

RIFF VP8 Tags

This chunk is found in simple-format (lossy) WebP files. See <https://developers.google.com/speed/webp/docs/riff_container> for the WebP container specification.

Index1	Tag Name	Writable
0	VP8Version	no
6	ImageWidth	no
6.1	HorizontalScale	no
8	ImageHeight	no
8.1	VerticalScale	no

RIFF VP8L Tags

This chunk is found in lossless WebP files.

Index1	Tag Name	Writable
1	ImageWidth	no
2	ImageHeight	no
4	AlphaIsUsed	no

RIFF VP8X Tags

This chunk is found in extended WebP files.

Index1	Tag Name	Writable
0	WebP_Flags	no
4	ImageWidth	no
6	ImageHeight	no

RIFF Acidizer Tags

Index1	Tag Name	Writable
0	AcidizerFlags	no
4	RootNote	no
12	Beats	no
16	Meter	no
20	Tempo	no

RIFF BroadcastExt Tags

Information found in the Broadcast Audio Extension chunk (see <http://tech.ebu.ch/docs/tech/tech3285.pdf>).

Index1	Tag Name	Writable
0	Description	no
256	Originator	no
288	OriginatorReference	no
320	DateTimeOriginal	no
338	TimeReference	no
346	BWFVersion	no
348	BWF_UMID	no
602	CodingHistory	no

RIFF DS64 Tags

64−bit data sizes for MBWF/RF64 files. See <https://tech.ebu.ch/docs/tech/tech3306−2009.pdf> for the specification.

Index8	Tag Name	Writable
0	RIFFSize64	no
1	DataSize64	no
2	NumberOfSamples64	no

RIFF Instrument Tags

Index1	Tag Name	Writable
0	UnshiftedNote	no
1	FineTune	no
2	Gain	no
3	LowNote	no
4	HighNote	no
5	LowVelocity	no
6	HighVelocity	no

RIFF Sampler Tags

Index4	Tag Name	Writable
0	Manufacturer	no
1	Product	no
2	SamplePeriod	no
3	MIDIUnityNote	no
4	MIDIPitchFraction	no
5	SMPTEFormat	no
6	SMPTEOffset	no
7	NumSampleLoops	no
8	SamplerDataLen	no
9	SamplerData	no

RIFF UserText Tags

Tags decoded from the USER-format txts stream written by Momento M6 dashcam. Extracted only if the ExtractEmbedded option is used.

Index1	Tag Name	Writable
28	GPSAltitude	no
40	Accelerometer	no
56	GPSSpeed	no
60	GPSLatitude	no
64	GPSLongitude	no
68	GPSDateTime	no

FLAC Tags

Free Lossless Audio Codec (FLAC) meta information. ExifTool also extracts ID3 information from these files.

Tag ID	Tag Name	Writable
0x0000	StreamInfo	FLAC StreamInfo
0x0001	Padding?	no
0x0002	Application_riff	RIFF
	ApplicationUnknown?	no
0x0003	SeekTable?	no
0x0004	VorbisComment	Vorbis Comments
0x0005	CueSheet?	no
0x0006	Picture	FLAC Picture

FLAC StreamInfo Tags

FLAC is big-endian, so bit 0 is the high-order bit in this table.

Tag ID	Tag Name	Writable
'Bit000-015'	BlockSizeMin	no
'Bit016-031'	BlockSizeMax	no
'Bit032-055'	FrameSizeMin	no
'Bit056-079'	FrameSizeMax	no
'Bit080-099'	SampleRate	no
'Bit100-102'	Channels	no
'Bit103-107'	BitsPerSample	no
'Bit108-143'	TotalSamples	no
'Bit144-271'	MD5Signature	no

FLAC Picture Tags

Index4	Tag Name	Writable
0	PictureType	no
1	PictureMIMEType	no
2	PictureDescription	no
3	PictureWidth	no
4	PictureHeight	no
5	PictureBitsPerPixel	no
6	PictureIndexedColors	no
7	PictureLength	no
8	Picture	no

GM Tags

These tags are extracted from GM/Cosworth PDR (Performance Data Recorder) information found in videos from General Motors cars such as Corvette and Camero.

Use the API PrintCSV option to output all timed PDR data in CSV format at greatly increased speed and with much lower memory usage. This option prints the numerical values for each channel in CSV format,

suitable for import into RaceRender. In this output, the gear numbers for Neutral and Reverse are changed to −1 and −100 respectively for compatibility with RaceRender.

GM marl Tags

Tags extracted from the 'ctbx' 'marl' (Marlin) box of timed PDR metadata from GM cars. Use the −ee (API ExtractEmbedded) option to extract this information, or the API PrintCSV option to output in CSV format.

Tag Name	Writable
ABSActive	no
AccelPos	no
BatteryVoltage	no
Beacon	no
BoostPressureInd	no
BrakePos	no
CPUFree	no
CPUIO	no
CPUIRQ	no
CPUSystem	no
CPUUser	no
ClutchPos	no
CoolantTemp	no
CornerExitSetting	no
DiskReadOperations	no
DiskReadRate	no
DiskReadTime	no
DiskWriteOperations	no
DiskWriteRate	no
DiskWriteTime	no
Distance	no
DriverPerformanceMode	no
EngineSpeedRequest	no
EngineTorqureReq	no
FuelCapacity	no
FuelLevel	no
GPSAltitude	no
GPSDateTime	no
GPSFix	no
GPSLatitude	no
GPSLongitude	no
GPSTrack	no
Gear	no
InfotainOpMode	no
IntakeAirTemperature	no
IntakeBoostPressure	no
LFTyrePressure	no
LFTyreTemp	no
LRTyrePressure	no
LRTyreTemp	no
LateralAcceleration	no
LongitudinalAcceleration	no
OilPressure	no
OilTemp	no
OutsideAirTemperature	no
RFTyrePressure	no

RFTyreTemp	no
RPM	no
RRTyrePressure	no
RRTyreTemp	no
RecordingEventOdometer	no
Speed	no
SpeedControlResponse	no
SpeedRequestIntervention	no
Steering1Switch	no
Steering2Switch	no
SteeringAngle	no
SuspensionDisplacementLeftFront	no
SuspensionDisplacementLeftRear	no
SuspensionDisplacementRightFront	no
SuspensionDisplacementRightRear	no
SystemBackupPowerEnabled	no
SystemBackupPowerMode	no
SystemPowerMode	no
TimeStamp	no
TractionControlActive	no
TransOilTemp	no
TransportStorageMode	no
ValetMode	no
VehicleStabilityActive	no
VerticalAcceleration	no
WheelspeedLeftDriven	no
WheelspeedLeftNon-Driven	no
WheelspeedRightDriven	no
WheelspeedRightNon-Driven	no
YawRate	no

GM mrld Tags

The Marlin dictionary. Only one channel is listed but all available channels are extracted. Use the -struct (API Struct) option to extract the channel information as structures.

Tag Name	Writable
Channel01	GM Channel Struct
Channel01Description	no_
Channel01DispMax	no_
Channel01DispMin	no_
Channel01Flags	no_
Channel01ID	no_
Channel01Interval	no_
Channel01Max	no_
Channel01Min	no_
Channel01Multiplier	no_
Channel01Name	no_
Channel01Num	no_
Channel01Offset	no_
Channel01Type	no_
Channel01Units	no_

GM Channel Struct

Information stored for each channel in the Marlin dictionary.

Field Name	Writable
ID	no
Type	no
Num	no
Units	no
Flags	no
Interval	no
Min	no
Max	no
DispMin	no
DispMax	no
Multiplier	no
Offset	no
Name	no
Description	no

GM mrlh Tags

The Marlin PDR header.

Index1	Tag Name	Writable
0	MarlinDataVersion	no

GM mrlv Tags

Tags found in the 'mrlv' (Marlin values) box.

Tag ID	Tag Name	Writable
'date'	Date1	no
'lang'	Language	no
'ldat'	Date2	no
'ltim'	Time2	no
'swvs'	SoftwareVersion	no
'time'	Time1	no
'tstm'	StartTime	no
'unit'	Units	no
'zone'	TimeZone	no

Parrot Tags

Parrot mett Tags

Streaming metadata found in Parrot drone videos. See <https://developer.parrot.com/docs/pdraw/metadata.html> for the specification.

Tag ID	Tag Name	Writable
'P1'	ParrotV1	Parrot V1
'P2'	ParrotV2	Parrot V2
'P3'	ParrotV3	Parrot V3
'E1'	ParrotTimeStamp	Parrot TimeStamp
'E2'	ParrotFollowMe	Parrot FollowMe
'E3'	ParrotAutomation	Parrot Automation
'application/arcore-accel'	ARCoreAccel	Parrot ARCoreAccel
'application/arcore-accel-0'	ARCoreAccel0	Parrot ARCoreAccel0
'application/arcore-custom-event'	ARCoreCustom	Parrot ARCoreCustom
'application/arcore-gyro'	ARCoreGyro	Parrot ARCoreGyro

```
  'application/arcore-gyro-0'  ARCoreGyro0      Parrot ARCoreGyro0
  'application/arcore-video-0' ARCoreVideo      Parrot ARCoreVideo
```

Parrot V1 Tags

Parrot version 1 streaming metadata.

Index1	Tag Name	Writable
4	DroneYaw	no
6	DronePitch	no
8	DroneRoll	no
10	CameraPan	no
12	CameraTilt	no
14	FrameView	no
22	ExposureTime	no
24	ISO	no
26	WifiRSSI	no
27	Battery	no
28	GPSLatitude	no
32	GPSLongitude	no
36	GPSAltitude	no
36.1	GPSSatellites	no
40	AltitudeFromTakeOff	no
44	DistanceFromHome	no
48	SpeedX	no
50	SpeedY	no
52	SpeedZ	no
54	Binning	no
54.1	FlyingState	no
55	Animation	no
55.1	PilotingMode	no

Parrot V2 Tags

Parrot version 2 basic streaming metadata.

Index1	Tag Name	Writable
4	Elevation	no
8	GPSLatitude	no
12	GPSLongitude	no
16	GPSAltitude	no
16.1	GPSSatellites	no
20	GPSVelocityNorth	no
22	GPSVelocityEast	no
24	GPSVelocityDown	no
26	AirSpeed	no
28	DroneQuaternion	no
36	FrameView	no
44	CameraPan	no
46	CameraTilt	no
48	ExposureTime	no
50	ISO	no
52	Binning	no
52.1	FlyingState	no
53	Animation	no
53.1	PilotingMode	no

54	WifiRSSI	no
55	Battery	no
'Groups'	Groups	no

Parrot V3 Tags

Parrot version 3 basic streaming metadata.

Index1	Tag Name	Writable
4	Elevation	no
8	GPSLatitude	no
12	GPSLongitude	no
16	GPSAltitude	no
16.1	GPSSatellites	no
20	GPSVelocityNorth	no
22	GPSVelocityEast	no
24	GPSVelocityDown	no
26	AirSpeed	no
28	DroneQuaternion	no
36	FrameBaseView	no
44	FrameView	no
52	ExposureTime	no
54	ISO	no
56	RedBalance	no
58	BlueBalance	no
60	FOV	no
64	LinkGoodput	no
64.1	LinkQuality	no
68	WifiRSSI	no
69	Battery	no
70	Binning	no
70.1	FlyingState	no
71	Animation	no
71.1	PilotingMode	no

Parrot TimeStamp Tags

Parrot streaming metadata timestamp extension.

Index1	Tag Name	Writable
4	TimeStamp	no

Parrot FollowMe Tags

Parrot streaming metadata follow-me extension.

Index1	Tag Name	Writable
4	GPSTargetLatitude	no
8	GPSTargetLongitude	no
12	GPSTargetAltitude	no
16	Follow-meMode	no
17	Follow-meAnimation	no

Parrot Automation Tags

Parrot streaming metadata automation extension.

Index1	Tag Name	Writable
4	GPSFramingLatitude	no
8	GPSFramingLongitude	no
12	GPSFramingAltitude	no
16	GPSDestLatitude	no
20	GPSDestLongitude	no
24	GPSDestAltitude	no
28	AutomationAnimation	no
29	AutomationFlags	no

Parrot ARCoreAccel Tags

ARCore accelerometer data.

Index1	Tag Name	Writable
4	AccelerometerUnknown?	no
5	Accelerometer	no

Parrot ARCoreAccel0 Tags

ARCore accelerometer data.

Index1	Tag Name	Writable
9	Accelerometer	no

Parrot ARCoreCustom Tags

Index1	Tag Name	Writable

[no tags known]

Parrot ARCoreGyro Tags

ARCore gyro data.

Index1	Tag Name	Writable
4	GyroscopeUnknown?	no
5	Gyroscope	no

Parrot ARCoreGyro0 Tags

ARCore gyro data.

Index1	Tag Name	Writable
9	Gyroscope	no

Parrot ARCoreVideo Tags

Index1	Tag Name	Writable

[no tags known]

AAC Tags

Tags extracted from Advanced Audio Coding (AAC) files.

Tag ID	Tag Name	Writable
'Bit016-017'	ProfileType	no
'Bit018-021'	SampleRate	no
'Bit023-025'	Channels	no
'Encoder'	Encoder	no

Ogg Tags

ExifTool extracts the following types of information from Ogg files. See <http://www.xiph.org/vorbis/doc/> for the Ogg specification.

Tag ID	Tag Name	Writable
'FLAC'	FLAC	FLAC
'ID3'	ID3	ID3
'Opus'	Opus	Opus
'theora'	Theora	Theora
'vorbis'	Vorbis	Vorbis

Vorbis Tags

Information extracted from Ogg Vorbis files. See <http://www.xiph.org/vorbis/doc/> for the Vorbis specification.

Tag ID	Tag Name	Writable
0x0001	Identification	Vorbis Identification
0x0003	Comments	Vorbis Comments

Vorbis Comments Tags

The tags below are only some common tags found in the Vorbis comments of Ogg Vorbis and Ogg FLAC audio files, however ExifTool will extract values from any tag found, even if not listed here.

Tag ID	Tag Name	Writable
'ACTOR'	Actor	no
'ALBUM'	Album	no
'ARTIST'	Artist	no+
'COMMENT'	Comment	no
'COMPOSER'	Composer	no
'CONTACT'	Contact	no+
'COPYRIGHT'	Copyright	no
'COVERART'	CoverArt	no
'COVERARTMIME'	CoverArtMIMEType	no
'DATE'	Date	no
'DESCRIPTION'	Description	no
'DIRECTOR'	Director	no
'ENCODED_BY'	EncodedBy	no
'ENCODED_USING'	EncodedUsing	no
'ENCODER'	Encoder	no
'ENCODER_OPTIONS'	EncoderOptions	no
'GENRE'	Genre	no
'ISRC'	ISRCNumber	no
'LICENSE'	License	no
'LOCATION'	Location	no
'METADATA_BLOCK_PICTURE'	Picture	FLAC Picture
'ORGANIZATION'	Organization	no
'PERFORMER'	Performer	no+
'PRODUCER'	Producer	no

```
'REPLAYGAIN_ALBUM_GAIN'  ReplayGainAlbumGain  no
'REPLAYGAIN_ALBUM_PEAK'  ReplayGainAlbumPeak  no
'REPLAYGAIN_TRACK_GAIN'  ReplayGainTrackGain  no
'REPLAYGAIN_TRACK_PEAK'  ReplayGainTrackPeak  no
'TITLE'                  Title                no
'TRACKNUMBER'            TrackNumber          no
'VERSION'                Version              no
'vendor'                 Vendor               no
```

Vorbis Identification Tags

Index1	Tag Name	Writable
0	VorbisVersion	no
4	AudioChannels	no
5	SampleRate	no
9	MaximumBitrate	no
13	NominalBitrate	no
17	MinimumBitrate	no

Opus Tags

Information extracted from Ogg Opus files. See <https://www.opus−codec.org/docs/> for the specification.

Tag ID	Tag Name	Writable
'OpusHead'	Header	Opus Header
'OpusTags'	Comments	Vorbis Comments

Opus Header Tags

Index1	Tag Name	Writable
0	OpusVersion	no
1	AudioChannels	no
4	SampleRate	no
8	OutputGain	no

Theora Tags

Information extracted from Ogg Theora video files. See <http://www.theora.org/doc/Theora.pdf> for the Theora specification.

Tag ID	Tag Name	Writable
0x0080	Identification	Theora Identification
0x0081	Comments	Vorbis Comments

Theora Identification Tags

Tags extracted from the Theora identification header.

Index1	Tag Name	Writable
0	TheoraVersion	no
7	ImageWidth	no
10	ImageHeight	no
13	XOffset	no
14	YOffset	no
15	FrameRate	no
23	PixelAspectRatio	no
29	ColorSpace	no
30	NominalVideoBitrate	no

33	Quality	no
34	PixelFormat	no

DSF Tags

Tags read from the 'fmt ' header of a DSF (DSD Stream File) audio files. As well, ID3 metadata may also exist in these files. See <https://dsd-guide.com/sites/default/files/white-papers/DSFFileFormatSpec_E.pdf> for the specification.

Index4	Tag Name	Writable
3	FormatVersion	no
4	FormatID	no
5	ChannelType	no
6	ChannelCount	no
7	SampleRate	no
8	BitsPerSample	no
9	SampleCount	no
11	BlockSize	no

WavPack Tags

Tags extracted from the header of WavPack (WV and WVP) audio files. These files may also contain RIFF, ID3 and/or APE metadata which is also extracted by ExifTool. See <https://www.wavpack.com/WavPack5FileFormat.pdf> for the WavPack specification.

Index4	Tag Name	Writable
6.1	BytesPerSample	no
6.2	AudioType	no
6.3	Compression	no
6.4	DataFormat	no
6.5	SampleRate	no

APE Tags

Tags found in Monkey's Audio (APE) information. Only a few common tags are listed below, but ExifTool will extract any tag found. ExifTool supports APEv1 and APEv2 tags, as well as ID3 information in APE files, and will also read APE metadata from MP3 and MPC files.

Tag ID	Tag Name	Writable
'Album'	Album	no
'Artist'	Artist	no
'DURATION'	Duration	no
'Genre'	Genre	no
'Title'	Title	no
'Tool Name'	ToolName	no
'Tool Version'	ToolVersion	no
'Track'	Track	no
'Year'	Year	no

APE NewHeader Tags

APE MAC audio header for version 3.98 or later.

Index2	Tag Name	Writable
0	CompressionLevel	no
2	BlocksPerFrame	no
4	FinalFrameBlocks	no
6	TotalFrames	no
8	BitsPerSample	no
9	Channels	no
10	SampleRate	no

APE OldHeader Tags

APE MAC audio header for version 3.97 or earlier.

Index2	Tag Name	Writable
0	APEVersion	no
1	CompressionLevel	no
3	Channels	no
4	SampleRate	no
10	TotalFrames	no
12	FinalFrameBlocks	no

Audible Tags

ExifTool will extract any information found in the metadata dictionary of Audible .AA files, even if not listed in the table below.

Tag ID	Tag Name	Writable
'_chapter_count'	ChapterCount	no
'_cover_art'	CoverArt	no
'author'	Author	no
'copyright'	Copyright	no
'pub_date_start'	PublishDateStart	no
'pubdate'	PublishDate	no

Audible tags Tags

Information found in ‘‘tags’’ atom of Audible M4B audio books.

Tag ID	Tag Name	Writable
'cvrx'	Audible_cvrx	Audible cvrx
'meta'	Audible_meta	Audible meta
'tseg'	Audible_tseg	Audible tseg

Audible cvrx Tags

Audible cover art information in M4B audio books.

Tag Name	Writable
CoverArt	no
CoverArtType	no

Audible meta Tags

Information found in Audible M4B ‘‘meta’’ atom.

Tag ID	Tag Name	Writable
'ALBUMARTIST'	AlbumArtist	no
'Album'	Album	no
'Artist'	Artist	no
'Comment'	Comment	no
'Genre'	Genre	no
'SUBTITLE'	Subtitle	no
'TOOL'	CreatorTool	no
'Title'	Title	no
'Year'	Year	no
'itunesmediatype'	iTunesMediaType	no
'track'	ChapterName	no

Audible tseg Tags

Tag ID	Tag Name	Writable
'meta'	Audible_meta2	Audible meta
'tshd'	ChapterNumber	no

MPC Tags

Tags used in Musepack (MPC) audio files. ExifTool also extracts ID3 and APE information from these files.

Tag ID	Tag Name	Writable
'Bit032-063'	TotalFrames	no
'Bit080-081'	SampleRate	no
'Bit084-087'	Quality	no
'Bit088-093'	MaxBand	no
'Bit096-111'	ReplayGainTrackPeak	no
'Bit112-127'	ReplayGainTrackGain	no
'Bit128-143'	ReplayGainAlbumPeak	no
'Bit144-159'	ReplayGainAlbumGain	no
'Bit179'	FastSeek	no
'Bit191'	Gapless	no
'Bit216-223'	EncoderVersion	no

MPEG Tags

The MPEG format doesn't specify any file-level meta information. In lieu of this, information is extracted from the first audio and video frame headers in the file.

MPEG Audio Tags

Tag ID	Tag Name	Writable
'Bit11-12'	MPEGAudioVersion	no
'Bit13-14'	AudioLayer	no
'Bit16-19'	AudioBitrate	no
'Bit20-21'	SampleRate	no
'Bit24-25'	ChannelMode	no
'Bit26'	MSStereo	no
'Bit26-27'	ModeExtension	no
'Bit27'	IntensityStereo	no
'Bit28'	CopyrightFlag	no
'Bit29'	OriginalMedia	no
'Bit30-31'	Emphasis	no

MPEG Video Tags

Tag ID	Tag Name	Writable
'Bit00-11'	ImageWidth	no
'Bit12-23'	ImageHeight	no
'Bit24-27'	AspectRatio	no
'Bit28-31'	FrameRate	no
'Bit32-49'	VideoBitrate	no

MPEG Xing Tags

These tags are extracted from the Xing/Info frame.

Tag Name	Writable
Encoder	no
LameHeader	MPEG Lame
LameQuality	no
LameVBRQuality	no
VBRBytes	no
VBRFrames	no
VBRScale	no

MPEG Lame Tags

Tags extracted from Lame 3.90 or later header.

Index1	Tag Name	Writable
9	LameMethod	no
10	LameLowPassFilter	no
20	LameBitrate	no
24	LameStereoMode	no

M2TS Tags

The MPEG-2 transport stream is used as a container for many different audio/video formats (including AVCHD). This table lists information extracted from M2TS files.

Tag Name	Writable
AudioStreamType	no
Duration	no
VideoStreamType	no
_AC3	M2TS AC3
_H264	H264
_MISB	MISB

M2TS AC3 Tags

Tags extracted from AC-3 audio streams.

Tag Name	Writable
AudioBitrate	no
AudioChannels	no
AudioSampleRate	no
SurroundMode	no

H264 Tags

Tags extracted from H.264 video streams. The metadata for AVCHD videos is stored in this stream.

Tag Name	Writable
ImageHeight	no
ImageWidth	no
MDPM	H264 MDPM

H264 MDPM Tags

The following tags are decoded from the Modified Digital Video Pack Metadata (MDPM) of the unregistered user data with UUID 17ee8c60f84d11d98cd60800200c9a66 in the H.264 Supplemental Enhancement Information (SEI). *[Yes, this description is confusing, but nothing compared to the challenge of actually decoding the data!]* This information may e xist at regular intervals through the entire video, but only the first occurrence is extracted unless the ExtractEmbedded (−ee) option is used (in which case subsequent occurrences are extracted as sub-documents).

Tag ID	Tag Name	Writable
0x0013	TimeCode	no
0x0018	DateTimeOriginal	no
0x0070	Camera1	H264 Camera1
0x0071	Camera2	H264 Camera2
0x007f	Shutter	H264 Shutter
0x00a0	ExposureTime	no
0x00a1	FNumber	no
0x00a2	ExposureProgram	no
0x00a3	BrightnessValue	no
0x00a4	ExposureCompensation	no
0x00a5	MaxApertureValue	no
0x00a6	Flash	no
0x00a7	CustomRendered	no
0x00a8	WhiteBalance	no
0x00a9	FocalLengthIn35mmFormat	no
0x00aa	SceneCaptureType	no
0x00b0	GPSVersionID	no
0x00b1	GPSLatitudeRef	no
0x00b2	GPSLatitude	no
0x00b5	GPSLongitudeRef	no
0x00b6	GPSLongitude	no
0x00b9	GPSAltitudeRef	no
0x00ba	GPSAltitude	no
0x00bb	GPSTimeStamp	no
0x00be	GPSStatus	no
0x00bf	GPSMeasureMode	no
0x00c0	GPSDOP	no
0x00c1	GPSSpeedRef	no
0x00c2	GPSSpeed	no
0x00c3	GPSTrackRef	no
0x00c4	GPSTrack	no
0x00c5	GPSImgDirectionRef	no
0x00c6	GPSImgDirection	no
0x00c7	GPSMapDatum	no
0x00ca	GPSDateStamp	no
0x00e0	MakeModel	H264 MakeModel
0x00e1	RecInfo	H264 RecInfo
0x00e4	Model	no
0x00ee	FrameInfo	H264 FrameInfo

H264 Camera1 Tags

Index1	Tag Name	Writable
0	ApertureSetting	no
1	Gain	no
1.1	ExposureProgram	no
2.1	WhiteBalance	no
3	Focus	no

H264 Camera2 Tags

Index1	Tag Name	Writable
1	ImageStabilization	no

H264 Shutter Tags

Index2	Tag Name	Writable
1.1	ExposureTime	no

H264 MakeModel Tags

Index2	Tag Name	Writable
0	Make	no

H264 RecInfo Tags

Recording information stored by some Canon video cameras.

Index1	Tag Name	Writable
0	RecordingMode	no

H264 FrameInfo Tags

Frame rate information stored by some Canon video cameras.

Index1	Tag Name	Writable
0	CaptureFrameRate	no
1	VideoFrameRate	no

MISB Tags

These tags are extracted from STANAG−4609 MISB (Motion Industry Standards Board) KLV-format metadata in M2TS videos.

Tag ID	Tag Name	Writable
'060E2B34030101010E01030302000000'	Security	MISB Security
'060e2b3402030101434e415644494147'	ChurchillNav	MISB ChurchillNav
'060e2b34020b01010e01030101000000'	UASDataLink	MISB UASDatalink
'<other>'	Unknown	MISB Unknown

MISB Security Tags

Tags extracted from the MISB ST 0102.11 Security Metadata local set.

Tag ID	Tag Name	Writable
0x0001	SecurityClassification	no
0x0002	ClassifyingCountryCodeMethod	no
0x0003	ClassifyingCountry	no
0x0004	SecuritySCI-SHIInformation	no
0x0005	Caveats	no
0x0006	ReleasingInstructions	no
0x0007	ClassifiedBy	no
0x0008	DerivedFrom	no
0x0009	ClassificationReason	no
0x000a	DeclassificationDate	no
0x000b	ClassificationAndMarkingSystem	no
0x000c	ObjectCountryCodingMethod	no
0x000d	ObjectCountryCodes	no
0x000e	ClassificationComments	no
0x000f	UMID	no
0x0010	StreamID	no
0x0011	TransportStreamID	no
0x0015	ItemDesignatorID	no
0x0016	SecurityVersion	no
0x0017	ClassifyingCountryCodingMethodDate	no
0x0018	ObjectCountryCodingMethodDate	no

MISB ChurchillNav Tags

Proprietary tags used by Churchill Navigation units. These tags are all currently unknown, but extracted with the Unknown option.

Tag ID	Tag Name	Writable
[no tags known]		

MISB UASDatalink Tags

Tags extracted from the MISB ST 0601.11 UAS Datalink local set.

Tag ID	Tag Name	Writable
0x0001	Checksum	no
0x0002	GPSDateTime	no
0x0003	MissionID	no
0x0004	TailNumber	no
0x0005	GPSTrack	no
0x0006	PitchAngle	no
0x0007	RollAngle	no
0x0008	TrueAirspeed	no
0x0009	IndicatedAirspeed	no
0x000a	ProjectIDCode	no
0x000b	SensorName	no
0x000c	ImageCoordinateSystem	no
0x000d	GPSLatitude	no
0x000e	GPSLongitude	no
0x000f	GPSAltitude	no
0x0010	HorizontalFieldOfView	no
0x0011	VerticalFieldOfView	no
0x0012	SensorRelativeAzimuthAngle	no
0x0013	SensorRelativeElevationAngle	no

```
0x0014   SensorRelativeRollAngle             no
0x0015   SlantRange                          no
0x0016   TargetWidth                         no
0x0017   FrameCenterLatitude                 no
0x0018   FrameCenterLongitude                no
0x0019   FrameCenterElevation                no
0x001a   OffsetCornerLatitude1               no
0x001b   OffsetCornerLongitude1              no
0x001c   OffsetCornerLatitude2               no
0x001d   OffsetCornerLongitude2              no
0x001e   OffsetCornerLatitude3               no
0x001f   OffsetCornerLongitude3              no
0x0020   OffsetCornerLatitude4               no
0x0021   OffsetCornerLongitude4              no
0x0022   IcingDetected                       no
0x0023   WindDirection                       no
0x0024   WindSpeed                           no
0x0025   StaticPressure                      no
0x0026   DensityAltitude                     no
0x0027   AirTemperature                      no
0x0028   TargetLocationLatitude              no
0x0029   TargetLocationLongitude             no
0x002a   TargetLocationElevation            no
0x002b   TargetTrackGateWidth                no
0x002c   TargetTrackGateHeight               no
0x002d   TargetErrorEstimateCE90             no
0x002e   TargetErrorEstimateLE90             no
0x002f   GenericFlagData01                   no
0x0030   SecurityLocalMetadataSet            MISB Security
0x0031   DifferentialPressure                no
0x0032   AngleOfAttack                       no
0x0033   VerticalSpeed                       no
0x0034   SideslipAngle                       no
0x0035   AirfieldBarometricPressure          no
0x0036   AirfieldElevation                   no
0x0037   RelativeHumidity                    no
0x0038   GPSSpeed                            no
0x0039   GroundRange                         no
0x003a   FuelRemaining                       no
0x003b   CallSign                            no
0x003c   WeaponLoad                          no
0x003d   WeaponFired                         no
0x003e   LaserPRFCode                        no
0x003f   SensorFieldOfViewName               no
0x0040   MagneticHeading                     no
0x0041   UAS_LSVersionNumber                 no
0x0042   TargetLocationCovarianceMatrix      no
0x0043   AlternateLatitude                   no
0x0044   AlternateLongitude                  no
0x0045   AlternateAltitude                   no
0x0046   AlternateName                       no
0x0047   AlternateHeading                    no
0x0048   EventStartTime                      no
0x0049   RVTLocalSet                         MISB Unknown
```

0x004a	VMTIDataSet	MISB Unknown
0x004b	SensorEllipsoidHeight	no
0x004c	AlternateEllipsoidHeight	no
0x004d	OperationalMode	no
0x004e	FrameCenterHeightAboveEllipsoid	no
0x004f	SensorVelocityNorth	no
0x0050	SensorVelocityEast	no
0x0051	ImageHorizonPixelPack	no
0x0052	CornerLatitude1	no
0x0053	CornerLongitude1	no
0x0054	CornerLatitude2	no
0x0055	CornerLongitude2	no
0x0056	CornerLatitude3	no
0x0057	CornerLongitude3	no
0x0058	CornerLatitude4	no
0x0059	CornerLongitude4	no
0x005a	FullPitchAngle	no
0x005b	FullRollAngle	no
0x005c	FullAngleOfAttack	no
0x005d	FullSideslipAngle	no
0x005e	MIISCoreIdentifier	no
0x005f	SARMotionImageryData	MISB Unknown
0x0060	TargetWidthExtended	no
0x0061	RangeImageLocalSet	MISB Unknown
0x0062	GeoregistrationLocalSet	MISB Unknown
0x0063	CompositeImagingLocalSet	MISB Unknown
0x0064	SegmentLocalSet	MISB Unknown
0x0065	AmendLocalSet	MISB Unknown
0x0066	SDCC-FLP	no
0x0067	DensityAltitudeExtended	no
0x0068	SensorEllipsoidHeightExtended	no
0x0069	AlternateEllipsoidHeightExtended	no

MISB Unknown Tags

Other tags are extracted with the Unknown option.

Tag ID	Tag Name	Writable
[no tags known]		

Kandao Tags

Tags extracted from Kandao KVAR files and the 'kvar', 'kfix' and 'kstb' atoms in Kandao MP4 videos, with a family 1 group name of KVAR, KFIX or KSTB depending on their location.

Tag ID	Tag Name	Writable
'AE_METERING'	AEMetering	no
'AE_MODE'	AEMode	no
'AF_FN'	AF_FN	no
'AUDIO_GAIN'	AudioGain	no
'AWB_CCT'	AWB_CCT	no
'AWB_MODE'	AWBMode	no
'BAT_TEMP'	BatteryTemperature	no
'CAPTURE_MODE'	CaptureMode	no
'CENTER_SHIFT'	CenterShift	no
'COVER_MODE'	CoverMode	no

```
'CPU_TEMP'           CPUTemperature          no
'CUSTOMIZED'         Customized              no
'DASHBOARD'          Dashboard               no
'DISTORTION'         Distortion              no
'DYNAMIC_RANGE'      DynamicRange            no
'EV'                 EV                      no
'EXP'                Exp                     no
'FAN_LEVEL'          FanLevel                no
'FAN_MODE'           FanMode                 no
'FOV'                FOV                     no
'FRAME_ISP'          FRAME_ISP               Kandao FrameISP
'GAINMAP0'           GainMap0                no
'GAINMAP1'           GainMap1                no
'GPS'                GPS                     Kandao GPS
                                             Kandao GPS
'GPSX'               GPSX                    Kandao GPSX
'GPS_CAPTIME'        GPSCaptureTime          no
'HDR'                HDR                     no
'HW_VER'             HardwareVersion         no
'IMAGE_STYLE'        ImageStyle              no
'IMU'                IMU                     Kandao IMU
'INFO'               Info                    no
'INPUT_INSERT'       InputInsert             no
'INTERVAL'           Interval                no
'ISO'                ISO                     no
'ISP'                ISP                     no
'ISP_VER'            ISPVersion              no
'LENS'               LensData                no
'LENS_INDEX'         LensIndex               no
'LENS_OTP_ID0'       Lens0OTP_ID             no
'LENS_OTP_ID1'       Lens1OTP_ID             no
'LENS_SN0'           Lens0SerialNumber       no
'LENS_SN1'           Lens1SerialNumber       no
'NEED_LSC'           NeedLDSC                no
'OUTPUT_INSERT'      OutputInsert            no
'PRODUCT'            Model                   no
'PROJECT'            Project                 no
'PROJECTION'         Projection              no
'PR_VER'             ProductVersion          no
'PTS'                PresentationTimeStamp   no
'PTS_UNIT'           TimeStampUnit           no
'SHUTTER'            Shutter                 no
'SN'                 SerialNumber            no
'STEREO'             Stereo                  no
'STITCHED'           Stitched                no
'SW_VER'             SoftwareVersion         no
'TOTAL_FRAME'        TotalFrames             no
'TOTAL_TIME_MS'      TotalTime               no
'VIDEO_BITRATE'      VideoBitrate            no
'VIDEO_CAPTIME'      VideoCaptureTime        no
'VIDEO_CODECTYPE'    VideoCodec              no
'VIDEO_FORMAT'       VideoFormat             no
'VIDEO_RESOLUTION'   VideoResolution         no
'YAW'                Yaw                     no
```

Kandao FrameISP Tags

Index1	Tag Name	Writable
0	TimeStamp?	no
4	FrameISP_4?	no

Kandao GPS Tags

These tags are in the family 1 KVAR group instead of a GPS group to allow them to be distinguished from the duplicate GPS tags in the GPSX table.

Index1	Tag Name	Writable
0	TimeStamp	no
4	GPSLatitude	no
12	GPSLongitude	no
20	GPSAltitude	no

Kandao GPSX Tags

These tags are in the family 1 GPS group. They are duplicates of the tags in the Kandao GPS table with the addition of GPSDateTime.

Index1	Tag Name	Writable
0	TimeStamp	no
4	GPSDateTime	no
12	GPSLatitude	no
20	GPSLongitude	no
28	GPSAltitude	no

Kandao IMU Tags

Index1	Tag Name	Writable
0	TimeStamp	no
8	Gyroscope	no
14	Accelerometer	no

Matroska Tags

The following tags are extracted from Matroska multimedia container files. This container format is used by file types such as MKA, MKV, MKS and WEBM. For speed, by default ExifTool extracts tags only up to the first Cluster unless a Seek element specifies the position of a Tags element after this. However, the Verbose (−v) and Unknown = 2 (−U) options force processing of Cluster data, and the ExtractEmbedded (−ee) option skips over Clusters to read subsequent tags. See <http://www.matroska.org/technical/specs/index.html> for the official Matroska specification.

Tag ID	Tag Name	Writable
0x0000	ChapterDisplay	Matroska
0x0003	TrackType	no
0x0005	ChapterString	no
0x0006	VideoCodecID	no
	AudioCodecID	no
	CodecID	no
0x0008	TrackDefault	no
0x0009	ChapterTrackNumber?	no
0x000e	Slices	Matroska
0x000f	ChapterTrack	Matroska
0x0011	ChapterTimeStart	no

```
0x0012      ChapterTimeEnd                  no
0x0016      CueRefTime?                     no
0x0017      CueRefCluster?                  no
0x0018      ChapterFlagHidden?              no
0x001a      VideoScanType                   no
0x001b      BlockDuration?                  no
0x001c      TrackLacing?                    no
0x001f      AudioChannels                   no
0x0020      BlockGroup                      Matroska
0x0021      Block?                          no
0x0022      BlockVirtual?                   no
0x0023      SimpleBlock?                    no
0x0024      CodecState?                     no
0x0025      BlockAdditional?                no
0x0026      BlockMore                       Matroska
0x0027      Position                        no
0x002a      CodecDecodeAll                  no
0x002b      PrevSize                        no
0x002e      TrackEntry                      Matroska
0x002f      EncryptedBlock?                 no
0x0030      ImageWidth                      no
0x0033      CueTime?                        no
0x0035      AudioSampleRate                 no
0x0036      ChapterAtom                     Matroska
0x0037      CueTrackPositions               Matroska
0x0039      TrackUsed                       no
0x003a      ImageHeight                     no
0x003b      CuePoint                        Matroska
0x003f      CRC-32?                         no
0x004b      BlockAdditionalID?              no
0x004c      LaceNumber?                     no
0x004d      FrameNumber?                    no
0x004e      Delay?                          no
0x004f      ClusterDuration?                no
0x0057      TrackNumber                     no
0x005b      CueReference                    Matroska
0x0060      Video                           Matroska
0x0061      Audio                           Matroska
0x0067      TimeCode?                       no
0x0068      TimeSlice                       Matroska
0x006a      CueCodecState?                  no
0x006b      CueRefCodecState?               no
0x006c      Void?                           no
0x006e      BlockAddID?                     no
0x0071      CueClusterPosition?             no
0x0077      CueTrack?                       no
0x007a      ReferencePriority?              no
0x007b      ReferenceBlock?                 no
0x007d      ReferenceVirtual?               no
0x0254      ContentCompressionAlgorithm     no
0x0255      ContentCompressionSettings?     no
0x0282      DocType                         no
0x0285      DocTypeReadVersion              no
0x0286      EBMLVersion                     no
```

0x0287	DocTypeVersion	no
0x02f2	EBMLMaxIDLength?	no
0x02f3	EBMLMaxSizeLength?	no
0x02f7	EBMLReadVersion	no
0x037c	ChapterLanguage	no
0x037e	ChapterCountry	no
0x0444	SegmentFamily?	no
0x0461	DateTimeOriginal	no
0x047a	TagLanguageBCP47	no
0x0484	TagDefault	no
0x0485	TagBinary	no
0x0487	TagString	no
0x0489	Duration	no
0x050d	ChapterProcessPrivate?	no
0x0598	ChapterFlagEnabled?	no
0x05a3	TagName	no
0x05b9	EditionEntry	Matroska
0x05bc	EditionUID?	no
0x05bd	EditionFlagHidden?	no
0x05db	EditionFlagDefault?	no
0x05dd	EditionFlagOrdered?	no
0x065c	AttachedFileData	no
0x0660	AttachedFileMIMEType	no
0x066e	AttachedFileName	no
0x0675	AttachedFileReferral?	no
0x067e	AttachedFileDescription	no
0x06ae	AttachedFileUID	no
0x07e1	ContentEncryptionAlgorithm	no
0x07e2	ContentEncryptionKeyID?	no
0x07e3	ContentSignature?	no
0x07e4	ContentSignatureKeyID?	no
0x07e5	ContentSignatureAlgorithm	no
0x07e6	ContentSignatureHashAlgorithm	no
0x0d80	MuxingApp	no
0x0dbb	Seek	Matroska
0x1031	ContentEncodingOrder?	no
0x1032	ContentEncodingScope?	no
0x1033	ContentEncodingType	no
0x1034	ContentCompression	Matroska
0x1035	ContentEncryption	Matroska
0x135f	CueRefNumber?	no
0x136e	TrackName	no
0x1378	CueBlockNumber?	no
0x137f	TrackOffset?	no
0x13ab	SeekID?	no
0x13ac	SeekPosition?	no
0x13b8	Stereo3DMode	no
0x14aa	CropBottom	no
0x14b0	DisplayWidth	no
0x14b2	DisplayUnit	no
0x14b3	AspectRatioType	no
0x14ba	DisplayHeight	no
0x14bb	CropTop	no
0x14cc	CropLeft	no

0x14dd	CropRight	no
0x15aa	TrackForced	no
0x15ee	MaxBlockAdditionID?	no
0x1741	WritingApp	no
0x1854	SilentTracks	Matroska
0x18d7	SilentTrackNumber	no
0x21a7	AttachedFile	Matroska
0x2240	ContentEncoding	Matroska
0x2264	AudioBitsPerSample	no
0x23a2	CodecPrivate?	no
0x23c0	Targets	Matroska
0x23c3	ChapterPhysicalEquivalent	no
0x23c4	TagChapterUID	no
0x23c5	TagTrackUID	no
0x23c6	TagAttachmentUID	no
0x23c9	TagEditionUID	no
0x23ca	TargetType	no
0x2532	SignedElement?	no
0x2624	TrackTranslate	Matroska
0x26a5	TrackTranslateTrackID?	no
0x26bf	TrackTranslateCodec	no
0x26fc	TrackTranslateEditionUID?	no
0x27c8	SimpleTag	Matroska
0x28ca	TargetTypeValue	no
0x2911	ChapterProcessCommand	Matroska
0x2922	ChapterProcessTime?	no
0x2924	ChapterTranslate	Matroska
0x2933	ChapterProcessData?	no
0x2944	ChapterProcess	Matroska
0x2955	ChapterProcessCodecID?	no
0x29a5	ChapterTranslateID?	no
0x29bf	ChapterTranslateCodec	no
0x29fc	ChapterTranslateEditionUID?	no
0x2d80	ContentEncodings	Matroska
0x2de7	MinCache?	no
0x2df8	MaxCache?	no
0x2e67	ChapterSegmentUID?	no
0x2ebc	ChapterSegmentEditionUID?	no
0x2fab	TrackOverlay?	no
0x3373	Tag	Matroska
0x3384	SegmentFileName	no
0x33a4	SegmentUID?	no
0x33c4	ChapterUID?	no
0x33c5	TrackUID	no
0x3446	TrackAttachmentUID	no
0x35a1	BlockAdditions	Matroska
0x38b5	OutputAudioSampleRate	no
0x3ba9	Title	no
0x3d7b	ChannelPositions?	no
0x3e5b	SignatureElements	Matroska
0x3e7b	SignatureElementList	Matroska
0x3e8a	SignatureAlgo	no
0x3e9a	SignatureHash	no
0x3ea5	SignaturePublicKey?	no

0x3eb5	Signature?	no
0x7670	Projection	Matroska Projection
0x2b59c	TrackLanguage	no
0x2b59d	TrackLanguageIETF	no
0x3314f	TrackTimecodeScale	no
0x383e3	FrameRate	no
0x3e383	VideoFrameRate	no
	DefaultDuration	no
0x58688	VideoCodecName	no
	AudioCodecName	no
	CodecName	no
0x6b240	CodecDownloadURL	no
0xad7b1	TimecodeScale	no
0xeb524	ColorSpace?	no
0xfb523	Gamma	no
0x1a9697	CodecSettings	no
0x1b4040	CodecInfoURL	no
0x1c83ab	PrevFileName	no
0x1cb923	PrevUID?	no
0x1e83bb	NextFileName	no
0x1eb923	NextUID?	no
0x43a770	Chapters	Matroska
0x14d9b74	SeekHead	Matroska
0x254c367	Tags	Matroska
0x549a966	Info	Matroska
0x654ae6b	Tracks	Matroska
0x8538067	SegmentHeader	Matroska
0x941a469	Attachments	Matroska
0xa45dfa3	EBMLHeader	Matroska
0xb538667	SignatureSlot	Matroska
0xc53bb6b	Cues	Matroska
0xf43b675	Cluster	Matroska
0x5345414c	SEAL	XMP SEAL

Matroska Projection Tags

Projection tags defined by the Spherical Video V2 specification. See <https://github.com/google/spatial-media/blob/master/docs/spherical-video-v2-rfc.md> for the specification.

Tag ID	Tag Name	Writable
0x7671	ProjectionType	no
0x7672	EquirectangularProj	QuickTime equi
	CubemapProj	QuickTime cbmp
	ProjectionPrivate	no
0x7673	ProjectionPoseYaw	no
0x7674	ProjectionPosePitch	no
0x7675	ProjectionPoseRoll	no

Matroska StdTag Tags

Standardized Matroska tags, stored in a SimpleTag structure (see <https://www.matroska.org/technical/tagging.html>).

Tag ID	Tag Name	Writable
'ACCOMPANIMENT'	Accompaniment	no
'ACTOR'	Actor	no
'ADDRESS'	Address	no
'ARRANGER'	Arranger	no
'ARTIST'	Artist	no
'ART_DIRECTOR'	ArtDirector	no
'ASSISTANT_DIRECTOR'	AssistantDirector	no
'BARCODE'	Barcode	no
'BPM'	BPM	no
'BPS'	BPS	no
'CATALOG_NUMBER'	CatalogNumber	no
'CHARACTER'	Character	no
'CHOREGRAPHER'	Choregrapher	no
'COMMENT'	Comment	no
'COMPOSER'	Composer	no
'COMPOSER_NATIONALITY'	ComposerNationality	no
'COMPOSITION_LOCATION'	CompositionLocation	no
'CONDUCTOR'	Conductor	no
'CONTENT_TYPE'	ContentType	no
'COPRODUCER'	Coproducer	no
'COPYRIGHT'	Copyright	no
'COSTUME_DESIGNER'	CostumeDesigner	no
'COUNTRY'	Country	no
'DATE_DIGITIZED'	CreateDate	no
'DATE_ENCODED'	DateEncoded	no
'DATE_PURCHASED'	DatePurchased	no
'DATE_RECORDED'	DateTimeOriginal	no
'DATE_RELEASED'	DateReleased	no
'DATE_TAGGED'	DateTagged	no
'DATE_WRITTEN'	DateWritten	no
'DESCRIPTION'	Description	no
'DIRECTOR'	Director	no
'DIRECTOR_OF_PHOTOGRAPHY'	DirectorOfPhotography	no
'DISTRIBUTED_BY'	DistributedBy	no
'DURATION'	Duration	no
'EDITED_BY'	EditedBy	no
'EMAIL'	Email	no
'ENCODED_BY'	EncodedBy	no
'ENCODER'	Encoder	no
'ENCODER_SETTINGS'	EncoderSettings	no
'EXECUTIVE_PRODUCER'	ExecutiveProducer	no
'FAX'	FAX	no
'FPS'	FPS	no
'GENRE'	Genre	no
'IMDB'	IMDB	no
'INITIAL_KEY'	InitialKey	no
'INSTRUMENTS'	Instruments	no+
'ISBN'	ISBN	no
'ISRC'	ISRC	no
'KEYWORDS'	Keywords	no+
'LABEL'	Label	no

```
'LABEL_CODE'          LabelCode                no
'LAW_RATING'          LawRating                no
'LCCN'                Lccn                     no
'LEAD_PERFORMER'      LeadPerformer            no
'LICENSE'             License                  no
'LYRICIST'            Lyricist                 no
'LYRICS'              Lyrics                   no
'MASTERED_BY'         MasteredBy               no
'MCDI'                MCDI                     no
'MEASURE'             Measure                  no
'MIXED_BY'            MixedBy                  no
'MOOD'                Mood                     no
'NUMBER_OF_BYTES'     NumberOfBytes            no
'NUMBER_OF_FRAMES'    NumberOfFrames           no
'ORIGINAL'            Original                 no
'ORIGINAL_MEDIA_TYPE' OriginalMediaType        no
'PART_NUMBER'         PartNumber               no
'PART_OFFSET'         PartOffset               no
'PERIOD'              Period                   no
'PHONE'               Phone                    no
'PLAY_COUNTER'        PlayCounter              no
'PRODUCER'            Producer                 no
'PRODUCTION_COPYRIGHT' ProductionCopyright     no
'PRODUCTION_DESIGNER' ProductionDesigner       no
'PRODUCTION_STUDIO'   ProductionStudio         no
'PUBLISHER'           Publisher                no
'PURCHASE_CURRENCY'   PurchaseCurrency         no
'PURCHASE_INFO'       PurchaseInfo             no
'PURCHASE_ITEM'       PurchaseItem             no
'PURCHASE_OWNER'      PurchaseOwner            no
'PURCHASE_PRICE'      PurchasePrice            no
'RATING'              Rating                   no
'RECORDING_LOCATION'  RecordingLocation        no
'REMIXED_BY'          RemixedBy                no
'REPLAYGAIN_GAIN'     ReplaygainGain           no
'REPLAYGAIN_PEAK'     ReplaygainPeak           no
'SAMPLE'              Sample                   no
'SCREENPLAY_BY'       ScreenplayBy             no
'SORT_WITH'           SortWith                 no
'SOUND_ENGINEER'      SoundEngineer            no
'SPHERICAL-VIDEO'     SphericalVideoXML        XMP
'SUBJECT'             Subject                  no
'SUBTITLE'            Subtitle                 no
'SUMMARY'             Summary                  no
'SYNOPSIS'            Synopsis                 no
'TERMS_OF_USE'        TermsOfUse               no
'THANKS_TO'           ThanksTo                 no
'TITLE'               Title                    no
'TMDB'                TMDB                     no
'TOTAL_PARTS'         TotalParts               no
'TUNING'              Tuning                   no
'TVDB'                TVDB                     no
'URL'                 URL                      no
'WRITTEN_BY'          WrittenBy                no
```

```
'_STATISTICS_TAGS'   StatisticsTags           no
'_STATISTICS_WRITING_APP'
                     StatisticsWritingApp     no
'_STATISTICS_WRITING_DATE_UTC'
                     StatisticsWritingDateUTC no
'spherical-video'    SphericalVideoXML        XMP
```

MOI Tags

MOI files store information about associated MOD or TOD files, and are written by some JVC, Canon and Panasonic camcorders.

Index1	Tag Name	Writable
0	MOIVersion	no
6	DateTimeOriginal	no
14	Duration	no
128	AspectRatio	no
132	AudioCodec	no
134	AudioBitrate	no
218	VideoBitrate	no

MXF Tags

Tags extracted from Material Exchange Format files. Tag ID's are not listed because they are bulky 16-byte binary values.

Tag Name	Writable
AAFManufacturerID?	no
AES3PCMDescriptor	MXF
AFDAndBarData?	no
AGICOAID?	no
AICI?	no
AIFCSummary?	no
ANCPacketCount	no
ANCPayloadByteArray	no
ANCPayloadSampleCoding	no
ANCPayloadSampleCount	no
ANCWrappingType	no
Abstract	no
Abstract	no
AccountingReferenceNumber	no
ActiveFormatDescriptor	no
ActiveLinesperFrame	no
ActiveSamplesperLine	no
ActiveState	no
Ad-ID?	no
Address	MXF
AddressLine	no
AddressLine	no
AddressNameValueSets?	no
AddressSets?	no
AdvertisingMaterialReference	no
AestheticValue	no
AlphaMaximumRef	no
AlphaMinimumRef	no
AlphaSampleDepth	no
AlphaTransparency	no

```
AlternateName                              no
AlternateName                              no
Alternates?                                no
AnalogDataCodingKind                       no
AnalogMetadataCarrier                      no
AnalogMonitoringAndControlCodingKind       no
AnalogSystem                               no
AnalogVideoSystemName                      no
AnalogVideoSystemName?                     no
AnamorphicLensCharacteristic               no
AnchorOffset                               no
AncillaryResourceID?                       no
AngleToNorth                               no
AngularUnitKind                            no
Annotation?                                no
Annotation                                 MXF
AnnotationCueWordsSet?                     no
AnnotationDescription                      no
AnnotationDescription                      no
AnnotationKind                             no
AnnotationKind                             no
AnnotationParticipantSets?                 no
AnnotationSets?                            no
AnnotationSynopsis                         no
AnnotationSynopsis                         no
ApplicationEnvironmentID                   no
ApplicationInformationArray?               no
ApplicationName                            no
ApplicationName                            no
ApplicationPlatform                        no
ApplicationPlatform                        no
ApplicationPlug-InBatch?                   no
ApplicationPlug-InInstanceID?              no
ApplicationProductID?                      no
ApplicationScheme?                         no
ApplicationSchemeBatch?                    no
ApplicationSupplierName                    no
ApplicationSupplierName                    no
ApplicationVersionNumber                   no
ApplicationVersionString                   no
ApplicationVersionString                   no
ApproximateImageContainerSize              no
ArchiveID                                  no
AssetValue                                 no
AssignedCategoryName                       no
AssignedCategoryName                       no
AssignedCategoryValue                      no
AssignedCategoryValue                      no
AssociatedMetadataDefinition?              no
AstronomicalBodyName                       no
AstronomicalBodyName                       no
AudienceAppreciation                       no
AudienceRating                             no
AudienceReach                              no
```

```
AudienceShare                                   no
AudioAverageBitrate                             no
AudioCodingSchemeCode                           no
AudioCodingSchemeID?                            no
AudioCodingSchemeName                           no
AudioCompressionAlgorithm                       no
AudioDeviceKind                                 no
AudioDeviceParameter                            no
AudioDeviceParameterSetting                     no
AudioEnhancementOrModificationDescription       no
AudioFirstMix-DownProcess                       no
AudioFixedBitrateFlag                           no
AudioMonoChannelCount                           no
AudioNoiseReductionAlgorithm                    no
AudioReferenceLevel                             no
AudioReferenceLevel                             no
AudioSampleRate                                 no
AudioSampleRate                                 no
AudioStereoChannelCount                         no
AudioWatermarkKind                              no
AuthenticationFlag                              no
AuxiliaryBitsMode                               no
AvailableRepresentations?                       no
AverageBytesPerSecond                           no
Award                                           MXF
AwardCategory                                   no
AwardCategory                                   no
AwardName                                       no
AwardName                                       no
AwardParticipantSets?                           no
AwardSets?                                      no
BICI?                                           no
BackgroundMusicFlag                             no
BankDetailsSet?                                 no
BeginAnchor                                     no
BeginAnchor                                     no
BextCodingHistory                               no
BextCodingHistory                               no
Bitrate                                         no
BitsPerAudioSample                              no
BitsPerPixel                                    no
BitsPerPixel                                    no
BitsPerSample                                   no
BlackReferenceLevel                             no
BlockAlign                                      no
BlockContinuityCount                            no
BlockStartOffset                                no
BoundingRectangle?                              no
BrandMainTitle                                  no
BrandMainTitle                                  no
BrandOriginalTitle                              no
BrandOriginalTitle                              no
Branding                                        MXF
BrandingSets?                                   no
```

```
BroadcastChannel                        no
BroadcastDate                           no
BroadcastMediumCode                     no
BroadcastMediumKind                     no
BroadcastOrganizationName               no
BroadcastOrganizationName               no
BroadcastRegion                         no
BroadcastRegion                         no
BroadcastServiceName                    no
BroadcastTime                           no
BroadcasterRightsToCopy                 no
BufferDelay?                            no
BuildingName                            no
BuildingName                            no
Bypass                                  no
BypassOverride                          no
ByteOffset                              no
ByteOrder                               no
CBEStartOffset                          no
CDCIEssenceDescriptor                   MXF
CISACLegalEntityID?                     no
CaptionDescription                      MXF
CaptionDescriptionSets?                 no
CaptionKind                             no
CaptionKind                             no
CaptionTitles                           no
CaptionsDescriptionParticipantSets?     no
CaptionsViaTeletext                     no
CaptureAspectRatio                      no
CaptureFilmFrameRate                    no
CaptureGammaEquation                    no
CaptureGammaEquation                    no
CaptureGammaEquation?                   no
CatalogDataStatus                       no
CatalogDataStatus                       no
CatalogPrefixNumber                     no
CatalogingSystemName                    no
CentralTelephoneNumber                  no
ChannelAssignment?                      no
ChannelCount                            no
ChannelHandle                           no
ChannelID                               no
ChannelIDs                              no
ChannelStatusMode                       no
CipherAlgorithm?                        no
CipherAlgorithmAES128CBC?               no
Citizenship                             no
Citizenship                             no
CityName                                no
CityName                                no
ClassDefinitions?                       no
Classification                          MXF
ClassificationAndMarkingSystem          no
ClassificationComment                   no
```

```
ClassificationComment                   no
ClassificationNameValueSets?            no
ClassificationReason                    no
ClassificationSets?                     no
ClassifiedBy                            no
ClassifyingCountryCode                  no
ClipCreationDateTime                    no
ClipFramework                           MXF
ClipID                                  no
ClipIDArray?                            no
ClipKind                                no
ClipNumber                              no
ClipNumber                              no
ClipShotSets?                           no
CloneCount                              no
ClosedBodyPartition?                    no
ClosedCaptionSubtitlesFlag              no
ClosedCompleteBodyPartition?            no
ClosedCompleteHeader                    MXF Header
ClosedGOPIndicator                      no
ClosedHeader                            MXF Header
CodecDefinition?                        no
CodecDefinition?                        no
CodecDefinitions?                       no
CodecEssenceDescriptor?                 no
CodecEssenceKinds?                      no
CodedContentScanningKind                no
CodingLawKind                           no
CodingLawName                           no
CodingStyleDefault?                     no
CollectionName                          no
CollectionName                          no
ColorDescriptor                         no
ColorDescriptor                         no
ColorFieldCode                          no
ColorPrimaries                          no
ColorPrimaries?                         no
ColorRangeLevels                        no
ColorSiting                             no
ColorimetryCode                         no
ColorimetryCode?                        no
CommunicationSets?                      no
Communications                          MXF
CompleteFooter?                         no
ComponentAttributes?                    no
ComponentDataDefinition                 no
ComponentDepth                          no
ComponentKLVData?                       no
ComponentMaximumRef                     no
ComponentMinimumRef                     no
ComponentUserComments?                  no
ComponentsInSequence?                   no
CompositionRendering?                   no
ComputedKeyData                         no
```

```
ComputedKeyFrames                       no
ComputedKeySounds                       no
ComputedKeywords                        no
ComputedKeywords                        no
ComputedObjectKind                      no
ComputedObjectKind                      no
ComputedStratumKind                     no
ConstantBPictureFlag                    no
ConsumerRightsToCopy                    no
ContactDepartmentName                   no
ContactDepartmentName                   no
ContactID?                              no
ContactKind                             no
ContactKind                             no
ContactNameValueSets?                   no
ContactsList                            MXF
ContactsListSet?                        no
ContainerDefinitions?                   no
ContainerLastModifyDate                 no
ContainerVersion                        no
ContentClassification                   no
ContentClassification                   no
ContentCodingSystem                     no
ContentMaturityDescription              no
ContentMaturityGraphic                  no
ContentMaturityRating                   no
ContentPackageIndexArray?               no
ContentPackageMetadataLink              no
ContentStorage?                         no
ContentStorageSet                       MXF
ContentValue                            no
ContextDescription                      no
ContiguousDataFlag                      no
Contract                                MXF
ContractClauseDescription               no
ContractClauseDescription               no
ContractDateTime                        no
ContractEntity                          no
ContractInstallmentPercentage           no
ContractLineCode                        no
ContractLineName                        no
ContractLineName                        no
ContractParticipantSets?                no
ContractSets?                           no
ContractTermsOfBusiness                 no
ContractTermsOfBusiness                 no
ContractType                            no
ContractType                            no
ContractTypeCode                        no
ContractTypeLink                        no
ContributionStatus                      no
ContributionStatus                      no
ControlPointList?                       no
ControlPointTime                        no
```

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CopyCount                                 no
CopyrightLicenseCountryCode               no
CopyrightLicenseRegionCode                no
CopyrightLicenseRegionName                no
CopyrightOwnerName                        no
CopyrightOwnerName                        no
CopyrightStatus                           no
CopyrightStatus                           no
CornerLatitudePoint1                      no
CornerLatitudePoint1                      no
CornerLatitudePoint2                      no
CornerLatitudePoint2                      no
CornerLatitudePoint3                      no
CornerLatitudePoint3                      no
CornerLatitudePoint4                      no
CornerLatitudePoint4                      no
CornerLongitudePoint1                     no
CornerLongitudePoint1                     no
CornerLongitudePoint2                     no
CornerLongitudePoint2                     no
CornerLongitudePoint3                     no
CornerLongitudePoint3                     no
CornerLongitudePoint4                     no
CornerLongitudePoint4                     no
CountryCodeMethod                         no
CountryCodeMethod                         no
CountryName                               no
CountryName                               no
CountryName                               no
CountryName                               no
CreateDate                                no
CryptographicContext                      MXF
CryptographicContextID?                   no
CryptographicContextLink?                 no
CryptographicContextObject?               no
CryptographicFramework                    MXF
CryptographicFrameworkLabel?              no
CryptographicKeyID?                       no
Csiz                                      no
Cue-InWords                               no
Cue-InWords                               no
Cue-OutWords                              no
Cue-OutWords                              no
CueWords                                  MXF
CulturalValue                             no
CurrencyCode                              no
CurrencyName                              no
CurrentNumberInSequence                   no
CurrentNumberInSequence                   no
CurrentRepeatNumber                       no
CutPoint                                  no
DMFramework                               MXF
DMSegment                                 MXF
DMSet                                     MXF
```

```
DMSourceClip                                MXF
DOI?                                        no
DVBParentalRating                           no
DataDefinition?                             no
DataDefinitions?                            no
DataDeviceKind                              no
DataDeviceParameterName                     no
DataDeviceParameterSetting                  no
DataEnhancementOrModificationDescription    no
DataEssenceCoding                           no
DataEssenceCodingID?                        no
DateTimeDropFrameFlag                       no
DateTimeEmbeddedFlag                        no
DateTimeKind?                               no
DateTimeRate                                no
DeclassificationDate                        no
DefaultDataValue?                           no
DefaultFadeDuration                         no
DefaultFadeEditRate                         no
DefaultFadeType?                            no
DefaultNamespaceURI                         no
DefaultNamespaceURI                         no
DefaultObject?                              no
DefinedName                                 no
DefinedName                                 no
DefinitionObjectID?                         no
DefinitionObjectName                        no
DefinitionObjectName                        no
DegradedEffects?                            no
DeltaEntryArray?                            no
DerivedFrom                                 no
Description                                 no
Description                                 no
DescriptionKind                             no
DescriptionKind                             no
DescriptiveComment                          no
DescriptiveComment                          no
DescriptiveMetadataApplicationEnvironmentID no
DescriptiveMetadataFramework?               no
DescriptiveMetadataPlug-InID?               no
DescriptiveMetadataScheme?                  no
DescriptiveMetadataSchemes?                 no
DescriptiveMetadataSetReferences?           no
DescriptiveMetadataSets?                    no
DescriptiveMetadataTrackIDs                 no
DeviceAbsoluteHeading                       no
DeviceAbsolutePositionalAccuracy            no
DeviceAbsoluteSpeed                         no
DeviceAltitude                              no
DeviceAltitude                              no
DeviceAssetNumber                           no
DeviceDesignation                           no
DeviceIDKind                                no
DeviceKind                                  no
```

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DeviceKind                          no
DeviceKindCode                      no
DeviceLatitude                      no
DeviceLatitude                      no
DeviceLatitude                      no
DeviceLongitude                     no
DeviceLongitude                     no
DeviceLongitude                     no
DeviceManufacturerName              no
DeviceManufacturerName              no
DeviceModel                         no
DeviceParameterNameValueSets?       no
DeviceParameters                    MXF
DeviceParametersSets?               no
DeviceRelativeHeading               no
DeviceRelativePositionX             no
DeviceRelativePositionY             no
DeviceRelativePositionZ             no
DeviceRelativePositionalAccuracy    no
DeviceRelativeSpeed                 no
DeviceSerialNumber                  no
DeviceUsageDescription              no
DeviceUsageDescription              no
DeviceXDimension                    no
DeviceYDimension                    no
DialNorm                            no
Dictionary?                         no
DictionaryDescription               no
DictionaryDescription               no
DictionaryIdentifier?               no
DigitalEncodingBitrate              no
DigitalMetadataCarrier              no
DigitalOrAnalogOrigination          no
DigitalVideoFileFormat              no
DirectorName                        no
DiscPartitionCapacity               no
DisplayF2Offset                     no
DisplayHeight                       no
DisplayUnits                        no
DisplayUnits                        no
DisplayWidth                        no
DisplayXOffset                      no
DisplayYOffset                      no
Dither                              no
DropFrame                           no
Duration                            no
DynamicSourcePackageID?             no
DynamicSourceTrackIDs               no
E-mailAddress                       no
E-mailAddress                       no
EPGProgramSynopsis                  no
EdgeCode                            no
EdgeCodeFilmGauge?                  no
EdgeCodeFormat?                     no
```

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EdgeCodeHeader?                          no
EdgeCodeStart                            no
EditHint?                                no
EditRate                                 no
EditUnitFlags                            no
EditUnitLength                           no
EditingEventComment                      no
EditingEventComment                      no
EffectRendering?                         no
ElectrospatialFormulation                no
ElementCount                             no
ElementDelta                             no
ElementLength                            no
ElementNameList                          no
Emphasis                                 no
EncryptedContainerLabel?                 no
EncryptedSourceValue?                    no
EncryptedTrackFileID?                    no
EndAnchor                                no
EndAnchor                                no
EnhancementOrModificationDescription     no
EnumerationUnderlyingIntegerType?        no
EpisodeEndNumber                         no
EpisodeNumber                            no
EpisodeNumber                            no
EpisodeStartNumber                       no
EpisodicItemSets?                        no
EssenceContainerArray?                   no
EssenceContainerDataSet                  MXF
EssenceContainerFormat?                  no
EssenceContainerFormat?                  no
EssenceContainers?                       no
EssenceData?                             no
EssenceDescription?                      no
EssenceIsIdentified                      no
EssenceLength                            no
EssenceLocators?                         no
EssenceStreamID                          no
Event                                    MXF
EventAbsoluteDuration                    no
EventAbsoluteDuration?                   no
EventAbsoluteDurationFrameCount          no
EventAnnotationSets?                     no
EventElapsedTimeToEnd                    no
EventElapsedTimeToStart                  no
EventEndTimeOffset                       no
EventEndTimecodeOffset?                  no
EventIndication                          no
EventIndication                          no
EventOrigin                              no
EventSets?                               no
EventStart                               no
EventStartTimeOffset                     no
EventStartTimecodeOffset?                no
```

EventTrack	MXF
EventTrackEditRate	no
ExCCIData?	no
ExposedAspectRatio	no
ExtendedCaptionsLanguageCode	no
ExtendedClipID	no
ExtendedClipIDArray?	no
ExtendedTextLanguageCode	no
ExtendibleElementNameList	no
FNumber	no
Fade-InDuration	no
Fade-InType?	no
Fade-OutDuration	no
Fade-OutType?	no
FamilyName	no
FamilyName	no
FaxNumber	no
FaxNumber	no
FemaleLeadActressName	no
FestivalName	no
FestivalName	no
FieldDominance	no
FieldFrameTypeCode	no
FieldOfViewHorizontal	no
FieldOfViewHorizontal	no
FieldOfViewVertical	no
FieldOfViewVerticalFP	no
FieldRate	no
FileDescriptor	MXF
FileDescriptors?	no
FileSecurityReport	no
FileSecurityWave	no
FillerData?	no
FilmBatchNumber	no
FilmBatchNumber	no
FilmCaptureAperture	no
FilmColorProcess	no
FilmFormatName	no
FilmFormatName	no
FilmFormatName?	no
FilmGauge?	no
FilmStockKind	no
FilmStockKind	no
FilmStockManufacturerName	no
FilmStockManufacturerName	no
FilmTestParameter	no
FilmTestResult	no
FilmTestResult?	no
FilmToVideoTransferDirection?	no
FilmToVideoTransferKind?	no
FilmToVideoTransferPhase?	no
FilteringApplied	no
FilteringCode	no
FirstBroadcastFlag	no

```
FirstGivenName                          no
FirstGivenName                          no
FirstNumberInSequence                   no
FirstNumberInSequence                   no
FirstTransmissionInfo                   no
FixedArrayElementType?                  no
FixedChannelStatusData?                 no
FixedUserData?                          no
FocalLength                             no
FocalLength                             no
Footer?                                 no
FormatDescriptor                        no
FormatDescriptor                        no
FormerFamilyName                        no
FormerFamilyName                        no
FrameCenterElevation                    no
FrameCenterLatitude                     no
FrameCenterLatitude                     no
FrameCenterLatitude                     no
FrameCenterLatitudeLongitude            no
FrameCenterLongitude                    no
FrameCenterLongitude                    no
FrameCenterLongitude                    no
FrameCode                               no
FrameCount                              no
FrameCountOffset                        no
FrameLayout                             no
FramePositionalAccuracy                 no
FrameRate                               no
FrameworkExtendedTextLanguageCode       no
FrameworkTextLanguageCode               no
FrameworkThesaurusName                  no
FrameworkThesaurusName                  no
FrameworkTitle                          no
FrameworkTitle                          no
GenerationCloneNumber                   no
GenerationCopyNumber                    no
GenerationID?                           no
GenericDataEssenceDescriptor            MXF
GenericPackage                          MXF
GenericPayloads?                        no
GenericPictureEssenceDescriptor         MXF
GenericSoundEssenceDescriptor           MXF
GenericTrack                            MXF
Genre                                   no
Genre                                   no
GeographicAreaNorthwest?                no
GeographicAreaSourceDatum               no
GeographicAreaSoutheast?                no
GeographicLocation?                     no
GeographicPolygonCoordinates?           no
GeographicPolygonSourceDatum            no
GeographicalCoordinates?                no
GlobalNumber                            no
```

```
GraphicKind                                 no
GraphicUsageKind                            no
GraphicUsageKind                            no
GroupRelationship                           MXF
GroupSet?                                   no
GroupSets?                                  no
GroupSynopsis                               no
GroupSynopsis                               no
HMACAlgorithmSHA1128?                       no
HTMLDOCTYPE                                 no
HTMLDOCTYPE                                 no
HTMLMetaDescription                         no
HTMLMetaDescription                         no
HardwareAcceleratorFlag                     no
HasAudioWatermark                           no
HasVideoWatermark                           no
HeaderByteCount                             no
HistoricalValue                             no
HonorsAndQualifications                     no
HonorsAndQualifications                     no
HorizontalActionSafePercentage              no
HorizontalDatum                             no
HorizontalGraphicsSafePercentage            no
HorizontalSubsampling                       no
IBTN?                                       no
IEEEDeviceID                                no
IEEEManufacturerID                          no
ISAN?                                       no
ISBD?                                       no
ISBN?                                       no
ISCI?                                       no
ISMN?                                       no
ISO3166CountryCode                          no
ISO639-1LanguageCode                        no
ISO639-1LanguageCode                        no
ISO639CaptionsLanguageCode                  no
ISO639TextLanguageCode                      no
ISRC?                                       no
ISRN?                                       no
ISSN?                                       no
ISTC?                                       no
ISWC?                                       no
IdenticalGOPIndicator                       no
Identification                              MXF
Identification                              MXF
IdentificationList?                         no
IdentificationSets?                         no
IdentificationUL?                           no
IdentifierIssuingAuthority                  no
IdentifierIssuingAuthority                  no
IdentifierKind                              no
IdentifierValue                             no
ImageAlignmentOffset                        no
ImageCategory                               no
```

```
ImageCoordinateSystem                       no
ImageEndOffset                              no
ImageFormatSet?                             no
ImageHeight                                 no
ImageSourceDeviceKind                       no
ImageSourceDeviceKind                       no
ImageStartOffset                            no
ImageWidth                                  no
IncludeSync                                 no
IndexByteCount                              no
IndexDuration                               no
IndexEditRate                               no
IndexEntryArray?                            no
IndexStreamID                               no
IndexTableSegment?                          no
IndexingStartPosition                       no
IndividualAwardName                         no
InkNumber                                   no
InputSegment?                               no
InputSegmentCount                           no
InputSegments?                              no
InsertMusicFlag                             no
InstallmentNumber                           no
InstanceUID?                                no
IntegrationIndication                       no
IntegrationIndication                       no
IntellectualPropertyDescription             no
IntellectualPropertyDescription             no
IntellectualPropertyLicenseCountryCode      no
IntellectualPropertyLicenseRegionCode       no
IntellectualPropertyLicenseRegionName       no
IntellectualPropertyRights                  no
IntellectualPropertyRights                  no
IntendedAFD                                 no
IntentDescriptor                            no
IntentDescriptor                            no
InterestedPartyName                         no
Interpolation?                              no
InterpolationDefinitions?                   no
IsConcrete                                  no
IsDubbed                                    no
IsLiveProduction                            no
IsLiveTransmission                          no
IsOptional                                  no
IsRecording                                 no
IsRepeat                                    no
IsSearchable                                no
IsSigned                                    no
IsUniqueIdentifier                          no
IsVoiceover                                 no
ItemDesignatorID?                           no
ItemID                                      no
ItemName                                    no
ItemName                                    no
```

```
ItemValue                                no
ItemValue                                no
JFIFMarkerDescription                    no
JFIFMarkerDescription                    no
JPEG2000PictureSubDescriptor             MXF
JPEGTableID?                             no
JobFunctionCode                          no
JobFunctionName                          no
JobFunctionName                          no
JobTitle                                 no
JobTitle                                 no
Jurisdiction                             no
Jurisdiction                             no
KAGSize                                  no
KLVDataDefinitions?                      no
KLVDataParentProperties?                 no
KLVDataType?                             no
KLVDataValue?                            no
KLVMetadataSequence?                     no
KeyCode?                                 no
KeyData                                  no
KeyDataOrProgram                         no
KeyFrame                                 no
KeyFrameSampleCount                      no
KeyFrames                                no
KeyPoint                                 MXF
KeyPointSets?                            no
KeySound                                 no
KeySounds                                no
KeyText                                  no
KeyTimePoint                             no
KeypointKind                             no
KeypointKind                             no
KeypointValue                            no
KeypointValue                            no
Keywords                                 no
Keywords                                 no
LUID                                     no
LanguageName                             no
LanguageName                             no
LastNumberInSequence                     no
LastNumberInSequence                     no
LayerNumber                              no
LeadingLines                             no
LengthSystemName                         no
LengthUnitKind                           no
LicenseOptionsDescription                no
LineNumber                               no
LinkedApplicationPlug-InInstanceID?      no
LinkedDescriptiveFrameworkPlug-InID?     no
LinkedDescriptiveObjectPlug-InID?        no
LinkedGenerationID?                      no
LinkedPackageID?                         no
LinkedTimecodeTrackID?                   no
```

LinkedTrackID	no
LinkingName	no
LinkingName	no
LocalCreationDateTime	no
LocalDatumAbsolutePositionAccuracy	no
LocalDatumRelativePositionAccuracy	no
LocalEndDateTime	no
LocalEventEndDateTime	no
LocalEventEndDateTime	no
LocalEventStartDateTime	no
LocalEventStartDateTime	no
LocalFestivalDateTime	no
LocalFilePath	no
LocalFilePath	no
LocalID	no
LocalLastModifyDate	no
LocalModifyDate	no
LocalStartDateTime	no
LocalTagEntries?	no
LocalTagUniqueID?	no
LocalTagValue	no
LocalTapeNumber	no
LocalTargetID	no
LocalTargetID	no
LocalUserDateTime	no
Location	MXF
LocationDescription	no
LocationDescription	no
LocationKind	no
LocationKind	no
LocationSets?	no
LockedIndicator	no
LogoFlag	no
LowDelayIndicator	no
LumaEquation	no
LuminanceSampleRate	no
MIC?	no
MICAlgorithm?	no
MIMECharSet	no
MIMECharSet	no
MIMEEncoding	no
MIMEEncoding	no
MIMEMediaType	no
MIMEMediaType	no
MPEG2VideoDescriptor	MXF
MPEG7BiMAccessUnitFrame1?	no
MPEG7BiMAccessUnitFrame2?	no
MPEG7BiMAccessUnitFrame3?	no
MPEG7BiMAccessUnitFrame4?	no
MPEG7BiMAccessUnitFrame5?	no
MPEG7BiMAccessUnitFrame6?	no
MPEG7BiMAccessUnitFrame7?	no
MPEG7BiMAccessUnitFrame8?	no
MPEG7BiMDecoderInitFrame1?	no

MPEG7BiMDecoderInitFrame2?	no
MPEG7BiMDecoderInitFrame3?	no
MPEG7BiMDecoderInitFrame4?	no
MPEG7BiMDecoderInitFrame5?	no
MPEG7BiMDecoderInitFrame6?	no
MPEG7BiMDecoderInitFrame7?	no
MPEG7BiMDecoderInitFrame8?	no
MPEGAudioBitrate	no
MPEGAudioRecodingDataset?	no
MPEGVideoRecodingDataset?	no
MagneticDiskNumber	no
MagneticTrack	no
MainCatalogNumber	no
MainName	no
MainName	no
MainSponsorName	no
MainTitle	no
MainTitle	no
MajorVersion	no
MaleLeadActorName	no
ManufacturerID?	no
ManufacturerInformationObject?	no
MapDatumUsed	no
MarkIn	no
MarkOut	no
MaterialAbsoluteDuration	no
MaterialAbsoluteDuration?	no
MaterialEndTimeOffset	no
MaterialEndTimecodeOffset?	no
MaterialPackage	MXF
MaximumAPIVersion	no
MaximumBPictureCount	no
MaximumGOPSize	no
MaximumSupportedEngineVersion	no
MaximumSupportedPlatformVersion	no
MaximumUseCount	no
MediaLocation	no
MemberNameList	no
MemberTypes?	no
MetadataEncodingSchemeCode	no
MetadataItemName	no
MetadataItemName	no
MetadataServerLocators?	no
MicrophonePlacementTechniques	no
MinimumAPIVersion	no
MinimumSupportedEngineVersion	no
MinimumSupportedPlatformVersion	no
MinorVersion	no
MissionID	no
MissionID	no
MobileTelephoneNumber	no
ModifyDate	no
MonoSourceTrackIDs	no
MultipleDescriptor	MXF

```
NITFLayerTargetID                       no
NITFLayerTargetID                       no
NMEADocumentText                        no
NOLACode                                no
NameSuffix                              no
NameSuffix                              no
NameValue                               MXF
NamespacePrefix                         no
NamespacePrefix                         no
NamespacePrefixes                       no
NamespacePrefixes                       no
NamespaceURI                            no
NamespaceURI                            no
NamespaceURIs                           no
NamespaceURIs                           no
Nationality                             no
Nationality                             no
NatureOfPersonality                     no
NatureOfPersonality                     no
NetworkLocator                          MXF
NextNumberInSequence                    no
NextNumberInSequence                    no
NielsenStreamIdentifier                 no
NominationCategory                      no
NominationCategory                      no
Non-USClassifyingCountryCode            no
ObjectAreaDimension                     no
ObjectClass?                            no
ObjectClassDefinition?                  no
ObjectCountryCode                       no
ObjectCountryCode                       no
ObjectCountryCodeMethod                 no
ObjectDescription                       no
ObjectDescription                       no
ObjectDescriptionCode                   no
ObjectHorizontalAverageDimension        no
ObjectIdentificationConfidence          no
ObjectKind                              no
ObjectKind                              no
ObjectModelVersion                      no
ObjectName                              no
ObjectRegionCode                        no
ObjectRegionName                        no
ObjectVerticalAverageDimension          no
ObliquityAngle                          no
OffsetToIndexTable                      no
OffsetToIndexTable                      no
OffsetToMetadata                        no
OffsetToMetadata                        no
OpenBodyPartition?                      no
OpenCompleteBodyPartition?              no
OpenCompleteHeader                      MXF Header
OpenHeader                              MXF Header
OperatingSystemInterpretations          no
```

```
OperationCategory?                              no
OperationDataDefinition?                        no
OperationDefinitionID?                          no
OperationDefinitions?                           no
OperationParameters?                            no
OperationalPatternUL?                           no
OpticalDiscNumber                               no
OpticalTestParameterName                        no
OpticalTestResult                               no
OpticalTestResult                               no
OpticalTrack                                    no
Organisation                                    MXF
OrganizationCode                                no
OrganizationCode                                no
OrganizationID                                  no
OrganizationID                                  no
OrganizationIDKind                              no
OrganizationIDKind                              no
OrganizationKind                                no
OrganizationKind                                no
OrganizationMainName                            no
OrganizationMainName                            no
OrganizationSets?                               no
OrganizationalProgramNumber                     no
OrganizationalProgramNumber                     no
Origin                                          no
OriginCode                                      no
OriginalExtendedSpokenPrimaryLanguageCode       no
OriginalProducerName                            no
OriginalProducerName                            no
OriginalTitle                                   no
OriginalTitle                                   no
OtherGivenNames                                 no
OtherGivenNames                                 no
OtherValues                                     no
PII?                                            no
POSIXMicroseconds                               no
PURL                                            no
PackLength                                      no
PackageAttributes?                              no
PackageID?                                      no
PackageKLVData?                                 no
PackageLastModifyDate                           no
PackageMarkInPosition                           no
PackageMarkOutPosition                          no
PackageMarker?                                  no
PackageName                                     no
PackageName                                     no
PackageTimelineMarkerRef?                       no
PackageTracks?                                  no
PackageUsageKind?                               no
PackageUserComments?                            no
Packages?                                       no
PaddingBits                                     no
```

```
Palette?                                no
PaletteLayout?                          no
PanScanInformation?                     no
ParameterDataType?                      no
ParameterDefinition?                    no
ParameterDefinitions?                   no
Parameters?                             no
ParentClass?                            no
Participant                             MXF
ParticipantID?                          no
ParticipantOrganizationSets?            no
PartitionMetadata?                      no
Password                                no
Password                                no
PayeeAccountName                        no
PayeeAccountNumber                      no
PayeeAccountSortCode                    no
PayerAccountName                        no
PayerAccountNumber                      no
PayerAccountSortCode                    no
PaymentDueDateTime                      no
PaymentsSets?                           no
PeakChannelCount                        no
PeakEnvelope                            no
PeakEnvelopeBlockSize                   no
PeakEnvelopeData?                       no
PeakEnvelopeData?                       no
PeakEnvelopeFormat                      no
PeakEnvelopeTimestamp                   no
PeakEnvelopeVersion                     no
PeakFrameCount                          no
PeakOfPeaksPosition                     no
PerceivedDisplayFormatCode              no
PerceivedDisplayFormatName              no
PerforationsPerFrame                    no
PerforationsPerFrame                    no
Person                                  MXF
PersonDescription                       no
PersonDescription                       no
PersonOrganizationSets?                 no
PersonSets?                             no
PhysicalInstanceKind                    no
PhysicalMediaLength?                    no
PhysicalMediaLocation                   no
PictureComponentSizing?                 no
PictureDisplayRate                      no
PictureFormat                           MXF
PixelLayout?                            no
PlaceKeyword                            no
PlaceKeyword                            no
PlaceName                               no
PlaceName                               no
PlaintextOffset                         no
PlatformDesignation                     no
```

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PlatformDesignation                         no
PlatformHeadingAngle                        no
PlatformModel                               no
PlatformPitchAngle                          no
PlatformRollAngle                           no
PlatformSerialNumber                        no
Plug-InAPIID?                               no
Plug-InCategoryID?                          no
Plug-InDefinitions?                         no
Plug-InEngineID?                            no
Plug-InLocatorSet?                          no
Plug-InPlatformID?                          no
PointsPerPeakValue                          no
PolarCharacteristic                         no
PosTableArray?                              no
PositionInSequence                          no
PositionTable?                              no
PositionTableCount                          no
PositionTableIndexing                       no
PositionWithinViewportImageXCoordinate      no
PositionWithinViewportImageYCoordinate      no
PostCodeForPostbox                          no
PostalCode                                  no
PostalCode                                  no
PostalTown                                  no
PostalTown                                  no
PostboxNumber                               no
Preface                                     MXF
PresentationAspectRatio                     no
PresentationGammaEquation                   no
PresentationGammaEquation?                  no
PresenterName                               no
PreviousNumberInSequence                    no
PreviousNumberInSequence                    no
PreviousRepeatNumber                        no
PrimaryExtendedSpokenLanguageCode           no
PrimaryOriginalLanguageCode                 no
PrimaryPackage?                             no
PrimarySpokenLanguageCode                   no
Primer                                      MXF
Processing                                  MXF
ProcessingSet?                              no
ProducerName                                no
ProductFormat                               no
ProductFormat                               no
ProductionFramework                         MXF
ProductionOrganizationRole                  no
ProductionOrganizationRole                  no
ProductionScriptReference                   no
ProductionScriptReference                   no
ProductionSettingPeriodSets?                no
ProfileAndLevel                             no
ProgramAwardName                            no
ProgramCommercialMaterialReference          no
```

```
ProgramIdentifier                       no
ProgramIdentifierString                 no
ProgramKind                             no
ProgramMaterialClassificationCode       no
ProgramNumber                           no
ProgramSupportMaterialReference         no
ProgrammingGroupKind                    no
ProgrammingGroupKind                    no
ProgrammingGroupTitle                   no
ProgrammingGroupTitle                   no
ProjectName                             no
ProjectName                             no
ProjectNumber                           no
ProjectSet?                             no
Projects                                MXF
Properties?                             no
PropertyType?                           no
Publication                             MXF
PublicationSets?                        no
PublishingMediumName                    no
PublishingMediumName                    no
PublishingOrganizationName              no
PublishingOrganizationName              no
PublishingRegionName                    no
PublishingRegionName                    no
PublishingServiceName                   no
PublishingServiceName                   no
PulldownFieldDominance                  no
PulldownSequence?                       no
PurchaserAccountName                    no
PurchaserAccountName                    no
PurchaserAccountNumber                  no
PurchaserIdentificationKind             no
PurchaserIdentificationValue            no
PurchasingDepartment                    no
PurchasingOrganizationName              no
Purpose                                 no
Purpose                                 no
QltyBasicData                           no
QltyBasicData                           no
QltyCueSheet                            no
QltyCueSheet                            no
QltyEndOfModulation                     no
QltyEndOfModulation                     no
QltyOperatorComment                     no
QltyOperatorComment                     no
QltyQualityEvent                        no
QltyQualityEvent                        no
QltyQualityParameter                    no
QltyQualityParameter                    no
QltyStartOfModulation                   no
QltyStartOfModulation                   no
QualityFlag                             no
QuantizationDefault?                    no
```

```
RGBAEssenceDescriptor                   MXF
RIFFChunkData?                          no
RIFFChunkID                             no
RIFFChunkLength                         no
RP217DataStreamPID                      no
RP217VideoStreamPID                     no
RandomIndexMetadata?                    no
RandomIndexMetadataV10?                 no
Rating                                  no
RecordedFormat                          no
RecordedFormat                          no
RecordedTrackNumber                     no
RecordingLabelName                      no
RecordingLabelName                      no
ReelOrRollNumber                        no
RegionCode                              no
RegionName                              no
RegionName                              no
RegisterAction                          no
RegisterAdministrationArray?            no
RegisterAdministrationNotes             no
RegisterAdministrationObject?           no
RegisterApproverName                    no
RegisterChildEntryArray?                no
RegisterCreationTime                    no
RegisterEditorName                      no
RegisterEntryAdministrationObject?      no
RegisterEntryArray?                     no
RegisterEntryStatus?                    no
RegisterItemDefiningDocumentName        no
RegisterItemDefinition                  no
RegisterItemHierarchyLevel              no
RegisterItemIntroductionVersion         no
RegisterItemName                        no
RegisterItemNotes                       no
RegisterItemOriginatorName              no
RegisterItemStatusChangeDateTime        no
RegisterItemSymbol?                     no
RegisterItemUL?                         no
RegisterKind?                           no
RegisterReleaseDateTime                 no
RegisterStatusKind?                     no
RegisterUserName                        no
RegisterUserTime                        no
RegisterVersion                         no
RegistrantName                          no
RelatedMaterialDescription              no
RelatedMaterialDescription              no
RelatedMaterialLocators?                no
RelativePositionInSequenceName          no
RelativePositionInSequenceOffset        no
RelativeScope                           no
RelativeTrack                           no
ReleasableCountryCode                   no
```

```
ReleasableCountryCode                   no
RenamedType?                            no
ResourceID?                             no
RestrictionsonUse                       no
ReversePlay                             no
ReversedByteOrder                       no
Rights                                  MXF
RightsComment                           no
RightsComment                           no
RightsConditionDescription              no
RightsConditionDescription              no
RightsManagementAuthority               no
RightsManagementAuthority               no
RightsSets?                             no
RightsStartDateTime                     no
RightsStopDateTime                      no
Rightsholder                            no
Rightsholder                            no
RoleName                                no
RoleName                                no
RoomNumber                              no
RoomNumber                              no
RoomOrSuiteName                         no
RoomOrSuiteName                         no
RootFormatVersion                       no
RootMetaDictionary?                     no
RootObjectDirectory?                    no
RootPreface?                            no
RoundedCaptureFilmFrameRate             no
RoundedTimecodeTimebase                 no
RoundingLaw                             no
RoundingMethodCode                      no
RoyaltyIncomeInformation                no
RoyaltyPaymentInformation               no
Rsiz                                    no
SDKVersion                              no
SICI?                                   no
SMPTE12MUserDateTime?                   no
SMPTE309MUserDateTime?                  no
SMPTE337MDataStreamNumber               no
SMPTEUL?                                no
SalesContractNumber                     no
Salutation                              no
Salutation                              no
SampleIndex?                            no
SampleRate                              no
SampledHeight                           no
SampledWidth                            no
SampledXOffset                          no
SampledYOffset                          no
SamplingHierarchyCode                   no
SamplingStructureCode                   no
ScanningDirection                       no
SceneFramework                          MXF
```

```
SceneNumber                                    no
SceneNumber                                    no
SceneSettingPeriodSets?                        no
SceneShotSets?                                 no
ScramblingKeyKind                              no
ScramblingKeyValue                             no
Scripting                                      MXF
ScriptingKind                                  no
ScriptingKind                                  no
ScriptingLocators?                             no
ScriptingSets?                                 no
ScriptingText                                  no
ScriptingText                                  no
SeasonEpisodeNumber                            no
SeasonEpisodeTitle                             no
SecondGivenName                                no
SecondGivenName                                no
SecondaryExtendedSpokenLanguageCode            no
SecondaryOriginalExtendedSpokenLanguageCode    no
SecondaryOriginalLanguageCode                  no
SecondarySpokenLanguageCode                    no
SecondaryTitle                                 no
SecondaryTitle                                 no
SectorSize                                     no
SecurityClassification                         no
SecurityClassification                         no
SecurityClassificationCaveats                  no
SecurityClassificationCaveats                  no
Selected?                                      no
SensorMode                                     no
SensorRollAngle                                no
SensorSize                                     no
SensorType                                     no
SensorTypeCode                                 no
Sequence?                                      no
SequenceOffset                                 no
SequenceSet                                    MXF
SeriesNumber                                   no
SeriesNumber                                   no
SeriesinaSeriesGroupCount                      no
SetElementType?                                no
SettingCityName                                no
SettingCityName                                no
SettingCountryCode                             no
SettingCountryName                             no
SettingCountryName                             no
SettingDateTime                                no
SettingDescription                             no
SettingDescription                             no
SettingPeriod                                  MXF
SettingPeriodDescription                       no
SettingPeriodDescription                       no
SettingPostalCode                              no
SettingPostalCode                              no
```

```
SettingRegionCode                       no
SettingRegionName                       no
SettingRoomNumber                       no
SettingRoomNumber                       no
SettingStateOrProvinceOrCountyName      no
SettingStateOrProvinceOrCountyName      no
SettingStreetName                       no
SettingStreetName                       no
SettingStreetNumberOrBuildingName       no
SettingStreetNumberOrBuildingName       no
SettingTownName                         no
SettingTownName                         no
ShimName                                no
ShootingCountryCode                     no
ShootingRegionCode                      no
ShootingRegionName                      no
Shot                                    MXF
ShotComment                             no
ShotComment                             no
ShotCommentKind                         no
ShotCommentKind                         no
ShotCueWordsSet?                        no
ShotDescription                         no
ShotDescription                         no
ShotDuration                            no
ShotList                                no
ShotLocationSets?                       no
ShotParticipantRoleSets?                no
ShotPersonSets?                         no
ShotStartPosition                       no
ShotTrackIDs                            no
SideNumber                              no
Signal-to-NoiseRatio                    no
SignalFormCode                          no
SignalStandard                          no
SignalStandard                          no
SignatureTuneFlag                       no
SimpleFlaggingCount                     no
SingleSequenceFlag                      no
Size                                    no
SlantRange                              no
SlateInformation                        no
SlateTitle                              no
SliceCount                              no
SliceNumber                             no
SliceOffsetList?                        no
Software-OnlySupportFlag                no
SourceClip?                             no
SourceContainerFormat?                  no
SourceImageCenterXCoordinate            no
SourceImageCenterYCoordinate            no
SourceIndex?                            no
SourceKey?                              no
SourceLength                            no
```

```
SourceOrganization                          no
SourceOrganization                          no
SourcePackage                               MXF
SourcePackageID?                            no
SourceSpecies?                              no
SourceTrackID                               no
SourceTrackIDs                              no
SourceValue?                                no
SpeedChangeEffectFlag                       no
SplicingMetadata?                           no
StartTimeRelativeToReference                no
StartTimeRelativeToReference                no
StartTimecode                               no
StartTimecodeRelativeToReference?           no
StateOrProvinceOrCountyName                 no
StateOrProvinceOrCountyName                 no
StaticTrack                                 MXF
StillFrame?                                 no
StorageDeviceKind                           no
StorageKind                                 no
StorageKind                                 no
StorageKindCode                             no
StorageMediaID                              no
StorageMediaKind                            no
StoredANCLineNumber                         no
StoredF2Offset                              no
StoredVBILineNumber                         no
StratumKind                                 no
StreamData?                                 no
StreamElementType?                          no
StreamID                                    no
StreamOffset                                no
StreamPositionIndicator                     no
StreamPositionIndicator                     no
StreamPositionIndicator                     no
StreamPositionIndicator                     no
StreetName                                  no
StreetName                                  no
StreetNumber                                no
StreetNumber                                no
StringElementType?                          no
StructuralComponent                         MXF
Sub-descriptors?                            no
SubDescriptor?                              no
SubDescriptors?                             no
SubjectAbsoluteHeading                      no
SubjectAbsoluteSpeed                        no
SubjectDistance                             no
SubjectName                                 no
SubjectName                                 no
SubjectRelativeHeading                      no
SubjectRelativePositionalAccuracy           no
SubjectRelativeSpeed                        no
SubtitleDatafileFlag                        no
```

```
SubtitlesPresent                        no
SupplementaryName                       no
SupplementaryName                       no
SupplementaryOrganizationName           no
SupplementaryOrganizationName           no
SupplierAccountName                     no
SupplierAccountName                     no
SupplierAccountNumber                   no
SupplierIdentificationKind              no
SupplierIdentificationValue             no
SupplyContractNumber                    no
SupplyingDepartmentName                 no
SupportOrAdministrationStatus           no
SupportOrAdministrationStatus           no
SupportOrganizationRole                 no
SupportOrganizationRole                 no
SystemNameOrNumber                      no
TIFFSummary?                            no
TaggedValueDefinitions?                 no
TaggedValueParentProperties?            no
TakeNumber                              no
TapeBatchNumber                         no
TapeBatchNumber                         no
TapeCapacity                            no
TapeFormat?                             no
TapeFormulation                         no
TapeFormulation                         no
TapeManufacturer                        no
TapeManufacturer                        no
TapePartitionCapacity                   no
TapeShellKind                           no
TapeShellKind                           no
TapeStock                               no
TapeStock                               no
TargetAudience                          no
TargetAudience                          no
TargetClassOfStrongReference?           no
TargetClassOfWeakReference?             no
TargetSet?                              no
TargetWidth                             no
TechnicalValue                          no
TelephoneNumber                         no
TelephoneNumber                         no
TeletextSubtitlesAvailable              no
TeletextSubtitlesFlag                   no
TemporalOffset                          no
TerminatingFillerData                   no
TextLocator                             MXF
TextlessBlackDuration                   no
TextlessMaterial                        no
TextualDescriptionKind                  no
TextualDescriptionKind                  no
Theme                                   no
Theme                                   no
```

```
ThemeMusicFlag                          no
ThesaurusName                           no
ThesaurusName                           no
ThirdGivenName                          no
ThirdGivenName                          no
TimePeriodName                          no
TimePeriodName                          no
TimeSystemOffset                        no
TimeUnitKind                            no
TimebaseReferenceTrackID                no
TimecodeArray?                          no
TimecodeComponent                       MXF
TimecodeCreationDateTime?               no
TimecodeEndDateTime?                    no
TimecodeEventEndDateTime?               no
TimecodeEventStartDateTime?             no
TimecodeKind                            no
TimecodeLastModifyDate?                 no
TimecodeModifyDate?                     no
TimecodeSourceKind                      no
TimecodeStartDateTime?                  no
TimecodeStreamData?                     no
TimecodeTimebase                        no
TimecodeTimebase                        no
TimecodeUserBitsFlag                    no
TimepointValue?                         no
TimingBiasCorrection                    no
TimingBiasCorrectionDescription         no
TitleKind                               no
TitleKind                               no
Titles                                  MXF
TitlesSets?                             no
ToleranceInterpolationMethod?           no
ToleranceMode?                          no
ToleranceWindow?                        no
ToolkitVersion                          no
TotalCurrencyAmount                     no
TotalEpisodeCount                       no
TotalIncome                             no
TotalLinesperFrame                      no
TotalNumberInSequence                   no
TotalPayment                            no
TotalSamplesperLine                     no
Track                                   MXF
TrackID                                 no
TrackName                               no
TrackName                               no
TrackNumber                             no
TrackNumberBatch                        no
Tracks?                                 no
TrafficID                               no
TrailingLines                           no
TranscriptReference                     no
TranscriptReference                     no
```

```
TransferFilmFrameRate                       no
TransitionEffect?                           no
TransmissionID                              no
TransportStreamID                           no
TripletSequenceNumber                       no
TypeDefinitionElementValueList              no
TypeDefinitionExtendibleElementValues?      no
TypeDefinitions?                            no
UCSEncoding                                 no
UPID?                                       no
UPN?                                        no
URL                                         no
URL                                         no
URL                                         no
URL                                         no
URN                                         no
UTCEndDateTime                              no
UTCEventEndDateTime                         no
UTCEventEndDateTime                         no
UTCEventStartDateTime                       no
UTCEventStartDateTime                       no
UTCInstantDateTime                          no
UTCInstantDateTime                          no
UTCLastModifyDate                           no
UTCLastModifyDate                           no
UTCStartDateTime                            no
UTCStartDateTime                            no
UTCUserDateTime                             no
UniformDataFlag                             no
UnknownBWFChunks?                           no
UpstreamAudioCompressionAlgorithm           no
UseDefaultValue                             no
UserDataMode?                               no
UserName                                    no
UserName                                    no
UserPosition                                no
V10IndexTableSegment?                       no
VBEEndOffset                                no
VBIDataDescriptor                           MXF
VBILineCount                                no
VBIPayloadByteArray                         no
VBIPayloadSampleCoding                      no
VBIPayloadSampleCount                       no
VBIWrappingType                             no
VC-1AverageBitrate                          no
VC-1BPictureCount                           no
VC-1CodedContentType                        no
VC-1IdenticalGOP                            no
VC-1InitializationMetadata?                 no
VC-1Level                                   no
VC-1MaximumBitrate                          no
VC-1MaximumGOP                              no
VC-1Profile                                 no
VC-1SingleSequence                          no
```

Value?	no
VariableArrayElementType?	no
VersionNumber	no
VersionNumberString	no
VersionNumberString	no
VersionTitle	no
VersionTitle	no
VerticalActionSafePercentage	no
VerticalDatum	no
VerticalGraphicsSafePercentage	no
VerticalSub-sampling	no
VideoAndFilmFrameRelationship	no
VideoAverageBitrate	no
VideoClipDuration	no
VideoCodingSchemeID	no
VideoColorKind	no
VideoCompressionAlgorithm	no
VideoDeviceKind	no
VideoDeviceParameterName	no
VideoDeviceParameterSetting	no
VideoFixedBitrate	no
VideoIndexArray?	no
VideoLineMap	no
VideoNoiseReductionAlgorithm	no
VideoOrImageCompressionAlgorithm	no
VideoPayloadIdentifier	no
VideoPayloadIdentifier2002	no
VideoTestParameter	no
VideoTestResult	no
VideoTestResult	no
VideoWatermarkKind	no
ViewportAspectRatio	no
ViewportHeight	no
ViewportImageCenterCCoordinate	no
ViewportImageCenterYCoordinate	no
ViewportWidth	no
VoiceTalentName	no
WAVESummary?	no
WaveAudioDescriptor	MXF
Weighting	no
WhiteReferenceLevel	no
Work-in-ProgressFlag	no
WorkingTitle	no
WorkingTitle	no
XMLDocumentText?	no
XMLDocumentText	no
XMLDocumentText	no
XMLDocumentText?	no
XOsiz	no
XTOsiz	no
XTsiz	no
Xsiz	no
YOsiz	no
YTOsiz	no

YTsiz	no
Ysiz	no

MXF Header Tags

Index1	Tag Name	Writable
0	MXFVersion	no
24	FooterPosition	no
32	HeaderSize	no

DV Tags

The following tags are extracted from DV videos.

Tag Name	Writable
AspectRatio	no
AudioBitsPerSample	no
AudioChannels	no
AudioSampleRate	no
Colorimetry	no
DateTimeOriginal	no
Duration	no
FrameRate	no
ImageHeight	no
ImageWidth	no
TotalBitrate	no
VideoFormat	no
VideoScanType	no

Flash Tags

The information below is extracted from SWF (Shockwave Flash) files. Tags with string ID's represent information extracted from the file header.

Tag ID	Tag Name	Writable
'Compressed'	Compressed	no
'Duration'	Duration	no
'FlashVersion'	FlashVersion	no
'FrameCount'	FrameCount	no
'FrameRate'	FrameRate	no
'ImageHeight'	ImageHeight	no
'ImageWidth'	ImageWidth	no
0x0045	FlashAttributes	no
0x004d	XMP	XMP

Flash FLV Tags

Information is extracted from the following packets in FLV (Flash Video) files.

Tag ID	Tag Name	Writable
0x0008	Audio	Flash Audio
0x0009	Video	Flash Video
0x0012	Meta	Flash Meta

Flash Audio Tags

Information extracted from the Flash Audio header.

Tag ID	Tag Name	Writable
'Bit0-3'	AudioEncoding	no
'Bit4-5'	AudioSampleRate	no
'Bit6'	AudioBitsPerSample	no
'Bit7'	AudioChannels	no

Flash Video Tags

Information extracted from the Flash Video header.

Tag ID	Tag Name	Writable
'Bit4-7'	VideoEncoding	no

Flash Meta Tags

Below are a few observed FLV Meta tags, but ExifTool will attempt to extract information from any tag found.

Tag ID	Tag Name	Writable
'audiocodecid'	AudioCodecID	no
'audiodatarate'	AudioBitrate	no
'audiodelay'	AudioDelay	no
'audiosamplerate'	AudioSampleRate	no
'audiosamplesize'	AudioSampleSize	no
'audiosize'	AudioSize	no
'bytelength'	ByteLength	no
'canSeekToEnd'	CanSeekToEnd	no
'canseekontime'	CanSeekOnTime	no
'createdby'	CreatedBy	no
'creationdate'	CreateDate	no
'cuePoints'	CuePoint	Flash CuePoint
'datasize'	DataSize	no
'duration'	Duration	no
'filesize'	FileSizeBytes	no
'framerate'	FrameRate	no
'hasAudio'	HasAudio	no
'hasCuePoints'	HasCuePoints	no
'hasKeyframes'	HasKeyFrames	no
'hasMetadata'	HasMetadata	no
'hasVideo'	HasVideo	no
'height'	ImageHeight	no
'httphostheader'	HTTPHostHeader	no
'keyframesFilepositions'	KeyFramePositions	no
'keyframesTimes'	KeyFramesTimes	no
'lastkeyframetimestamp'	LastKeyFrameTime	no
'lasttimestamp'	LastTimeStamp	no
'liveXML'	XMP	XMP
'metadatacreator'	MetadataCreator	no
'metadatadate'	MetadataDate	no
'pmsg'	Message	no
'purl'	URL	no
'sourcedata'	SourceData	no
'starttime'	StartTime	no
'stereo'	Stereo	no
'totaldatarate'	TotalDataRate	no

'totalduration'	TotalDuration	no
'videocodecid'	VideoCodecID	no
'videodatarate'	VideoBitrate	no
'videosize'	VideoSize	no
'width'	ImageWidth	no

Flash CuePoint Tags

These tag names are added to the CuePoint name to generate complete tag names like ‘‘CuePoint0Name’’.

Tag ID	Tag Name	Writable
'name'	Name	no
'parameters'	Parameter	Flash Parameter
'time'	Time	no
'type'	Type	no

Flash Parameter Tags

There are no pre-defined parameter tags, but ExifTool will extract any existing parameters, with tag names like ‘‘CuePoint0ParameterXxx’’.

Tag ID	Tag Name	Writable
[no tags known]		

Real Tags

ExifTool recognizes three basic types of Real audio/video files: 1) RealMedia (RM, RV and RMVB), 2) RealAudio (RA), and 3) Real Metafile (RAM and RPM).

Real Media Tags

These **Tag ID**’s are Chunk ID’s used in RealMedia and RealVideo (RM, RV and RMVB) files.

Tag ID	Tag Name	Writable
'CONT'	CONT	Real ContentDescr
'MDPR'	MDPR	Real MediaProps
'PROP'	PROP	Real Properties
'RJMD'	RJMD	Real Metadata

Real ContentDescr Tags

Sequence	Tag Name	Writable
0	TitleLen?	no
1	Title	no
2	AuthorLen?	no
3	Author	no
4	CopyrightLen?	no
5	Copyright	no
6	CommentLen?	no
7	Comment	no

Real MediaProps Tags

Sequence	Tag Name	Writable
0	StreamNumber	no
1	StreamMaxBitrate	no
2	StreamAvgBitrate	no
3	StreamMaxPacketSize	no
4	StreamAvgPacketSize	no
5	StreamStartTime	no
6	StreamPreroll	no
7	StreamDuration	no
8	StreamNameLen?	no
9	StreamName	no
10	StreamMimeLen?	no
11	StreamMimeType	no
12	FileInfoLen?	no
13	FileInfoLen2?	no
14	FileInfoVersion	no
15	PhysicalStreams?	no
16	PhysicalStreamNumbers?	no
17	DataOffsets?	no
18	NumRules?	no
19	PhysicalStreamNumberMap?	no
20	NumProperties?	no
21	FileInfoProperties	Real FileInfo

Real FileInfo Tags

The following tags have been observed in the FileInfo properties, but any other existing information will also be extracted.

Tag ID	Tag Name	Writable
'Audiences'	Audiences	no
'Audio Format'	AudioFormat	no
'Content Rating'	ContentRating	no
'Creation Date'	CreateDate	no
'Description'	Description	no
'File ID'	FileID	no
'Generated By'	Software	no
'Indexable'	Indexable	no
'Keywords'	Keywords	no
'Modification Date'	ModifyDate	no
'Target Audiences'	TargetAudiences	no
'Video Quality'	VideoQuality	no
'audioMode'	AudioMode	no
'videoMode'	VideoMode	no

Real Properties Tags

Sequence	Tag Name	Writable
0	MaxBitrate	no
1	AvgBitrate	no
2	MaxPacketSize	no
3	AvgPacketSize	no
4	NumPackets	no
5	Duration	no
6	Preroll	no
7	IndexOffset?	no
8	DataOffset?	no
9	NumStreams	no
10	Flags	no

Real Metadata Tags

The tags below represent information which has been observed in the Real Metadata format, but ExifTool will extract any information it finds in this format. (As far as I can tell from the referenced documentation, string values should be plain text, but this is not the case for the only sample file I have been able to obtain containing this information. These tags could also be split into separate sub-directories, but this will wait until I have better documentation or a more complete set of samples.)

Tag ID	Tag Name	Writable
'Album/Name'	AlbumName	no
'Track/Category'	TrackCategory	no
'Track/Comments'	TrackComments	no
'Track/Lyrics'	TrackLyrics	no

Real Audio Tags

Tags in the following table reference information extracted from various versions of RealAudio (RA) files.

Tag ID	Tag Name	Writable
'.ra3'	RA3	Real AudioV3
'.ra4'	RA4	Real AudioV4
'.ra5'	RA5	Real AudioV5

Real AudioV3 Tags

Sequence	Tag Name	Writable
0	Channels	no
1	Unknown?	no
2	BytesPerMinute	no
3	AudioBytes	no
4	TitleLen?	no
5	Title	no
6	ArtistLen?	no
7	Artist	no
8	CopyrightLen?	no
9	Copyright	no
10	CommentLen?	no
11	Comment	no

Real AudioV4 Tags

Sequence	Tag Name	Writable
0	FourCC1?	no
1	AudioFileSize?	no
2	Version2?	no
3	HeaderSize?	no
4	CodecFlavorID?	no
5	CodedFrameSize?	no
6	AudioBytes	no
7	BytesPerMinute	no
8	Unknown?	no
9	SubPacketH?	no
10	AudioFrameSize	no
11	SubPacketSize?	no
12	Unknown?	no
13	SampleRate	no
14	Unknown?	no
15	BitsPerSample	no
16	Channels	no
17	FourCC2Len?	no
18	FourCC2?	no
19	FourCC3Len?	no
20	FourCC3?	no
21	Unknown?	no
22	Unknown?	no
23	TitleLen?	no
24	Title	no
25	ArtistLen?	no
26	Artist	no
27	CopyrightLen?	no
28	Copyright	no
29	CommentLen?	no
30	Comment	no

Real AudioV5 Tags

Sequence	Tag Name	Writable
0	FourCC1?	no
1	AudioFileSize?	no
2	Version2?	no
3	HeaderSize?	no
4	CodecFlavorID?	no
5	CodedFrameSize?	no
6	AudioBytes	no
7	BytesPerMinute	no
8	Unknown?	no
9	SubPacketH?	no
10	FrameSize?	no
11	SubPacketSize?	no
12	SampleRate	no
13	SampleRate2?	no
14	BitsPerSample	no
15	Channels	no
16	Genr?	no
17	FourCC3?	no

Real Metafile Tags

Tags representing information extracted from Real Audio Metafile and RealMedia Plug-in Metafile (RAM and RPM) files.

Tag ID	Tag Name	Writable
'txt'	Text	no
'url'	URL	no

Red Tags

Tags extracted from Redcode R3D video files.

Tag ID	Tag Name	Writable
'RED1'	Red1Header	Red RED1
'RED2'	Red2Header	Red RED2
0x1000	StartEdgeCode	no
0x1001	StartTimecode	no
0x1002	OtherDate1	no
0x1003	OtherDate2	no
0x1004	OtherDate3	no
0x1005	DateTimeOriginal	no
0x1006	SerialNumber	no
0x1019	CameraType	no
0x101a	ReelNumber	no
0x101b	Take	no
0x1023	DateCreated	no
0x1024	TimeCreated	no
0x1025	FirmwareVersion	no
0x1029	ReelTimecode	no
0x102a	StorageType	no
0x1030	StorageFormatDate	no
0x1031	StorageFormatTime	no
0x1032	StorageSerialNumber	no
0x1033	StorageModel	no
0x1036	AspectRatio	no
0x1042	Revision	no
0x1056	OriginalFileName	no
0x106e	LensMake	no
0x106f	LensNumber	no
0x1070	LensModel	no
0x1071	Model	no
0x107c	CameraOperator	no
0x1086	VideoFormat	no
0x1096	Filter	no
0x10a0	Brain	no
0x10a1	Sensor	no
0x10be	Quality	no
0x200d	ColorTemperature	no
0x204b	RGBCurves	no
0x2066	OriginalFrameRate	no
0x4037	CropArea	no
0x403b	ISO	no
0x406a	FNumber	no
0x406b	FocalLength	no
0x606c	FocusDistance	no

Red RED1 Tags

Redcode version 1 header.

Index1	Tag Name	Writable
7	RedcodeVersion	no
54	ImageWidth	no
58	ImageHeight	no
62	FrameRate	no
67	OriginalFileName	no

Red RED2 Tags

Redcode version 2 header.

Index1	Tag Name	Writable
7	RedcodeVersion	no
76	ImageWidth	no
80	ImageHeight	no
86	FrameRate	no

AIFF Tags

Tags extracted from Audio Interchange File Format (AIFF) files. See <http://www−mmsp.ece.mcgill.ca/Documents/AudioFormats/AIFF/AIFF.html> for the AIFF specification.

Tag ID	Tag Name	Writable
'(c) '	Copyright	no
'ANNO'	Annotation	no
'APPL'	ApplicationData	no
'AUTH'	Author	no
'COMM'	Common	AIFF Common
'COMT'	Comment	AIFF Comment
'FVER'	FormatVersion	AIFF FormatVers
'ID3 '	ID3	ID3
'NAME'	Name	no

AIFF Common Tags

Index2	Tag Name	Writable
0	NumChannels	no
1	NumSampleFrames	no
3	SampleSize	no
4	SampleRate	no
9	CompressionType	no
11	CompressorName	no

AIFF Comment Tags

Tag ID	Tag Name	Writable
0x0000	CommentTime	no
0x0001	MarkerID	no
0x0002	Comment	no

AIFF FormatVers Tags

Index4	Tag Name	Writable
0	FormatVersionTime	no

ASF Tags

The ASF format is used by Windows WMA and WMV files, and DIVX videos. Tag ID's aren't listed because they are huge 128−bit GUID's that would ruin the formatting of this table.

Tag Name	Writable
SimpleIndex	no
TimecodeIndex	no
Header	ASF Header
Data	no
XMP	XMP
Index	no
MediaIndex	no

ASF Header Tags

Tag Name	Writable
Padding	no
ScriptCommand	no
ContentBranding	ASF ContentBranding
ContentEncryption	no
DigitalSignature	no
ExtendedContentEncryption	no
HeaderExtension	ASF HeaderExtension
ContentDescription	ASF ContentDescr
ErrorCorrection	no
StreamBitrateProps	no
CodecList	ASF CodecList
FileProperties	ASF FileProperties
StreamProperties	ASF StreamProperties
ExtendedContentDescr	ASF ExtendedDescr
BitrateMutualExclusion	no
Marker	no

ASF ContentBranding Tags

Tag Name	Writable
BannerImageType	no
BannerImage	no
BannerImageURL	no
CopyrightURL	no

ASF HeaderExtension Tags

Tag Name	Writable
ExtendedStreamProps	no
AdvancedContentEncryption	no
MetadataLibrary	ASF ExtendedDescr
TimecodeIndexParms	no
Compatibility	no
LanguageList	no
AdvancedMutualExcl	no
BandwidthSharing	no
Reserved1	no
Metadata	ASF ExtendedDescr
GroupMutualExclusion	no
StreamPrioritization	no
IndexParameters	no

ASF ExtendedDescr Tags

Tag Name	Writable
ASFLeakyBucketPairs	no
ASFPacketCount	no
ASFSecurityObjectsSize	no
AlbumArtist	no
AlbumCoverURL	no
AlbumTitle	no
AspectRatioX	no
AspectRatioY	no
AudioFileURL	no
AudioSourceURL	no
Author	no
AuthorURL	no
AverageLevel	no
BannerImageData	no
BannerImageType	no
BannerImageURL	no
BeatsPerMinute	no
Bitrate	no
Broadcast	no
BufferAverage	no
Can_Skip_Backward	no
Can_Skip_Forward	no
Category	no
Codec	no
Composer	no
Conductor	no
ContainerFormat	no
ContentDistributor	no
ContentGroupDescription	no
Copyright	no
CopyrightURL	no
CurrentBitrate	no
DRM	no
DRM_ContentID	no
DRM_DRMHeader	no
DRM_DRMHeader_ContentDistributor	no

```
DRM_DRMHeader_ContentID                    no
DRM_DRMHeader_IndividualizedVersion        no
DRM_DRMHeader_KeyID                        no
DRM_DRMHeader_LicenseAcqURL                no
DRM_DRMHeader_SubscriptionContentID        no
DRM_IndividualizedVersion                  no
DRM_KeyID                                  no
DRM_LASignatureCert                        no
DRM_LASignatureLicSrvCert                  no
DRM_LASignaturePrivKey                     no
DRM_LASignatureRootCert                    no
DRM_LicenseAcqURL                          no
DRM_V1LicenseAcqURL                        no
DVDID                                      no
Description                                no
Director                                   no
Duration                                   no
EncodedBy                                  no
EncodingSettings                           no
EncodingTime                               no
FileSize                                   no
Genre                                      no
GenreID                                    no
HasArbitraryDataStream                     no
HasAttachedImages                          no
HasAudio                                   no
HasFileTransferStream                      no
HasImage                                   no
HasScript                                  no
HasVideo                                   no
ISRC                                       no
InitialKey                                 no
IsVBR                                      no
Is_Protected                               no
Is_Trusted                                 no
Language                                   no
Lyrics                                     no
Lyrics_Synchronised                        no
MCDI                                       no
MediaClassPrimaryID                        no
MediaClassSecondaryID                      no
MediaCredits                               no
MediaIsDelay                               no
MediaIsFinale                              no
MediaIsLive                                no
MediaIsPremiere                            no
MediaIsRepeat                              no
MediaIsSAP                                 no
MediaIsStereo                              no
MediaIsSubtitled                           no
MediaIsTape                                no
MediaNetworkAffiliation                    no
MediaOriginalBroadcastDateTime             no
MediaOriginalChannel                       no
```

MediaStationCallSign	no
MediaStationName	no
ModifiedBy	no
Mood	no
NSC_Address	no
NSC_Description	no
NSC_Email	no
NSC_Name	no
NSC_Phone	no
NumberOfFrames	no
OptimalBitrate	no
OriginalAlbumTitle	no
OriginalArtist	no
OriginalFileName	no
OriginalLyricist	no
OriginalReleaseTime	no
OriginalReleaseYear	no
ParentalRating	no
ParentalRatingReason	no
PartOfSet	no
PeakBitrate	no
PeakValue	no
Period	no
Picture	ASF Picture
PlaylistDelay	no
Producer	no
PromotionURL	no
ProtectionType	no
Provider	no
ProviderCopyright	no
ProviderRating	no
ProviderStyle	no
Publisher	no
RadioStationName	no
RadioStationOwner	no
Rating	no
Seekable	no
SharedUserRating	no
Signature_Name	no
StreamTypeInfo	no
Stridable	no
Subtitle	no
SubtitleDescription	no
SubscriptionContentID	no
Text	no
Title	no
ToolName	no
ToolVersion	no
Track	no
TrackNumber	no
UniqueFileIdentifier	no
UserWebURL	no
VBRPeak	no
VideoClosedCaptioning	no

VideoFrameRate	no
VideoHeight	no
VideoWidth	no
WMADRCAverageReference	no
WMADRCAverageTarget	no
WMADRCPeakReference	no
WMADRCPeakTarget	no
WMCollectionGroupID	no
WMCollectionID	no
WMContentID	no
Writer	no
Year	no

ASF Picture Tags

Tag Name	Writable
PictureType	no
PictureMIMEType	no
PictureDescription	no
Picture	no

ASF ContentDescr Tags

Tag Name	Writable
Title	no
Author	no
Copyright	no
Description	no
Rating	no

ASF CodecList Tags

Tag Name	Writable
AudioCodecDescription	no
AudioCodecName	no
OtherCodecDescription	no
OtherCodecName	no
VideoCodecDescription	no
VideoCodecName	no

ASF FileProperties Tags

Index1	Tag Name	Writable
0	FileID	no
16	FileLength	no
24	CreationDate	no
32	DataPackets	no
40	Duration	no
48	SendDuration	no
56	Preroll	no
64	Flags	no
68	MinPacketSize	no
72	MaxPacketSize	no
76	MaxBitrate	no

ASF StreamProperties Tags

Tags with index 54 and greater are conditional based on the StreamType.

Index1	Tag Name	Writable
0	StreamType	no
16	ErrorCorrectionType	no
32	TimeOffset	no
48	StreamNumber	no
54	AudioCodecID	no
	ImageWidth	no
56	AudioChannels	no
58	AudioSampleRate	no
	ImageHeight	no

TNEF Tags

Information extracted from Transport Neutral Encapsulation Format (TNEF) files (eg. winmail.dat). But note that the exiftool application doesn't process files with a .DAT extension by default when a directory name is given, so in this case either specify the .DAT file(s) by name or add `-ext+ dat` to the command.

Tag ID	Tag Name	Writable
0x8000	From	no
0x18004	Subject	no
0x18009	MessageID	no
0x18010	AttachTitle	no
0x2800c	MessageBody	no
0x30006	StartDate	no
0x30007	EndDate	no
0x38005	SentDate	no
0x38006	ReceivedDate	no
0x38012	AttachCreateDate	no
0x38013	AttachModifyDate	no
0x38020	MessageModifyDate	no
0x40009	ResponseRequested	no
0x4800d	Priority	no
0x50008	OwnerAppointmentID	no
0x60000	Owner	no
0x60001	SentFor	no
0x60002	Delegate	no
0x68007	MessageStatus	no
0x6800f	AttachData	no
0x68011	AttachMetaFile	no
0x69001	AttachTransportFilename	no
0x69002	AttachRenderingData	no
0x69003	MessageProps	TNEF MsgProps
0x69004	RecipientTable	no
0x69005	AttachInfo	TNEF AttachInfo
0x69007	CodePage	no
0x70600	OriginalMessageClass	no
0x78008	MessageClass	no
0x89006	TNEFVersion	no

TNEF MsgProps Tags

Tag ID	Tag Name	Writable
0x0002	AlternateRecipientAllowed	no
0x0039	ClientSubmitTime	no
0x0040	ReceivedByName	no
0x0044	ReceivedRepresentingName	no
0x004d	OriginalAuthorName	no
0x0055	OriginalDeliveryTime	no
0x0070	Subject	no
0x0075	ReceivedByAddressType	no
0x0076	ReceivedByEmailAddress	no
0x0077	ReceivedRepresentingAddressType	no
0x0078	ReceivedRepresentingEmailAddress	no
0x007f	CorrelationKey	no
0x0c1a	SenderName	no
0x0c1d	SenderSearchKey	no
0x0e06	MessageDeliveryTime	no
0x0e1d	NormalizedSubject	no
0x0e28	PrimarySendAccount	no
0x0e29	NextSendAccount	no
0x0f02	DeliveryOrRenewTime	no
0x1000	MessageBodyText	no
0x1007	SyncBodyCount	no
0x1008	SyncBodyData	no
0x1009	MessageBodyRTF	no
0x1013	MessageBodyHTML	no
0x1035	InternetMessageID	no
0x10f4	Hidden	no
0x10f6	ReadOnly	no
0x3007	CreateDate	no
0x3008	ModifyDate	no
0x3fde	InternetCodePage	no
0x3ff1	LocalUserID	no
0x3ff8	CreatorName	no
0x3ffa	LastModifierName	no
0x3ffd	MessageCodePage	no
0x4076	SpamConfidenceLevel	no
'00020329_Author'	Author	no
'00020329_LastAuthor'	LastAuthor	no
'00062004_0000801A'	HomeAddress	no
'00062004_000080DA'	HomeAddressCountryCode	no
'00062008_00008554'	AppVersion	no

TNEF AttachInfo Tags

Tag ID	Tag Name	Writable
0x0e20	AttachSize	no
0x0e21	AttachNum	no
0x0ff8	MappingSignature?	no
0x3001	AttachFileName	no
0x3701	AttachBinary	no
0x3703	AttachFileExtension	no
0x3705	AttachMethod	no
0x3707	AttachLongFileName	no
0x3708	AttachPathName	no

0x370d	AttachLongPathName	no
0x370e	AttachMIMEType	no
0x7ffb	ExceptionStartTime?	no
0x7ffc	ExceptionEndTime?	no

WTV Tags

Tags found in Windows recorded TV (WTV) videos.

Tag ID	Tag Name	Writable
'table.0.entries.legacy_attrib'	Metdata	WTV Metadata

WTV Metadata Tags

ExifTool will extract any tag found, even if not in this table.

Tag Name	Writable
ATSCContent	no
ActualSoftPostPadding	no
ActualSoftPrePadding	no
Bitrate?	no
BrandingImageID	no
BrandingName	no
ContentProtected	no
ContentProtectedPercent	no
DTVContent	no
Duration	no
EncodeTime	no
EndTime	no
ExpirationDate?	no
ExpirationSpan?	no
Genre	no
HDContent	no
HardPostPadding	no
HardPrePadding	no
InBandRatingAttributes	no
InBandRatingLevel	no
InBandRatingSystem	no
KeepUntil	no
Language	no
MediaClassPrimaryID	no
MediaClassSecondaryID	no
MediaCredits	no
MediaIsDelay	no
MediaIsFinale	no
MediaIsLive	no
MediaIsMovie	no
MediaIsPremiere	no
MediaIsRepeat	no
MediaIsSAP	no
MediaIsSport	no
MediaIsStereo	no
MediaIsSubtitled	no
MediaIsTape	no
MediaNetworkAffiliation	no
MediaOriginalBroadcastDateTime	no

MediaOriginalChannel	no
MediaOriginalChannelSubNumber	no
MediaOriginalRunTime	no
MediaStationCallSign	no
MediaStationName	no
MediaThumbAspectRatioX	no
MediaThumbAspectRatioY	no
MediaThumbHeight	no
MediaThumbRatingAttributes	no
MediaThumbRatingLevel	no
MediaThumbRatingSystem	no
MediaThumbRet	no
MediaThumbStride	no
MediaThumbTimeStamp?	no
MediaThumbWidth	no
OriginalReleaseTime	no
OriginalSoftPostPadding	no
OriginalSoftPrePadding	no
ParentalRating	no
ParentalRatingReason	no
ProgramID	no
Provider	no
ProviderCopyright	no
ProviderRating	no
Quality	no
RequestID	no
ScheduleItemID	no
SeriesUID	no
ServiceID	no
Subtitle	no
SubtitleDescription	no
Title	no
VideoClosedCaptioning	no
Watched	no

DICOM Tags

The DICOM (Digital Imaging and Communications in Medicine) format is based on the ACR-NEMA specification, but adds a file header and a number of new tags. ExifTool will extract information from either type of file. The Tag ID's in the following table are the tag group and element numbers in hexadecimal, as given in the DICOM specification (see <https://www.dicomstandard.org/current>). The table below contains tags from the DICOM 2026b and earlier specifications plus some vendor-specific private tags.

Note that DICOM information may be saved in other file formats using the XMP DICOM Tags.

Tag ID	Tag Name	Writable
0002,0000	FileMetaInfoGroupLength	no
0002,0001	FileMetaInfoVersion	no
0002,0002	MediaStorageSOPClassUID	no
0002,0003	MediaStorageSOPInstanceUID	no
0002,0010	TransferSyntaxUID	no
0002,0012	ImplementationClassUID	no
0002,0013	ImplementationVersionName	no
0002,0016	SourceApplicationEntityTitle	no
0002,0017	SendingApplicationEntityTitle	no

```
0002,0018  ReceivingApplicationEntityTitle    no
0002,0026  SourcePresentationAddress          no
0002,0027  SendingPresentationAddress         no
0002,0028  ReceivingPresentationAddress       no
0002,0031  RTVMetaInformationVersion          no
0002,0032  RTVCommunicationSOPClassUID        no
0002,0033  RTVCommunicationSOPInstanceUID     no
0002,0035  RTVSourceIdentifier                no
0002,0036  RTVFlowIdentifier                  no
0002,0037  RTVFlowRTPSamplingRate             no
0002,0038  RTVFlowActualFrameDuration         no
0002,0100  PrivateInformationCreatorUID       no
0002,0102  PrivateInformation                 no
0004,1130  FileSetID                          no
0004,1141  FileSetDescriptorFileID           no
0004,1142  SpecificCharacterSetOfFile        no
0004,1200  FirstDirectoryRecordOffset        no
0004,1202  LastDirectoryRecordOffset         no
0004,1212  FileSetConsistencyFlag            no
0004,1220  DirectoryRecordSequence           no
0004,1400  OffsetOfNextDirectoryRecord       no
0004,1410  RecordInUseFlag                    no
0004,1420  LowerLevelDirectoryEntityOffset   no
0004,1430  DirectoryRecordType               no
0004,1432  PrivateRecordUID                  no
0004,1500  ReferencedFileID                  no
0004,1504  MRDRDirectoryRecordOffset         no
0004,1510  ReferencedSOPClassUIDInFile       no
0004,1511  ReferencedSOPInstanceUIDInFile    no
0004,1512  ReferencedTransferSyntaxUIDInFile  no
0004,151A  ReferencedRelatedSOPClassUIDInFile no
0004,1600  NumberOfReferences                 no
0006,0001  CurrentFrameFunctionalGroupsSeq    no
0008,0000  IdentifyingGroupLength             no
0008,0001  LengthToEnd                        no
0008,0005  SpecificCharacterSet               no
0008,0006  LanguageCodeSequence               no
0008,0008  ImageType                          no
0008,0010  RecognitionCode                    no
0008,0012  InstanceCreationDate               no
0008,0013  InstanceCreationTime               no
0008,0014  InstanceCreatorUID                 no
0008,0015  InstanceCoercionDateTime           no
0008,0016  SOPClassUID                        no
0008,0017  AcquisitionUID                     no
0008,0018  SOPInstanceUID                     no
0008,0019  PyramidUID                         no
0008,001A  RelatedGeneralSOPClassUID          no
0008,001B  OriginalSpecializedSOPClassUID     no
0008,001C  SyntheticData                      no
0008,001D  SensitiveContentCodeSequence       no
0008,0020  StudyDate                          no
0008,0021  SeriesDate                         no
0008,0022  AcquisitionDate                    no
```

```
0008,0023  ContentDate                          no
0008,0024  OverlayDate                          no
0008,0025  CurveDate                            no
0008,002A  AcquisitionDateTime                  no
0008,0030  StudyTime                            no
0008,0031  SeriesTime                           no
0008,0032  AcquisitionTime                      no
0008,0033  ContentTime                          no
0008,0034  OverlayTime                          no
0008,0035  CurveTime                            no
0008,0040  DataSetType                          no
0008,0041  DataSetSubtype                       no
0008,0042  NuclearMedicineSeriesType           no
0008,0050  AccessionNumber                      no
0008,0051  IssuerOfAccessionNumberSequence     no
0008,0052  QueryRetrieveLevel                   no
0008,0053  QueryRetrieveView                    no
0008,0054  RetrieveAETitle                      no
0008,0055  StationAETitle                       no
0008,0056  InstanceAvailability                no
0008,0058  FailedSOPInstanceUIDList            no
0008,0060  Modality                             no
0008,0061  ModalitiesInStudy                   no
0008,0062  SOPClassesInStudy                   no
0008,0063  AnatomicRegionsInStudyCodeSequence no
0008,0064  ConversionType                      no
0008,0068  PresentationIntentType              no
0008,0070  Manufacturer                         no
0008,0080  InstitutionName                      no
0008,0081  InstitutionAddress                  no
0008,0082  InstitutionCodeSequence             no
0008,0090  ReferringPhysicianName              no
0008,0092  ReferringPhysicianAddress           no
0008,0094  ReferringPhysicianTelephoneNumber   no
0008,0096  ReferringPhysicianIDSequence        no
0008,009C  ConsultingPhysicianName             no
0008,009D  ConsultingPhysicianIDSequence       no
0008,0100  CodeValue                            no
0008,0101  ExtendedCodeValue                    no
0008,0102  CodingSchemeDesignator               no
0008,0103  CodingSchemeVersion                  no
0008,0104  CodeMeaning                          no
0008,0105  MappingResource                      no
0008,0106  ContextGroupVersion                  no
0008,0107  ContextGroupLocalVersion             no
0008,0108  ExtendedCodeMeaning                  no
0008,0109  CodingSchemeResourcesSequence       no
0008,010A  CodingSchemeURLType                  no
0008,010B  ContextGroupExtensionFlag            no
0008,010C  CodingSchemeUID                      no
0008,010D  ContextGroupExtensionCreatorUID     no
0008,010E  CodingSchemeURL                      no
0008,010F  ContextIdentifier                    no
0008,0110  CodingSchemeIDSequence               no
```

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0008,0112  CodingSchemeRegistry               no
0008,0114  CodingSchemeExternalID             no
0008,0115  CodingSchemeName                   no
0008,0116  ResponsibleOrganization            no
0008,0117  ContextUID                         no
0008,0118  MappingResourceUID                 no
0008,0119  LongCodeValue                      no
0008,0120  URNCodeValue                       no
0008,0121  EquivalentCodeSequence             no
0008,0122  MappingResourceName               no
0008,0123  ContextGroupIDSequence            no
0008,0124  MappingResourceIDSequence         no
0008,0201  TimezoneOffsetFromUTC             no
0008,0220  ResponsibleGroupCodeSequence      no
0008,0221  EquipmentModality                 no
0008,0222  ManufacturerRelatedModelGroup     no
0008,0300  PrivateDataElementCharacteristics  no
0008,0301  PrivateGroupReference             no
0008,0302  PrivateCreatorReference           no
0008,0303  BlockIdentifyingInformationStatus  no
0008,0304  NonidentifyingPrivateElements     no
0008,0305  DeidentificationActionSequence    no
0008,0306  IdentifyingPrivateElements        no
0008,0307  DeidentificationAction            no
0008,0308  PrivateDataElement                no
0008,0309  PrivateDataElementValueMult       no
0008,030A  PrivateDataElementValueRep        no
0008,030B  PrivateDataElementNumberOfItems   no
0008,030C  PrivateDataElementName            no
0008,030D  PrivateDataElementKeyword         no
0008,030E  PrivateDataElementDescription     no
0008,030F  PrivateDataElementEncoding        no
0008,0310  PrivateDataElementDefinitionSeq   no
0008,0400  ScopeOfInventorySequence          no
0008,0401  InventoryPurpose                  no
0008,0402  InventoryInstanceDescription      no
0008,0403  InventoryLevel                    no
0008,0404  ItemInventoryDateTime             no
0008,0405  RemovedFromOperationalUse         no
0008,0406  ReasonForRemovalCodeSequence      no
0008,0407  StoredInstanceBaseURI             no
0008,0408  FolderAccessURI                   no
0008,0409  FileAccessURI                     no
0008,040A  ContainerFileType                 no
0008,040B  FilenameInContainer               no
0008,040C  FileOffsetInContainer             no
0008,040D  FileLengthInContainer             no
0008,040E  StoredInstanceTransferSyntaxUID   no
0008,040F  ExtendedMatchingMechanisms        no
0008,0410  RangeMatchingSequence             no
0008,0411  ListOfUIDMatchingSequence         no
0008,0412  EmptyValueMatchingSequence        no
0008,0413  GeneralMatchingSequence           no
0008,0414  RequestedStatusInterval           no
```

```
0008,0415  RetainInstances                    no
0008,0416  ExpirationDateTime                 no
0008,0417  TransactionStatus                  no
0008,0418  TransactionStatusComment           no
0008,0419  FileSetAccessSequence              no
0008,041A  FileAccessSequence                 no
0008,041B  RecordKey                          no
0008,041C  PriorRecordKey                     no
0008,041D  MetadataSequence                   no
0008,041E  UpdatedMetadataSequence            no
0008,041F  StudyUpdateDateTime                no
0008,0420  InventoryAccessEndPointsSequence   no
0008,0421  StudyAccessEndPointsSequence       no
0008,0422  IncorporatedInventoryInstanceSeq   no
0008,0423  InventoriedStudiesSequence         no
0008,0424  InventoriedSeriesSequence          no
0008,0425  InventoriedInstancesSequence       no
0008,0426  InventoryCompletionStatus          no
0008,0427  NumberOfStudyRecordsInInstance     no
0008,0428  TotalNumberOfStudyRecords          no
0008,0429  MaximumNumberOfRecords             no
0008,1000  NetworkID                          no
0008,1010  StationName                        no
0008,1030  StudyDescription                   no
0008,1032  ProcedureCodeSequence             no
0008,103E  SeriesDescription                  no
0008,103F  SeriesDescriptionCodeSequence      no
0008,1040  InstitutionalDepartmentName       no
0008,1041  InstitutionalDepartmentTypeCodeSeq no
0008,1048  PhysiciansOfRecord                 no
0008,1049  PhysiciansOfRecordIDSequence      no
0008,1050  PerformingPhysicianName           no
0008,1052  PerformingPhysicianIDSequence     no
0008,1060  NameOfPhysicianReadingStudy       no
0008,1062  PhysicianReadingStudyIDSequence   no
0008,1070  OperatorsName                     no
0008,1072  OperatorIDSequence               no
0008,1080  AdmittingDiagnosesDescription    no
0008,1084  AdmittingDiagnosesCodeSequence    no
0008,1088  PyramidDescription               no
0008,1090  ManufacturersModelName           no
0008,1100  ReferencedResultsSequence        no
0008,1110  ReferencedStudySequence          no
0008,1111  ReferencedProcedureStepSequence  no
0008,1112  ReferencedInstancesBySOPClassSe  no
0008,1115  ReferencedSeriesSequence         no
0008,1120  ReferencedPatientSequence        no
0008,1125  ReferencedVisitSequence          no
0008,1130  ReferencedOverlaySequence        no
0008,1134  ReferencedStereometricInstanceSeq no
0008,113A  ReferencedWaveformSequence       no
0008,1140  ReferencedImageSequence          no
0008,1145  ReferencedCurveSequence          no
0008,114A  ReferencedInstanceSequence       no
```

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0008,114B  ReferencedRealWorldValueMappingSeq no
0008,114C  ReferencedSegmentationSequence     no
0008,114D  ReferencedSurfaceSegmentationSeq   no
0008,1150  ReferencedSOPClassUID              no
0008,1155  ReferencedSOPInstanceUID           no
0008,1156  DefinitionSourceSequence           no
0008,115A  SOPClassesSupported                no
0008,1160  ReferencedFrameNumber              no
0008,1161  SimpleFrameList                    no
0008,1162  CalculatedFrameList               no
0008,1163  TimeRange                          no
0008,1164  FrameExtractionSequence           no
0008,1167  MultiFrameSourceSOPInstanceUID    no
0008,1190  RetrieveURL                       no
0008,1195  TransactionUID                     no
0008,1196  WarningReason                     no
0008,1197  FailureReason                     no
0008,1198  FailedSOPSequence                 no
0008,1199  ReferencedSOPSequence             no
0008,119A  OtherFailuresSequence             no
0008,119B  FailedStudySequence               no
0008,1200  OtherReferencedStudiesSequence    no
0008,1250  RelatedSeriesSequence             no
0008,1301  PrincipalDiagnosisCodeSequence    no
0008,1302  PrimaryDiagnosisCodeSequence      no
0008,1303  SecondaryDiagnosesCodeSequence    no
0008,1304  HistologicalDiagnosesCodeSequence  no
0008,2110  LossyImageCompression             no
0008,2111  DerivationDescription             no
0008,2112  SourceImageSequence               no
0008,2120  StageName                         no
0008,2122  StageNumber                       no
0008,2124  NumberOfStages                    no
0008,2127  ViewName                         no
0008,2128  ViewNumber                       no
0008,2129  NumberOfEventTimers              no
0008,212A  NumberOfViewsInStage             no
0008,2130  EventElapsedTimes                no
0008,2132  EventTimerNames                  no
0008,2133  EventTimerSequence               no
0008,2134  EventTimeOffset                  no
0008,2135  EventCodeSequence                no
0008,2142  StartTrim                        no
0008,2143  StopTrim                         no
0008,2144  RecommendedDisplayFrameRate      no
0008,2200  TransducerPosition               no
0008,2204  TransducerOrientation            no
0008,2208  AnatomicStructure                no
0008,2218  AnatomicRegionSequence           no
0008,2220  AnatomicRegionModifierSequence   no
0008,2228  PrimaryAnatomicStructureSequence  no
0008,2229  AnatomicStructureOrRegionSequence  no
0008,2230  AnatomicStructureModifierSequence  no
0008,2240  TransducerPositionSequence        no
```

```
0008,2242  TransducerPositionModifierSequence no
0008,2244  TransducerOrientationSequence      no
0008,2246  TransducerOrientationModifierSeq   no
0008,2251  AnatomicStructOrRegionCodeSeqTrial no
0008,2253  AnatomicEntrancePortalCodeSeqTrial no
0008,2255  AnatomicApproachDirCodeSeqTrial    no
0008,2256  AnatomicPerspectiveDescrTrial      no
0008,2257  AnatomicPerspectiveCodeSeqTrial    no
0008,2258  AnatomicLocationExamInstrDescTrial no
0008,2259  AnatomicLocExamInstrCodeSeqTrial   no
0008,225A  AnatomicStructRegnModCodeSeqTrial  no
0008,225C  OnAxisBkgAnatomyStructCodeSeqTrial no
0008,3001  AlternateRepresentationSequence    no
0008,3002  AvailableTransferSyntaxUID         no
0008,3010  IrradiationEventUID                no
0008,3011  SourceIrradiationEventSequence     no
0008,3012  RadiopharmaceuticalAdminEventUID   no
0008,4000  IdentifyingComments                no
0008,9007  FrameType                          no
0008,9092  ReferencedImageEvidenceSequence    no
0008,9121  ReferencedRawDataSequence          no
0008,9123  CreatorVersionUID                  no
0008,9124  DerivationImageSequence            no
0008,9154  SourceImageEvidenceSequence        no
0008,9205  PixelPresentation                  no
0008,9206  VolumetricProperties              no
0008,9207  VolumeBasedCalculationTechnique    no
0008,9208  ComplexImageComponent             no
0008,9209  AcquisitionContrast               no
0008,9215  DerivationCodeSequence            no
0008,9237  GrayscalePresentationStateSequence no
0008,9410  ReferencedOtherPlaneSequence       no
0008,9458  FrameDisplaySequence              no
0008,9459  RecommendedDisplayFrameRateInFloat no
0008,9460  SkipFrameRangeFlag                 no
0009,1001  FullFidelity                       no
0009,1002  SuiteID                            no
0009,1004  ProductID                          no
0009,1027  ImageActualDate                   no
0009,1030  ServiceID                          no
0009,1031  MobileLocationNumber              no
0009,10E3  EquipmentUID                       no
0009,10E6  GenesisVersionNow                  no
0009,10E7  ExamRecordChecksum                 no
0009,10E9  ActualSeriesDataTimeStamp          no
0010,0000  PatientGroupLength                 no
0010,0010  PatientName                        no
0010,0011  PersonNamesToUseSequence           no
0010,0012  NameToUse                          no
0010,0013  NameToUseComment                   no
0010,0014  ThirdPersonPronounsSequence        no
0010,0015  PronounCodeSequence                no
0010,0016  PronounComment                     no
0010,0020  PatientID                          no
```

```
0010,0021  IssuerOfPatientID                 no
0010,0022  TypeOfPatientID                   no
0010,0024  IssuerOfPatientIDQualifiersSeq    no
0010,0026  SourcePatientGroupIDSeq           no
0010,0027  GroupOfPatientsIdentificationSeq  no
0010,0028  SubjectRelativePositionInImage    no
0010,0030  PatientBirthDate                  no
0010,0032  PatientBirthTime                  no
0010,0033  PatientBirthDateInAltCalendar     no
0010,0034  PatientDeathDateInAltCalendar     no
0010,0035  PatientAlternativeCalendar        no
0010,0040  PatientSex                        no
0010,0041  GenderIdentitySequence            no
0010,0042  SexParamsForClinicalUseCategoryCom no
0010,0043  SexParamsForClinicalUseCategorySeq no
0010,0044  GenderIdentityCodeSequence        no
0010,0045  GenderIdentityComment             no
0010,0046  SexParamsForClinicalUseCatCodeSeq  no
0010,0047  SexParamsForClinicalUseCategoryRef no
0010,0050  PatientInsurancePlanCodeSequence  no
0010,0101  PatientPrimaryLanguageCodeSeq     no
0010,0102  PatientPrimaryLanguageCodeModSeq  no
0010,0200  QualityControlSubject             no
0010,0201  QualityControlSubjectTypeCodeSeq  no
0010,0212  StrainDescription                 no
0010,0213  StrainNomenclature                no
0010,0214  StrainStockNumber                 no
0010,0215  StrainSourceRegistryCodeSequence  no
0010,0216  StrainStockSequence               no
0010,0217  StrainSource                      no
0010,0218  StrainAdditionalInformation       no
0010,0219  StrainCodeSequence                no
0010,0221  GeneticModificationsSequence      no
0010,0222  GeneticModificationsDescription   no
0010,0223  GeneticModificationsNomenclature  no
0010,0229  GeneticModificationsCodeSequence  no
0010,1000  OtherPatientIDs                   no
0010,1001  OtherPatientNames                 no
0010,1002  OtherPatientIDsSequence           no
0010,1005  PatientBirthName                 no
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0010,1020  PatientSize                       no
0010,1021  PatientSizeCodeSequence          no
0010,1022  PatientBodyMassIndex             no
0010,1023  MeasuredAPDimension              no
0010,1024  MeasuredLateralDimension         no
0010,1030  PatientWeight                     no
0010,1040  PatientAddress                    no
0010,1050  InsurancePlanIdentification      no
0010,1060  PatientMotherBirthName           no
0010,1080  MilitaryRank                     no
0010,1081  BranchOfService                  no
0010,1090  MedicalRecordLocator             no
0010,1100  ReferencedPatientPhotoSequence   no
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0010,2000  MedicalAlerts                       no
0010,2110  Allergies                           no
0010,2150  CountryOfResidence                  no
0010,2152  RegionOfResidence                   no
0010,2154  PatientTelephoneNumbers             no
0010,2155  PatientTelecomInformation           no
0010,2160  EthnicGroup                         no
0010,2161  EthnicGroupCodeSequence            no
0010,2162  EthnicGroups                        no
0010,2180  Occupation                          no
0010,21A0  SmokingStatus                       no
0010,21B0  AdditionalPatientHistory            no
0010,21C0  PregnancyStatus                     no
0010,21D0  LastMenstrualDate                   no
0010,21F0  PatientReligiousPreference          no
0010,2201  PatientSpeciesDescription           no
0010,2202  PatientSpeciesCodeSequence          no
0010,2203  PatientSexNeutered                  no
0010,2210  AnatomicalOrientationType           no
0010,2292  PatientBreedDescription            no
0010,2293  PatientBreedCodeSequence            no
0010,2294  BreedRegistrationSequence           no
0010,2295  BreedRegistrationNumber             no
0010,2296  BreedRegistryCodeSequence           no
0010,2297  ResponsiblePerson                   no
0010,2298  ResponsiblePersonRole               no
0010,2299  ResponsibleOrganization             no
0010,4000  PatientComments                     no
0010,9431  ExaminedBodyThickness               no
0011,1010  PatientStatus                       no
0012,0010  ClinicalTrialSponsorName           no
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0012,0031  ClinicalTrialSiteName               no
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0012,0041  IssuerOfClinicalTrialSubjectID      no
0012,0042  ClinicalTrialSubjectReadingID       no
0012,0043  ClinicalTrialIssuerSubjReadingID    no
0012,0050  ClinicalTrialTimePointID            no
0012,0051  ClinicalTrialTimePointDescription   no
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0012,0053  LongitudinalTemporalEventType       no
0012,0054  ClinicalTrialTimePointTypeCodeSeq   no
0012,0055  IssuerOfClinicalTrialTimePointID    no
0012,0060  ClinicalTrialCoordinatingCenter     no
0012,0062  PatientIdentityRemoved              no
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0012,0064  DeidentificationMethodCodeSequence no
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0012,0072  ClinicalTrialSeriesDescription      no
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0012,0085  ConsentForDistributionFlag          no
0012,0086  EthicsCommApprovalEffectStartDate  no
0012,0087  EthicsCommApprovalEffectEndDate    no
0014,0023  CADFileFormat                       no
0014,0024  ComponentReferenceSystem            no
0014,0025  ComponentManufacturingProcedure     no
0014,0028  ComponentManufacturer               no
0014,0030  MaterialThickness                   no
0014,0032  MaterialPipeDiameter                no
0014,0034  MaterialIsolationDiameter           no
0014,0042  MaterialGrade                       no
0014,0044  MaterialPropertiesDescription       no
0014,0045  MaterialPropertiesFileFormat        no
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0014,0052  CurvatureType                       no
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0014,0056  InnerDiameter                       no
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0014,0101  SecondaryApprovalStatus             no
0014,0102  SecondaryReviewDate                no
0014,0103  SecondaryReviewTime                no
0014,0104  SecondaryReviewerName              no
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0014,0106  MultipleComponentApprovalSequence  no
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0014,0108  OtherSecondaryApprovalStatus        no
0014,0200  DataElementLabelSequence            no
0014,0201  DataElementLabelItemSequence        no
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0014,0203  DataElementName                     no
0014,0204  DataElementDescription              no
0014,0205  DataElementConditionality          no
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0014,0207  DataElementMaximumCharacters        no
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0014,1020  ExpiryDate                          no
0014,1040  EnvironmentalConditions            no
0014,2002  EvaluatorSequence                   no
0014,2004  EvaluatorNumber                     no
0014,2006  EvaluatorName                       no
0014,2008  EvaluationAttempt                   no
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0014,2014  IndicationNumber                    no
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0014,2018  IndicationDescription               no
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0014,201C  IndicationDisposition               no
0014,201E  IndicationROISequence               no
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0014,2030  IndicationPhysicalPropertySequence no
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0014,2208  CoordinateSystemDataSetMapping     no
0014,220A  CoordinateSystemAxisNumber         no
0014,220C  CoordinateSystemAxisType           no
0014,220E  CoordinateSystemAxisUnits          no
0014,2210  CoordinateSystemAxisValues         no
0014,2220  CoordinateSystemTransformSequence  no
0014,2222  TransformDescription               no
0014,2224  TransformNumberOfAxes              no
0014,2226  TransformOrderOfAxes               no
0014,2228  TransformedAxisUnits               no
0014,222A  CoordinateTransformRotationMatrix  no
0014,222C  CoordinateTransformTranslateMatrix no
0014,3011  InternalDetectorFrameTime          no
0014,3012  NumberOfFramesIntegrated           no
0014,3020  DetectorTemperatureSequence        no
0014,3022  SensorName                         no
0014,3024  HorizontalOffsetOfSensor          no
0014,3026  VerticalOffsetOfSensor            no
0014,3028  SensorTemperature                 no
0014,3040  DarkCurrentSequence               no
0014,3050  DarkCurrentCounts                 no
0014,3060  GainCorrectionReferenceSequence    no
0014,3070  AirCounts                         no
0014,3071  KVUsedInGainCalibration           no
0014,3072  MAUsedInGainCalibration           no
0014,3073  NumberOfFramesUsedForIntegration   no
0014,3074  FilterMaterialUsedInGainCal        no
0014,3075  FilterThicknessUsedInGainCal       no
0014,3076  DateOfGainCalibration              no
0014,3077  TimeOfGainCalibration              no
0014,3080  BadPixelImage                      no
0014,3099  CalibrationNotes                   no
0014,3100  LinearityCorrectionTechnique       no
0014,3101  BeamHardeningCorrectionTechnique   no
0014,4002  PulserEquipmentSequence           no
0014,4004  PulserType                         no
0014,4006  PulserNotes                        no
0014,4008  ReceiverEquipmentSequence         no
0014,400A  AmplifierType                      no
0014,400C  ReceiverNotes                      no
0014,400E  PreAmplifierEquipmentSequence      no
0014,400F  PreAmplifierNotes                  no
0014,4010  TransmitTransducerSequence         no
0014,4011  ReceiveTransducerSequence          no
0014,4012  NumberOfElements                   no
0014,4013  ElementShape                       no
0014,4014  ElementDimensionA                  no
0014,4015  ElementDimensionB                  no
0014,4016  ElementPitchA                      no
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0014,4017  MeasuredBeamDimensionA             no
0014,4018  MeasuredBeamDimensionB             no
0014,4019  LocationOfMeasuredBeamDiameter     no
0014,401A  NominalFrequency                   no
0014,401B  MeasuredCenterFrequency            no
0014,401C  MeasuredBandwidth                  no
0014,401D  ElementPitchB                      no
0014,4020  PulserSettingsSequence             no
0014,4022  PulseWidth                         no
0014,4024  ExcitationFrequency                no
0014,4026  ModulationType                     no
0014,4028  Damping                            no
0014,4030  ReceiverSettingsSequence          no
0014,4031  AcquiredSoundpathLength           no
0014,4032  AcquisitionCompressionType        no
0014,4033  AcquisitionSampleSize             no
0014,4034  RectifierSmoothing                no
0014,4035  DACSequence                       no
0014,4036  DACType                           no
0014,4038  DACGainPoints                     no
0014,403A  DACTimePoints                      no
0014,403C  DACAmplitude                       no
0014,4040  PreAmplifierSettingsSequence      no
0014,4050  TransmitTransducerSettingsSequence no
0014,4051  ReceiveTransducerSettingsSequence  no
0014,4052  IncidentAngle                      no
0014,4054  CouplingTechnique                 no
0014,4056  CouplingMedium                    no
0014,4057  CouplingVelocity                  no
0014,4058  ProbeCenterLocationX              no
0014,4059  ProbeCenterLocationZ              no
0014,405A  SoundPathLength                    no
0014,405C  DelayLawIdentifier                 no
0014,4060  GateSettingsSequence               no
0014,4062  GateThreshold                      no
0014,4064  VelocityOfSound                    no
0014,4070  CalibrationSettingsSequence        no
0014,4072  CalibrationProcedure               no
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0014,4076  ProcedureCreationDate              no
0014,4078  ProcedureExpirationDate            no
0014,407A  ProcedureLastModifiedDate          no
0014,407C  CalibrationTime                    no
0014,407E  CalibrationDate                    no
0014,4080  ProbeDriveEquipmentSequence        no
0014,4081  DriveType                          no
0014,4082  ProbeDriveNotes                    no
0014,4083  DriveProbeSequence                 no
0014,4084  ProbeInductance                    no
0014,4085  ProbeResistance                    no
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0014,4088  BridgeResistors                    no
0014,4089  ProbeOrientationAngle              no
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0014,408B  UserSelectedGainY                 no
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0014,408D  UserSelectedOffsetX               no
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0014,4091  ChannelSettingsSequence           no
0014,4092  ChannelThreshold                  no
0014,409A  ScannerSettingsSequence           no
0014,409B  ScanProcedure                     no
0014,409C  TranslationRateX                  no
0014,409D  TranslationRateY                  no
0014,409F  ChannelOverlap                    no
0014,40A0  ImageQualityIndicatorType         no
0014,40A1  ImageQualityIndicatorMaterial     no
0014,40A2  ImageQualityIndicatorSize         no
0014,4101  WaveDimensionsDefinitionSequence  no
0014,4102  WaveDimensionNumber               no
0014,4103  WaveDimensionDescription          no
0014,4104  WaveDimensionUnit                 no
0014,4105  WaveDimensionValueType            no
0014,4106  WaveDimensionValuesSequence       no
0014,4107  ReferencedWaveDimension           no
0014,4108  IntegerNumericValue               no
0014,4109  ByteNumericValue                  no
0014,410A  ShortNumericValue                 no
0014,410B  SinglePrecisionFloatingPointValue no
0014,410C  DoublePrecisionFloatingPointValue no
0014,5002  LINACEnergy                       no
0014,5004  LINACOutput                       no
0014,5100  ActiveAperture                    no
0014,5101  TotalAperture                    no
0014,5102  ApertureElevation                no
0014,5103  MainLobeAngle                    no
0014,5104  MainRoofAngle                    no
0014,5105  ConnectorType                    no
0014,5106  WedgeModelNumber                 no
0014,5107  WedgeAngleFloat                  no
0014,5108  WedgeRoofAngle                   no
0014,5109  WedgeElement1Position            no
0014,510A  WedgeMaterialVelocity             no
0014,510B  WedgeMaterial                     no
0014,510C  WedgeOffsetZ                      no
0014,510D  WedgeOriginOffsetX                no
0014,510E  WedgeTimeDelay                    no
0014,510F  WedgeName                         no
0014,5110  WedgeManufacturerName             no
0014,5111  WedgeDescription                 no
0014,5112  NominalBeamAngle                 no
0014,5113  WedgeOffsetX                     no
0014,5114  WedgeOffsetY                     no
0014,5115  WedgeTotalLength                 no
0014,5116  WedgeInContactLength             no
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0014,5118  WedgeTotalHeight                 no
0014,5119  WedgeFrontHeight                 no
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0014,511A  WedgeRearHeight                    no
0014,511B  WedgeTotalWidth                    no
0014,511C  WedgeInContactWidth                no
0014,511D  WedgeChamferHeight                 no
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0014,511F  RadiusAlongWedge                   no
0014,6001  ThermalCameraSettingsSequence      no
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0014,6003  IntegrationTime                    no
0014,6004  NumberOfCalibrationFrames          no
0014,6005  NumberOfRowsInFullAcquisitionImage no
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0014,6007  ThermalSourceSettingsSequence      no
0014,6008  SourceHorizontalPitch              no
0014,6009  SourceVerticalPitch                no
0014,600A  SourceHorizontalScanSpeed          no
0014,600B  ThermalSourceModulationFrequency   no
0014,600C  InductionSourceSettingSequence     no
0014,600D  CoilFrequency                      no
0014,600E  CurrentAmplitudeAcrossCoil         no
0014,600F  FlashSourceSettingSequence         no
0014,6010  FlashDuration                      no
0014,6011  FlashFrameNumber                   no
0014,6012  LaserSourceSettingSequence         no
0014,6013  HorizontalLaserSpotDimension      no
0014,6014  VerticalLaserSpotDimension        no
0014,6015  LaserWavelength                    no
0014,6016  LaserPower                         no
0014,6017  ForcedGasSettingSequence          no
0014,6018  VibrationSourceSettingSequence    no
0014,6019  VibrationExcitationFrequency      no
0014,601A  VibrationExcitationVoltage        no
0014,601B  ThermographyDataCaptureMethod     no
0014,601C  ThermalTechnique                   no
0014,601D  ThermalCameraCoreSequence          no
0014,601E  DetectorWavelengthRange            no
0014,601F  ThermalCameraCalibrationType       no
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0014,6021  FrontPanelTemperature             no
0014,6022  AirGapTemperature                 no
0014,6023  VerticalPixelSize                 no
0014,6024  HorizontalPixelSize               no
0014,6025  DataStreamingProtocol             no
0014,6026  LensSequence                      no
0014,6027  FieldOfView                       no
0014,6028  LensFilterManufacturer            no
0014,6029  CutoffFilterType                  no
0014,602A  LensFilterCutOffWavelength        no
0014,602B  ThermalSourceSequence             no
0014,602C  ThermalSourceMotionState          no
0014,602D  ThermalSourceMotionType           no
0014,602E  InductionHeatingSequence          no
0014,602F  CoilConfigurationID               no
0014,6030  NumberOfTurnsInCoil               no
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0014,6031  ShapeOfIndividualTurn              no
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0014,6036  FlashSynchronizationProtocol      no
0014,6037  FlashModificationStatus           no
0014,6038  LaserHeatingSequence              no
0014,6039  LaserManufacturer                 no
0014,603A  LaserModelNumber                  no
0014,603B  LaserTypeDescription              no
0014,603C  ForcedGasHeatingSequence          no
0014,603D  GasUsedForHeatingCoolingPart      no
0014,603E  VibrationSonicHeatingSequence     no
0014,603F  ProbeManufacturer                 no
0014,6040  ProbeModelNumber                  no
0014,6041  ApertureSize                      no
0014,6042  ProbeResonantFrequency           no
0014,6043  HeatSourceDescription            no
0014,6044  SurfacePrepWithOpticalCoating     no
0014,6045  OpticalCoatingType                no
0014,6046  ThermalConductivityExposedSurface  no
0014,6047  MaterialDensity                   no
0014,6048  SpecificHeatOfInspectionSurface   no
0014,6049  EmissivityOfInspectionSurface     no
0014,604A  ElectromagneticClassInspectSurface no
0014,604C  MovingWindowSize                  no
0014,604D  MovingWindowType                  no
0014,604E  MovingWindowWeights               no
0014,604F  MovingWindowPitch                 no
0014,6050  MovingWindowPaddingScheme         no
0014,6051  MovingWindowPaddingLength         no
0014,6052  SpatialFilteringParametersSequence no
0014,6053  SpatialFilteringScheme            no
0014,6056  HorizontalMovingWindowSize        no
0014,6057  VerticalMovingWindowSize          no
0014,6059  PolynomialFittingSequence         no
0014,605A  FittingDataType                   no
0014,605B  OperationOnTimeAxisBeforeFitting  no
0014,605C  OperationPixelIntensBeforeFitting  no
0014,605D  OrderOfPolynomial                 no
0014,605E  IndependentVariableForPolyFit     no
0014,605F  PolynomialCoefficients            no
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0016,0002  PrimaryChromaticities             no
0016,0003  BatteryLevel                      no
0016,0004  ExposureTimeInSeconds             no
0016,0005  FNumber                           no
0016,0006  OECFRows                          no
0016,0007  OECFColumns                       no
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0016,0009  OECFValues                        no
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0016,000D  SpatialFrequencyResponseValues     no
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0016,000F  ColorFilterArrayPatternColumns     no
0016,0010  ColorFilterArrayPatternValues      no
0016,0011  FlashFiringStatus                  no
0016,0012  FlashReturnStatus                  no
0016,0013  FlashMode                          no
0016,0014  FlashFunctionPresent               no
0016,0015  FlashRedEyeMode                    no
0016,0016  ExposureProgram                    no
0016,0017  SpectralSensitivity                no
0016,0018  PhotographicSensitivity            no
0016,0019  SelfTimerMode                      no
0016,001A  SensitivityType                    no
0016,001B  StandardOutputSensitivity          no
0016,001C  RecommendedExposureIndex           no
0016,001D  ISOSpeed                           no
0016,001E  ISOSpeedLatitudeyyy                no
0016,001F  ISOSpeedLatitudezzz                no
0016,0020  ExifVersion                        no
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0016,0023  BrightnessValue                    no
0016,0024  ExposureBiasValue                  no
0016,0025  MaxApertureValue                   no
0016,0026  SubjectDistance                    no
0016,0027  MeteringMode                       no
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0016,0029  FocalLength                        no
0016,002A  SubjectArea                        no
0016,002B  MakerNote                          no
0016,0030  Temperature                        no
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0016,0032  Pressure                           no
0016,0033  WaterDepth                        no
0016,0034  Acceleration                     no
0016,0035  CameraElevationAngle             no
0016,0036  FlashEnergy                      no
0016,0037  SubjectLocation                  no
0016,0038  PhotographicExposureIndex        no
0016,0039  SensingMethod                    no
0016,003A  FileSource                       no
0016,003B  SceneType                        no
0016,0041  CustomRendered                   no
0016,0042  ExposureMode                     no
0016,0043  WhiteBalance                     no
0016,0044  DigitalZoomRatio                 no
0016,0045  FocalLengthIn35mmFilm           no
0016,0046  SceneCaptureType                 no
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0016,0049  Saturation                       no
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0016,004A  Sharpness                          no
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0016,004C  SubjectDistanceRange               no
0016,004D  CameraOwnerName                    no
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0016,004F  LensMake                           no
0016,0050  LensModel                          no
0016,0051  LensSerialNumber                   no
0016,0061  InteroperabilityIndex              no
0016,0062  InteroperabilityVersion            no
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0016,0072  GPSLatitude                       no
0016,0073  GPSLongitudeRef                    no
0016,0074  GPSLongitude                      no
0016,0075  GPSAltitudeRef                    no
0016,0076  GPSAltitude                       no
0016,0077  GPSTimeStamp                      no
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0016,0079  GPSStatus                         no
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0016,007B  GPSDOP                             no
0016,007C  GPSSpeedRef                        no
0016,007D  GPSSpeed                           no
0016,007E  GPSTrackRef                        no
0016,007F  GPSTrack                           no
0016,0080  GPSImgDirectionRef                 no
0016,0081  GPSImgDirection                    no
0016,0082  GPSMapDatum                        no
0016,0083  GPSDestLatitudeRef                 no
0016,0084  GPSDestLatitude                   no
0016,0085  GPSDestLongitudeRef                no
0016,0086  GPSDestLongitude                  no
0016,0087  GPSDestBearingRef                  no
0016,0088  GPSDestBearing                    no
0016,0089  GPSDestDistanceRef                 no
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0016,008D  GPSDateStamp                       no
0016,008E  GPSDifferential                    no
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0016,1002  EmitterColorTemperature            no
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0016,1005  OpticalMagnificationFactor         no
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0018,0012  ContrastBolusAgentSequence         no
0018,0013  ContrastBolusT1Relaxivity          no
0018,0014  ContrastBolusAdministrationRoute   no
0018,0015  BodyPartExamined                   no
0018,0020  ScanningSequence                   no
0018,0021  SequenceVariant                    no
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0018,0028  InterventionDrugDose              no
0018,0029  InterventionDrugSequence          no
0018,002A  AdditionalDrugSequence            no
0018,0030  Radionuclide                      no
0018,0031  Radiopharmaceutical               no
0018,0032  EnergyWindowCenterline            no
0018,0033  EnergyWindowTotalWidth            no
0018,0034  InterventionDrugName              no
0018,0035  InterventionDrugStartTime         no
0018,0036  InterventionSequence              no
0018,0037  TherapyType                       no
0018,0038  InterventionStatus                no
0018,0039  TherapyDescription               no
0018,003A  InterventionDescription           no
0018,0040  CineRate                         no
0018,0042  InitialCineRunState              no
0018,0050  SliceThickness                   no
0018,0060  KVP                              no
0018,0070  CountsAccumulated                no
0018,0071  AcquisitionTerminationCondition  no
0018,0072  EffectiveDuration                no
0018,0073  AcquisitionStartCondition        no
0018,0074  AcquisitionStartConditionData    no
0018,0075  AcquisitionEndConditionData      no
0018,0080  RepetitionTime                   no
0018,0081  EchoTime                         no
0018,0082  InversionTime                    no
0018,0083  NumberOfAverages                 no
0018,0084  ImagingFrequency                 no
0018,0085  ImagedNucleus                    no
0018,0086  EchoNumber                       no
0018,0087  MagneticFieldStrength            no
0018,0088  SpacingBetweenSlices             no
0018,0089  NumberOfPhaseEncodingSteps       no
0018,0090  DataCollectionDiameter           no
0018,0091  EchoTrainLength                  no
0018,0093  PercentSampling                  no
0018,0094  PercentPhaseFieldOfView          no
0018,0095  PixelBandwidth                   no
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0018,1007  CassetteID                      no
0018,1008  GantryID                        no
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0018,1014  TimeOfSecondaryCapture             no
0018,1016  SecondaryCaptureDeviceManufacturer no
0018,1017  HardcopyDeviceManufacturer         no
0018,1018  SecondaryCaptureDeviceModelName    no
0018,1019  SecondaryCaptureDeviceSoftwareVers no
0018,101A  HardcopyDeviceSoftwareVersion      no
0018,101B  HardcopyDeviceModelName            no
0018,1020  SoftwareVersion                    no
0018,1022  VideoImageFormatAcquired          no
0018,1023  DigitalImageFormatAcquired        no
0018,1030  ProtocolName                       no
0018,1040  ContrastBolusRoute                 no
0018,1041  ContrastBolusVolume                no
0018,1042  ContrastBolusStartTime            no
0018,1043  ContrastBolusStopTime             no
0018,1044  ContrastBolusTotalDose            no
0018,1045  SyringeCounts                      no
0018,1046  ContrastFlowRate                  no
0018,1047  ContrastFlowDuration              no
0018,1048  ContrastBolusIngredient           no
0018,1049  ContrastBolusConcentration        no
0018,1050  SpatialResolution                 no
0018,1060  TriggerTime                       no
0018,1061  TriggerSourceOrType              no
0018,1062  NominalInterval                   no
0018,1063  FrameTime                        no
0018,1064  CardiacFramingType               no
0018,1065  FrameTimeVector                  no
0018,1066  FrameDelay                       no
0018,1067  ImageTriggerDelay                no
0018,1068  MultiplexGroupTimeOffset         no
0018,1069  TriggerTimeOffset                no
0018,106A  SynchronizationTrigger           no
0018,106C  SynchronizationChannel           no
0018,106E  TriggerSamplePosition            no
0018,1070  RadiopharmaceuticalRoute         no
0018,1071  RadiopharmaceuticalVolume        no
0018,1072  RadiopharmaceuticalStartTime     no
0018,1073  RadiopharmaceuticalStopTime      no
0018,1074  RadionuclideTotalDose            no
0018,1075  RadionuclideHalfLife             no
0018,1076  RadionuclidePositronFraction     no
0018,1077  RadiopharmaceuticalSpecActivity  no
0018,1078  RadiopharmaceuticalStartDateTime no
0018,1079  RadiopharmaceuticalStopDateTime  no
0018,1080  BeatRejectionFlag                 no
0018,1081  LowRRValue                       no
0018,1082  HighRRValue                      no
0018,1083  IntervalsAcquired                no
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0018,1084  IntervalsRejected                  no
0018,1085  PVCRejection                       no
0018,1086  SkipBeats                         no
0018,1088  HeartRate                         no
0018,1090  CardiacNumberOfImages             no
0018,1094  TriggerWindow                      no
0018,1100  ReconstructionDiameter             no
0018,1110  DistanceSourceToDetector          no
0018,1111  DistanceSourceToPatient           no
0018,1114  EstimatedRadiographicMagnification no
0018,1120  GantryDetectorTilt                 no
0018,1121  GantryDetectorSlew                 no
0018,1130  TableHeight                       no
0018,1131  TableTraverse                     no
0018,1134  TableMotion                       no
0018,1135  TableVerticalIncrement            no
0018,1136  TableLateralIncrement             no
0018,1137  TableLongitudinalIncrement        no
0018,1138  TableAngle                       no
0018,113A  TableType                         no
0018,1140  RotationDirection                 no
0018,1141  AngularPosition                   no
0018,1142  RadialPosition                    no
0018,1143  ScanArc                          no
0018,1144  AngularStep                      no
0018,1145  CenterOfRotationOffset           no
0018,1146  RotationOffset                   no
0018,1147  FieldOfViewShape                 no
0018,1149  FieldOfViewDimensions            no
0018,1150  ExposureTime                     no
0018,1151  XRayTubeCurrent                  no
0018,1152  Exposure                         no
0018,1153  ExposureInMicroAmpSec            no
0018,1154  AveragePulseWidth                no
0018,1155  RadiationSetting                 no
0018,1156  RectificationType                no
0018,115A  RadiationMode                     no
0018,115E  ImageAreaDoseProduct              no
0018,1160  FilterType                        no
0018,1161  TypeOfFilters                    no
0018,1162  IntensifierSize                  no
0018,1164  ImagerPixelSpacing               no
0018,1166  Grid                             no
0018,1170  GeneratorPower                   no
0018,1180  CollimatorGridName               no
0018,1181  CollimatorType                   no
0018,1182  FocalDistance                    no
0018,1183  XFocusCenter                     no
0018,1184  YFocusCenter                     no
0018,1190  FocalSpots                       no
0018,1191  AnodeTargetMaterial              no
0018,11A0  BodyPartThickness                 no
0018,11A2  CompressionForce                  no
0018,11A3  CompressionPressure               no
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0018,11A4  PaddleDescription                  no
0018,11A5  CompressionContactArea             no
0018,11B0  AcquisitionMode                    no
0018,11B1  DoseModeName                       no
0018,11B2  AcquiredSubtractionMaskFlag        no
0018,11B3  FluoroscopyPersistenceFlag         no
0018,11B4  FluoroLastImageHoldPersistenceFlag no
0018,11B5  UpperLimitNumPersistFluoroFrames   no
0018,11B6  ContrastBolusAutoInjectionTrigFlag no
0018,11B7  ContrastBolusInjectionDelay        no
0018,11B8  XAAcquisitionPhaseDetailsSequence  no
0018,11B9  XAAcquisitionFrameRate             no
0018,11BA  XAPlaneDetailsSequence             no
0018,11BB  AcquisitionFieldOfViewLabel        no
0018,11BC  XRayFilterDetailsSequence          no
0018,11BD  XAAcquisitionDuration              no
0018,11BE  ReconstructionPipelineType         no
0018,11BF  ImageFilterDetailsSequence         no
0018,11C0  AppliedMaskSubtractionFlag         no
0018,11C1  RequestedSeriesDescriptionCodeSeq  no
0018,1200  DateOfLastCalibration              no
0018,1201  TimeOfLastCalibration              no
0018,1202  DateTimeOfLastCalibration          no
0018,1203  CalibrationDateTime                no
0018,1204  DateOfManufacture                  no
0018,1205  DateOfInstallation                 no
0018,1210  ConvolutionKernel                  no
0018,1240  UpperLowerPixelValues             no
0018,1242  ActualFrameDuration               no
0018,1243  CountRate                         no
0018,1244  PreferredPlaybackSequencing       no
0018,1250  ReceiveCoilName                   no
0018,1251  TransmitCoilName                  no
0018,1260  PlateType                         no
0018,1261  PhosphorType                      no
0018,1271  WaterEquivalentDiameter           no
0018,1272  WaterEquiDiameterCalcMethCodeSeq  no
0018,1300  ScanVelocity                      no
0018,1301  WholeBodyTechnique                no
0018,1302  ScanLength                        no
0018,1310  AcquisitionMatrix                 no
0018,1312  InPlanePhaseEncodingDirection     no
0018,1314  FlipAngle                         no
0018,1315  VariableFlipAngleFlag             no
0018,1316  SAR                               no
0018,1318  DB-Dt                            no
0018,1320  B1rms                             no
0018,1400  AcquisitionDeviceProcessingDescr  no
0018,1401  AcquisitionDeviceProcessingCode   no
0018,1402  CassetteOrientation               no
0018,1403  CassetteSize                      no
0018,1404  ExposuresOnPlate                  no
0018,1405  RelativeXRayExposure              no
0018,1411  ExposureIndex                     no
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0018,1412  TargetExposureIndex                no
0018,1413  DeviationIndex                     no
0018,1450  ColumnAngulation                   no
0018,1460  TomoLayerHeight                    no
0018,1470  TomoAngle                          no
0018,1480  TomoTime                           no
0018,1490  TomoType                           no
0018,1491  TomoClass                          no
0018,1495  NumberOfTomosynthesisSourceImages  no
0018,1500  PositionerMotion                   no
0018,1508  PositionerType                     no
0018,1510  PositionerPrimaryAngle            no
0018,1511  PositionerSecondaryAngle          no
0018,1520  PositionerPrimaryAngleIncrement   no
0018,1521  PositionerSecondaryAngleIncrement  no
0018,1530  DetectorPrimaryAngle              no
0018,1531  DetectorSecondaryAngle            no
0018,1600  ShutterShape                      no
0018,1602  ShutterLeftVerticalEdge           no
0018,1604  ShutterRightVerticalEdge          no
0018,1606  ShutterUpperHorizontalEdge        no
0018,1608  ShutterLowerHorizontalEdge        no
0018,1610  CenterOfCircularShutter           no
0018,1612  RadiusOfCircularShutter           no
0018,1620  VerticesOfPolygonalShutter        no
0018,1622  ShutterPresentationValue          no
0018,1623  ShutterOverlayGroup               no
0018,1624  ShutterPresentationColorCIELabVal  no
0018,1630  OutlineShapeType                  no
0018,1631  OutlineLeftVerticalEdge           no
0018,1632  OutlineRightVerticalEdge          no
0018,1633  OutlineUpperHorizontalEdge        no
0018,1634  OutlineLowerHorizontalEdge        no
0018,1635  CenterOfCircularOutline           no
0018,1636  DiameterOfCircularOutline         no
0018,1637  NumberOfPolygonalVertices         no
0018,1638  VerticesOfThePolygonalOutline     no
0018,1700  CollimatorShape                   no
0018,1702  CollimatorLeftVerticalEdge        no
0018,1704  CollimatorRightVerticalEdge       no
0018,1706  CollimatorUpperHorizontalEdge     no
0018,1708  CollimatorLowerHorizontalEdge     no
0018,1710  CenterOfCircularCollimator        no
0018,1712  RadiusOfCircularCollimator        no
0018,1720  VerticesOfPolygonalCollimator     no
0018,1800  AcquisitionTimeSynchronized       no
0018,1801  TimeSource                        no
0018,1802  TimeDistributionProtocol          no
0018,1803  NTPSourceAddress                  no
0018,2001  PageNumberVector                   no
0018,2002  FrameLabelVector                   no
0018,2003  FramePrimaryAngleVector            no
0018,2004  FrameSecondaryAngleVector          no
0018,2005  SliceLocationVector                no
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0018,2006  DisplayWindowLabelVector           no
0018,2010  NominalScannedPixelSpacing         no
0018,2020  DigitizingDeviceTransportDirection no
0018,2030  RotationOfScannedFilm              no
0018,2041  BiopsyTargetSequence               no
0018,2042  TargetUID                          no
0018,2043  LocalizingCursorPosition           no
0018,2044  CalculatedTargetPosition          no
0018,2045  TargetLabel                       no
0018,2046  DisplayedZValue                   no
0018,3100  IVUSAcquisition                    no
0018,3101  IVUSPullbackRate                   no
0018,3102  IVUSGatedRate                     no
0018,3103  IVUSPullbackStartFrameNumber      no
0018,3104  IVUSPullbackStopFrameNumber       no
0018,3105  LesionNumber                      no
0018,4000  AcquisitionComments               no
0018,5000  OutputPower                       no
0018,5010  TransducerData                    no
0018,5011  TransducerIdentificationSequence  no
0018,5012  FocusDepth                       no
0018,5020  ProcessingFunction                no
0018,5021  PostprocessingFunction           no
0018,5022  MechanicalIndex                   no
0018,5024  BoneThermalIndex                  no
0018,5026  CranialThermalIndex              no
0018,5027  SoftTissueThermalIndex           no
0018,5028  SoftTissueFocusThermalIndex      no
0018,5029  SoftTissueSurfaceThermalIndex    no
0018,5030  DynamicRange                      no
0018,5040  TotalGain                        no
0018,5050  DepthOfScanField                 no
0018,5100  PatientPosition                   no
0018,5101  ViewPosition                      no
0018,5104  ProjectionEponymousNameCodeSeq    no
0018,5210  ImageTransformationMatrix         no
0018,5212  ImageTranslationVector           no
0018,6000  Sensitivity                       no
0018,6011  SequenceOfUltrasoundRegions       no
0018,6012  RegionSpatialFormat              no
0018,6014  RegionDataType                   no
0018,6016  RegionFlags                      no
0018,6018  RegionLocationMinX0              no
0018,601A  RegionLocationMinY0              no
0018,601C  RegionLocationMaxX1              no
0018,601E  RegionLocationMaxY1              no
0018,6020  ReferencePixelX0                 no
0018,6022  ReferencePixelY0                 no
0018,6024  PhysicalUnitsXDirection          no
0018,6026  PhysicalUnitsYDirection          no
0018,6028  ReferencePixelPhysicalValueX     no
0018,602A  ReferencePixelPhysicalValueY     no
0018,602C  PhysicalDeltaX                   no
0018,602E  PhysicalDeltaY                   no
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0018,6030  TransducerFrequency                no
0018,6031  TransducerType                     no
0018,6032  PulseRepetitionFrequency           no
0018,6034  DopplerCorrectionAngle             no
0018,6036  SteeringAngle                      no
0018,6038  DopplerSampleVolumeXPosRetired     no
0018,6039  DopplerSampleVolumeXPosition       no
0018,603A  DopplerSampleVolumeYPosRetired     no
0018,603B  DopplerSampleVolumeYPosition       no
0018,603C  TMLinePositionX0Retired            no
0018,603D  TMLinePositionX0                   no
0018,603E  TMLinePositionY0Retired            no
0018,603F  TMLinePositionY0                   no
0018,6040  TMLinePositionX1Retired            no
0018,6041  TMLinePositionX1                   no
0018,6042  TMLinePositionY1Retired            no
0018,6043  TMLinePositionY1                   no
0018,6044  PixelComponentOrganization         no
0018,6046  PixelComponentMask                 no
0018,6048  PixelComponentRangeStart           no
0018,604A  PixelComponentRangeStop            no
0018,604C  PixelComponentPhysicalUnits        no
0018,604E  PixelComponentDataType             no
0018,6050  NumberOfTableBreakPoints           no
0018,6052  TableOfXBreakPoints                no
0018,6054  TableOfYBreakPoints                no
0018,6056  NumberOfTableEntries               no
0018,6058  TableOfPixelValues                 no
0018,605A  TableOfParameterValues             no
0018,6060  RWaveTimeVector                    no
0018,6070  ActiveImageAreaOverlayGroup        no
0018,7000  DetectorConditionsNominalFlag      no
0018,7001  DetectorTemperature                no
0018,7004  DetectorType                       no
0018,7005  DetectorConfiguration              no
0018,7006  DetectorDescription               no
0018,7008  DetectorMode                       no
0018,700A  DetectorID                         no
0018,700C  DateOfLastDetectorCalibration      no
0018,700E  TimeOfLastDetectorCalibration      no
0018,7010  DetectorExposuresSinceCalibration  no
0018,7011  DetectorExposuresSinceManufactured no
0018,7012  DetectorTimeSinceLastExposure      no
0018,7014  DetectorActiveTime                 no
0018,7016  DetectorActiveOffsetFromExposure   no
0018,701A  DetectorBinning                    no
0018,7020  DetectorElementPhysicalSize        no
0018,7022  DetectorElementSpacing             no
0018,7024  DetectorActiveShape                no
0018,7026  DetectorActiveDimensions           no
0018,7028  DetectorActiveOrigin               no
0018,702A  DetectorManufacturerName           no
0018,702B  DetectorManufacturersModelName     no
0018,7030  FieldOfViewOrigin                  no
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0018,7032  FieldOfViewRotation                no
0018,7034  FieldOfViewHorizontalFlip          no
0018,7036  PixelDataAreaOriginRelativeToFOV   no
0018,7038  PixelDataAreaRotationAngleRelToFOV no
0018,7040  GridAbsorbingMaterial              no
0018,7041  GridSpacingMaterial                no
0018,7042  GridThickness                      no
0018,7044  GridPitch                          no
0018,7046  GridAspectRatio                    no
0018,7048  GridPeriod                         no
0018,704C  GridFocalDistance                  no
0018,7050  FilterMaterial                     no
0018,7052  FilterThicknessMinimum             no
0018,7054  FilterThicknessMaximum             no
0018,7056  FilterBeamPathLengthMinimum        no
0018,7058  FilterBeamPathLengthMaximum        no
0018,7060  ExposureControlMode                no
0018,7062  ExposureControlModeDescription     no
0018,7064  ExposureStatus                     no
0018,7065  PhototimerSetting                 no
0018,8150  ExposureTimeInMicroSec            no
0018,8151  XRayTubeCurrentInMicroAmps        no
0018,9004  ContentQualification              no
0018,9005  PulseSequenceName                 no
0018,9006  MRImagingModifierSequence         no
0018,9008  EchoPulseSequence                 no
0018,9009  InversionRecovery                 no
0018,9010  FlowCompensation                  no
0018,9011  MultipleSpinEcho                  no
0018,9012  MultiPlanarExcitation             no
0018,9014  PhaseContrast                     no
0018,9015  TimeOfFlightContrast             no
0018,9016  Spoiling                         no
0018,9017  SteadyStatePulseSequence         no
0018,9018  EchoPlanarPulseSequence          no
0018,9019  TagAngleFirstAxis                no
0018,9020  MagnetizationTransfer            no
0018,9021  T2Preparation                    no
0018,9022  BloodSignalNulling               no
0018,9024  SaturationRecovery               no
0018,9025  SpectrallySelectedSuppression    no
0018,9026  SpectrallySelectedExcitation     no
0018,9027  SpatialPresaturation             no
0018,9028  Tagging                          no
0018,9029  OversamplingPhase                no
0018,9030  TagSpacingFirstDimension         no
0018,9032  GeometryOfKSpaceTraversal        no
0018,9033  SegmentedKSpaceTraversal         no
0018,9034  RectilinearPhaseEncodeReordering no
0018,9035  TagThickness                     no
0018,9036  PartialFourierDirection          no
0018,9037  CardiacSynchronizationTechnique  no
0018,9041  ReceiveCoilManufacturerName      no
0018,9042  MRReceiveCoilSequence            no
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0018,9043  ReceiveCoilType                    no
0018,9044  QuadratureReceiveCoil              no
0018,9045  MultiCoilDefinitionSequence        no
0018,9046  MultiCoilConfiguration             no
0018,9047  MultiCoilElementName              no
0018,9048  MultiCoilElementUsed              no
0018,9049  MRTransmitCoilSequence            no
0018,9050  TransmitCoilManufacturerName      no
0018,9051  TransmitCoilType                  no
0018,9052  SpectralWidth                     no
0018,9053  ChemicalShiftReference            no
0018,9054  VolumeLocalizationTechnique       no
0018,9058  MRAcquisitionFrequencyEncodeSteps  no
0018,9059  Decoupling                        no
0018,9060  DecoupledNucleus                  no
0018,9061  DecouplingFrequency               no
0018,9062  DecouplingMethod                  no
0018,9063  DecouplingChemicalShiftReference  no
0018,9064  KSpaceFiltering                   no
0018,9065  TimeDomainFiltering               no
0018,9066  NumberOfZeroFills                 no
0018,9067  BaselineCorrection                no
0018,9069  ParallelReductionFactorInPlane    no
0018,9070  CardiacRRIntervalSpecified        no
0018,9073  AcquisitionDuration               no
0018,9074  FrameAcquisitionDateTime          no
0018,9075  DiffusionDirectionality           no
0018,9076  DiffusionGradientDirectionSequence no
0018,9077  ParallelAcquisition               no
0018,9078  ParallelAcquisitionTechnique      no
0018,9079  InversionTimes                    no
0018,9080  MetaboliteMapDescription          no
0018,9081  PartialFourier                    no
0018,9082  EffectiveEchoTime                 no
0018,9083  MetaboliteMapCodeSequence         no
0018,9084  ChemicalShiftSequence             no
0018,9085  CardiacSignalSource               no
0018,9087  DiffusionBValue                   no
0018,9089  DiffusionGradientOrientation      no
0018,9090  VelocityEncodingDirection         no
0018,9091  VelocityEncodingMinimumValue      no
0018,9092  VelocityEncodingAcquisitionSeq    no
0018,9093  NumberOfKSpaceTrajectories        no
0018,9094  CoverageOfKSpace                  no
0018,9095  SpectroscopyAcquisitionPhaseRows  no
0018,9096  ParallelReductFactorInPlaneRetired no
0018,9098  TransmitterFrequency              no
0018,9100  ResonantNucleus                   no
0018,9101  FrequencyCorrection               no
0018,9103  MRSpectroscopyFOV-GeometrySequence no
0018,9104  SlabThickness                     no
0018,9105  SlabOrientation                   no
0018,9106  MidSlabPosition                   no
0018,9107  MRSpatialSaturationSequence       no
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0018,9112  MRTimingAndRelatedParametersSeq    no
0018,9114  MREchoSequence                     no
0018,9115  MRModifierSequence                no
0018,9117  MRDiffusionSequence                no
0018,9118  CardiacTriggerSequence            no
0018,9119  MRAveragesSequence                no
0018,9125  MRFOV-GeometrySequence             no
0018,9126  VolumeLocalizationSequence        no
0018,9127  SpectroscopyAcquisitionDataColumns no
0018,9147  DiffusionAnisotropyType            no
0018,9151  FrameReferenceDateTime             no
0018,9152  MRMetaboliteMapSequence            no
0018,9155  ParallelReductionFactorOutOfPlane  no
0018,9159  SpectroscopyOutOfPlanePhaseSteps   no
0018,9166  BulkMotionStatus                   no
0018,9168  ParallelReductionFactSecondInPlane no
0018,9169  CardiacBeatRejectionTechnique      no
0018,9170  RespiratoryMotionCompTechnique     no
0018,9171  RespiratorySignalSource            no
0018,9172  BulkMotionCompensationTechnique    no
0018,9173  BulkMotionSignalSource            no
0018,9174  ApplicableSafetyStandardAgency     no
0018,9175  ApplicableSafetyStandardDescr      no
0018,9176  OperatingModeSequence             no
0018,9177  OperatingModeType                 no
0018,9178  OperatingMode                     no
0018,9179  SpecificAbsorptionRateDefinition   no
0018,9180  GradientOutputType                no
0018,9181  SpecificAbsorptionRateValue       no
0018,9182  GradientOutput                    no
0018,9183  FlowCompensationDirection         no
0018,9184  TaggingDelay                      no
0018,9185  RespiratoryMotionCompTechDescr    no
0018,9186  RespiratorySignalSourceID         no
0018,9195  ChemicalShiftsMinIntegrateLimitHz  no
0018,9196  ChemicalShiftsMaxIntegrateLimitHz  no
0018,9197  MRVelocityEncodingSequence        no
0018,9198  FirstOrderPhaseCorrection         no
0018,9199  WaterReferencedPhaseCorrection    no
0018,9200  MRSpectroscopyAcquisitionType     no
0018,9214  RespiratoryCyclePosition          no
0018,9217  VelocityEncodingMaximumValue      no
0018,9218  TagSpacingSecondDimension         no
0018,9219  TagAngleSecondAxis                no
0018,9220  FrameAcquisitionDuration          no
0018,9226  MRImageFrameTypeSequence          no
0018,9227  MRSpectroscopyFrameTypeSequence   no
0018,9231  MRAcqPhaseEncodingStepsInPlane    no
0018,9232  MRAcqPhaseEncodingStepsOutOfPlane  no
0018,9234  SpectroscopyAcqPhaseColumns       no
0018,9236  CardiacCyclePosition              no
0018,9239  SpecificAbsorptionRateSequence    no
0018,9240  RFEchoTrainLength                 no
0018,9241  GradientEchoTrainLength           no
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0018,9250  ArterialSpinLabelingContrast       no
0018,9251  MRArterialSpinLabelingSequence     no
0018,9252  ASLTechniqueDescription            no
0018,9253  ASLSlabNumber                      no
0018,9254  ASLSlabThickness                   no
0018,9255  ASLSlabOrientation                 no
0018,9256  ASLMidSlabPosition                 no
0018,9257  ASLContext                         no
0018,9258  ASLPulseTrainDuration              no
0018,9259  ASLCrusherFlag                     no
0018,925A  ASLCrusherFlowLimit                no
0018,925B  ASLCrusherDescription              no
0018,925C  ASLBolusCutoffFlag                 no
0018,925D  ASLBolusCutoffTimingSequence       no
0018,925E  ASLBolusCutoffTechnique            no
0018,925F  ASLBolusCutoffDelayTime            no
0018,9260  ASLSlabSequence                    no
0018,9295  ChemicalShiftsMinIntegrateLimitPPM no
0018,9296  ChemicalShiftsMaxIntegrateLimitPPM no
0018,9297  WaterReferenceAcquisition          no
0018,9298  EchoPeakPosition                   no
0018,9301  CTAcquisitionTypeSequence          no
0018,9302  AcquisitionType                    no
0018,9303  TubeAngle                          no
0018,9304  CTAcquisitionDetailsSequence       no
0018,9305  RevolutionTime                     no
0018,9306  SingleCollimationWidth            no
0018,9307  TotalCollimationWidth              no
0018,9308  CTTableDynamicsSequence           no
0018,9309  TableSpeed                         no
0018,9310  TableFeedPerRotation               no
0018,9311  SpiralPitchFactor                  no
0018,9312  CTGeometrySequence                 no
0018,9313  DataCollectionCenterPatient        no
0018,9314  CTReconstructionSequence           no
0018,9315  ReconstructionAlgorithm            no
0018,9316  ConvolutionKernelGroup             no
0018,9317  ReconstructionFieldOfView          no
0018,9318  ReconstructionTargetCenterPatient  no
0018,9319  ReconstructionAngle                no
0018,9320  ImageFilter                        no
0018,9321  CTExposureSequence                 no
0018,9322  ReconstructionPixelSpacing         no
0018,9323  ExposureModulationType             no
0018,9324  EstimatedDoseSaving                no
0018,9325  CTXRayDetailsSequence              no
0018,9326  CTPositionSequence                 no
0018,9327  TablePosition                      no
0018,9328  ExposureTimeInMilliSec             no
0018,9329  CTImageFrameTypeSequence           no
0018,9330  XRayTubeCurrentInMilliAmps         no
0018,9332  ExposureInMilliAmpSec              no
0018,9333  ConstantVolumeFlag                 no
0018,9334  FluoroscopyFlag                    no
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0018,9335  SourceToDataCollectionCenterDist   no
0018,9337  ContrastBolusAgentNumber           no
0018,9338  ContrastBolusIngredientCodeSeq     no
0018,9340  ContrastAdministrationProfileSeq   no
0018,9341  ContrastBolusUsageSequence         no
0018,9342  ContrastBolusAgentAdministered    no
0018,9343  ContrastBolusAgentDetected        no
0018,9344  ContrastBolusAgentPhase           no
0018,9345  CTDIvol                          no
0018,9346  CTDIPhantomTypeCodeSequence       no
0018,9351  CalciumScoringMassFactorPatient   no
0018,9352  CalciumScoringMassFactorDevice    no
0018,9353  EnergyWeightingFactor            no
0018,9360  CTAdditionalXRaySourceSequence    no
0018,9361  MultienergyCTAcquisition          no
0018,9362  MultienergyCTAcquisitionSequence  no
0018,9363  MultienergyCTProcessingSequence   no
0018,9364  MultienergyCTCharacteristicsSeq   no
0018,9365  MultienergyCTXRaySourceSequence   no
0018,9366  XRaySourceIndex                   no
0018,9367  XRaySourceID                      no
0018,9368  MultienergySourceTechnique        no
0018,9369  SourceStartDateTime               no
0018,936A  SourceEndDateTime                 no
0018,936B  SwitchingPhaseNumber              no
0018,936C  SwitchingPhaseNominalDuration     no
0018,936D  SwitchingPhaseTransitionDuration  no
0018,936E  EffectiveBinEnergy                no
0018,936F  MultienergyCTXRayDetectorSequence no
0018,9370  XRayDetectorIndex                 no
0018,9371  XRayDetectorID                    no
0018,9372  MultienergyDetectorType          no
0018,9373  XRayDetectorLabel                 no
0018,9374  NominalMaxEnergy                  no
0018,9375  NominalMinEnergy                  no
0018,9376  ReferencedXRayDetectorIndex       no
0018,9377  ReferencedXRaySourceIndex         no
0018,9378  ReferencedPathIndex              no
0018,9379  MultienergyCTPathSequence         no
0018,937A  MultienergyCTPathIndex            no
0018,937B  MultienergyAcquisitionDescription no
0018,937C  MonoenergeticEnergyEquivalent     no
0018,937D  MaterialCodeSequence              no
0018,937E  DecompositionMethod               no
0018,937F  DecompositionDescription          no
0018,9380  DecompositionAlgorithmIDSeq       no
0018,9381  DecompositionMaterialSequence     no
0018,9382  MaterialAttenuationSequence       no
0018,9383  PhotonEnergy                      no
0018,9384  XRayMassAttenuationCoefficient    no
0018,9390  MetalArtifactReductionSequence    no
0018,9391  MetalArtifactReductionApplied     no
0018,9392  MetalArtifactReductAlgorithmIDSeq no
0018,9401  ProjectionPixelCalibrationSequence no
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0018,9402  DistanceSourceToIsocenter          no
0018,9403  DistanceObjectToTableTop           no
0018,9404  ObjectPixelSpacingInCenterOfBeam   no
0018,9405  PositionerPositionSequence         no
0018,9406  TablePositionSequence              no
0018,9407  CollimatorShapeSequence            no
0018,9410  PlanesInAcquisition                no
0018,9412  XA-XRFFrameCharacteristicsSequence no
0018,9417  FrameAcquisitionSequence           no
0018,9420  XRayReceptorType                   no
0018,9423  AcquisitionProtocolName           no
0018,9424  AcquisitionProtocolDescription    no
0018,9425  ContrastBolusIngredientOpaque     no
0018,9426  DistanceReceptorPlaneToDetHousing  no
0018,9427  IntensifierActiveShape             no
0018,9428  IntensifierActiveDimensions        no
0018,9429  PhysicalDetectorSize               no
0018,9430  PositionOfIsocenterProjection     no
0018,9432  FieldOfViewSequence               no
0018,9433  FieldOfViewDescription            no
0018,9434  ExposureControlSensingRegionsSeq   no
0018,9435  ExposureControlSensingRegionShape  no
0018,9436  ExposureControlSensRegionLeftEdge  no
0018,9437  ExposureControlSensRegionRightEdge no
0018,9438  ExpControlSensingRgnUpperHorizEdge no
0018,9439  ExpControlSensingRgnLowerHorizEdge no
0018,9440  CenterOfCircExposControlSensRegion no
0018,9441  RadiusOfCircExposControlSensRegion no
0018,9442  VerticesOfPolyExpControlSensingRgn no
0018,9447  ColumnAngulationPatient            no
0018,9449  BeamAngle                         no
0018,9451  FrameDetectorParametersSequence    no
0018,9452  CalculatedAnatomyThickness        no
0018,9455  CalibrationSequence               no
0018,9456  ObjectThicknessSequence           no
0018,9457  PlaneIdentification               no
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0018,9468  TableZPositionToIsocenter         no
0018,9469  TableHorizontalRotationAngle      no
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0018,9546  BreastSupportIsocenterSecondAngle  no
0018,9547  BreastSupportXPositionToIsocenter  no
0018,9548  BreastSupportYPositionToIsocenter  no
0018,9549  BreastSupportZPositionToIsocenter  no
0018,9550  DetectorIsocenterPrimaryAngle      no
0018,9551  DetectorIsocenterSecondaryAngle    no
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0018,9554  DetectorZPositionToIsocenter       no
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0018,9718  StartRespiratoryTriggerCountThresh no
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0018,9724  TermRespiratoryTrigCountThresh     no
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0018,982B  AcousticCouplingMediumTemperature  no
0018,982C  TransducerResponseSequence         no
0018,982D  CenterFrequency                    no
0018,982E  FractionalBandwidth                no
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0018,9830  UpperCutoffFrequency               no
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0018,9834  AcousticCouplingMediumSoundSpeed   no
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0018,990D  ReferencedPerformedProtocolSeq     no
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0018,9912  ModelSpecificationSequence         no
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0018,9919  InstructionPerformedDateTime       no
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0018,991D  PositioningLandmarkSequence        no
0018,991E  TargetFrameOfReferenceUID          no
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0018,9934  ReconstructionProtocolElementSeq   no
0018,9935  StorageProtocolElementSpecSequence no
0018,9936  StorageProtocolElementSequence     no
0018,9937  RequestedSeriesDescription         no
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0018,9939  SourceAcquisitionBeamNumber        no
0018,993A  SourceReconstructProtoElementNum   no
0018,993B  ReconstructionStartLocationSeq     no
0018,993C  ReconstructionEndLocationSequence  no
0018,993D  ReconstructionAlgorithmSequence    no
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0018,9943  DLPNotificationTrigger             no
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0018,9946  AutoKVPLowerBound                 no
0018,9947  ProtocolDefinedPatientPosition    no
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0018,A002  ContributionDateTime              no
0018,A003  ContributionDescription           no
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0019,1004  CellSpacing                       no
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0019,1012  LastPseq                          no
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0019,1014  EndNumberForBaseline             no
0019,1015  StartNumberForEnhancedScans      no
0019,1016  EndNumberForEnhancedScans        no
0019,1017  SeriesPlane                       no
0019,1018  FirstScanRas                      no
0019,1019  FirstScanLocation                 no
0019,101A  LastScanRas                       no
0019,101B  LastScanLoc                       no
0019,101E  DisplayFieldOfView                no
0019,1023  TableSpeed                        no
0019,1024  MidScanTime                       no
0019,1025  MidScanFlag                       no
0019,1026  DegreesOfAzimuth                  no
0019,1027  GantryPeriod                      no
0019,102A  XRayOnPosition                    no
0019,102B  XRayOffPosition                   no
0019,102C  NumberOfTriggers                  no
0019,102E  AngleOfFirstView                  no
0019,102F  TriggerFrequency                  no
0019,1039  ScanFOVType                       no
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0019,1047  ViewCompressionFactor            no
0019,104A  TotalNoOfRefChannels             no
0019,104B  DataSizeForScanData              no
0019,1052  ReconPostProcflag                no
0019,1057  CTWaterNumber                    no
0019,1058  CTBoneNumber                     no
0019,105A  AcquisitionDuration              no
0019,105E  NumberOfChannels                 no
0019,105F  IncrementBetweenChannels         no
0019,1060  StartingView                     no
0019,1061  NumberOfViews                    no
0019,1062  IncrementBetweenViews            no
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0019,106B  FieldOfViewInDetectorCells       no
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0019,1071  SetIfFatqEstimatesWereUsed       no
0019,1072  ZChanAvgOverViews                no
0019,1073  AvgOfLeftRefChansOverViews       no
0019,1074  MaxLeftChanOverViews             no
0019,1075  AvgOfRightRefChansOverViews      no
0019,1076  MaxRightChanOverViews            no
0019,107D  SecondEcho                       no
0019,107E  NumberOfEchoes                   no
0019,107F  TableDelta                       no
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0019,1084  PeakSAR                          no
0019,1085  MonitorSAR                       no
0019,1087  CardiacRepetitionTime            no
0019,1088  ImagesPerCardiacCycle            no
0019,108A  ActualReceiveGainAnalog          no
0019,108B  ActualReceiveGainDigital         no
0019,108D  DelayAfterTrigger                no
0019,108F  Swappf                           no
0019,1090  PauseInterval                    no
0019,1091  PulseTime                        no
0019,1092  SliceOffsetOnFreqAxis            no
0019,1093  CenterFrequency                  no
0019,1094  TransmitGain                     no
0019,1095  AnalogReceiverGain               no
0019,1096  DigitalReceiverGain              no
0019,1097  BitmapDefiningCVs                no
0019,1098  CenterFreqMethod                 no
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0019,109C  PulseSeqName                     no
0019,109D  PulseSeqDate                     no
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0019,10A1  ExtremityCoilFlag                no
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0019,10A2  RawDataRunNumber                 no
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0019,10AF  UserData09                       no
0019,10B0  UserData10                       no
0019,10B1  UserData11                       no
0019,10B2  UserData12                       no
0019,10B3  UserData13                       no
0019,10B4  UserData14                       no
0019,10B5  UserData15                       no
0019,10B6  UserData16                       no
0019,10B7  UserData17                       no
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0019,10BC  UserData22                       no
0019,10BD  UserData23                       no
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0019,10C4  SATLocationA                     no
0019,10C5  SATLocationP                     no
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0019,10C7  SATLocationF                     no
0019,10C8  SATThicknessR-L                  no
0019,10C9  SATThicknessA-P                  no
0019,10CA  SATThicknessH-F                  no
0019,10CB  PrescribedFlowAxis               no
0019,10CC  VelocityEncoding                 no
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0019,10D3  ProjectionAlgorithm              no
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0019,10D6  PrepPulse                        no
0019,10D7  CardiacPhases                    no
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0019,10D9  ConcatenatedSAT                  no
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0020,0062  ImageLaterality                    no
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0020,00AA  ReportNumber                       no
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0020,0110  TemporalResolution                 no
0020,0200  SynchronizationFrameOfReferenceUID no
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0020,1002  ImagesInAcquisition               no
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0020,1004  AcquisitionsInStudy               no
0020,1005  ImagesInStudy                     no
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0020,9154  NominalCardiacTrigTimePriorToRPeak no
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0020,9156  FrameAcquisitionNumber            no
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0020,930B  VolumeToTransducerRelationship     no
0020,930C  PatientFrameOfReferenceSource      no
0020,930D  TemporalPositionTimeOffset         no
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0021,1007  SeriesRecordChecksum               no
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0021,1036  ImageFromWhichPrescribed           no
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0021,104F  LocationsInAcquisition             no
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0022,0006  PatientEyeMovementCommandCodeSeq   no
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0022,0009  CylinderAxis                       no
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0022,000B  IntraOcularPressure                no
0022,000C  HorizontalFieldOfView              no
0022,000D  PupilDilated                       no
0022,000E  DegreeOfDilation                   no
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0022,0012  StereoHorizontalPixelOffset        no
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0022,0014  StereoRotation                     no
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0022,0016  IlluminationTypeCodeSequence       no
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0022,001C  MydriaticAgentCodeSequence         no
0022,001D  RelativeImagePositionCodeSequence  no
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0022,0036  MaximumDepthDistortion             no
0022,0037  AlongScanSpatialResolution         no
0022,0038  MaximumAlongScanDistortion         no
0022,0039  OphthalmicImageOrientation         no
0022,0041  DepthOfTransverseImage             no
0022,0042  MydriaticAgentConcUnitsSeq         no
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0022,1008  OphthalmicAxialMeasLeftEyeSeq      no
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0022,1010  OphthalmicAxialLengthMeasType      no
0022,1012  OphthalmicAxialLengthSequence      no
0022,1019  OphthalmicAxialLength              no
0022,1024  LensStatusCodeSequence             no
0022,1025  VitreousStatusCodeSequence         no
0022,1028  IOLFormulaCodeSequence             no
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0022,1037  TargetRefraction                   no
0022,1039  RefractiveProcedureOccurred        no
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0022,1048  PredictedToricErrorSequence        no
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0022,104A  ToricIOLPowerForExactEmmetropiaSeq no
0022,104B  ToricIOLPowerExactTargetRefractSeq no
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0022,1053  IOLPower                           no
0022,1054  PredictedRefractiveError           no
0022,1059  OphthalmicAxialLengthVelocity      no
0022,1065  LensStatusDescription              no
0022,1066  VitreousStatusDescription          no
0022,1090  IOLPowerSequence                   no
0022,1092  LensConstantSequence               no
0022,1093  IOLManufacturer                    no
0022,1094  LensConstantDescription            no
0022,1095  ImplantName                        no
0022,1096  KeratometryMeasurementTypeCodeSeq  no
0022,1097  ImplantPartNumber                  no
0022,1100  ReferencedOphthalmicAxialMeasSeq   no
0022,1101  OphthalmicAxialMeasSegmentCodeSeq  no
0022,1103  RefractErrBeforeRefractSurgCodeSeq no
0022,1121  IOLPowerForExactEmmetropia         no
0022,1122  IOLPowerForExactTargetRefraction   no
0022,1125  AnteriorChamberDepthDefCodeSeq     no
0022,1127  LensThicknessSequence              no
0022,1128  AnteriorChamberDepthSequence       no
0022,112A  CalculationCommentSequence         no
0022,112B  CalculationCommentType             no
0022,112C  CalculationComment                 no
0022,1130  LensThickness                      no
0022,1131  AnteriorChamberDepth               no
0022,1132  SourceOfLensThicknessDataCodeSeq   no
0022,1133  SourceAnteriorChamberDepthCodeSeq  no
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0022,1134  SourceOfRefractiveMeasurementsSeq  no
0022,1135  SourceOfRefractiveMeasCodeSeq      no
0022,1140  OphthalmicAxialLengthMeasModified  no
0022,1150  OphthalmicAxialLenDataSrcCodeSeq   no
0022,1153  OphthalmicAxialLenAcqMethodCodeSeq no
0022,1155  SignalToNoiseRatio                 no
0022,1159  OphthalmicAxialLenDataSourceDescr  no
0022,1210  OphthalmicAxialLenMeasTotalLenSeq  no
0022,1211  OphthalmicAxialMeasSegmentLenSeq   no
0022,1212  OphthalmicAxialMeasLenSummationSeq no
0022,1220  UltrasoundOphthalmicAxialMeasSeq   no
0022,1225  OpticalOphthalmicAxialLenMeasSeq   no
0022,1230  UltrasoundSelOphthalmicAxialLenSeq no
0022,1250  OphthalmicAxialLenSelMethodCodeSeq no
0022,1255  OpticalSelOphthalmicAxialLenSeq    no
0022,1257  SelSegmentalOphthalmicAxialLenSeq  no
0022,1260  SelTotalOphthalmicAxialLenSeq      no
0022,1262  OphthalmicAxialLenQualityMetricSeq no
0022,1265  OphthalmicAxialLenQualMetricCode   no
0022,1273  OphthalmicAxialLenQualMetricDesc   no
0022,1300  IntraocularLensCalcRightEyeSeq     no
0022,1310  IntraocularLensCalcLeftEyeSeq      no
0022,1330  RefOphthalmicAxialLenMeasQCImgSeq  no
0022,1415  OphthalmicMappingDeviceType        no
0022,1420  AcquisitionMethodCodeSequence      no
0022,1423  AcquisitionMethodAlgorithmSequence no
0022,1436  OphthalmicThicknessMapTypeCodeSeq  no
0022,1443  OphthalmicThickMappingNormalsSeq   no
0022,1445  RetinalThicknessDefinitionCodeSeq  no
0022,1450  PixelValueMappingToCodedConceptSeq no
0022,1452  MappedPixelValue                    no
0022,1454  PixelValueMappingExplanation       no
0022,1458  OphthalmicThickMapQualityThreshSeq no
0022,1460  OphthalmicThickMapThreshQualRating no
0022,1463  AnatomicStructureReferencePoint    no
0022,1465  RegistrationToLocalizerSequence    no
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0022,1467  RegisteredLocalizerTopLeftCorner   no
0022,1468  RegisteredLocalizerBotRightCorner  no
0022,1470  OphthalmicThickMapQualityRatingSeq no
0022,1472  RelevantOPTAttributesSequence      no
0022,1512  TransformationMethodCodeSequence   no
0022,1513  TransformationAlgorithmSequence    no
0022,1515  OphthalmicAxialLengthMethod        no
0022,1517  OphthalmicFOV                      no
0022,1518  TwoDimensionalToThreeDimMapSeq     no
0022,1525  WideFieldOphthalmicPhotoQualRating no
0022,1526  WideFieldOphthalmicPhotoQualThresh no
0022,1527  WideFieldOphthalmicPhotoThreshQual no
0022,1528  XCoordinatesCenterPixelViewAngle   no
0022,1529  YCoordinatesCenterPixelViewAngle   no
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0022,1531  TwoDimensionalToThreeDimMapData    no
0022,1612  DerivationAlgorithmSequence        no
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0022,1615  OphthalmicImageTypeCodeSequence    no
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0022,1623  OphthalmicAnatomicRefFrameCoord    no
0022,1624  OphthalmicAnatomicRefPointXCoord   no
0022,1626  OphthalmicAnatomicRefPointYCoord   no
0022,1627  OphthalmicEnFaceVolumeDescrSeq     no
0022,1628  OphthalmicEnFaceImageQualRatingSeq no
0022,1629  OphthalmicEnFaceVolumeDescrScope   no
0022,1630  QualityThreshold                   no
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0022,1640  OCTBscanAnalysisAcqParamSeq        no
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0022,1643  BscanSlabThickness                 no
0022,1644  DistanceBetweenBscanSlabs          no
0022,1645  BscanCycleTime                     no
0022,1646  BscanCycleTimeVector               no
0022,1649  AscanRate                          no
0022,1650  BscanRate                          no
0022,1658  SurfaceMeshZPixelOffset           no
0023,1001  NumberOfSeriesInStudy             no
0023,1002  NumberOfUnarchivedSeries          no
0023,1010  ReferenceImageField               no
0023,1050  SummaryImage                      no
0023,1070  StartTimeSecsInFirstAxial         no
0023,1074  NoofUpdatesToHeader               no
0023,107D  IndicatesIfTheStudyHasCompleteInfo no
0024,0010  VisualFieldHorizontalExtent       no
0024,0011  VisualFieldVerticalExtent         no
0024,0012  VisualFieldShape                  no
0024,0016  ScreeningTestModeCodeSequence     no
0024,0018  MaximumStimulusLuminance          no
0024,0020  BackgroundLuminance               no
0024,0021  StimulusColorCodeSequence         no
0024,0024  BackgroundIlluminationColorCodeSeq no
0024,0025  StimulusArea                      no
0024,0028  StimulusPresentationTime          no
0024,0032  FixationSequence                  no
0024,0033  FixationMonitoringCodeSequence    no
0024,0034  VisualFieldCatchTrialSequence     no
0024,0035  FixationCheckedQuantity           no
0024,0036  PatientNotProperlyFixatedQuantity  no
0024,0037  PresentedVisualStimuliDataFlag    no
0024,0038  NumberOfVisualStimuli             no
0024,0039  ExcessiveFixationLossesDataFlag   no
0024,0040  ExcessiveFixationLosses           no
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0024,0044  CommentsOnPatientPerfOfVisualField no
0024,0045  FalseNegativesEstimateFlag        no
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0024,0048  NegativeCatchTrialsQuantity        no
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0024,0052  ExcessiveFalseNegatives            no
0024,0053  FalsePositivesEstimateFlag         no
0024,0054  FalsePositivesEstimate             no
0024,0055  CatchTrialsDataFlag                no
0024,0056  PositiveCatchTrialsQuantity        no
0024,0057  TestPointNormalsDataFlag           no
0024,0058  TestPointNormalsSequence           no
0024,0059  GlobalDeviationProbNormalsFlag     no
0024,0060  FalsePositivesQuantity             no
0024,0061  ExcessiveFalsePositivesDataFlag    no
0024,0062  ExcessiveFalsePositives            no
0024,0063  VisualFieldTestNormalsFlag         no
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0024,0065  AgeCorSensitivityDeviationAlgoSeq  no
0024,0066  GlobalDeviationFromNormal          no
0024,0067  GeneralDefectSensDeviationAlgoSeq  no
0024,0068  LocalizedDeviationFromNormal       no
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0024,0070  VisualFieldMeanSensitivity         no
0024,0071  GlobalDeviationProbability         no
0024,0072  LocalDeviationProbNormalsFlag      no
0024,0073  LocalizedDeviationProbability      no
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0024,0075  ShortTermFluctuation               no
0024,0076  ShortTermFluctuationProbCalculated no
0024,0077  ShortTermFluctuationProbability    no
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0024,0079  CorrectedLocalizedDevFromNormal    no
0024,0080  CorrectedLocalDevFrmNormalProbCalc no
0024,0081  CorrectedLocalDevFromNormalProb    no
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0024,0085  LocalizedDeviationProbabilitySeq   no
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0024,0087  FovealSensitivity                  no
0024,0088  VisualFieldTestDuration            no
0024,0089  VisualFieldTestPointSequence       no
0024,0090  VisualFieldTestPointXCoordinate    no
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0024,0094  SensitivityValue                   no
0024,0095  RetestStimulusSeen                 no
0024,0096  RetestSensitivityValue             no
0024,0097  VisualFieldTestPointNormalsSeq     no
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0024,0103  GeneralizedDefectCorrSensDevValue  no
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0024,0107  BlindSpotXCoordinate               no
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0024,0115  OphthalmicPatientClinicalInfoRtEye no
0024,0117  FovealPointNormativeDataFlag       no
0024,0118  FovealPointProbabilityValue        no
0024,0120  ScreeningBaselineMeasured          no
0024,0122  ScreeningBaselineMeasuredSequence  no
0024,0124  ScreeningBaselineType              no
0024,0126  ScreeningBaselineValue             no
0024,0202  AlgorithmSource                    no
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0024,0307  DataSetVersion                     no
0024,0308  DataSetSource                      no
0024,0309  DataSetDescription                 no
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0024,0320  VisualFieldGlobalResultsIndexSeq   no
0024,0325  DataObservationSequence            no
0024,0338  IndexNormalsFlag                   no
0024,0341  IndexProbability                   no
0024,0344  IndexProbabilitySequence           no
0025,1006  LastPulseSequenceUsed             no
0025,1007  ImagesInSeries                    no
0025,1010  LandmarkCounter                    no
0025,1011  NumberOfAcquisitions               no
0025,1014  IndicatesNoofUpdatesToHeader       no
0025,1017  SeriesCompleteFlag                 no
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0025,1019  LastImageNumberUsed                no
0025,101A  PrimaryReceiverSuiteAndHost        no
0027,1006  ImageArchiveFlag                   no
0027,1010  ScoutType                          no
0027,101C  VmaMamp                            no
0027,101D  VmaPhase                           no
0027,101E  VmaMod                             no
0027,101F  VmaClip                            no
0027,1020  SmartScanOnOffFlag                 no
0027,1030  ForeignImageRevision               no
0027,1031  ImagingMode                        no
0027,1032  PulseSequence                      no
0027,1033  ImagingOptions                     no
0027,1035  PlaneType                          no
0027,1036  ObliquePlane                       no
0027,1040  RASLetterOfImageLocation           no
0027,1041  ImageLocation                      no
0027,1042  CenterRCoordOfPlaneImage          no
0027,1043  CenterACoordOfPlaneImage          no
0027,1044  CenterSCoordOfPlaneImage          no
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0027,1046  NormalACoord                      no
0027,1047  NormalSCoord                      no
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0027,1048  RCoordOfTopRightCorner             no
0027,1049  ACoordOfTopRightCorner             no
0027,104A  SCoordOfTopRightCorner             no
0027,104B  RCoordOfBottomRightCorner          no
0027,104C  ACoordOfBottomRightCorner          no
0027,104D  SCoordOfBottomRightCorner          no
0027,1050  TableStartLocation                 no
0027,1051  TableEndLocation                   no
0027,1052  RASLetterForSideOfImage            no
0027,1053  RASLetterForAnteriorPosterior      no
0027,1054  RASLetterForScoutStartLoc          no
0027,1055  RASLetterForScoutEndLoc            no
0027,1060  ImageDimensionX                    no
0027,1061  ImageDimensionY                    no
0027,1062  NumberOfExcitations               no
0028,0000  ImagePresentationGroupLength       no
0028,0002  SamplesPerPixel                    no
0028,0003  SamplesPerPixelUsed                no
0028,0004  PhotometricInterpretation          no
0028,0005  ImageDimensions                    no
0028,0006  PlanarConfiguration                no
0028,0008  NumberOfFrames                     no
0028,0009  FrameIncrementPointer              no
0028,000A  FrameDimensionPointer              no
0028,0010  Rows                               no
0028,0011  Columns                            no
0028,0012  Planes                             no
0028,0014  UltrasoundColorDataPresent         no
0028,0030  PixelSpacing                       no
0028,0031  ZoomFactor                         no
0028,0032  ZoomCenter                         no
0028,0034  PixelAspectRatio                   no
0028,0040  ImageFormat                        no
0028,0050  ManipulatedImage                  no
0028,0051  CorrectedImage                    no
0028,005F  CompressionRecognitionCode         no
0028,0060  CompressionCode                    no
0028,0061  CompressionOriginator              no
0028,0062  CompressionLabel                   no
0028,0063  CompressionDescription             no
0028,0065  CompressionSequence                no
0028,0066  CompressionStepPointers            no
0028,0068  RepeatInterval                     no
0028,0069  BitsGrouped                        no
0028,0070  PerimeterTable                     no
0028,0071  PerimeterValue                     no
0028,0080  PredictorRows                      no
0028,0081  PredictorColumns                   no
0028,0082  PredictorConstants                 no
0028,0090  BlockedPixels                      no
0028,0091  BlockRows                          no
0028,0092  BlockColumns                       no
0028,0093  RowOverlap                        no
0028,0094  ColumnOverlap                     no
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0028,0100  BitsAllocated                       no
0028,0101  BitsStored                          no
0028,0102  HighBit                             no
0028,0103  PixelRepresentation                 no
0028,0104  SmallestValidPixelValue             no
0028,0105  LargestValidPixelValue              no
0028,0106  SmallestImagePixelValue             no
0028,0107  LargestImagePixelValue              no
0028,0108  SmallestPixelValueInSeries          no
0028,0109  LargestPixelValueInSeries           no
0028,0110  SmallestImagePixelValueInPlane      no
0028,0111  LargestImagePixelValueInPlane       no
0028,0120  PixelPaddingValue                   no
0028,0121  PixelPaddingRangeLimit              no
0028,0122  FloatPixelPaddingValue              no
0028,0123  DoubleFloatPixelPaddingValue        no
0028,0124  FloatPixelPaddingRangeLimit         no
0028,0125  DoubleFloatPixelPaddingRangeLimit   no
0028,0200  ImageLocation                       no
0028,0300  QualityControlImage                 no
0028,0301  BurnedInAnnotation                 no
0028,0302  RecognizableVisualFeatures          no
0028,0303  LongitudinalTemporalInfoModified    no
0028,0304  ReferencedColorPaletteInstanceUID   no
0028,0400  TransformLabel                      no
0028,0401  TransformVersionNumber              no
0028,0402  NumberOfTransformSteps             no
0028,0403  SequenceOfCompressedData           no
0028,0404  DetailsOfCoefficients              no
0028,04x0  RowsForNthOrderCoefficients        no
0028,04x1  ColumnsForNthOrderCoefficients     no
0028,04x2  CoefficientCoding                   no
0028,04x3  CoefficientCodingPointers           no
0028,0700  DCTLabel                            no
0028,0701  DataBlockDescription               no
0028,0702  DataBlock                          no
0028,0710  NormalizationFactorFormat           no
0028,0720  ZonalMapNumberFormat               no
0028,0721  ZonalMapLocation                   no
0028,0722  ZonalMapFormat                     no
0028,0730  AdaptiveMapFormat                   no
0028,0740  CodeNumberFormat                    no
0028,08x0  CodeLabel                           no
0028,08x2  NumberOfTables                      no
0028,08x3  CodeTableLocation                   no
0028,08x4  BitsForCodeWord                     no
0028,08x8  ImageDataLocation                   no
0028,0A02  PixelSpacingCalibrationType         no
0028,0A04  PixelSpacingCalibrationDescription no
0028,1040  PixelIntensityRelationship          no
0028,1041  PixelIntensityRelationshipSign      no
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0028,1051  WindowWidth                         no
0028,1052  RescaleIntercept                    no
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0028,1053  RescaleSlope                        no
0028,1054  RescaleType                         no
0028,1055  WindowCenterAndWidthExplanation    no
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0028,1090  RecommendedViewingMode              no
0028,1100  GrayLookupTableDescriptor           no
0028,1101  RedPaletteColorTableDescriptor      no
0028,1102  GreenPaletteColorTableDescriptor    no
0028,1103  BluePaletteColorTableDescriptor     no
0028,1104  AlphaPaletteColorLookupTableDescr  no
0028,1111  LargeRedPaletteColorTableDescr      no
0028,1112  LargeGreenPaletteColorTableDescr    no
0028,1113  LargeBluePaletteColorTableDescr     no
0028,1199  PaletteColorTableUID                no
0028,1200  GrayLookupTableData                no
0028,1201  RedPaletteColorTableData           no
0028,1202  GreenPaletteColorTableData         no
0028,1203  BluePaletteColorTableData          no
0028,1204  AlphaPaletteColorLookupTableData   no
0028,1211  LargeRedPaletteColorTableData      no
0028,1212  LargeGreenPaletteColorTableData    no
0028,1213  LargeBluePaletteColorTableData     no
0028,1214  LargePaletteColorLookupTableUID    no
0028,1221  SegmentedRedColorTableData         no
0028,1222  SegmentedGreenColorTableData       no
0028,1223  SegmentedBlueColorTableData        no
0028,1224  SegmentedAlphaPaletteColLkupTable  no
0028,1230  StoredValueColorRangeSequence      no
0028,1231  MinimumStoredValueMapped           no
0028,1232  MaximumStoredValueMapped           no
0028,1300  BreastImplantPresent               no
0028,1350  PartialView                        no
0028,1351  PartialViewDescription             no
0028,1352  PartialViewCodeSequence            no
0028,135A  SpatialLocationsPreserved          no
0028,1401  DataFrameAssignmentSequence        no
0028,1402  DataPathAssignment                 no
0028,1403  BitsMappedToColorLookupTable       no
0028,1404  BlendingLUT1Sequence               no
0028,1405  BlendingLUT1TransferFunction       no
0028,1406  BlendingWeightConstant             no
0028,1407  BlendingLookupTableDescriptor      no
0028,1408  BlendingLookupTableData            no
0028,140B  EnhancedPaletteColorLookupTableSeq no
0028,140C  BlendingLUT2Sequence               no
0028,140D  BlendingLUT2TransferFunction       no
0028,140E  DataPathID                         no
0028,140F  RGBLUTTransferFunction             no
0028,1410  AlphaLUTTransferFunction           no
0028,2000  ICCProfile                         no
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0028,2112  LossyImageCompressionRatio         no
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0028,2114  LossyImageCompressionMethod        no
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0028,3004  ModalityLUTType                    no
0028,3006  LUTData                            no
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0028,3110  SoftcopyVOILUTSequence             no
0028,4000  ImagePresentationComments          no
0028,5000  BiPlaneAcquisitionSequence         no
0028,6010  RepresentativeFrameNumber          no
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0028,6022  FrameOfInterestDescription         no
0028,6023  FrameOfInterestType                no
0028,6030  MaskPointers                       no
0028,6040  RWavePointer                       no
0028,6100  MaskSubtractionSequence            no
0028,6101  MaskOperation                      no
0028,6102  ApplicableFrameRange               no
0028,6110  MaskFrameNumbers                   no
0028,6112  ContrastFrameAveraging            no
0028,6114  MaskSubPixelShift                 no
0028,6120  TIDOffset                          no
0028,6190  MaskOperationExplanation           no
0028,7000  EquipmentAdministratorSequence     no
0028,7001  NumberOfDisplaySubsystems          no
0028,7002  CurrentConfigurationID             no
0028,7003  DisplaySubsystemID                 no
0028,7004  DisplaySubsystemName               no
0028,7005  DisplaySubsystemDescription        no
0028,7006  SystemStatus                       no
0028,7007  SystemStatusComment                no
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0028,7009  LuminanceCharacteristicsID         no
0028,700A  DisplaySubsystemConfigurationSeq   no
0028,700B  ConfigurationID                    no
0028,700C  ConfigurationName                  no
0028,700D  ConfigurationDescription           no
0028,700E  ReferencedTargetLuminanceCharID    no
0028,700F  QAResultsSequence                  no
0028,7010  DisplaySubsystemQAResultsSequence  no
0028,7011  ConfigurationQAResultsSequence     no
0028,7012  MeasurementEquipmentSequence       no
0028,7013  MeasurementFunctions               no
0028,7014  MeasurementEquipmentType          no
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0028,7017  DDLValue                           no
0028,7018  CIExyWhitePoint                    no
0028,7019  DisplayFunctionType               no
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0028,701B  NumberOfLuminancePoints            no
0028,701C  LuminanceResponseSequence          no
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0028,701D  TargetMinimumLuminance             no
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0028,7023  DisplaySubsystemSequence           no
0028,7024  LuminanceResultSequence            no
0028,7025  AmbientLightValueSource            no
0028,7026  MeasuredCharacteristics            no
0028,7027  LuminanceUniformityResultSequence  no
0028,7028  VisualEvaluationTestSequence       no
0028,7029  TestResult                         no
0028,702A  TestResultComment                  no
0028,702B  TestImageValidation                no
0028,702C  TestPatternCodeSequence            no
0028,702D  MeasurementPatternCodeSequence     no
0028,702E  VisualEvaluationMethodCodeSequence no
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0028,9002  DataPointColumns                   no
0028,9003  SignalDomainColumns               no
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0028,9145  PixelValueTransformationSequence   no
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0028,9411  DisplayFilterPercentage            no
0028,9415  FramePixelShiftSequence           no
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0028,9445  GeometricMaximumDistortion         no
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0028,9503  VerticesOfTheRegion                no
0028,9505  MultiFramePresentationSequence     no
0028,9506  PixelShiftFrameRange               no
0028,9507  LUTFrameRange                      no
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0028,9537  EquipmentCoordinateSystemID        no
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0029,1006  LowerRangeOfPixels1c               no
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0029,100A  LowerRangeOfPixels1g               no
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0029,1016  LowerRangeOfPixels1i              no
0029,1017  LowerRangeOfPixels2               no
0029,1018  UpperRangeOfPixels2               no
0029,101A  LenOfTotHdrInBytes                no
0029,1026  VersionOfTheHdrStruct             no
0029,1034  AdvantageCompOverflow             no
0029,1035  AdvantageCompUnderflow            no
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0032,000C  StudyPriorityID                   no
0032,0012  StudyIDIssuer                     no
0032,0032  StudyVerifiedDate                 no
0032,0033  StudyVerifiedTime                 no
0032,0034  StudyReadDate                     no
0032,0035  StudyReadTime                     no
0032,1000  ScheduledStudyStartDate           no
0032,1001  ScheduledStudyStartTime           no
0032,1010  ScheduledStudyStopDate            no
0032,1011  ScheduledStudyStopTime            no
0032,1020  ScheduledStudyLocation            no
0032,1021  ScheduledStudyLocationAETitle     no
0032,1030  ReasonForStudy                    no
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0032,1032  RequestingPhysician               no
0032,1033  RequestingService                 no
0032,1034  RequestingServiceCodeSequence     no
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0032,1041  StudyArrivalTime                  no
0032,1050  StudyCompletionDate              no
0032,1051  StudyCompletionTime              no
0032,1055  StudyComponentStatusID           no
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0032,1064  RequestedProcedureCodeSequence   no
0032,1065  RequestedLateralityCodeSequence  no
0032,1066  ReasonForVisit                    no
0032,1067  ReasonForVisitCodeSequence       no
0032,1070  RequestedContrastAgent           no
0032,4000  StudyComments                     no
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0034,0002  FlowIdentifier                    no
0034,0003  FlowTransferSyntaxUID             no
0034,0004  FlowRTPSamplingRate               no
0034,0005  SourceIdentifier                  no
0034,0007  FrameOriginTimestamp              no
0034,0008  IncludesImagingSubject            no
0034,0009  FrameUsefulnessGroupSequence      no
0034,000A  RealTimeBulkDataFlowSequence      no
0034,000B  CameraPositionGroupSequence       no
0034,000C  IncludesInformation               no
0034,000D  TimeOfFrameGroupSequence          no
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0038,001C  ScheduledDischargeDate             no
0038,001D  ScheduledDischargeTime             no
0038,001E  ScheduledPatientInstitResidence    no
0038,0020  AdmittingDate                      no
0038,0021  AdmittingTime                      no
0038,0030  DischargeDate                      no
0038,0032  DischargeTime                      no
0038,0040  DischargeDiagnosisDescription      no
0038,0044  DischargeDiagnosisCodeSequence     no
0038,0050  SpecialNeeds                       no
0038,0060  ServiceEpisodeID                   no
0038,0061  IssuerOfServiceEpisodeID           no
0038,0062  ServiceEpisodeDescription         no
0038,0064  IssuerOfServiceEpisodeIDSequence   no
0038,0100  PertinentDocumentsSequence         no
0038,0101  PertinentResourcesSequence         no
0038,0102  ResourceDescription               no
0038,0300  CurrentPatientLocation             no
0038,0400  PatientInstitutionResidence        no
0038,0500  PatientState                       no
0038,0502  PatientClinicalTrialParticipSeq    no
0038,4000  VisitComments                      no
003A,0004  WaveformOriginality                no
003A,0005  NumberOfWaveformChannels           no
003A,0010  NumberOfWaveformSamples            no
003A,001A  SamplingFrequency                  no
003A,0020  MultiplexGroupLabel                no
003A,0200  ChannelDefinitionSequence          no
003A,0202  WaveformChannelNumber              no
003A,0203  ChannelLabel                       no
003A,0205  ChannelStatus                      no
003A,0208  ChannelSourceSequence              no
003A,0209  ChannelSourceModifiersSequence     no
003A,020A  SourceWaveformSequence             no
003A,020C  ChannelDerivationDescription       no
003A,0210  ChannelSensitivity                 no
003A,0211  ChannelSensitivityUnitsSequence    no
003A,0212  ChannelSensitivityCorrectionFactor no
003A,0213  ChannelBaseline                    no
003A,0214  ChannelTimeSkew                    no
003A,0215  ChannelSampleSkew                  no
003A,0218  ChannelOffset                      no
003A,021A  WaveformBitsStored                 no
003A,0220  FilterLowFrequency                 no
003A,0221  FilterHighFrequency                no
003A,0222  NotchFilterFrequency               no
003A,0223  NotchFilterBandwidth               no
003A,0230  WaveformDataDisplayScale           no
003A,0231  WaveformDisplayBkgCIELabValue      no
```

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003A,0240  WaveformPresentationGroupSequence  no
003A,0241  PresentationGroupNumber            no
003A,0242  ChannelDisplaySequence             no
003A,0244  ChannelRecommendDisplayCIELabValue no
003A,0245  ChannelPosition                    no
003A,0246  DisplayShadingFlag                 no
003A,0247  FractionalChannelDisplayScale      no
003A,0248  AbsoluteChannelDisplayScale        no
003A,0300  MultiplexAudioChannelsDescrCodeSeq no
003A,0301  ChannelIdentificationCode          no
003A,0302  ChannelMode                        no
003A,0310  MultiplexGroupUID                  no
003A,0311  PowerlineFrequency                 no
003A,0312  ChannelImpedanceSequence           no
003A,0313  ImpedanceValue                     no
003A,0314  ImpedanceMeasurementDateTime       no
003A,0315  ImpedanceMeasurementFrequency      no
003A,0316  ImpedanceMeasurementCurrentType    no
003A,0317  WaveformAmplifierType              no
003A,0318  FilterLowFrequencyCharSeq          no
003A,0319  FilterHighFrequencyCharSeq         no
003A,0320  SummarizedFilterLookupTableSeq     no
003A,0321  NotchFilterCharacteristicsSequence no
003A,0322  WaveformFilterType                 no
003A,0323  AnalogFilterCharacteristicsSeq     no
003A,0324  AnalogFilterRollOff                no
003A,0325  AnalogFilterTypeCodeSequence       no
003A,0326  DigitalFilterCharacteristicsSeq    no
003A,0327  DigitalFilterOrder                 no
003A,0328  DigitalFilterTypeCodeSequence      no
003A,0329  WaveformFilterDescription         no
003A,032A  FilterLookupTableSequence          no
003A,032B  FilterLookupTableDescription       no
003A,032C  FrequencyEncodingCodeSequence      no
003A,032D  MagnitudeEncodingCodeSequence      no
003A,032E  FilterLookupTableData              no
0040,0001  ScheduledStationAETitle            no
0040,0002  ScheduledProcedureStepStartDate    no
0040,0003  ScheduledProcedureStepStartTime    no
0040,0004  ScheduledProcedureStepEndDate      no
0040,0005  ScheduledProcedureStepEndTime      no
0040,0006  ScheduledPerformingPhysiciansName  no
0040,0007  ScheduledProcedureStepDescription  no
0040,0008  ScheduledProtocolCodeSequence      no
0040,0009  ScheduledProcedureStepID           no
0040,000A  StageCodeSequence                  no
0040,000B  ScheduledPerformingPhysicianIDSeq  no
0040,0010  ScheduledStationName               no
0040,0011  ScheduledProcedureStepLocation     no
0040,0012  PreMedication                      no
0040,0020  ScheduledProcedureStepStatus       no
0040,0026  OrderPlacerIdentifierSequence      no
0040,0027  OrderFillerIdentifierSequence      no
0040,0031  LocalNamespaceEntityID             no
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0040,0032  UniversalEntityID                 no
0040,0033  UniversalEntityIDType             no
0040,0035  IdentifierTypeCode                no
0040,0036  AssigningFacilitySequence         no
0040,0039  AssigningJurisdictionCodeSequence  no
0040,003A  AssigningAgencyOrDepartmentCodeSeq no
0040,0100  ScheduledProcedureStepSequence    no
0040,0220  ReferencedNonImageCompositeSOPSeq  no
0040,0241  PerformedStationAETitle           no
0040,0242  PerformedStationName             no
0040,0243  PerformedLocation                no
0040,0244  PerformedProcedureStepStartDate   no
0040,0245  PerformedProcedureStepStartTime   no
0040,0250  PerformedProcedureStepEndDate     no
0040,0251  PerformedProcedureStepEndTime     no
0040,0252  PerformedProcedureStepStatus      no
0040,0253  PerformedProcedureStepID          no
0040,0254  PerformedProcedureStepDescription  no
0040,0255  PerformedProcedureTypeDescription  no
0040,0260  PerformedProtocolCodeSequence     no
0040,0261  PerformedProtocolType             no
0040,0270  ScheduledStepAttributesSequence   no
0040,0275  RequestAttributesSequence         no
0040,0280  CommentsOnPerformedProcedureStep  no
0040,0281  ProcStepDiscontinueReasonCodeSeq  no
0040,0293  QuantitySequence                 no
0040,0294  Quantity                         no
0040,0295  MeasuringUnitsSequence           no
0040,0296  BillingItemSequence             no
0040,0300  TotalTimeOfFluoroscopy           no
0040,0301  TotalNumberOfExposures           no
0040,0302  EntranceDose                     no
0040,0303  ExposedArea                      no
0040,0306  DistanceSourceToEntrance         no
0040,0307  DistanceSourceToSupport          no
0040,030E  ExposureDoseSequence             no
0040,0310  CommentsOnRadiationDose          no
0040,0312  XRayOutput                       no
0040,0314  HalfValueLayer                   no
0040,0316  OrganDose                        no
0040,0318  OrganExposed                     no
0040,0320  BillingProcedureStepSequence     no
0040,0321  FilmConsumptionSequence          no
0040,0324  BillingSuppliesAndDevicesSequence  no
0040,0330  ReferencedProcedureStepSequence  no
0040,0340  PerformedSeriesSequence          no
0040,0400  CommentsOnScheduledProcedureStep  no
0040,0440  ProtocolContextSequence          no
0040,0441  ContentItemModifierSequence      no
0040,0500  ScheduledSpecimenSequence        no
0040,050A  SpecimenAccessionNumber          no
0040,0512  ContainerIdentifier              no
0040,0513  IssuerOfTheContainerIdentifierSeq  no
0040,0515  AlternateContainerIdentifierSeq  no
```

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0040,0518  ContainerTypeCodeSequence          no
0040,051A  ContainerDescription               no
0040,0520  ContainerComponentSequence         no
0040,0550  SpecimenSequence                   no
0040,0551  SpecimenIdentifier                 no
0040,0552  SpecimenDescriptionSequenceTrial   no
0040,0553  SpecimenDescriptionTrial           no
0040,0554  SpecimenUID                        no
0040,0555  AcquisitionContextSequence         no
0040,0556  AcquisitionContextDescription      no
0040,0560  SpecimenDescriptionSequence        no
0040,0562  IssuerOfTheSpecimenIdentifierSeq   no
0040,059A  SpecimenTypeCodeSequence           no
0040,0600  SpecimenShortDescription           no
0040,0602  SpecimenDetailedDescription        no
0040,0610  SpecimenPreparationSequence        no
0040,0612  SpecimenPrepStepContentItemSeq     no
0040,0620  SpecimenLocalizationContentItemSeq no
0040,06FA  SlideIdentifier                    no
0040,0710  WholeSlideMicroscopyImageFrameSeq  no
0040,071A  ImageCenterPointCoordinatesSeq     no
0040,072A  XOffsetInSlideCoordinateSystem     no
0040,073A  YOffsetInSlideCoordinateSystem     no
0040,074A  ZOffsetInSlideCoordinateSystem     no
0040,08D8  PixelSpacingSequence               no
0040,08DA  CoordinateSystemAxisCodeSequence   no
0040,08EA  MeasurementUnitsCodeSequence       no
0040,09F8  VitalStainCodeSequenceTrial        no
0040,1001  RequestedProcedureID               no
0040,1002  ReasonForRequestedProcedure        no
0040,1003  RequestedProcedurePriority         no
0040,1004  PatientTransportArrangements       no
0040,1005  RequestedProcedureLocation         no
0040,1006  PlacerOrderNumber-Procedure        no
0040,1007  FillerOrderNumber-Procedure        no
0040,1008  ConfidentialityCode                no
0040,1009  ReportingPriority                  no
0040,100A  ReasonForRequestedProcedureCodeSeq no
0040,1010  NamesOfIntendedRecipientsOfResults no
0040,1011  IntendedRecipientsOfResultsIDSeq   no
0040,1012  ReasonForPerformedProcedureCodeSeq no
0040,1060  RequestedProcedureDescriptionTrial no
0040,1101  PersonIdentificationCodeSequence   no
0040,1102  PersonAddress                      no
0040,1103  PersonTelephoneNumbers             no
0040,1104  PersonTelecomInformation           no
0040,1400  RequestedProcedureComments         no
0040,2001  ReasonForImagingServiceRequest     no
0040,2004  IssueDateOfImagingServiceRequest   no
0040,2005  IssueTimeOfImagingServiceRequest   no
0040,2006  PlacerOrderNum-ImagingServiceReq   no
0040,2007  FillerOrderNum-ImagingServiceReq   no
0040,2008  OrderEnteredBy                     no
0040,2009  OrderEntererLocation               no
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0040,2010  OrderCallbackPhoneNumber           no
0040,2011  OrderCallbackTelecomInformation    no
0040,2016  PlacerOrderNum-ImagingServiceReq   no
0040,2017  FillerOrderNum-ImagingServiceReq   no
0040,2400  ImagingServiceRequestComments      no
0040,3001  ConfidentialityOnPatientDataDescr  no
0040,4001  GenPurposeScheduledProcStepStatus  no
0040,4002  GenPurposePerformedProcStepStatus  no
0040,4003  GenPurposeSchedProcStepPriority    no
0040,4004  SchedProcessingApplicationsCodeSeq no
0040,4005  SchedProcedureStepStartDateAndTime no
0040,4006  MultipleCopiesFlag                 no
0040,4007  PerformedProcessingAppsCodeSeq     no
0040,4008  ScheduledProcedureStepExpDateTime  no
0040,4009  HumanPerformerCodeSequence         no
0040,4010  SchedProcStepModificationDateTime  no
0040,4011  ExpectedCompletionDateAndTime      no
0040,4015  ResultingGenPurposePerfProcStepSeq no
0040,4016  RefGenPurposeSchedProcStepSeq      no
0040,4018  ScheduledWorkitemCodeSequence      no
0040,4019  PerformedWorkitemCodeSequence      no
0040,4020  InputAvailabilityFlag              no
0040,4021  InputInformationSequence           no
0040,4022  RelevantInformationSequence        no
0040,4023  RefGenPurSchedProcStepTransUID     no
0040,4025  ScheduledStationNameCodeSequence   no
0040,4026  ScheduledStationClassCodeSequence  no
0040,4027  SchedStationGeographicLocCodeSeq   no
0040,4028  PerformedStationNameCodeSequence   no
0040,4029  PerformedStationClassCodeSequence  no
0040,4030  PerformedStationGeogLocCodeSeq     no
0040,4031  RequestedSubsequentWorkItemCodeSeq no
0040,4032  NonDICOMOutputCodeSequence         no
0040,4033  OutputInformationSequence          no
0040,4034  ScheduledHumanPerformersSequence   no
0040,4035  ActualHumanPerformersSequence      no
0040,4036  HumanPerformersOrganization        no
0040,4037  HumanPerformerName                 no
0040,4040  RawDataHandling                    no
0040,4041  InputReadinessState                no
0040,4050  PerformedProcedureStepStartTime    no
0040,4051  PerformedProcedureStepEndDateTime  no
0040,4052  ProcedureStepCancellationDateTime  no
0040,4070  OutputDestinationSequence          no
0040,4071  DICOMStorageSequence               no
0040,4072  STOWRSStorageSequence              no
0040,4073  StorageURL                         no
0040,4074  XDSStorageSequence                 no
0040,8302  EntranceDoseInMilliGy             no
0040,8303  EntranceDoseDerivation            no
0040,9092  ParametricMapFrameTypeSequence     no
0040,9094  RefImageRealWorldValueMappingSeq   no
0040,9096  RealWorldValueMappingSequence      no
0040,9098  PixelValueMappingCodeSequence      no
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0040,9210  LUTLabel                           no
0040,9211  RealWorldValueLastValueMapped      no
0040,9212  RealWorldValueLUTData              no
0040,9213  DoubleRealWorldLastValueMapped     no
0040,9214  DoubleRealWorldFirstValueMapped    no
0040,9216  RealWorldValueFirstValueMapped     no
0040,9220  QuantityDefinitionSequence         no
0040,9224  RealWorldValueIntercept            no
0040,9225  RealWorldValueSlope                no
0040,A007  FindingsFlagTrial                  no
0040,A010  RelationshipType                   no
0040,A020  FindingsSequenceTrial              no
0040,A021  FindingsGroupUIDTrial              no
0040,A022  ReferencedFindingsGroupUIDTrial    no
0040,A023  FindingsGroupRecordingDateTrial    no
0040,A024  FindingsGroupRecordingTimeTrial    no
0040,A026  FindingsSourceCategoryCodeSeqTrial no
0040,A027  VerifyingOrganization              no
0040,A028  DocumentingOrgIDCodeSeqTrial       no
0040,A030  VerificationDateTime               no
0040,A032  ObservationDateTime                no
0040,A033  ObservationStartDateTime           no
0040,A034  EffectiveStartDateTime             no
0040,A035  EffectiveStopDateTime              no
0040,A040  ValueType                          no
0040,A043  ConceptNameCodeSequence            no
0040,A047  MeasurementPrecisionDescrTrial     no
0040,A050  ContinuityOfContent                no
0040,A057  UrgencyOrPriorityAlertsTrial       no
0040,A060  SequencingIndicatorTrial           no
0040,A066  DocumentIdentifierCodeSeqTrial     no
0040,A067  DocumentAuthorTrial                no
0040,A068  DocumentAuthorIDCodeSeqTrial       no
0040,A070  IdentifierCodeSequenceTrial        no
0040,A073  VerifyingObserverSequence          no
0040,A074  ObjectBinaryIdentifierTrial        no
0040,A075  VerifyingObserverName              no
0040,A076  DocumentingObserverIDCodeSeqTrial  no
0040,A078  AuthorObserverSequence             no
0040,A07A  ParticipantSequence                no
0040,A07C  CustodialOrganizationSequence      no
0040,A080  ParticipationType                  no
0040,A082  ParticipationDateTime              no
0040,A084  ObserverType                       no
0040,A085  ProcedureIdentifierCodeSeqTrial    no
0040,A088  VerifyingObserverIdentCodeSequence no
0040,A089  ObjectDirectoryBinaryIDTrial       no
0040,A090  EquivalentCDADocumentSequence      no
0040,A0B0  ReferencedWaveformChannels         no
0040,A110  DateOfDocOrVerbalTransactionTrial  no
0040,A112  TimeOfDocCreateOrVerbalTransaction no
0040,A120  DateTime                           no
0040,A121  Date                               no
0040,A122  Time                               no
```

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0040,A123  PersonName                          no
0040,A124  UID                                 no
0040,A125  ReportStatusIDTrial                 no
0040,A130  TemporalRangeType                   no
0040,A132  ReferencedSamplePositions           no
0040,A136  ReferencedFrameNumbers              no
0040,A138  ReferencedTimeOffsets               no
0040,A13A  ReferencedDateTime                  no
0040,A160  TextValue                           no
0040,A161  FloatingPointValue                  no
0040,A162  RationalNumeratorValue              no
0040,A163  RationalDenominatorValue            no
0040,A167  ObservationCategoryCodeSeqTrial     no
0040,A168  ConceptCodeSequence                 no
0040,A16A  BibliographicCitationTrial          no
0040,A170  PurposeOfReferenceCodeSequence      no
0040,A171  ObservationUID                      no
0040,A172  ReferencedObservationUIDTrial       no
0040,A173  ReferencedObservationClassTrial     no
0040,A174  ReferencedObjectObsClassTrial       no
0040,A180  AnnotationGroupNumber               no
0040,A192  ObservationDateTrial                no
0040,A193  ObservationTimeTrial                no
0040,A194  MeasurementAutomationTrial          no
0040,A195  ModifierCodeSequence                no
0040,A224  IdentificationDescriptionTrial      no
0040,A290  CoordinatesSetGeometricTypeTrial    no
0040,A296  AlgorithmCodeSequenceTrial          no
0040,A297  AlgorithmDescriptionTrial           no
0040,A29A  PixelCoordinatesSetTrial            no
0040,A300  MeasuredValueSequence               no
0040,A301  NumericValueQualifierCodeSequence   no
0040,A307  CurrentObserverTrial                no
0040,A30A  NumericValue                        no
0040,A313  ReferencedAccessionSequenceTrial    no
0040,A33A  ReportStatusCommentTrial            no
0040,A340  ProcedureContextSequenceTrial       no
0040,A352  VerbalSourceTrial                   no
0040,A353  AddressTrial                        no
0040,A354  TelephoneNumberTrial                no
0040,A358  VerbalSourceIdentifierCodeSeqTrial no
0040,A360  PredecessorDocumentsSequence        no
0040,A370  ReferencedRequestSequence           no
0040,A372  PerformedProcedureCodeSequence      no
0040,A375  CurrentRequestedProcEvidenceSeq     no
0040,A380  ReportDetailSequenceTrial           no
0040,A385  PertinentOtherEvidenceSequence      no
0040,A390  HL7StructuredDocumentRefSeq         no
0040,A402  ObservationSubjectUIDTrial          no
0040,A403  ObservationSubjectClassTrial        no
0040,A404  ObservationSubjectTypeCodeSeqTrial no
0040,A491  CompletionFlag                      no
0040,A492  CompletionFlagDescription           no
0040,A493  VerificationFlag                    no
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0040,A494  ArchiveRequested                    no
0040,A496  PreliminaryFlag                     no
0040,A504  ContentTemplateSequence             no
0040,A525  IdenticalDocumentsSequence          no
0040,A600  ObservationSubjectContextFlagTrial no
0040,A601  ObserverContextFlagTrial            no
0040,A603  ProcedureContextFlagTrial           no
0040,A730  ContentSequence                     no
0040,A731  RelationshipSequenceTrial           no
0040,A732  RelationshipTypeCodeSequenceTrial   no
0040,A744  LanguageCodeSequenceTrial           no
0040,A801  TabulatedValuesSequence             no
0040,A802  NumberOfTableRows                   no
0040,A803  NumberOfTableColumns                no
0040,A804  TableRowNumber                      no
0040,A805  TableColumnNumber                   no
0040,A806  TableRowDefinitionSequence          no
0040,A807  TableColumnDefinitionSequence       no
0040,A808  CellValuesSequence                  no
0040,A992  UniformResourceLocatorTrial         no
0040,B020  AnnotationSequence                  no
0040,B030  StructuredWaveformAnnotationSeq     no
0040,B031  WaveformAnnotationDisplaySelSeq     no
0040,B032  ReferencedMontageIndex              no
0040,B033  WaveformTextualAnnotationSequence   no
0040,B034  AnnotationDateTime                  no
0040,B035  DisplayedWaveformSegmentSequence    no
0040,B036  SegmentDefinitionDateTime           no
0040,B037  MontageActivationSequence           no
0040,B038  MontageActivationTimeOffset         no
0040,B039  WaveformMontageSequence             no
0040,B03A  ReferencedMontageChannelNumber      no
0040,B03B  MontageName                         no
0040,B03C  MontageChannelSequence              no
0040,B03D  MontageIndex                        no
0040,B03E  MontageChannelNumber                no
0040,B03F  MontageChannelLabel                 no
0040,B040  MontageChannelSourceCodeSequence    no
0040,B041  ContributingChannelSourcesSequence no
0040,B042  ChannelWeight                       no
0040,DB00  TemplateIdentifier                  no
0040,DB06  TemplateVersion                     no
0040,DB07  TemplateLocalVersion                no
0040,DB0B  TemplateExtensionFlag               no
0040,DB0C  TemplateExtensionOrganizationUID    no
0040,DB0D  TemplateExtensionCreatorUID         no
0040,DB73  ReferencedContentItemIdentifier     no
0040,E001  HL7InstanceIdentifier               no
0040,E004  HL7DocumentEffectiveTime            no
0040,E006  HL7DocumentTypeCodeSequence         no
0040,E008  DocumentClassCodeSequence           no
0040,E010  RetrieveURI                         no
0040,E011  RetrieveLocationUID                 no
0040,E020  TypeOfInstances                     no
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0040,E021  DICOMRetrievalSequence             no
0040,E022  DICOMMediaRetrievalSequence        no
0040,E023  WADORetrievalSequence              no
0040,E024  XDSRetrievalSequence               no
0040,E025  WADORSRetrievalSequence            no
0040,E030  RepositoryUniqueID                 no
0040,E031  HomeCommunityID                    no
0042,0010  DocumentTitle                      no
0042,0011  EncapsulatedDocument               no
0042,0012  MIMETypeOfEncapsulatedDocument     no
0042,0013  SourceInstanceSequence             no
0042,0014  ListOfMIMETypes                    no
0042,0015  EncapsulatedDocumentLength         no
0043,1001  BitmapOfPrescanOptions             no
0043,1002  GradientOffsetInX                  no
0043,1003  GradientOffsetInY                  no
0043,1004  GradientOffsetInZ                  no
0043,1005  ImgIsOriginalOrUnoriginal         no
0043,1006  NumberOfEPIShots                  no
0043,1007  ViewsPerSegment                   no
0043,1008  RespiratoryRateBpm                no
0043,1009  RespiratoryTriggerPoint           no
0043,100A  TypeOfReceiverUsed                 no
0043,100B  PeakRateOfChangeOfGradientField    no
0043,100C  LimitsInUnitsOfPercent             no
0043,100D  PSDEstimatedLimit                  no
0043,100E  PSDEstimatedLimitInTeslaPerSecond  no
0043,100F  Saravghead                         no
0043,1010  WindowValue                        no
0043,1011  TotalInputViews                    no
0043,1012  X-RayChain                         no
0043,1013  DeconKernelParameters              no
0043,1014  CalibrationParameters              no
0043,1015  TotalOutputViews                   no
0043,1016  NumberOfOverranges                 no
0043,1017  IBHImageScaleFactors              no
0043,1018  BBHCoefficients                   no
0043,1019  NumberOfBBHChainsToBlend          no
0043,101A  StartingChannelNumber              no
0043,101B  PpscanParameters                   no
0043,101C  GEImageIntegrity                   no
0043,101D  LevelValue                         no
0043,101E  DeltaStartTime                     no
0043,101F  MaxOverrangesInAView               no
0043,1020  AvgOverrangesAllViews              no
0043,1021  CorrectedAfterGlowTerms            no
0043,1025  ReferenceChannels                  no
0043,1026  NoViewsRefChansBlocked             no
0043,1027  ScanPitchRatio                     no
0043,1028  UniqueImageIden                    no
0043,1029  HistogramTables                    no
0043,102A  UserDefinedData                    no
0043,102B  PrivateScanOptions                 no
0043,102C  EffectiveEchoSpacing               no
```

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0043,102D  StringSlopField1                  no
0043,102E  StringSlopField2                  no
0043,102F  RawDataType                       no
0043,1030  RawDataType                       no
0043,1031  RACordOfTargetReconCenter         no
0043,1032  RawDataType                       no
0043,1033  NegScanspacing                    no
0043,1034  OffsetFrequency                  no
0043,1035  UserUsageTag                      no
0043,1036  UserFillMapMSW                    no
0043,1037  UserFillMapLSW                    no
0043,1038  User25-48                         no
0043,1039  SlopInt6-9                        no
0043,1040  TriggerOnPosition                 no
0043,1041  DegreeOfRotation                 no
0043,1042  DASTriggerSource                 no
0043,1043  DASFpaGain                       no
0043,1044  DASOutputSource                  no
0043,1045  DASAdInput                       no
0043,1046  DASCalMode                      no
0043,1047  DASCalFrequency                 no
0043,1048  DASRegXm                        no
0043,1049  DASAutoZero                     no
0043,104A  StartingChannelOfView            no
0043,104B  DASXmPattern                     no
0043,104C  TGGCTriggerMode                  no
0043,104D  StartScanToXrayOnDelay           no
0043,104E  DurationOfXrayOn                 no
0043,1060  SlopInt10-17                     no
0043,1061  ScannerStudyEntityUID            no
0043,1062  ScannerStudyID                   no
0043,106f  ScannerTableEntry                no
0044,0001  ProductPackageIdentifier         no
0044,0002  SubstanceAdministrationApproval  no
0044,0003  ApprovalStatusFurtherDescription no
0044,0004  ApprovalStatusDateTime           no
0044,0007  ProductTypeCodeSequence          no
0044,0008  ProductName                      no
0044,0009  ProductDescription               no
0044,000A  ProductLotIdentifier             no
0044,000B  ProductExpirationDateTime        no
0044,0010  SubstanceAdministrationDateTime  no
0044,0011  SubstanceAdministrationNotes     no
0044,0012  SubstanceAdministrationDeviceID  no
0044,0013  ProductParameterSequence         no
0044,0019  SubstanceAdminParameterSeq       no
0044,0100  ApprovalSequence                 no
0044,0101  AssertionCodeSequence            no
0044,0102  AssertionUID                     no
0044,0103  AsserterIdentificationSequence   no
0044,0104  AssertionDateTime                no
0044,0105  AssertionExpirationDateTime      no
0044,0106  AssertionComments                no
0044,0107  RelatedAssertionSequence         no
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0044,0108  ReferencedAssertionUID             no
0044,0109  ApprovalSubjectSequence            no
0044,010A  OrganizationalRoleCodeSequence     no
0044,0110  RTAssertionsSequence               no
0045,1001  NumberOfMacroRowsInDetector        no
0045,1002  MacroWidthAtISOCenter              no
0045,1003  DASType                            no
0045,1004  DASGain                            no
0045,1005  DASTemperature                     no
0045,1006  TableDirectionInOrOut              no
0045,1007  ZSmoothingFactor                   no
0045,1008  ViewWeightingMode                  no
0045,1009  SigmaRowNumberWhichRowsWereUsed    no
0045,100A  MinimumDasValueFoundInTheScanData  no
0045,100B  MaximumOffsetShiftValueUsed        no
0045,100C  NumberOfViewsShifted               no
0045,100D  ZTrackingFlag                      no
0045,100E  MeanZError                         no
0045,100F  ZTrackingMaximumError              no
0045,1010  StartingViewForRow2a               no
0045,1011  NumberOfViewsInRow2a               no
0045,1012  StartingViewForRow1a               no
0045,1013  SigmaMode                          no
0045,1014  NumberOfViewsInRow1a               no
0045,1015  StartingViewForRow2b               no
0045,1016  NumberOfViewsInRow2b               no
0045,1017  StartingViewForRow1b               no
0045,1018  NumberOfViewsInRow1b               no
0045,1019  AirFilterCalibrationDate           no
0045,101A  AirFilterCalibrationTime           no
0045,101B  PhantomCalibrationDate             no
0045,101C  PhantomCalibrationTime             no
0045,101D  ZSlopeCalibrationDate              no
0045,101E  ZSlopeCalibrationTime              no
0045,101F  CrosstalkCalibrationDate           no
0045,1020  CrosstalkCalibrationTime           no
0045,1021  IterboneOptionFlag                 no
0045,1022  PeristalticFlagOption              no
0046,0012  LensDescription                    no
0046,0014  RightLensSequence                  no
0046,0015  LeftLensSequence                   no
0046,0016  UnspecifiedLateralityLensSequence  no
0046,0018  CylinderSequence                   no
0046,0028  PrismSequence                      no
0046,0030  HorizontalPrismPower              no
0046,0032  HorizontalPrismBase               no
0046,0034  VerticalPrismPower                no
0046,0036  VerticalPrismBase                 no
0046,0038  LensSegmentType                   no
0046,0040  OpticalTransmittance              no
0046,0042  ChannelWidth                      no
0046,0044  PupilSize                         no
0046,0046  CornealSize                       no
0046,0047  CornealSizeSequence              no
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0046,0050  AutorefractionRightEyeSequence     no
0046,0052  AutorefractionLeftEyeSequence      no
0046,0060  DistancePupillaryDistance          no
0046,0062  NearPupillaryDistance              no
0046,0063  IntermediatePupillaryDistance      no
0046,0064  OtherPupillaryDistance             no
0046,0070  KeratometryRightEyeSequence        no
0046,0071  KeratometryLeftEyeSequence         no
0046,0074  SteepKeratometricAxisSequence      no
0046,0075  RadiusOfCurvature                  no
0046,0076  KeratometricPower                  no
0046,0077  KeratometricAxis                   no
0046,0080  FlatKeratometricAxisSequence       no
0046,0092  BackgroundColor                    no
0046,0094  Optotype                           no
0046,0095  OptotypePresentation               no
0046,0097  SubjectiveRefractionRightEyeSeq    no
0046,0098  SubjectiveRefractionLeftEyeSeq     no
0046,0100  AddNearSequence                    no
0046,0101  AddIntermediateSequence            no
0046,0102  AddOtherSequence                   no
0046,0104  AddPower                           no
0046,0106  ViewingDistance                    no
0046,0110  CorneaMeasurementsSequence         no
0046,0111  SourceOfCorneaMeasDataCodeSeq      no
0046,0112  SteepCornealAxisSequence           no
0046,0113  FlatCornealAxisSequence            no
0046,0114  CornealPower                       no
0046,0115  CornealAxis                        no
0046,0116  CorneaMeasurementMethodCodeSeq     no
0046,0117  RefractiveIndexOfCornea            no
0046,0118  RefractiveIndexOfAqueousHumor      no
0046,0121  VisualAcuityTypeCodeSequence       no
0046,0122  VisualAcuityRightEyeSequence       no
0046,0123  VisualAcuityLeftEyeSequence        no
0046,0124  VisualAcuityBothEyesOpenSequence   no
0046,0125  ViewingDistanceType                no
0046,0135  VisualAcuityModifiers              no
0046,0137  DecimalVisualAcuity                no
0046,0139  OptotypeDetailedDefinition         no
0046,0145  ReferencedRefractiveMeasSeq        no
0046,0146  SpherePower                        no
0046,0147  CylinderPower                      no
0046,0201  CornealTopographySurface           no
0046,0202  CornealVertexLocation             no
0046,0203  PupilCentroidXCoordinate           no
0046,0204  PupilCentroidYCoordinate           no
0046,0205  EquivalentPupilRadius              no
0046,0207  CornealTopographyMapTypeCodeSeq    no
0046,0208  VerticesOfTheOutlineOfPupil        no
0046,0210  CornealTopographyMappingNormalsSeq no
0046,0211  MaximumCornealCurvatureSequence    no
0046,0212  MaximumCornealCurvature            no
0046,0213  MaximumCornealCurvatureLocation    no
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0046,0215  MinimumKeratometricSequence        no
0046,0218  SimulatedKeratometricCylinderSeq   no
0046,0220  AverageCornealPower                no
0046,0224  CornealISValue                     no
0046,0227  AnalyzedArea                       no
0046,0230  SurfaceRegularityIndex             no
0046,0232  SurfaceAsymmetryIndex              no
0046,0234  CornealEccentricityIndex           no
0046,0236  KeratoconusPredictionIndex         no
0046,0238  DecimalPotentialVisualAcuity       no
0046,0242  CornealTopoMapQualityEvaluation    no
0046,0244  SourceImageCornealProcessedDataSeq no
0046,0247  CornealPointLocation               no
0046,0248  CornealPointEstimated              no
0046,0249  AxialPower                         no
0046,0250  TangentialPower                    no
0046,0251  RefractivePower                    no
0046,0252  RelativeElevation                  no
0046,0253  CornealWavefront                   no
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0048,0003  ImagedVolumeDepth                  no
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0048,0112  ObjectiveLensPower                 no
0048,0113  ObjectiveLensNumericalAperture     no
0048,0114  ConfocalMode                       no
0048,0115  TissueLocation                     no
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0048,0117  ImageAcquisitionDepth              no
0048,0120  PaletteColorLookupTableSequence    no
0048,0200  ReferencedImageNavigationSequence  no
0048,0201  TopLeftHandCornerOfLocalizerArea   no
0048,0202  BottomRightCornerOfLocalizerArea   no
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0048,021A  PlanePositionSlideSequence         no
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0048,021F  RowPositionInTotalImagePixelMatrix no
0048,0301  PixelOriginInterpretation          no
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0050,001B  ContainerComponentID               no
0050,001C  ContainerComponentLength           no
0050,001D  ContainerComponentDiameter         no
0050,001E  ContainerComponentDescription      no
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0050,0021  LongDeviceDescription              no
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0052,0002  OCTFocalDistance                   no
0052,0003  BeamSpotSize                       no
0052,0004  EffectiveRefractiveIndex           no
0052,0006  OCTAcquisitionDomain               no
0052,0007  OCTOpticalCenterWavelength         no
0052,0008  AxialResolution                    no
0052,0009  RangingDepth                       no
0052,0011  ALineRate                          no
0052,0012  ALinesPerFrame                     no
0052,0013  CatheterRotationalRate             no
0052,0014  ALinePixelSpacing                  no
0052,0016  ModeOfPercutaneousAccessSequence   no
0052,0025  IntravascularOCTFrameTypeSequence  no
0052,0026  OCTZOffsetApplied                  no
0052,0027  IntravascularFrameContentSequence  no
0052,0028  IntravascularLongitudinalDistance  no
0052,0029  IntravascularOCTFrameContentSeq    no
0052,0030  OCTZOffsetCorrection               no
0052,0031  CatheterDirectionOfRotation        no
0052,0033  SeamLineLocation                   no
0052,0034  FirstALineLocation                 no
0052,0036  SeamLineIndex                      no
0052,0038  NumberOfPaddedALines               no
0052,0039  InterpolationType                  no
0052,003A  RefractiveIndexApplied             no
0054,0010  EnergyWindowVector                 no
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0054,0012  EnergyWindowInformationSequence    no
0054,0013  EnergyWindowRangeSequence          no
0054,0014  EnergyWindowLowerLimit             no
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0054,0016  RadiopharmaceuticalInformationSeq  no
0054,0017  ResidualSyringeCounts              no
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0054,0032  PhaseInformationSequence          no
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0054,0036  PhaseDelay                        no
0054,0038  PauseBetweenFrames                no
0054,0039  PhaseDescription                 no
0054,0050  RotationVector                    no
0054,0051  NumberOfRotations                no
0054,0052  RotationInformationSequence       no
0054,0053  NumberOfFramesInRotation         no
0054,0060  RRIntervalVector                  no
0054,0061  NumberOfRRIntervals               no
0054,0062  GatedInformationSequence          no
0054,0063  DataInformationSequence           no
0054,0070  TimeSlotVector                    no
0054,0071  NumberOfTimeSlots                no
0054,0072  TimeSlotInformationSequence       no
0054,0073  TimeSlotTime                      no
0054,0080  SliceVector                       no
0054,0081  NumberOfSlices                    no
0054,0090  AngularViewVector                 no
0054,0100  TimeSliceVector                   no
0054,0101  NumberOfTimeSlices                no
0054,0200  StartAngle                        no
0054,0202  TypeOfDetectorMotion              no
0054,0210  TriggerVector                     no
0054,0211  NumberOfTriggersInPhase           no
0054,0220  ViewCodeSequence                  no
0054,0222  ViewModifierCodeSequence          no
0054,0300  RadionuclideCodeSequence          no
0054,0302  AdministrationRouteCodeSequence   no
0054,0304  RadiopharmaceuticalCodeSequence   no
0054,0306  CalibrationDataSequence           no
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0054,0410  PatientOrientationCodeSequence    no
0054,0412  PatientOrientationModifierCodeSeq no
0054,0414  PatientGantryRelationshipCodeSeq  no
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0054,0501  ScanProgressionDirection          no
0054,1000  SeriesType                        no
0054,1001  Units                             no
0054,1002  CountsSource                      no
0054,1004  ReprojectionMethod                no
0054,1006  SUVType                           no
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0054,1102  DecayCorrection                   no
0054,1103  ReconstructionMethod              no
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0054,1105  ScatterCorrectionMethod            no
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0054,1201  AxialMash                          no
0054,1202  TransverseMash                     no
0054,1203  DetectorElementSize                no
0054,1210  CoincidenceWindowWidth             no
0054,1220  SecondaryCountsType                no
0054,1300  FrameReferenceTime                 no
0054,1310  PrimaryCountsAccumulated           no
0054,1311  SecondaryCountsAccumulated         no
0054,1320  SliceSensitivityFactor             no
0054,1321  DecayFactor                       no
0054,1322  DoseCalibrationFactor             no
0054,1323  ScatterFractionFactor             no
0054,1324  DeadTimeFactor                    no
0054,1330  ImageIndex                        no
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0054,1401  DeadTimeCorrectionFlag            no
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0060,3004  HistogramFirstBinValue             no
0060,3006  HistogramLastBinValue              no
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0060,3020  HistogramData                      no
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0062,0005  SegmentLabel                       no
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0062,0007  SegmentationAlgorithmIDSequence    no
0062,0008  SegmentAlgorithmType               no
0062,0009  SegmentAlgorithmName               no
0062,000A  SegmentIdentificationSequence      no
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0062,000C  RecommendedDisplayGrayscaleValue   no
0062,000D  RecommendedDisplayCIELabValue      no
0062,000E  MaximumFractionalValue             no
0062,000F  SegmentedPropertyTypeCodeSequence  no
0062,0010  SegmentationFractionalType         no
0062,0011  SegmentedPropertyTypeModCodeSeq    no
0062,0012  UsedSegmentsSequence               no
0062,0013  SegmentsOverlap                    no
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0062,0021  TrackingUID                        no
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0064,0003  SourceFrameOfReferenceUID          no
0064,0005  DeformableRegistrationGridSequence no
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0066,000A  SurfaceProcessingRatio             no
0066,000B  SurfaceProcessingDescription       no
0066,000C  RecommendedPresentationOpacity     no
0066,000D  RecommendedPresentationType        no
0066,000E  FiniteVolume                       no
0066,0010  Manifold                           no
0066,0011  SurfacePointsSequence              no
0066,0012  SurfacePointsNormalsSequence       no
0066,0013  SurfaceMeshPrimitivesSequence      no
0066,0015  NumberOfSurfacePoints              no
0066,0016  PointCoordinatesData               no
0066,0017  PointPositionAccuracy              no
0066,0018  MeanPointDistance                  no
0066,0019  MaximumPointDistance               no
0066,001A  PointsBoundingBoxCoordinates       no
0066,001B  AxisOfRotation                     no
0066,001C  CenterOfRotation                   no
0066,001E  NumberOfVectors                    no
0066,001F  VectorDimensionality               no
0066,0020  VectorAccuracy                     no
0066,0021  VectorCoordinateData               no
0066,0022  DoublePointCoordinatesData         no
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0066,0024  EdgePointIndexList                 no
0066,0025  VertexPointIndexList               no
0066,0026  TriangleStripSequence              no
0066,0027  TriangleFanSequence                no
0066,0028  LineSequence                       no
0066,0029  PrimitivePointIndexList            no
0066,002A  SurfaceCount                       no
0066,002B  ReferencedSurfaceSequence          no
0066,002C  ReferencedSurfaceNumber            no
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0066,002E  SegmentSurfaceSourceInstanceSeq    no
0066,002F  AlgorithmFamilyCodeSequ            no
0066,0030  AlgorithmNameCodeSequence          no
0066,0031  AlgorithmVersion                   no
0066,0032  AlgorithmParameters                no
0066,0034  FacetSequence                      no
0066,0035  SurfaceProcessingAlgorithmIDSeq    no
0066,0036  AlgorithmName                      no
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0066,0038  RecommendedLineThickness          no
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0066,0042  LongEdgePointIndexList            no
0066,0043  LongVertexPointIndexList          no
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0066,0107  TrackSetDescription                 no
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0066,0124  TrackSetStatisticsSequence         no
0066,0125  FloatingPointValues                no
0066,0129  TrackPointIndexList                 no
0066,0130  TrackStatisticsSequence             no
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0066,0134  DiffusionModelCodeSequence         no
0068,6210  ImplantSize                         no
0068,6221  ImplantTemplateVersion              no
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0068,6225  OriginalImplantTemplateSequence     no
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0068,6230  ImplantTargetAnatomySequence        no
0068,6260  InformationFromManufacturerSeq      no
0068,6265  NotificationFromManufacturerSeq     no
0068,6270  InformationIssueDateTime            no
0068,6280  InformationSummary                  no
0068,62A0  ImplantRegulatoryDisapprovalCode    no
0068,62A5  OverallTemplateSpatialTolerance     no
0068,62C0  HPGLDocumentSequence                no
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0068,62D5  HPGLDocumentLabel                   no
0068,62E0  ViewOrientationCodeSequence         no
0068,62F0  ViewOrientationModifierCodeSeq      no
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0068,6340  HPGLPenLabel                        no
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0068,6390  SurfaceModelScalingFactor          no
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0068,63A4  CoatingMaterialsCodeSequence       no
0068,63A8  ImplantTypeCodeSequence            no
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0068,6410  DegreeOfFreedomID                  no
0068,6420  DegreeOfFreedomType                no
0068,6430  TwoDMatingFeatureCoordinatesSeq    no
0068,6440  ReferencedHPGLDocumentID           no
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0068,6460  TwoDMatingAxes                     no
0068,6470  TwoDDegreeOfFreedomSequence        no
0068,6490  ThreeDDegreeOfFreedomAxis          no
0068,64A0  RangeOfFreedom                     no
0068,64C0  ThreeDMatingPoint                  no
0068,64D0  ThreeDMatingAxes                   no
0068,64F0  TwoDDegreeOfFreedomAxis            no
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0068,6520  PlanningLandmarkPlaneSequence      no
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0068,6590  ThreeDPointCoordinates             no
0068,65A0  TwoDLineCoordinatesSequence        no
0068,65B0  TwoDLineCoordinates                no
0068,65D0  ThreeDLineCoordinates              no
0068,65E0  TwoDPlaneCoordinatesSequence       no
0068,65F0  TwoDPlaneIntersection              no
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0068,6620  ThreeDPlaneNormal                  no
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006A,000E  ReferencedOpticalPathIdentifier    no
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0070,0011  BoundingBoxBottomRightHandCorner    no
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0070,0103  PresentationPixelMagRatio          no
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0070,0208  GraphicGroupDescription            no
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0070,0229  CSSFontName                        no
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0070,0234  GraphicGroupSequence               no
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0070,0254  LineDashingStyle                   no
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0070,0257  FillMode                           no
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0070,0262  DiameterOfVisibility              no
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0070,0278  ShowTickLabel                      no
0070,0279  TickLabelAlignment                 no
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0070,0284  PatternOnOpacity                   no
0070,0285  PatternOffOpacity                  no
0070,0287  MajorTicksSequence                 no
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0070,030C  FrameOfRefTransformationMatrixType no
0070,030D  RegistrationTypeCodeSequence       no
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0070,0314  UsedFiducialsSequence              no
0070,0315  UsedRTStructureSetROISequence      no
0070,0318  GraphicCoordinatesDataSequence     no
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0070,031B  ReferencedFiducialUID              no
0070,031C  FiducialSetSequence                no
0070,031E  FiducialSequence                   no
0070,031F  FiducialsPropertyCategoryCodeSeq   no
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0070,0404  ReferencedSpatialRegistrationSeq   no
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0070,1202  PresentationInputType              no
0070,1203  InputSequencePositionIndex         no
0070,1204  Crop                              no
0070,1205  CroppingSpecificationIndex         no
0070,1206  CompositingMethod                 no
0070,1207  VolumetricPresentationInputNumber  no
0070,1208  ImageVolumeGeometry                no
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0070,120C  GlobalCroppingSpecificationIndex   no
0070,120D  RenderingMethod                    no
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0070,1302  VolumeCroppingMethod               no
0070,1303  BoundingBoxCrop                    no
0070,1304  ObliqueCroppingPlaneSequence       no
0070,1305  Plane                             no
0070,1306  PlaneNormal                       no
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0070,1503  MPRSlabThickness                  no
0070,1505  MPRTopLeftHandCorner              no
0070,1507  MPRViewWidthDirection             no
0070,1508  MPRViewWidth                      no
0070,150C  NumberOfVolumetricCurvePoints      no
0070,150D  VolumetricCurvePoints              no
0070,1511  MPRViewHeightDirection            no
0070,1512  MPRViewHeight                     no
0070,1602  RenderProjection                  no
0070,1603  ViewpointPosition                 no
0070,1604  ViewpointLookAtPoint              no
0070,1605  ViewpointUpDirection              no
0070,1606  RenderFieldOfView                 no
0070,1607  SamplingStepSize                  no
0070,1701  ShadingStyle                       no
0070,1702  AmbientReflectionIntensity        no
0070,1703  LightDirection                    no
0070,1704  DiffuseReflectionIntensity        no
0070,1705  SpecularReflectionIntensity       no
0070,1706  Shininess                         no
0070,1801  PresentationStateClassComponentSeq no
0070,1802  ComponentType                     no
0070,1803  ComponentInputSequence            no
0070,1804  VolumetricPresentationInputIndex  no
0070,1805  PresentationStateCompositorCompSeq no
0070,1806  WeightingTransferFunctionSequence  no
0070,1807  WeightingLookupTableDescriptor     no
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0070,1808  WeightingLookupTableData           no
0070,1901  VolumetricAnnotationSequence       no
0070,1903  ReferencedStructuredContextSeq     no
0070,1904  ReferencedContentItem              no
0070,1905  VolumetricPresentInputAnnotSeq     no
0070,1907  AnnotationClipping                 no
0070,1A01  PresentationAnimationStyle         no
0070,1A03  RecommendedAnimationRate           no
0070,1A04  AnimationCurveSequence             no
0070,1A05  AnimationStepSize                  no
0070,1A06  SwivelRange                        no
0070,1A07  VolumetricCurveUpDirections        no
0070,1A08  VolumeStreamSequence               no
0070,1A09  RGBATransferFunctionDescription    no
0070,1B01  AdvancedBlendingSequence           no
0070,1B02  BlendingInputNumber                no
0070,1B03  BlendingDisplayInputSequence       no
0070,1B04  BlendingDisplaySequence            no
0070,1B06  BlendingMode                       no
0070,1B07  TimeSeriesBlending                 no
0070,1B08  GeometryForDisplay                 no
0070,1B11  ThresholdSequence                  no
0070,1B12  ThresholdValueSequence             no
0070,1B13  ThresholdType                      no
0070,1B14  ThresholdValue                     no
0072,0002  HangingProtocolName                no
0072,0004  HangingProtocolDescription         no
0072,0006  HangingProtocolLevel               no
0072,0008  HangingProtocolCreator             no
0072,000A  HangingProtocolCreationDateTime    no
0072,000C  HangingProtocolDefinitionSequence  no
0072,000E  HangingProtocolUserIDCodeSequence  no
0072,0010  HangingProtocolUserGroupName       no
0072,0012  SourceHangingProtocolSequence      no
0072,0014  NumberOfPriorsReferenced           no
0072,0020  ImageSetsSequence                  no
0072,0022  ImageSetSelectorSequence           no
0072,0024  ImageSetSelectorUsageFlag          no
0072,0026  SelectorAttribute                  no
0072,0028  SelectorValueNumber                no
0072,0030  TimeBasedImageSetsSequence         no
0072,0032  ImageSetNumber                     no
0072,0034  ImageSetSelectorCategory           no
0072,0038  RelativeTime                       no
0072,003A  RelativeTimeUnits                  no
0072,003C  AbstractPriorValue                 no
0072,003E  AbstractPriorCodeSequence          no
0072,0040  ImageSetLabel                      no
0072,0050  SelectorAttributeVR                no
0072,0052  SelectorSequencePointer            no
0072,0054  SelectorSeqPointerPrivateCreator   no
0072,0056  SelectorAttributePrivateCreator    no
0072,005E  SelectorAEValue                    no
0072,005F  SelectorASValue                    no
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0072,0060  SelectorATValue                    no
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0072,0063  SelectorDTValue                    no
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0072,0065  SelectorOBValue                    no
0072,0066  SelectorLOValue                    no
0072,0067  SelectorOFValue                    no
0072,0068  SelectorLTValue                    no
0072,0069  SelectorOWValue                    no
0072,006A  SelectorPNValue                    no
0072,006B  SelectorTMValue                    no
0072,006C  SelectorSHValue                    no
0072,006D  SelectorUNValue                    no
0072,006E  SelectorSTValue                    no
0072,006F  SelectorUCValue                    no
0072,0070  SelectorUTValue                    no
0072,0071  SelectorURValue                    no
0072,0072  SelectorDSValue                    no
0072,0073  SelectorODValue                    no
0072,0074  SelectorFDValue                    no
0072,0075  SelectorOLValue                    no
0072,0076  SelectorFLValue                    no
0072,0078  SelectorULValue                    no
0072,007A  SelectorUSValue                    no
0072,007C  SelectorSLValue                    no
0072,007E  SelectorSSValue                    no
0072,007F  SelectorUIValue                    no
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0072,0081  SelectorOVValue                    no
0072,0082  SelectorSVValue                    no
0072,0083  SelectorUVValue                    no
0072,0100  NumberOfScreens                    no
0072,0102  NominalScreenDefinitionSequence    no
0072,0104  NumberOfVerticalPixels             no
0072,0106  NumberOfHorizontalPixels           no
0072,0108  DisplayEnvironmentSpatialPosition  no
0072,010A  ScreenMinimumGrayscaleBitDepth     no
0072,010C  ScreenMinimumColorBitDepth         no
0072,010E  ApplicationMaximumRepaintTime      no
0072,0200  DisplaySetsSequence                no
0072,0202  DisplaySetNumber                   no
0072,0203  DisplaySetLabel                    no
0072,0204  DisplaySetPresentationGroup        no
0072,0206  DisplaySetPresentationGroupDescr   no
0072,0208  PartialDataDisplayHandling         no
0072,0210  SynchronizedScrollingSequence      no
0072,0212  DisplaySetScrollingGroup           no
0072,0214  NavigationIndicatorSequence        no
0072,0216  NavigationDisplaySet               no
0072,0218  ReferenceDisplaySets               no
0072,0300  ImageBoxesSequence                 no
0072,0302  ImageBoxNumber                     no
0072,0304  ImageBoxLayoutType                 no
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0072,0306  ImageBoxTileHorizontalDimension    no
0072,0308  ImageBoxTileVerticalDimension      no
0072,0310  ImageBoxScrollDirection            no
0072,0312  ImageBoxSmallScrollType            no
0072,0314  ImageBoxSmallScrollAmount          no
0072,0316  ImageBoxLargeScrollType            no
0072,0318  ImageBoxLargeScrollAmount          no
0072,0320  ImageBoxOverlapPriority            no
0072,0330  CineRelativeToRealTime             no
0072,0400  FilterOperationsSequence           no
0072,0402  FilterByCategory                   no
0072,0404  FilterByAttributePresence          no
0072,0406  FilterByOperator                   no
0072,0420  StructuredDisplayBkgCIELabValue    no
0072,0421  EmptyImageBoxCIELabValue           no
0072,0422  StructuredDisplayImageBoxSequence  no
0072,0424  StructuredDisplayTextBoxSequence   no
0072,0427  ReferencedFirstFrameSequence       no
0072,0430  ImageBoxSynchronizationSequence    no
0072,0432  SynchronizedImageBoxList           no
0072,0434  TypeOfSynchronization              no
0072,0500  BlendingOperationType              no
0072,0510  ReformattingOperationType          no
0072,0512  ReformattingThickness              no
0072,0514  ReformattingInterval               no
0072,0516  ReformattingOpInitialViewDir       no
0072,0520  RenderingType3D                    no
0072,0600  SortingOperationsSequence          no
0072,0602  SortByCategory                     no
0072,0604  SortingDirection                   no
0072,0700  DisplaySetPatientOrientation       no
0072,0702  VOIType                            no
0072,0704  PseudoColorType                    no
0072,0705  PseudoColorPaletteInstanceRefSeq   no
0072,0706  ShowGrayscaleInverted              no
0072,0710  ShowImageTrueSizeFlag              no
0072,0712  ShowGraphicAnnotationFlag          no
0072,0714  ShowPatientDemographicsFlag        no
0072,0716  ShowAcquisitionTechniquesFlag      no
0072,0717  DisplaySetHorizontalJustification  no
0072,0718  DisplaySetVerticalJustification    no
0074,0120  ContinuationStartMeterset          no
0074,0121  ContinuationEndMeterset            no
0074,1000  UnifiedProcedureStepState          no
0074,1002  UPSProgressInformationSequence     no
0074,1004  UnifiedProcedureStepProgress       no
0074,1006  UnifiedProcedureStepProgressDescr  no
0074,1007  ProcedureStepProgressParametersSeq no
0074,1008  UnifiedProcedureStepComURISeq      no
0074,100E  ProcedureStepDiscontinuationReason no
0074,100a  ContactURI                         no
0074,100c  ContactDisplayName                 no
0074,1020  BeamTaskSequence                   no
0074,1022  BeamTaskType                       no
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0074,1024  BeamOrderIndex                     no
0074,1025  AutosequenceFlag                   no
0074,1026  TableTopVerticalAdjustedPosition  no
0074,1027  TableTopLongitudinalAdjustedPos   no
0074,1028  TableTopLateralAdjustedPosition   no
0074,102A  PatientSupportAdjustedAngle       no
0074,102B  TableTopEccentricAdjustedAngle    no
0074,102C  TableTopPitchAdjustedAngle        no
0074,102D  TableTopRollAdjustedAngle         no
0074,1030  DeliveryVerificationImageSequence  no
0074,1032  VerificationImageTiming           no
0074,1034  DoubleExposureFlag                no
0074,1036  DoubleExposureOrdering            no
0074,1038  DoubleExposureMeterset            no
0074,103A  DoubleExposureFieldDelta          no
0074,1040  RelatedReferenceRTImageSequence   no
0074,1042  GeneralMachineVerificationSequence no
0074,1044  ConventionalMachineVerificationSeq no
0074,1046  IonMachineVerificationSequence    no
0074,1048  FailedAttributesSequence          no
0074,104A  OverriddenAttributesSequence      no
0074,104C  ConventionalControlPointVerifySeq  no
0074,104E  IonControlPointVerificationSeq    no
0074,1050  AttributeOccurrenceSequence       no
0074,1052  AttributeOccurrencePointer        no
0074,1054  AttributeItemSelector             no
0074,1056  AttributeOccurrencePrivateCreator  no
0074,1057  SelectorSequencePointerItems      no
0074,1200  ScheduledProcedureStepPriority    no
0074,1202  WorklistLabel                     no
0074,1204  ProcedureStepLabel                no
0074,1210  ScheduledProcessingParametersSeq   no
0074,1212  PerformedProcessingParametersSeq   no
0074,1216  UPSPerformedProcedureSequence     no
0074,1220  RelatedProcedureStepSequence      no
0074,1222  ProcedureStepRelationshipType     no
0074,1224  ReplacedProcedureStepSequence     no
0074,1230  DeletionLock                      no
0074,1234  ReceivingAE                       no
0074,1236  RequestingAE                      no
0074,1238  ReasonForCancellation             no
0074,1242  SCPStatus                        no
0074,1244  SubscriptionListStatus            no
0074,1246  UPSListStatus                     no
0074,1324  BeamOrderIndex                     no
0074,1338  DoubleExposureMeterset            no
0074,133A  DoubleExposureFieldDelta          no
0074,1401  BrachyTaskSequence               no
0074,1402  ContinuationStartTotalRefAirKerma  no
0074,1403  ContinuationEndTotalRefAirKerma   no
0074,1404  ContinuationPulseNumber           no
0074,1405  ChannelDeliveryOrderSequence      no
0074,1406  ReferencedChannelNumber           no
0074,1407  StartCumulativeTimeWeight         no
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0074,1408  EndCumulativeTimeWeight            no
0074,1409  OmittedChannelSequence             no
0074,140A  ReasonForChannelOmission           no
0074,140B  ReasonForChannelOmissionDescr      no
0074,140C  ChannelDeliveryOrderIndex          no
0074,140D  ChannelDeliveryContinuationSeq     no
0074,140E  OmittedApplicationSetupSequence    no
0076,0001  ImplantAssemblyTemplateName        no
0076,0003  ImplantAssemblyTemplateIssuer      no
0076,0006  ImplantAssemblyTemplateVersion     no
0076,0008  ReplacedImplantAssemblyTemplateSeq no
0076,000A  ImplantAssemblyTemplateType        no
0076,000C  OriginalImplantAssemblyTemplateSeq no
0076,000E  DerivationImplantAssyTemplateSeq   no
0076,0010  ImplantAssyTemplateTgtAnatomySeq   no
0076,0020  ProcedureTypeCodeSequence          no
0076,0030  SurgicalTechnique                  no
0076,0032  ComponentTypesSequence             no
0076,0034  ComponentTypeCodeSequence          no
0076,0036  ExclusiveComponentType             no
0076,0038  MandatoryComponentType             no
0076,0040  ComponentSequence                  no
0076,0055  ComponentID                        no
0076,0060  ComponentAssemblySequence          no
0076,0070  Component1ReferencedID             no
0076,0080  Component1RefMatingFeatureSetID    no
0076,0090  Component1RefMatingFeatureID       no
0076,00A0  Component2ReferencedID             no
0076,00B0  Component2RefMatingFeatureSetID    no
0076,00C0  Component2RefMatingFeatureID       no
0078,0001  ImplantTemplateGroupName           no
0078,0010  ImplantTemplateGroupDescription    no
0078,0020  ImplantTemplateGroupIssuer         no
0078,0024  ImplantTemplateGroupVersion        no
0078,0026  ReplacedImplantTemplateGroupSeq    no
0078,0028  ImplantTemplateGroupTgtAnatomySeq  no
0078,002A  ImplantTemplateGroupMembersSeq     no
0078,002E  ImplantTemplateGroupMemberID       no
0078,0050  ThreeDImplantTemplGrpMemMatchPoint no
0078,0060  ThreeDImplantTemplGrpMemMatchAxes  no
0078,0070  ImplantTemplGrpMemMatch2DCoordSeq  no
0078,0090  TwoDImplantTemplGrpMemMatchPoint   no
0078,00A0  TwoDImplantTemplGrpMemberMatchAxes no
0078,00B0  ImplantTemplGrpVariationDimSeq     no
0078,00B2  ImplantTemplGrpVariationDimName    no
0078,00B4  ImplantTemplGrpVariationDimRankSeq no
0078,00B6  RefImplantTemplateGroupMemberID    no
0078,00B8  ImplantTemplGrpVariationDimRank    no
0080,0001  SurfaceScanAcquisitionTypeCodeSeq  no
0080,0002  SurfaceScanModeCodeSequence        no
0080,0003  RegistrationMethodCodeSequence     no
0080,0004  ShotDurationTime                   no
0080,0005  ShotOffsetTime                     no
0080,0006  SurfacePointPresentationValueData  no
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0080,0007  SurfacePointColorCIELabValueData   no
0080,0008  UVMappingSequence                  no
0080,0009  TextureLabel                       no
0080,0010  UValueData                         no
0080,0011  VValueData                         no
0080,0012  ReferencedTextureSequence          no
0080,0013  ReferencedSurfaceDataSequence      no
0082,0001  AssessmentSummary                  no
0082,0003  AssessmentSummaryDescription       no
0082,0004  AssessedSOPInstanceSequence        no
0082,0005  ReferencedComparisonSOPInstanceSeq no
0082,0006  NumberOfAssessmentObservations     no
0082,0007  AssessmentObservationsSequence     no
0082,0008  ObservationSignificance            no
0082,000A  ObservationDescription             no
0082,000C  StructuredConstraintObservationSeq no
0082,0010  AssessedAttributeValueSequence     no
0082,0016  AssessmentSetID                    no
0082,0017  AssessmentRequesterSequence        no
0082,0018  SelectorAttributeName              no
0082,0019  SelectorAttributeKeyword           no
0082,0021  AssessmentTypeCodeSequence         no
0082,0022  ObservationBasisCodeSequence       no
0082,0023  AssessmentLabel                    no
0082,0032  ConstraintType                     no
0082,0033  SpecificationSelectionGuidance     no
0082,0034  ConstraintValueSequence            no
0082,0035  RecommendedDefaultValueSequence    no
0082,0036  ConstraintViolationSignificance    no
0082,0037  ConstraintViolationCondition       no
0082,0038  ModifiableConstraintFlag           no
0088,0130  StorageMediaFileSetID              no
0088,0140  StorageMediaFileSetUID             no
0088,0200  IconImageSequence                  no
0088,0904  TopicTitle                         no
0088,0906  TopicSubject                       no
0088,0910  TopicAuthor                        no
0088,0912  TopicKeywords                      no
0100,0410  SOPInstanceStatus                  no
0100,0420  SOPAuthorizationDateAndTime        no
0100,0424  SOPAuthorizationComment            no
0100,0426  AuthorizationEquipmentCertNumber   no
0400,0005  MACIDNumber                        no
0400,0010  MACCalculationTransferSyntaxUID    no
0400,0015  MACAlgorithm                       no
0400,0020  DataElementsSigned                 no
0400,0100  DigitalSignatureUID                no
0400,0105  DigitalSignatureDateTime           no
0400,0110  CertificateType                    no
0400,0115  CertificateOfSigner                no
0400,0120  Signature                          no
0400,0305  CertifiedTimestampType             no
0400,0310  CertifiedTimestamp                 no
0400,0401  DigitalSignaturePurposeCodeSeq     no
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0400,0402  ReferencedDigitalSignatureSeq      no
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0400,0404  MAC                                no
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0400,0510  EncryptedContentTransferSyntaxUID  no
0400,0520  EncryptedContent                   no
0400,0550  ModifiedAttributesSequence         no
0400,0551  NonconformingModifiedAttributesSeq no
0400,0552  NonconformingDataElementValue      no
0400,0561  OriginalAttributesSequence         no
0400,0562  AttributeModificationDateTime      no
0400,0563  ModifyingSystem                    no
0400,0564  SourceOfPreviousValues            no
0400,0565  ReasonForTheAttributeModification  no
0400,0600  InstanceOriginStatus               no
1000,xxx0  EscapeTriplet                      no
1000,xxx1  RunLengthTriplet                   no
1000,xxx2  HuffmanTableSize                   no
1000,xxx3  HuffmanTableTriplet                no
1000,xxx4  ShiftTableSize                     no
1000,xxx5  ShiftTableTriplet                  no
1010,xxxx  ZonalMap                           no
2000,0010  NumberOfCopies                     no
2000,001E  PrinterConfigurationSequence       no
2000,0020  PrintPriority                      no
2000,0030  MediumType                         no
2000,0040  FilmDestination                    no
2000,0050  FilmSessionLabel                   no
2000,0060  MemoryAllocation                   no
2000,0061  MaximumMemoryAllocation            no
2000,0062  ColorImagePrintingFlag             no
2000,0063  CollationFlag                      no
2000,0065  AnnotationFlag                     no
2000,0067  ImageOverlayFlag                   no
2000,0069  PresentationLUTFlag                no
2000,006A  ImageBoxPresentationLUTFlag        no
2000,00A0  MemoryBitDepth                     no
2000,00A1  PrintingBitDepth                   no
2000,00A2  MediaInstalledSequence             no
2000,00A4  OtherMediaAvailableSequence        no
2000,00A8  SupportedImageDisplayFormatSeq     no
2000,0500  ReferencedFilmBoxSequence          no
2000,0510  ReferencedStoredPrintSequence      no
2010,0010  ImageDisplayFormat                 no
2010,0030  AnnotationDisplayFormatID          no
2010,0040  FilmOrientation                    no
2010,0050  FilmSizeID                         no
2010,0052  PrinterResolutionID                no
2010,0054  DefaultPrinterResolutionID         no
2010,0060  MagnificationType                  no
2010,0080  SmoothingType                      no
2010,00A6  DefaultMagnificationType           no
2010,00A7  OtherMagnificationTypesAvailable   no
2010,00A8  DefaultSmoothingType               no
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2010,00A9  OtherSmoothingTypesAvailable       no
2010,0100  BorderDensity                      no
2010,0110  EmptyImageDensity                  no
2010,0120  MinDensity                         no
2010,0130  MaxDensity                         no
2010,0140  Trim                               no
2010,0150  ConfigurationInformation           no
2010,0152  ConfigurationInformationDescr      no
2010,0154  MaximumCollatedFilms               no
2010,015E  Illumination                       no
2010,0160  ReflectedAmbientLight             no
2010,0376  PrinterPixelSpacing               no
2010,0500  ReferencedFilmSessionSequence      no
2010,0510  ReferencedImageBoxSequence         no
2010,0520  ReferencedBasicAnnotationBoxSeq    no
2020,0010  ImageBoxPosition                   no
2020,0020  Polarity                           no
2020,0030  RequestedImageSize                 no
2020,0040  RequestedDecimate-CropBehavior     no
2020,0050  RequestedResolutionID             no
2020,00A0  RequestedImageSizeFlag             no
2020,00A2  DecimateCropResult                 no
2020,0110  BasicGrayscaleImageSequence        no
2020,0111  BasicColorImageSequence            no
2020,0130  ReferencedImageOverlayBoxSequence  no
2020,0140  ReferencedVOILUTBoxSequence        no
2030,0010  AnnotationPosition                 no
2030,0020  TextString                         no
2040,0010  ReferencedOverlayPlaneSequence     no
2040,0011  ReferencedOverlayPlaneGroups       no
2040,0020  OverlayPixelDataSequence           no
2040,0060  OverlayMagnificationType           no
2040,0070  OverlaySmoothingType               no
2040,0072  OverlayOrImageMagnification        no
2040,0074  MagnifyToNumberOfColumns           no
2040,0080  OverlayForegroundDensity           no
2040,0082  OverlayBackgroundDensity           no
2040,0090  OverlayMode                        no
2040,0100  ThresholdDensity                   no
2040,0500  ReferencedImageBoxSequence         no
2050,0010  PresentationLUTSequence            no
2050,0020  PresentationLUTShape               no
2050,0500  ReferencedPresentationLUTSequence  no
2100,0010  PrintJobID                         no
2100,0020  ExecutionStatus                    no
2100,0030  ExecutionStatusInfo                no
2100,0040  CreationDate                       no
2100,0050  CreationTime                       no
2100,0070  Originator                         no
2100,0140  DestinationAE                      no
2100,0160  OwnerID                            no
2100,0170  NumberOfFilms                      no
2100,0500  ReferencedPrintJobSequence         no
2110,0010  PrinterStatus                      no
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2130,0010  PrintManagementCapabilitiesSeq     no
2130,0015  PrinterCharacteristicsSequence     no
2130,0030  FilmBoxContentSequence             no
2130,0040  ImageBoxContentSequence            no
2130,0050  AnnotationContentSequence          no
2130,0060  ImageOverlayBoxContentSequence     no
2130,0080  PresentationLUTContentSequence     no
2130,00A0  ProposedStudySequence              no
2130,00C0  OriginalImageSequence              no
2200,0001  LabelFromInfoExtractedFromInstance no
2200,0002  LabelText                         no
2200,0003  LabelStyleSelection               no
2200,0004  MediaDisposition                  no
2200,0005  BarcodeValue                      no
2200,0006  BarcodeSymbology                  no
2200,0007  AllowMediaSplitting               no
2200,0008  IncludeNonDICOMObjects            no
2200,0009  IncludeDisplayApplication         no
2200,000A  SaveCompInstancesAfterMediaCreate  no
2200,000B  TotalNumberMediaPiecesCreated      no
2200,000C  RequestedMediaApplicationProfile   no
2200,000D  ReferencedStorageMediaSequence     no
2200,000E  FailureAttributes                  no
2200,000F  AllowLossyCompression              no
2200,0020  RequestPriority                    no
3002,0002  RTImageLabel                       no
3002,0003  RTImageName                        no
3002,0004  RTImageDescription                 no
3002,000A  ReportedValuesOrigin               no
3002,000C  RTImagePlane                       no
3002,000D  XRayImageReceptorTranslation       no
3002,000E  XRayImageReceptorAngle             no
3002,0010  RTImageOrientation                 no
3002,0011  ImagePlanePixelSpacing             no
3002,0012  RTImagePosition                    no
3002,0020  RadiationMachineName               no
3002,0022  RadiationMachineSAD                no
3002,0024  RadiationMachineSSD                no
3002,0026  RTImageSID                         no
3002,0028  SourceToReferenceObjectDistance    no
3002,0029  FractionNumber                     no
3002,0030  ExposureSequence                   no
3002,0032  MetersetExposure                   no
3002,0034  DiaphragmPosition                 no
3002,0040  FluenceMapSequence                no
3002,0041  FluenceDataSource                 no
3002,0042  FluenceDataScale                  no
3002,0050  PrimaryFluenceModeSequence        no
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3002,0051  FluenceMode                          no
3002,0052  FluenceModeID                        no
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3002,0103  RTImageFrameContextSequence          no
3002,0104  RTImageScopeSequence                 no
3002,0105  BeamModifierCoordPresenceFlag        no
3002,0106  StartCumulativeMeterset              no
3002,0107  StopCumulativeMeterset               no
3002,0108  RTAcquisitionPatientPosSeq           no
3002,0109  RTImageFrameImagingDevicePosSeq      no
3002,010A  RTImageFramekVRadiationAcqSeq        no
3002,010B  RTImageFrameMVRadiationAcqSeq        no
3002,010C  RTImageFrameRadiationAcqSeq          no
3002,010D  ImagingSourcePositionSequence        no
3002,010E  ImageReceptorPositionSequence        no
3002,010F  DevicePosToEquipmentMappingMatrix    no
3002,0110  DevicePositionParameterSequence      no
3002,0111  ImagingSourceLocSpecificationType    no
3002,0112  ImagingDeviceLocationMatrixSeq       no
3002,0113  ImagingDeviceLocationParameterSeq    no
3002,0114  ImagingApertureSequence              no
3002,0115  ImagingApertureSpecificationType     no
3002,0116  NumberOfAcquisitionDevices           no
3002,0117  AcquisitionDeviceSequence            no
3002,0118  AcquisitionTaskSequence              no
3002,0119  AcquisitionTaskWorkitemCodeSeq       no
3002,011A  AcquisitionSubtaskSequence           no
3002,011B  SubtaskWorkitemCodeSequence          no
3002,011C  AcquisitionTaskIndex                 no
3002,011D  AcquisitionSubtaskIndex              no
3002,011E  RefBaseParamsRTRadiationInstanceSq   no
3002,011F  PositionAcquisitionTemplateIDSeq     no
3002,0120  PositionAcquisitionTemplateID        no
3002,0121  PositionAcquisitionTemplateName      no
3002,0122  PositionAcqTemplateCodeSequence      no
3002,0123  PositionAcqTemplateDescription       no
3002,0124  AcquisitionTaskApplicabilitySeq      no
3002,0125  ProjectionImagingAcqParamSeq         no
3002,0126  CTImagingAcquisitionParameterSeq     no
3002,0127  KVImagingGenerationParametersSeq     no
3002,0128  MVImagingGenerationParametersSeq     no
3002,0129  AcquisitionSignalType                no
3002,012A  AcquisitionMethod                    no
3002,012B  ScanStartPositionSequence            no
3002,012C  ScanStopPositionSequence             no
3002,012D  ImagingSourceToBeamModDefPlaneDist   no
3002,012E  ScanArcType                          no
3002,012F  DetectorPositioningType              no
3002,0130  AdditionalRTAccessoryDeviceSeq       no
3002,0131  DeviceSpecificAcquisitionParamSeq    no
3002,0132  ReferencedPositionRefInstanceSeq     no
3002,0133  EnergyDerivationCodeSequence         no
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3002,0134  MaximumCumulativeMetersetExposure  no
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3002,0136  RTConeBeamImagingGeometrySequence  no
3004,0001  DVHType                            no
3004,0002  DoseUnits                          no
3004,0004  DoseType                           no
3004,0005  SpatialTransformOfDose             no
3004,0006  DoseComment                        no
3004,0008  NormalizationPoint                 no
3004,000A  DoseSummationType                  no
3004,000C  GridFrameOffsetVector              no
3004,000E  DoseGridScaling                    no
3004,0010  RTDoseROISequence                  no
3004,0012  DoseValue                          no
3004,0014  TissueHeterogeneityCorrection      no
3004,0016  RecommendedIsodoseLevelSequence    no
3004,0020  DoseUnitCodeSequence               no
3004,0021  RTDoseInterpretedTypeCodeSequence  no
3004,0022  RTDoseInterpretedTypeCodeModSeq    no
3004,0023  DoseRadiobiologicalInterpretSeq    no
3004,0024  RTDoseIntentCodeSequence           no
3004,0040  DVHNormalizationPoint              no
3004,0042  DVHNormalizationDoseValue          no
3004,0050  DVHSequence                        no
3004,0052  DVHDoseScaling                     no
3004,0054  DVHVolumeUnits                     no
3004,0056  DVHNumberOfBins                    no
3004,0058  DVHData                           no
3004,0060  DVHReferencedROISequence           no
3004,0062  DVHROIContributionType             no
3004,0070  DVHMinimumDose                     no
3004,0072  DVHMaximumDose                     no
3004,0074  DVHMeanDose                       no
3004,0080  DoseCalculationModelSequence       no
3004,0081  DoseCalculationAlgorithmSequence   no
3004,0082  CommissioningStatus                no
3004,0083  DoseCalculationModelParameterSeq   no
3004,0084  DoseDepositionCalculationMedium    no
3006,0002  StructureSetLabel                  no
3006,0004  StructureSetName                   no
3006,0006  StructureSetDescription            no
3006,0008  StructureSetDate                   no
3006,0009  StructureSetTime                   no
3006,0010  ReferencedFrameOfReferenceSequence no
3006,0012  RTReferencedStudySequence          no
3006,0014  RTReferencedSeriesSequence         no
3006,0016  ContourImageSequence               no
3006,0018  PredecessorStructureSetSequence    no
3006,0020  StructureSetROISequence            no
3006,0022  ROINumber                         no
3006,0024  ReferencedFrameOfReferenceUID      no
3006,0026  ROIName                           no
3006,0028  ROIDescription                    no
3006,002A  ROIDisplayColor                    no
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3006,002C  ROIVolume                          no
3006,002D  ROIDateTime                        no
3006,002E  ROIObservationDateTime             no
3006,0030  RTRelatedROISequence               no
3006,0033  RTROIRelationship                  no
3006,0036  ROIGenerationAlgorithm             no
3006,0037  ROIDerivationAlgorithmIDSeq        no
3006,0038  ROIGenerationDescription           no
3006,0039  ROIContourSequence                 no
3006,0040  ContourSequence                    no
3006,0042  ContourGeometricType              no
3006,0044  ContourSlabThickness              no
3006,0045  ContourOffsetVector               no
3006,0046  NumberOfContourPoints             no
3006,0048  ContourNumber                     no
3006,0049  AttachedContours                  no
3006,004A  SourcePixelPlanesCharSeq          no
3006,004B  SourceSeriesSequence              no
3006,004C  SourceSeriesInformationSequence   no
3006,004D  ROICreatorSequence                no
3006,004E  ROIInterpreterSequence            no
3006,004F  ROIObservationContextCodeSequence  no
3006,0050  ContourData                       no
3006,0080  RTROIObservationsSequence         no
3006,0082  ObservationNumber                 no
3006,0084  ReferencedROINumber              no
3006,0085  ROIObservationLabel              no
3006,0086  RTROIIdentificationCodeSequence   no
3006,0088  ROIObservationDescription         no
3006,00A0  RelatedRTROIObservationsSequence  no
3006,00A4  RTROIInterpretedType              no
3006,00A6  ROIInterpreter                    no
3006,00B0  ROIPhysicalPropertiesSequence     no
3006,00B2  ROIPhysicalProperty               no
3006,00B4  ROIPhysicalPropertyValue          no
3006,00B6  ROIElementalCompositionSequence   no
3006,00B7  ROIElementalCompAtomicNumber      no
3006,00B8  ROIElementalCompAtomicMassFraction no
3006,00B9  AdditionalRTROIIDCodeSeq          no
3006,00C0  FrameOfReferenceRelationshipSeq   no
3006,00C2  RelatedFrameOfReferenceUID        no
3006,00C4  FrameOfReferenceTransformType     no
3006,00C6  FrameOfReferenceTransformMatrix   no
3006,00C8  FrameOfReferenceTransformComment  no
3006,00C9  PatientLocationCoordinatesSequence no
3006,00CA  PatientLocationCoordinatesCodeSeq  no
3006,00CB  PatientSupportPositionSequence    no
3008,0010  MeasuredDoseReferenceSequence     no
3008,0012  MeasuredDoseDescription           no
3008,0014  MeasuredDoseType                  no
3008,0016  MeasuredDoseValue                 no
3008,0020  TreatmentSessionBeamSequence      no
3008,0021  TreatmentSessionIonBeamSequence   no
3008,0022  CurrentFractionNumber             no
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3008,0024  TreatmentControlPointDate          no
3008,0025  TreatmentControlPointTime          no
3008,002A  TreatmentTerminationStatus         no
3008,002B  TreatmentTerminationCode           no
3008,002C  TreatmentVerificationStatus        no
3008,0030  ReferencedTreatmentRecordSequence  no
3008,0032  SpecifiedPrimaryMeterset           no
3008,0033  SpecifiedSecondaryMeterset         no
3008,0036  DeliveredPrimaryMeterset           no
3008,0037  DeliveredSecondaryMeterset         no
3008,003A  SpecifiedTreatmentTime             no
3008,003B  DeliveredTreatmentTime             no
3008,0040  ControlPointDeliverySequence       no
3008,0041  IonControlPointDeliverySequence    no
3008,0042  SpecifiedMeterset                  no
3008,0044  DeliveredMeterset                  no
3008,0045  MetersetRateSet                    no
3008,0046  MetersetRateDelivered              no
3008,0047  ScanSpotMetersetsDelivered         no
3008,0048  DoseRateDelivered                  no
3008,0050  TreatmentSummaryCalcDoseRefSeq     no
3008,0052  CumulativeDoseToDoseReference      no
3008,0054  FirstTreatmentDate                 no
3008,0056  MostRecentTreatmentDate            no
3008,005A  NumberOfFractionsDelivered         no
3008,0060  OverrideSequence                   no
3008,0061  ParameterSequencePointer           no
3008,0062  OverrideParameterPointer          no
3008,0063  ParameterItemIndex                 no
3008,0064  MeasuredDoseReferenceNumber       no
3008,0065  ParameterPointer                  no
3008,0066  OverrideReason                    no
3008,0067  ParameterValueNumber              no
3008,0068  CorrectedParameterSequence        no
3008,006A  CorrectionValue                    no
3008,0070  CalculatedDoseReferenceSequence    no
3008,0072  CalculatedDoseReferenceNumber      no
3008,0074  CalculatedDoseReferenceDescription no
3008,0076  CalculatedDoseReferenceDoseValue   no
3008,0078  StartMeterset                      no
3008,007A  EndMeterset                        no
3008,0080  ReferencedMeasuredDoseReferenceSeq no
3008,0082  ReferencedMeasuredDoseReferenceNum no
3008,0090  ReferencedCalculatedDoseRefSeq     no
3008,0092  ReferencedCalculatedDoseRefNumber  no
3008,00A0  BeamLimitingDeviceLeafPairsSeq     no
3008,00A1  EnhancedRTBeamLimitingDeviceSeq    no
3008,00A2  EnhancedRTBeamLimitingOpeningSeq   no
3008,00A3  EnhancedRTBeamLimitingDevDefFlag   no
3008,00A4  ParallelRTBeamDelimiterOpenExtents no
3008,00B0  RecordedWedgeSequence              no
3008,00C0  RecordedCompensatorSequence        no
3008,00D0  RecordedBlockSequence              no
3008,00D1  RecordedBlockSlabSequence          no
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3008,00E0  TreatmentSummaryMeasuredDoseRefSeq no
3008,00F0  RecordedSnoutSequence              no
3008,00F2  RecordedRangeShifterSequence       no
3008,00F4  RecordedLateralSpreadingDeviceSeq  no
3008,00F6  RecordedRangeModulatorSequence     no
3008,0100  RecordedSourceSequence             no
3008,0105  SourceSerialNumber                 no
3008,0110  TreatmentSessionAppSetupSeq        no
3008,0116  ApplicationSetupCheck              no
3008,0120  RecordedBrachyAccessoryDeviceSeq   no
3008,0122  ReferencedBrachyAccessoryDeviceNum no
3008,0130  RecordedChannelSequence            no
3008,0132  SpecifiedChannelTotalTime          no
3008,0134  DeliveredChannelTotalTime          no
3008,0136  SpecifiedNumberOfPulses            no
3008,0138  DeliveredNumberOfPulses            no
3008,013A  SpecifiedPulseRepetitionInterval   no
3008,013C  DeliveredPulseRepetitionInterval   no
3008,0140  RecordedSourceApplicatorSequence   no
3008,0142  ReferencedSourceApplicatorNumber   no
3008,0150  RecordedChannelShieldSequence      no
3008,0152  ReferencedChannelShieldNumber      no
3008,0160  BrachyControlPointDeliveredSeq     no
3008,0162  SafePositionExitDate               no
3008,0164  SafePositionExitTime               no
3008,0166  SafePositionReturnDate             no
3008,0168  SafePositionReturnTime             no
3008,0171  PulseSpecBrachyCntrlPtDeliveredSeq no
3008,0172  PulseNumber                       no
3008,0173  BrachyPulseCntrlPointDeliveredSeq  no
3008,0200  CurrentTreatmentStatus             no
3008,0202  TreatmentStatusComment             no
3008,0220  FractionGroupSummarySequence       no
3008,0223  ReferencedFractionNumber           no
3008,0224  FractionGroupType                 no
3008,0230  BeamStopperPosition                no
3008,0240  FractionStatusSummarySequence      no
3008,0250  TreatmentDate                      no
3008,0251  TreatmentTime                      no
300A,0002  RTPlanLabel                        no
300A,0003  RTPlanName                         no
300A,0004  RTPlanDescription                  no
300A,0006  RTPlanDate                         no
300A,0007  RTPlanTime                         no
300A,0009  TreatmentProtocols                 no
300A,000A  PlanIntent                         no
300A,000B  TreatmentSites                     no
300A,000C  RTPlanGeometry                     no
300A,000E  PrescriptionDescription            no
300A,0010  DoseReferenceSequence              no
300A,0012  DoseReferenceNumber                no
300A,0013  DoseReferenceUID                   no
300A,0014  DoseReferenceStructureType         no
300A,0015  NominalBeamEnergyUnit              no
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300A,0016  DoseReferenceDescription           no
300A,0018  DoseReferencePointCoordinates      no
300A,001A  NominalPriorDose                   no
300A,0020  DoseReferenceType                  no
300A,0021  ConstraintWeight                   no
300A,0022  DeliveryWarningDose                no
300A,0023  DeliveryMaximumDose                no
300A,0025  TargetMinimumDose                  no
300A,0026  TargetPrescriptionDose             no
300A,0027  TargetMaximumDose                  no
300A,0028  TargetUnderdoseVolumeFraction      no
300A,002A  OrganAtRiskFullVolumeDose          no
300A,002B  OrganAtRiskLimitDose               no
300A,002C  OrganAtRiskMaximumDose             no
300A,002D  OrganAtRiskOverdoseVolumeFraction  no
300A,0040  ToleranceTableSequence             no
300A,0042  ToleranceTableNumber               no
300A,0043  ToleranceTableLabel                no
300A,0044  GantryAngleTolerance               no
300A,0046  BeamLimitingDeviceAngleTolerance   no
300A,0048  BeamLimitingDeviceToleranceSeq     no
300A,004A  BeamLimitingDevicePositionTol      no
300A,004B  SnoutPositionTolerance             no
300A,004C  PatientSupportAngleTolerance       no
300A,004E  TableTopEccentricAngleTolerance    no
300A,004F  TableTopPitchAngleTolerance        no
300A,0050  TableTopRollAngleTolerance         no
300A,0051  TableTopVerticalPositionTolerance  no
300A,0052  TableTopLongitudinalPositionTol    no
300A,0053  TableTopLateralPositionTolerance   no
300A,0054  TableTopPositionAlignmentUID       no
300A,0055  RTPlanRelationship                 no
300A,0070  FractionGroupSequence              no
300A,0071  FractionGroupNumber                no
300A,0072  FractionGroupDescription           no
300A,0078  NumberOfFractionsPlanned           no
300A,0079  NumberFractionPatternDigitsPerDay  no
300A,007A  RepeatFractionCycleLength          no
300A,007B  FractionPattern                    no
300A,0080  NumberOfBeams                      no
300A,0082  BeamDoseSpecificationPoint         no
300A,0083  ReferencedDoseReferenceUID         no
300A,0084  BeamDose                           no
300A,0086  BeamMeterset                       no
300A,0088  BeamDosePointDepth                 no
300A,0089  BeamDosePointEquivalentDepth       no
300A,008A  BeamDosePointSSD                   no
300A,008B  BeamDoseMeaning                    no
300A,008C  BeamDoseVerificationCntrlPointSeq  no
300A,008D  AverageBeamDosePointDepth          no
300A,008E  AverageBeamDosePointEquivDepth     no
300A,008F  AverageBeamDosePointSSD            no
300A,0090  BeamDoseType                       no
300A,0091  AlternateBeamDose                  no
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300A,0092  AlternateBeamDoseType              no
300A,0093  DepthValueAveragingFlag            no
300A,0094  BeamDosePointSrcToExtContourDist   no
300A,00A0  NumberOfBrachyApplicationSetups    no
300A,00A2  BrachyAppSetupDoseSpecPoint        no
300A,00A4  BrachyApplicationSetupDose         no
300A,00B0  BeamSequence                       no
300A,00B2  TreatmentMachineName               no
300A,00B3  PrimaryDosimeterUnit               no
300A,00B4  SourceAxisDistance                 no
300A,00B6  BeamLimitingDeviceSequence         no
300A,00B8  RTBeamLimitingDeviceType           no
300A,00BA  SourceToBeamLimitingDeviceDistance no
300A,00BB  IsocenterToBeamLimitingDeviceDist  no
300A,00BC  NumberOfLeafJawPairs               no
300A,00BE  LeafPositionBoundaries             no
300A,00C0  BeamNumber                         no
300A,00C2  BeamName                           no
300A,00C3  BeamDescription                    no
300A,00C4  BeamType                           no
300A,00C5  BeamDeliveryDurationLimit          no
300A,00C6  RadiationType                      no
300A,00C7  HighDoseTechniqueType              no
300A,00C8  ReferenceImageNumber               no
300A,00CA  PlannedVerificationImageSequence   no
300A,00CC  ImagingDeviceSpecificAcqParams     no
300A,00CE  TreatmentDeliveryType              no
300A,00D0  NumberOfWedges                     no
300A,00D1  WedgeSequence                      no
300A,00D2  WedgeNumber                        no
300A,00D3  WedgeType                          no
300A,00D4  WedgeID                            no
300A,00D5  WedgeAngle                         no
300A,00D6  WedgeFactor                        no
300A,00D7  TotalWedgeTrayWaterEquivThickness  no
300A,00D8  WedgeOrientation                   no
300A,00D9  IsocenterToWedgeTrayDistance       no
300A,00DA  SourceToWedgeTrayDistance          no
300A,00DB  WedgeThinEdgePosition              no
300A,00DC  BolusID                            no
300A,00DD  BolusDescription                   no
300A,00DE  EffectiveWedgeAngle                no
300A,00E0  NumberOfCompensators               no
300A,00E1  MaterialID                         no
300A,00E2  TotalCompensatorTrayFactor         no
300A,00E3  CompensatorSequence                no
300A,00E4  CompensatorNumber                  no
300A,00E5  CompensatorID                      no
300A,00E6  SourceToCompensatorTrayDistance    no
300A,00E7  CompensatorRows                    no
300A,00E8  CompensatorColumns                 no
300A,00E9  CompensatorPixelSpacing            no
300A,00EA  CompensatorPosition                no
300A,00EB  CompensatorTransmissionData        no
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300A,00EC  CompensatorThicknessData           no
300A,00ED  NumberOfBoli                       no
300A,00EE  CompensatorType                    no
300A,00EF  CompensatorTrayID                  no
300A,00F0  NumberOfBlocks                     no
300A,00F2  TotalBlockTrayFactor               no
300A,00F3  TotalBlockTrayWaterEquivThickness  no
300A,00F4  BlockSequence                      no
300A,00F5  BlockTrayID                        no
300A,00F6  SourceToBlockTrayDistance          no
300A,00F7  IsocenterToBlockTrayDistance       no
300A,00F8  BlockType                          no
300A,00F9  AccessoryCode                      no
300A,00FA  BlockDivergence                    no
300A,00FB  BlockMountingPosition              no
300A,00FC  BlockNumber                        no
300A,00FE  BlockName                          no
300A,0100  BlockThickness                     no
300A,0102  BlockTransmission                  no
300A,0104  BlockNumberOfPoints                no
300A,0106  BlockData                          no
300A,0107  ApplicatorSequence                 no
300A,0108  ApplicatorID                       no
300A,0109  ApplicatorType                     no
300A,010A  ApplicatorDescription              no
300A,010C  CumulativeDoseReferenceCoefficient no
300A,010E  FinalCumulativeMetersetWeight      no
300A,0110  NumberOfControlPoints              no
300A,0111  ControlPointSequence               no
300A,0112  ControlPointIndex                  no
300A,0114  NominalBeamEnergy                  no
300A,0115  DoseRateSet                        no
300A,0116  WedgePositionSequence              no
300A,0118  WedgePosition                      no
300A,011A  BeamLimitingDevicePositionSequence no
300A,011C  LeafJawPositions                   no
300A,011E  GantryAngle                        no
300A,011F  GantryRotationDirection            no
300A,0120  BeamLimitingDeviceAngle            no
300A,0121  BeamLimitingDeviceRotateDirection  no
300A,0122  PatientSupportAngle                no
300A,0123  PatientSupportRotationDirection    no
300A,0124  TableTopEccentricAxisDistance      no
300A,0125  TableTopEccentricAngle             no
300A,0126  TableTopEccentricRotateDirection   no
300A,0128  TableTopVerticalPosition           no
300A,0129  TableTopLongitudinalPosition       no
300A,012A  TableTopLateralPosition            no
300A,012C  IsocenterPosition                  no
300A,012E  SurfaceEntryPoint                  no
300A,0130  SourceToSurfaceDistance            no
300A,0131  AvgBeamDosePtSrcToExtContourDist   no
300A,0132  SourceToExternalContourDistance    no
300A,0133  ExternalContourEntryPoint         no
```

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300A,0134  CumulativeMetersetWeight           no
300A,0140  TableTopPitchAngle                 no
300A,0142  TableTopPitchRotationDirection     no
300A,0144  TableTopRollAngle                  no
300A,0146  TableTopRollRotationDirection      no
300A,0148  HeadFixationAngle                  no
300A,014A  GantryPitchAngle                   no
300A,014C  GantryPitchRotationDirection       no
300A,014E  GantryPitchAngleTolerance          no
300A,0150  FixationEye                        no
300A,0151  ChairHeadFramePosition             no
300A,0152  HeadFixationAngleTolerance         no
300A,0153  ChairHeadFramePositionTolerance    no
300A,0154  FixationLightAzimuthalAngleTol     no
300A,0155  FixationLightPolarAngleTolerance   no
300A,0180  PatientSetupSequence               no
300A,0182  PatientSetupNumber                 no
300A,0183  PatientSetupLabel                  no
300A,0184  PatientAdditionalPosition          no
300A,0190  FixationDeviceSequence             no
300A,0192  FixationDeviceType                 no
300A,0194  FixationDeviceLabel                no
300A,0196  FixationDeviceDescription          no
300A,0198  FixationDevicePosition             no
300A,0199  FixationDevicePitchAngle           no
300A,019A  FixationDeviceRollAngle            no
300A,01A0  ShieldingDeviceSequence            no
300A,01A2  ShieldingDeviceType                no
300A,01A4  ShieldingDeviceLabel               no
300A,01A6  ShieldingDeviceDescription         no
300A,01A8  ShieldingDevicePosition            no
300A,01B0  SetupTechnique                     no
300A,01B2  SetupTechniqueDescription          no
300A,01B4  SetupDeviceSequence                no
300A,01B6  SetupDeviceType                    no
300A,01B8  SetupDeviceLabel                   no
300A,01BA  SetupDeviceDescription             no
300A,01BC  SetupDeviceParameter               no
300A,01D0  SetupReferenceDescription          no
300A,01D2  TableTopVerticalSetupDisplacement  no
300A,01D4  TableTopLongitudinalSetupDisplace  no
300A,01D6  TableTopLateralSetupDisplacement   no
300A,0200  BrachyTreatmentTechnique           no
300A,0202  BrachyTreatmentType                no
300A,0206  TreatmentMachineSequence           no
300A,0210  SourceSequence                     no
300A,0212  SourceNumber                       no
300A,0214  SourceType                         no
300A,0216  SourceManufacturer                 no
300A,0218  ActiveSourceDiameter               no
300A,021A  ActiveSourceLength                 no
300A,021B  SourceModelID                      no
300A,021C  SourceDescription                  no
300A,0222  SourceEncapsulationNomThickness    no
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300A,0224  SourceEncapsulationNomTransmission no
300A,0226  SourceIsotopeName                  no
300A,0228  SourceIsotopeHalfLife              no
300A,0229  SourceStrengthUnits                no
300A,022A  ReferenceAirKermaRate              no
300A,022B  SourceStrength                     no
300A,022C  SourceStrengthReferenceDate        no
300A,022E  SourceStrengthReferenceTime        no
300A,0230  ApplicationSetupSequence           no
300A,0232  ApplicationSetupType               no
300A,0234  ApplicationSetupNumber             no
300A,0236  ApplicationSetupName               no
300A,0238  ApplicationSetupManufacturer       no
300A,0240  TemplateNumber                     no
300A,0242  TemplateType                       no
300A,0244  TemplateName                       no
300A,0250  TotalReferenceAirKerma             no
300A,0260  BrachyAccessoryDeviceSequence      no
300A,0262  BrachyAccessoryDeviceNumber        no
300A,0263  BrachyAccessoryDeviceID            no
300A,0264  BrachyAccessoryDeviceType          no
300A,0266  BrachyAccessoryDeviceName          no
300A,026A  BrachyAccessoryDeviceNomThickness  no
300A,026C  BrachyAccessoryDevNomTransmission  no
300A,0271  ChannelEffectiveLength             no
300A,0272  ChannelInnerLength                 no
300A,0273  AfterloaderChannelID               no
300A,0274  SourceApplicatorTipLength          no
300A,0280  ChannelSequence                    no
300A,0282  ChannelNumber                      no
300A,0284  ChannelLength                      no
300A,0286  ChannelTotalTime                   no
300A,0288  SourceMovementType                 no
300A,028A  NumberOfPulses                     no
300A,028C  PulseRepetitionInterval            no
300A,0290  SourceApplicatorNumber             no
300A,0291  SourceApplicatorID                 no
300A,0292  SourceApplicatorType               no
300A,0294  SourceApplicatorName               no
300A,0296  SourceApplicatorLength             no
300A,0298  SourceApplicatorManufacturer       no
300A,029C  SourceApplicatorWallNomThickness   no
300A,029E  SourceApplicatorWallNomTrans       no
300A,02A0  SourceApplicatorStepSize           no
300A,02A1  ApplicatorShapeReferencedROINumber no
300A,02A2  TransferTubeNumber                 no
300A,02A4  TransferTubeLength                 no
300A,02B0  ChannelShieldSequence              no
300A,02B2  ChannelShieldNumber                no
300A,02B3  ChannelShieldID                    no
300A,02B4  ChannelShieldName                  no
300A,02B8  ChannelShieldNominalThickness      no
300A,02BA  ChannelShieldNominalTransmission   no
300A,02C8  FinalCumulativeTimeWeight          no
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300A,02D0  BrachyControlPointSequence         no
300A,02D2  ControlPointRelativePosition       no
300A,02D4  ControlPoint3DPosition             no
300A,02D6  CumulativeTimeWeight               no
300A,02E0  CompensatorDivergence              no
300A,02E1  CompensatorMountingPosition        no
300A,02E2  SourceToCompensatorDistance        no
300A,02E3  TotalCompTrayWaterEquivThickness   no
300A,02E4  IsocenterToCompensatorTrayDistance no
300A,02E5  CompensatorColumnOffset            no
300A,02E6  IsocenterToCompensatorDistances    no
300A,02E7  CompensatorRelStoppingPowerRatio   no
300A,02E8  CompensatorMillingToolDiameter     no
300A,02EA  IonRangeCompensatorSequence        no
300A,02EB  CompensatorDescription             no
300A,02EC  CompensatorSurfaceRepFlag          no
300A,0302  RadiationMassNumber                no
300A,0304  RadiationAtomicNumber              no
300A,0306  RadiationChargeState               no
300A,0308  ScanMode                           no
300A,0309  ModulatedScanModeType              no
300A,030A  VirtualSourceAxisDistances         no
300A,030C  SnoutSequence                      no
300A,030D  SnoutPosition                      no
300A,030F  SnoutID                            no
300A,0312  NumberOfRangeShifters              no
300A,0314  RangeShifterSequence               no
300A,0316  RangeShifterNumber                 no
300A,0318  RangeShifterID                     no
300A,0320  RangeShifterType                   no
300A,0322  RangeShifterDescription            no
300A,0330  NumberOfLateralSpreadingDevices    no
300A,0332  LateralSpreadingDeviceSequence     no
300A,0334  LateralSpreadingDeviceNumber       no
300A,0336  LateralSpreadingDeviceID           no
300A,0338  LateralSpreadingDeviceType         no
300A,033A  LateralSpreadingDeviceDescription  no
300A,033C  LateralSpreadingDevWaterEquivThick no
300A,0340  NumberOfRangeModulators            no
300A,0342  RangeModulatorSequence             no
300A,0344  RangeModulatorNumber               no
300A,0346  RangeModulatorID                   no
300A,0348  RangeModulatorType                 no
300A,034A  RangeModulatorDescription          no
300A,034C  BeamCurrentModulationID            no
300A,0350  PatientSupportType                 no
300A,0352  PatientSupportID                   no
300A,0354  PatientSupportAccessoryCode        no
300A,0355  TrayAccessoryCode                  no
300A,0356  FixationLightAzimuthalAngle        no
300A,0358  FixationLightPolarAngle            no
300A,035A  MetersetRate                       no
300A,0360  RangeShifterSettingsSequence       no
300A,0362  RangeShifterSetting                no
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300A,0364  IsocenterToRangeShifterDistance    no
300A,0366  RangeShifterWaterEquivThickness    no
300A,0370  LateralSpreadingDeviceSettingsSeq  no
300A,0372  LateralSpreadingDeviceSetting      no
300A,0374  IsocenterToLateralSpreadingDevDist no
300A,0380  RangeModulatorSettingsSequence     no
300A,0382  RangeModulatorGatingStartValue     no
300A,0384  RangeModulatorGatingStopValue      no
300A,0386  RangeModuGatingStartWaterEquiThick no
300A,0388  RangeModuGatingStopWaterEquivThick no
300A,038A  IsocenterToRangeModulatorDistance  no
300A,038F  ScanSpotTimeOffset                 no
300A,0390  ScanSpotTuneID                     no
300A,0391  ScanSpotPrescribedIndices          no
300A,0392  NumberOfScanSpotPositions          no
300A,0393  ScanSpotReordered                  no
300A,0394  ScanSpotPositionMap                no
300A,0395  ScanSpotReorderingAllowed          no
300A,0396  ScanSpotMetersetWeights            no
300A,0398  ScanningSpotSize                   no
300A,0399  ScanSpotSizesDelivered             no
300A,039A  NumberOfPaintings                  no
300A,039B  ScanSpotGantryAngles               no
300A,039C  ScanSpotPatientSupportAngles       no
300A,03A0  IonToleranceTableSequence          no
300A,03A2  IonBeamSequence                    no
300A,03A4  IonBeamLimitingDeviceSequence      no
300A,03A6  IonBlockSequence                   no
300A,03A8  IonControlPointSequence            no
300A,03AA  IonWedgeSequence                   no
300A,03AC  IonWedgePositionSequence           no
300A,0401  ReferencedSetupImageSequence       no
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300A,0410  MotionSynchronizationSequence      no
300A,0412  ControlPointOrientation            no
300A,0420  GeneralAccessorySequence           no
300A,0421  GeneralAccessoryID                 no
300A,0422  GeneralAccessoryDescription        no
300A,0423  GeneralAccessoryType               no
300A,0424  GeneralAccessoryNumber             no
300A,0425  SourceToGeneralAccessoryDistance   no
300A,0426  IsocenterToGeneralAccessoryDist    no
300A,0431  ApplicatorGeometrySequence         no
300A,0432  ApplicatorApertureShape            no
300A,0433  ApplicatorOpening                  no
300A,0434  ApplicatorOpeningX                 no
300A,0435  ApplicatorOpeningY                 no
300A,0436  SourceToApplicatorMountingPosDist  no
300A,0440  NumberOfBlockSlabItems             no
300A,0441  BlockSlabSequence                  no
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300A,0450  DeviceMotionControlSequence        no
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300A,0453  DeviceMotionParameterCodeSequence  no
300A,0501  DistalDepthFraction                no
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300A,0503  NominalRangeModulationFractions    no
300A,0504  NominalRangeModulatedRegionDepths  no
300A,0505  DepthDoseParametersSequence        no
300A,0506  DeliveredDepthDoseParametersSeq    no
300A,0507  DeliveredDistalDepthFraction       no
300A,0508  DeliveredDistalDepth               no
300A,0509  DeliveredNomRngModulationFractions no
300A,0510  DeliveredNomRngModulatedRgnDepths  no
300A,0511  DeliveredReferenceDoseDefinition   no
300A,0512  ReferenceDoseDefinition            no
300A,0600  RTControlPointIndex                no
300A,0601  RadiationGenerationModeIndex       no
300A,0602  ReferencedDefinedDeviceIndex       no
300A,0603  RadiationDoseIdentificationIndex   no
300A,0604  NumberOfRTControlPoints            no
300A,0605  RefRadiationGenerationModeIndex    no
300A,0606  TreatmentPositionIndex             no
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300A,0608  TreatmentPositionGroupLabel        no
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300A,060B  ReferencedTreatmentPositionIndex   no
300A,060C  ReferencedRadiationDoseIDIndex     no
300A,060D  RTAccHolderWaterEquivThickness     no
300A,060E  ReferencedRTAccHolderDeviceIndex   no
300A,060F  RTAccessoryHolderSlotExistenceFlag no
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300A,0615  RTAccessoryDeviceSlotID            no
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300A,061C  DoseValuesSequence                 no
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300A,061E  ReferenceDosePointCoordinates      no
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300A,0621  ExpectedInVivoMeasurementValuesSeq no
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300A,0623  RadiationDoseInVivoMeasurementLbl  no
300A,0624  RadiationDoseCentralAxisDispl      no
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300A,0626  RadiationDoseSourceToSkinDistance  no
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300A,0628  RadiationDoseSrcToExtContourDist   no
300A,0629  RTToleranceSetSequence             no
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300A,062C  ToleranceValue                     no
300A,062D  PatientSupportPositionToleranceSeq no
300A,062E  TreatmentTimeLimit                 no
300A,062F  CArmPhotonElectronControlPointSeq  no
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300A,0634  SourceToPatientSurfaceDistance     no
300A,0635  TreatmentMachineSpecialModeCodeSeq no
300A,0636  IntendedNumberOfFractions          no
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300A,0667  CompensatorShapeFabricationCodeSeq no
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300A,066C  BlockOrientation                   no
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300A,066E  RadiationBeamBlockSlabThickness    no
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300A,0678  EquipmentReferencePointCodeSeq     no
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300A,0707  RTRadiationSetUsage                no
300A,0708  TreatmentDeliveryContinuationFlag  no
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300A,0731  TreatmentToleranceViolationSeq     no
300A,0732  TreatmentTolViolationCategory      no
300A,0733  TreatmentTolViolationAttributeSeq  no
300A,0734  TreatmentTolViolationDescription   no
300A,0735  TreatmentTolViolationID            no
300A,0736  TreatmentTolViolationDateTime      no
300A,073A  RecordedRTControlPointDateTime     no
300A,073B  ReferencedRadiationRTCtrlPtIndex   no
300A,073E  AlternateValueSequence             no
300A,073F  ConfirmationSequence               no
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300A,0741  InterlockDateTime                  no
300A,0742  InterlockDescription               no
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300A,0745  InterlockResolutionCodeSequence    no
300A,0746  InterlockResolutionUserSequence    no
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300A,0762  TreatmentTolViolationCauseCodeSeq  no
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300A,0788  ReasonForOmissionCodeSequence      no
300A,0789  RTDeliveryStartPatientPositionSeq  no
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300A,078B  ReferencedRTTreatmentPrepSeq       no
300A,078C  ReferencedPatientSetupPhotoSeq     no
300A,078D  PatientTreatmentPrepMethodCodeSeq  no
300A,078E  PatientTreatmentPrepProcParamDesc  no
300A,078F  PatientTreatmentPrepDeviceSeq      no
300A,0790  PatientTreatmentPrepProcedureSeq   no
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300A,0792  PatientTreatmentPrepMethodDesc     no
300A,0793  PatientTreatmentPrepProcParamSeq   no
300A,0794  PatientSetupPhotoDescription       no
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300A,0798  RTPatientPositionDisplacementSeq   no
300A,0799  RTPatientPositionSequence          no
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300A,079B  DisplacementMatrix                 no
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300A,079E  RTRadiationSetDeliveryUsage        no
300A,079F  PatientTreatmentPreparationSeq     no
300A,07A0  PatientToEquipmentRelationshipSeq  no
300A,07A1  ImagingEquipToTreatDelivDevRelSeq  no
300C,0002  ReferencedRTPlanSequence           no
300C,0004  ReferencedBeamSequence             no
300C,0006  ReferencedBeamNumber               no
300C,0007  ReferencedReferenceImageNumber     no
300C,0008  StartCumulativeMetersetWeight      no
300C,0009  EndCumulativeMetersetWeight        no
300C,000A  ReferencedBrachyAppSetupSeq        no
300C,000C  ReferencedBrachyAppSetupNumber     no
300C,000E  ReferencedSourceNumber             no
300C,0020  ReferencedFractionGroupSequence    no
300C,0022  ReferencedFractionGroupNumber      no
300C,0040  ReferencedVerificationImageSeq     no
300C,0042  ReferencedReferenceImageSequence   no
300C,0050  ReferencedDoseReferenceSequence    no
300C,0051  ReferencedDoseReferenceNumber      no
300C,0055  BrachyReferencedDoseReferenceSeq   no
300C,0060  ReferencedStructureSetSequence     no
300C,006A  ReferencedPatientSetupNumber       no
300C,0080  ReferencedDoseSequence             no
300C,00A0  ReferencedToleranceTableNumber     no
300C,00B0  ReferencedBolusSequence            no
300C,00C0  ReferencedWedgeNumber              no
300C,00D0  ReferencedCompensatorNumber        no
300C,00E0  ReferencedBlockNumber              no
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300C,00F4  ReferencedStartControlPointIndex   no
300C,00F6  ReferencedStopControlPointIndex    no
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300C,0102  ReferencedLateralSpreadingDevNum   no
300C,0104  ReferencedRangeModulatorNumber     no
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300C,0112  ReasonForOmission                  no
300C,0113  ReasonForOmissionDescription       no
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300C,0115  TotalPrescriptionDose              no
300C,0116  PlanOverviewSequence               no
300C,0117  PlanOverviewIndex                  no
300C,0118  ReferencedPlanOverviewIndex        no
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300C,0120  DoseCalibrationConditionsSequence  no
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300C,0122  DelineatedRadiationFieldSize       no
300C,0123  DoseCalConditionsVerifiedFlag      no
300C,0124  CalibrationReferencePointDepth     no
300C,0125  GatingBeamHoldTransitionSequence   no
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300C,0129  BeamHoldTransitionTriggerSource    no
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300E,0004  ReviewDate                         no
300E,0005  ReviewTime                         no
300E,0008  ReviewerName                       no
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3010,0002  RadiobiologicalDoseEffectFlag      no
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3010,0004  EffectiveDoseCalcMethodCodeSeq     no
3010,0005  EffectiveDoseCalcMethodDescription no
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3010,0009  EquivConceptVolumeInstanceRefSeq   no
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3010,003C  RTPrescriptionIndex                no
3010,003D  RTSegmentAnnotationIndex           no
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3010,005D  RTDiagnosisCodeSequence            no
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3010,0096  RadiationSourceCoordPitchAngle     no
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4010,1008  GantryType                        no
4010,1009  OOIOwnerType                      no
4010,100A  RouteSegmentSequence              no
4010,1010  PotentialThreatObjectID           no
4010,1011  ThreatSequence                    no
4010,1012  ThreatCategory                    no
4010,1013  ThreatCategoryDescription         no
4010,1014  ATDAbilityAssessment              no
4010,1015  ATDAssessmentFlag                 no
4010,1016  ATDAssessmentProbability          no
4010,1017  Mass                              no
4010,1018  Density                           no
4010,1019  ZEffective                        no
4010,101A  BoardingPassID                    no
4010,101B  CenterOfMass                      no
4010,101C  CenterOfPTO                       no
4010,101D  BoundingPolygon                   no
4010,101E  RouteSegmentStartLocationID       no
4010,101F  RouteSegmentEndLocationID         no
4010,1020  RouteSegmentLocationIDType        no
4010,1021  AbortReason                       no
```

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4010,1023  VolumeOfPTO                          no
4010,1024  AbortFlag                           no
4010,1025  RouteSegmentStartTime               no
4010,1026  RouteSegmentEndTime                 no
4010,1027  TDRType                             no
4010,1028  InternationalRouteSegment           no
4010,1029  ThreatDetectionAlgorithmAndVersion no
4010,102A  AssignedLocation                     no
4010,102B  AlarmDecisionTime                    no
4010,1031  AlarmDecision                       no
4010,1033  NumberOfTotalObjects                no
4010,1034  NumberOfAlarmObjects                no
4010,1037  PTORepresentationSequence           no
4010,1038  ATDAssessmentSequence               no
4010,1039  TIPType                             no
4010,103A  DICOSVersion                         no
4010,1041  OOIOwnerCreationTime                 no
4010,1042  OOIType                             no
4010,1043  OOISize                             no
4010,1044  AcquisitionStatus                   no
4010,1045  BasisMaterialsCodeSequence          no
4010,1046  PhantomType                         no
4010,1047  OOIOwnerSequence                    no
4010,1048  ScanType                            no
4010,1051  ItineraryID                         no
4010,1052  ItineraryIDType                     no
4010,1053  ItineraryIDAssigningAuthority       no
4010,1054  RouteID                             no
4010,1055  RouteIDAssigningAuthority           no
4010,1056  InboundArrivalType                  no
4010,1058  CarrierID                           no
4010,1059  CarrierIDAssigningAuthority         no
4010,1060  SourceOrientation                   no
4010,1061  SourcePosition                      no
4010,1062  BeltHeight                          no
4010,1064  AlgorithmRoutingCodeSequence        no
4010,1067  TransportClassification             no
4010,1068  OOITypeDescriptor                   no
4010,1069  TotalProcessingTime                 no
4010,106C  DetectorCalibrationData             no
4010,106D  AdditionalScreeningPerformed        no
4010,106E  AdditionalInspectionSelectCriteria no
4010,106F  AdditionalInspectionMethodSequence no
4010,1070  AITDeviceType                       no
4010,1071  QRMeasurementsSequence             no
4010,1072  TargetMaterialSequence             no
4010,1073  SNRThreshold                        no
4010,1075  ImageScaleRepresentation            no
4010,1076  ReferencedPTOSequence               no
4010,1077  ReferencedTDRInstanceSequence       no
4010,1078  PTOLocationDescription              no
4010,1079  AnomalyLocatorIndicatorSequence     no
4010,107A  AnomalyLocatorIndicator             no
4010,107B  PTORegionSequence                   no
```

```
4010,107C  InspectionSelectionCriteria        no
4010,107D  SecondaryInspectionMethodSequence  no
4010,107E  PRCSToRCSOrientation               no
4FFE,0001  MACParametersSequence              no
50xx,0005  CurveDimensions                    no
50xx,0010  NumberOfPoints                     no
50xx,0020  TypeOfData                         no
50xx,0022  CurveDescription                   no
50xx,0030  AxisUnits                          no
50xx,0040  AxisLabels                         no
50xx,0103  DataValueRepresentation            no
50xx,0104  MinimumCoordinateValue             no
50xx,0105  MaximumCoordinateValue             no
50xx,0106  CurveRange                         no
50xx,0110  CurveDataDescriptor                no
50xx,0112  CoordinateStartValue               no
50xx,0114  CoordinateStepValue                no
50xx,1001  CurveActivationLayer               no
50xx,2000  AudioType                          no
50xx,2002  AudioSampleFormat                  no
50xx,2004  NumberOfChannels                   no
50xx,2006  NumberOfSamples                    no
50xx,2008  SampleRate                         no
50xx,200A  TotalTime                          no
50xx,200C  AudioSampleData                    no
50xx,200E  AudioComments                      no
50xx,2500  CurveLabel                         no
50xx,2600  ReferencedOverlaySequence          no
50xx,2610  ReferencedOverlayGroup             no
50xx,3000  CurveData                          no
5200,9229  SharedFunctionalGroupsSequence     no
5200,9230  PerFrameFunctionalGroupsSequence   no
5400,0100  WaveformSequence                   no
5400,0110  ChannelMinimumValue                no
5400,0112  ChannelMaximumValue                no
5400,1004  WaveformBitsAllocated              no
5400,1006  WaveformSampleInterpretation       no
5400,100A  WaveformPaddingValue               no
5400,1010  WaveformData                       no
5600,0010  FirstOrderPhaseCorrectionAngle     no
5600,0020  SpectroscopyData                   no
6000,0000  OverlayGroupLength                 no
60xx,0010  OverlayRows                        no
60xx,0011  OverlayColumns                     no
60xx,0012  OverlayPlanes                      no
60xx,0015  NumberOfFramesInOverlay            no
60xx,0022  OverlayDescription                 no
60xx,0040  OverlayType                        no
60xx,0045  OverlaySubtype                     no
60xx,0050  OverlayOrigin                      no
60xx,0051  ImageFrameOrigin                   no
60xx,0052  OverlayPlaneOrigin                 no
60xx,0060  OverlayCompressionCode             no
60xx,0061  OverlayCompressionOriginator       no
```

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60xx,0062  OverlayCompressionLabel            no
60xx,0063  OverlayCompressionDescription      no
60xx,0066  OverlayCompressionStepPointers     no
60xx,0068  OverlayRepeatInterval              no
60xx,0069  OverlayBitsGrouped                 no
60xx,0100  OverlayBitsAllocated               no
60xx,0102  OverlayBitPosition                 no
60xx,0110  OverlayFormat                      no
60xx,0200  OverlayLocation                    no
60xx,0800  OverlayCodeLabel                   no
60xx,0802  OverlayNumberOfTables              no
60xx,0803  OverlayCodeTableLocation           no
60xx,0804  OverlayBitsForCodeWord             no
60xx,1001  OverlayActivationLayer             no
60xx,1100  OverlayDescriptorGray              no
60xx,1101  OverlayDescriptorRed               no
60xx,1102  OverlayDescriptorGreen             no
60xx,1103  OverlayDescriptorBlue              no
60xx,1200  OverlaysGray                       no
60xx,1201  OverlaysRed                        no
60xx,1202  OverlaysGreen                      no
60xx,1203  OverlaysBlue                       no
60xx,1301  ROIArea                            no
60xx,1302  ROIMean                           no
60xx,1303  ROIStandardDeviation               no
60xx,1500  OverlayLabel                       no
60xx,3000  OverlayData                        no
60xx,4000  OverlayComments                    no
7FE0,0001  ExtendedOffsetTable                no
7FE0,0002  ExtendedOffsetTableLengths         no
7FE0,0003  EncapsulatedPixelDataValueTotalLen no
7FE0,0008  FloatPixelData                     no
7FE0,0009  DoubleFloatPixelData               no
7Fxx,0000  PixelDataGroupLength               no
7Fxx,0010  PixelData                          no
7Fxx,0011  VariableNextDataGroup              no
7Fxx,0020  VariableCoefficientsSDVN           no
7Fxx,0030  VariableCoefficientsSDHN           no
7Fxx,0040  VariableCoefficientsSDDN           no
FFFA,FFFA  DigitalSignaturesSequence          no
FFFC,FFFC  DataSetTrailingPadding             no
FFFE,E000  StartOfItem                        no
FFFE,E00D  EndOfItems                         no
FFFE,E0DD  EndOfSequence                      no
```

Garmin Tags

Garmin FIT Tags

Information extracted from Garmin FIT (Flexible and Interoperable data Transfer) files. The main reason for adding FIT support was to allow geotagging directly from FIT files using the −geotag option. For this reason, only timestamps and GPS-related FIT messages are decoded by default, and the rest are marked as Unknown to be extracted only if the Unknown (−u) option is used. And unless the ExtractEmbedded (−ee) option is used, only the first FIT message of each type is extracted. When both of these options are used, a significant amount of information may be extracted, and processing times may be lengthy. The family 1 group names of the extracted tags correspond to the FIT message names. The first table below lists the FIT messages, and subsequent tables list the extracted tags. See <https://developer.garmin.com/fit/> for the

specification.

Tag ID	Tag Name	Writable
'vers'	ProtocolVersion	no
0	FileID?	Garmin FileID
1	Capabilities?	Garmin Capabilities
2	DeviceSettings?	Garmin DeviceSettings
3	UserProfile?	Garmin UserProfile
4	HRMProfile?	Garmin HRMProfile
5	SDMProfile?	Garmin SDMProfile
6	BikeProfile?	Garmin BikeProfile
7	ZonesTarget?	Garmin ZonesTarget
8	HRZone?	Garmin HRZone
9	PowerZone?	Garmin PowerZone
10	MetZone?	Garmin MetZone
12	Sport?	Garmin Sport
13	TrainingSettings?	Garmin TrainingSettings
14	DataScreen?	Garmin DataScreen
15	Goal?	Garmin Goal
16	Alert?	Garmin Alert
17	RangeAlert?	Garmin RangeAlert
18	Session	Garmin Session
19	Lap	Garmin Lap
20	Record	Garmin Record
21	Event?	Garmin Event
22	DeviceUsed?	Garmin DeviceUsed
23	DeviceInfo?	Garmin DeviceInfo
26	Workout?	Garmin Workout
27	WorkoutStep?	Garmin WorkoutStep
28	Schedule?	Garmin Schedule
29	Location?	Garmin Location
30	WeightScale?	Garmin WeightScale
31	Course?	Garmin Course
32	CoursePoint	Garmin CoursePoint
33	Totals?	Garmin Totals
34	Activity?	Garmin Activity
35	Software?	Garmin Software
37	FileCapabilities?	Garmin FileCapabilities
38	MesgCapabilities?	Garmin MesgCapabilities
39	FieldCapabilities?	Garmin FieldCapabilities
49	FileCreator?	Garmin FileCreator
51	BloodPressure?	Garmin BloodPressure
53	SpeedZone?	Garmin SpeedZone
55	Monitoring?	Garmin Monitoring
70	MapLayer?	Garmin MapLayer
71	Routing?	Garmin Routing
72	TrainingFile?	Garmin TrainingFile
78	HRV?	Garmin HRV
79	UserMetrics?	Garmin UserMetrics
80	AntRx?	Garmin AntRx
81	AntTx?	Garmin AntTx
82	AntChannelID?	Garmin AntChannelID
89	OpenWaterEvent?	Garmin OpenWaterEvent
101	Length?	Garmin Length

```
103    MonitoringInfo?                  Garmin MonitoringInfo
104    DeviceStatus?                    Garmin DeviceStatus
105    Pad?                             no
106    SlaveDevice?                     Garmin SlaveDevice
113    BestEffort?                      Garmin BestEffort
114    PersonalRecord?                  Garmin PersonalRecord
127    Connectivity?                    Garmin Connectivity
128    WeatherConditions                Garmin WeatherConditions
129    WeatherAlert?                    Garmin WeatherAlert
131    CadenceZone?                     Garmin CadenceZone
132    HR?                              Garmin HR
140    ActivityMetrics?                 Garmin ActivityMetrics
141    EPOStatus?                       Garmin EPOStatus
142    SegmentLap                       Garmin SegmentLap
143    MultisportSettings?              Garmin MultisportSettings
144    MultisportActivity?              Garmin MultisportActivity
145    MemoGlob?                        Garmin MemoGlob
147    SensorSettings?                  Garmin SensorSettings
148    SegmentID?                       Garmin SegmentID
149    SegmentLeaderboardEntry?         Garmin SegmentLeaderboardEntry
150    SegmentPoint                     Garmin SegmentPoint
151    SegmentFile?                     Garmin SegmentFile
152    Metronome?                       Garmin Metronome
158    WorkoutSession?                  Garmin WorkoutSession
159    WatchfaceSettings?               Garmin WatchfaceSettings
160    GPS                              Garmin GPS
161    CameraEvent?                     Garmin CameraEvent
162    TimeStampCorrelation?            Garmin TimeStampCorrelation
164    GyroscopeData?                   Garmin GyroscopeData
165    AccelerometerData?               Garmin AccelerometerData
167    ThreeDSensorCalibration?         Garmin ThreeDSensorCalibration
169    VideoFrame?                      Garmin VideoFrame
170    ConnectIQField?                  Garmin ConnectIQField
173    Clubs?                           Garmin Clubs
174    OBDIIData?                       Garmin OBDIIData
177    NMEASentence?                    Garmin NMEASentence
178    AviationAttitude?                Garmin AviationAttitude
184    Video?                           Garmin Video
185    VideoTitle?                      Garmin VideoTitle
186    VideoDescription?                Garmin VideoDescription
187    VideoClip?                       Garmin VideoClip
188    OHRSettings?                     Garmin OHRSettings
189    WaypointHandling?                Garmin WaypointHandling
190    GolfCourse?                      Garmin GolfCourse
191    GolfStats?                       Garmin GolfStats
192    Score?                           Garmin Score
193    Hole?                            Garmin Hole
194    Shot?                            Garmin Shot
200    ExdScreenConfiguration?          Garmin ExdScreenConfiguration
201    ExdDataFieldConfiguration?       Garmin ExdDataFieldConfiguration
202    ExdDataConceptConfiguration?     Garmin ExdDataConceptConfiguration
206    FieldDescription?                Garmin FieldDescription
207    DeveloperDataID?                 Garmin DeveloperDataID
208    MagnetometerData?                Garmin MagnetometerData
```

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209    BarometerData?                  Garmin BarometerData
210    OneDSensorCalibration?          Garmin OneDSensorCalibration
211    MonitoringHRData?               Garmin MonitoringHRData
216    TimeInZone?                     Garmin TimeInZone
222    AlarmSettings?                  Garmin AlarmSettings
225    Set?                            Garmin Set
227    StressLevel?                    Garmin StressLevel
229    MaxMetData?                     Garmin MaxMetData
243    MusicInfo?                      Garmin MusicInfo
258    DiveSettings?                   Garmin DiveSettings
259    DiveGas?                        Garmin DiveGas
262    DiveAlarm?                      Garmin DiveAlarm
264    ExerciseTitle?                  Garmin ExerciseTitle
268    DiveSummary?                    Garmin DiveSummary
269    SPO2Data?                       Garmin SPO2Data
273    SleepDataInfo?                  Garmin SleepDataInfo
275    SleepLevel?                     Garmin SleepLevel
285    Jump                            Garmin Jump
289    AADAccelFeatures?               Garmin AADAccelFeatures
290    BeatIntervals?                  Garmin BeatIntervals
297    RespirationRate?                Garmin RespirationRate
302    HSAAccelerometerData?           Garmin HSAAccelerometerData
304    HSAStepData?                    Garmin HSAStepData
305    HSA_SPO2Data?                   Garmin HSA_SPO2Data
306    HSAStressData?                  Garmin HSAStressData
307    HSARespirationData?             Garmin HSARespirationData
308    HSAHeartRateData?               Garmin HSAHeartRateData
309    MtbCx?                          Garmin MtbCx
310    Race?                           Garmin Race
311    SplitTime?                      Garmin SplitTime
312    Split                           Garmin Split
313    SplitSummary?                   Garmin SplitSummary
314    HSABodyBatteryData?             Garmin HSABodyBatteryData
315    HSAEvent?                       Garmin HSAEvent
317    ClimbPro                        Garmin ClimbPro
319    TankUpdate?                     Garmin TankUpdate
321    PowerMode?                      Garmin PowerMode
323    TankSummary?                    Garmin TankSummary
326    GPSEvent?                       Garmin GPSEvent
336    ECGSummary?                     Garmin ECGSummary
337    ECGRawSample?                   Garmin ECGRawSample
338    ECGSmoothSample?                Garmin ECGSmoothSample
346    SleepAssessment?                Garmin SleepAssessment
356    FunctionalMetrics?              Garmin FunctionalMetrics
358    RaceEvent?                      Garmin RaceEvent
369    TrainingReadiness?              Garmin TrainingReadiness
370    HRVStatusSummary?               Garmin HRVStatusSummary
371    HRVValue?                       Garmin HRVValue
372    RawBBI?                         Garmin RawBBI
375    DeviceAuxBatteryInfo?           Garmin DeviceAuxBatteryInfo
376    HSAGyroscopeData?               Garmin HSAGyroscopeData
378    TrainingLoad?                   Garmin TrainingLoad
379    SleepSchedule?                  Garmin SleepSchedule
382    SleepRestlessMoments?           Garmin SleepRestlessMoments
```

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  387   ChronoShotSession?                  Garmin ChronoShotSession
  388   ChronoShotData?                     Garmin ChronoShotData
  389   HSAConfigurationData?               Garmin HSAConfigurationData
  393   DiveApneaAlarm?                     Garmin DiveApneaAlarm
  394   CPEStatus?                          Garmin CPEStatus
  398   SkinTempOvernight?                  Garmin SkinTempOvernight
  402   HillScore?                          Garmin HillScore
  403   EnduranceScore?                     Garmin EnduranceScore
  409   HSAWristTemperatureData?            Garmin HSAWristTemperatureData
  412   NapEvent?                           Garmin NapEvent
  428   WorkoutSchedule?                    Garmin WorkoutSchedule
  470 SleepDisruptionSeverityPeriod?      Garmin SleepDisruptionSeverityPeriod
  471   SleepDisruptionOvernightSeverity?   Garmin SleepDisruptionOvernightSever
```

Garmin Common Tags

Tags listed here are common to all FIT messages (ie. all tag tables below).

Tag ID	Tag Name	Writable
250	PartIndex	no
253	TimeStamp	no
254	MessageIndex	no

Garmin FileID Tags

Tag ID	Tag Name	Writable
0	FITFileType	no
1	Manufacturer	no
2	Product	no
3	SerialNumber	no
4	TimeCreated	no
5	Number	no
8	ProductName	no

Garmin Capabilities Tags

Tag ID	Tag Name	Writable
0	Languages	no
1	Sports	no
21	WorkoutsSupported	no
23	ConnectivitySupported	no

Garmin DeviceSettings Tags

Tag ID	Tag Name	Writable
0	ActiveTimeZone	no
1	UtcOffset	no
2	TimeOffset	no
4	TimeMode	no
5	TimeZoneOffset	no
8	AlarmsTime	no
12	BacklightMode	no
28	AlarmsEnabled	no
36	ActivityTrackerEnabled	no
39	ClockTime	no
40	PagesEnabled	no

46	MoveAlertEnabled	no
47	DateMode	no
55	DisplayOrientation	no
56	MountingSide	no
57	DefaultPage	no
58	AutosyncMinSteps	no
59	AutosyncMinTime	no
80	LactateThresholdAutodetectEnabled	no
86	BleAutoUploadEnabled	no
89	AutoSyncFrequency	no
90	AutoActivityDetect	no
92	AlarmsRepeat	no
94	NumberOfScreens	no
95	SmartNotificationDisplayOrientation	no
134	TapInterface	no
174	TapSensitivity	no

Garmin UserProfile Tags

Tag ID	Tag Name	Writable
0	FriendlyName	no
1	Gender	no
2	Age	no
3	Height	no
4	Weight	no
5	Language	no
6	ElevSetting	no
7	WeightSetting	no
8	RestingHeartRate	no
9	DefaultMaxRunningHeartRate	no
10	DefaultMaxBikingHeartRate	no
11	DefaultMaxHeartRate	no
12	HRSetting	no
13	SpeedSetting	no
14	DistSetting	no
16	PowerSetting	no
17	ActivityClass	no
18	PositionSetting	no
21	TemperatureSetting	no
22	LocalID	no
23	GlobalID	no
24	YearOfBirth	no
28	WakeTime	no
29	SleepTime	no
30	HeightSetting	no
31	UserRunningStepLength	no
32	UserWalkingStepLength	no
37	Ltspeed	no
41	TimeLast-LthrUpdate	no
47	DepthSetting	no
49	DiveCount	no
62	GenderX	no

Garmin HRMProfile Tags

Tag ID	Tag Name	Writable
0	Enabled	no
1	HRMAntID	no
2	LogHRV	no
3	HRMAntIDTransType	no

Garmin SDMProfile Tags

Tag ID	Tag Name	Writable
0	Enabled	no
1	SDMAntID	no
2	SDMCalFactor	no
3	Odometer	no
4	SpeedSource	no
5	SDMAntIDTransType	no
7	OdometerRollover	no

Garmin BikeProfile Tags

Tag ID	Tag Name	Writable
0	BikeProfileName	no
1	Sport	no
2	SubSport	no
3	Odometer	no
4	BikeSpdAntID	no
5	BikeCadAntID	no
6	BikeSpdcadAntID	no
7	BikePowerAntID	no
8	CustomWheelsize	no
9	AutoWheelsize	no
10	BikeWeight	no
11	PowerCalFactor	no
12	AutoWheelCal	no
13	AutoPowerZero	no
14	ID	no
15	SpdEnabled	no
16	CadEnabled	no
17	SpdcadEnabled	no
18	PowerEnabled	no
19	CrankLength	no
20	Enabled	no
21	BikeSpdAntIDTransType	no
22	BikeCadAntIDTransType	no
23	BikeSpdcadAntIDTransType	no
24	BikePowerAntIDTransType	no
37	OdometerRollover	no
38	FrontGearNum	no
39	FrontGear	no
40	RearGearNum	no
41	RearGear	no
44	ShimanoDi2Enabled	no

Garmin ZonesTarget Tags

Tag ID	Tag Name	Writable
1	MaxHeartRate	no
2	ThresholdHeartRate	no
3	FunctionalThresholdPower	no
5	HRCalcType	no
7	PwrCalcType	no

Garmin HRZone Tags

Tag ID	Tag Name	Writable
1	HighBpm	no
2	HRZoneName	no

Garmin PowerZone Tags

Tag ID	Tag Name	Writable
1	HighValue	no
2	PowerZoneName	no

Garmin MetZone Tags

Tag ID	Tag Name	Writable
1	HighBpm	no
2	Calories	no
3	FatCalories	no

Garmin Sport Tags

Tag ID	Tag Name	Writable
0	Sport	no
1	SubSport	no
3	SportName	no
15	PopularityRouting	no
17	NavigationPrompt	no
18	SharpBendWarnings	no
21	WorkoutVideos	no
22	HighTrafficRoadWarnings	no
23	RoadHazardWarnings	no
24	UnpavedRoadWarnings	no

Garmin TrainingSettings Tags

Tag ID	Tag Name	Writable
2	VirtualPartnerPace	no
3	AutoLapMode	no
4	AutoLapDistance	no
7	AutoPause	no
8	AutoPauseThreshold	no
12	PowerAveraging	no
15	AutoScroll	no
18	TimerStartPrompt	no
22	PoolLength	no
25	AutoSleep	no
27	Satellites	no

31	TargetDistance	no
32	TargetSpeed	no
33	TargetTime	no
35	ThreeDSpeed	no
36	ThreeDDistance	no
37	AutoClimb	no
40	AutoClimbInvertColors	no
41	AutoClimbVerticalSpeed	no
42	AutoClimbModeSwitch	no
46	LapKey	no
50	WorkoutTargetAlerts	no
51	TimerStartAuto	no
52	TimerStartSpeed	no
53	SegmentAlerts	no
57	CountdownStart	no
63	ClimbPro	no
67	TrackConsumption	no
69	BottleSize	no
70	Volume	no
80	MinimumRideDuration	no
86	LaneNumber	no
87	BroadcastHeartRate	no
93	SelfEvaluation	no
102	SpeedPro	no
103	Touch	no
106	RecordTemperature	no
109	RunningPowerMode	no
110	AccountForWind	no
111	ClimbProMode	no
117	ClimbDetection	no
119	ClimbProTerrain	no
153	PreciseTargetSpeed	no
1001	GPS	no
1002	Glonass	no
1003	Galileo	no
1004	Beidou	no

Garmin DataScreen Tags

Tag ID	Tag Name	Writable
3	NrFields	no
7	DataFields	no
8	Layout	no
9	Position	no
10	ScreenType	no

Garmin Goal Tags

Tag ID	Tag Name	Writable
0	Sport	no
1	SubSport	no
2	StartDate	no
3	EndDate	no
4	GoalType	no
5	Value	no
6	Repeat	no
7	TargetValue	no
8	Recurrence	no
9	RecurrenceValue	no
10	Enabled	no
11	Source	no

Garmin Alert Tags

Tag ID	Tag Name	Writable
1	Metric	no
2	Value	no
3	Status	no
4	Message	no
5	Repeat	no

Garmin RangeAlert Tags

Tag ID	Tag Name	Writable
1	Metric	no
2	LowStatus	no
3	LowValue	no
4	HighStatus	no
5	HighValue	no

Garmin Session Tags

Tag ID	Tag Name	Writable
0	Event	no
1	EventType	no
2	GPSDateTime	no
3	GPSLatitude	no
4	GPSLongitude	no
5	Sport	no
6	SubSport	no
7	TotalElapsedTime	no
8	TotalTimerTime	no
9	TotalDistance	no
10	TotalCycles	no
11	TotalCalories	no
13	TotalFatCalories	no
14	AvgSpeed	no
15	MaxSpeed	no
16	AvgHeartRate	no
17	MaxHeartRate	no
18	AvgCadence	no
19	MaxCadence	no

```
20    AvgPower                      no
21    MaxPower                      no
22    TotalAscent                   no
23    TotalDescent                  no
24    TotalTrainingEffect           no
25    FirstLapIndex                 no
26    NumLaps                       no
27    EventGroup                    no
28    Trigger                       no
29    NECLatitude                   no
30    NECLongitude                  no
31    SWCLatitude                   no
32    SWCLongitude                  no
33    NumLengths                    no
34    NormalizedPower               no
35    TrainingStressScore           no
36    IntensityFactor               no
37    LeftRightBalance              no
38    GPSDestLatitude               no
39    GPSDestLongitude              no
41    AvgStrokeCount                no
42    AvgStrokeDistance             no
43    SwimStroke                    no
44    PoolLength                    no
45    ThresholdPower                no
46    PoolLengthUnit                no
47    NumActiveLengths              no
48    TotalWork                     no
49    AvgAltitude                   no
50    MaxAltitude                   no
51    GPSAccuracy                   no
52    AvgGrade                      no
53    AvgPosGrade                   no
54    AvgNegGrade                   no
55    MaxPosGrade                   no
56    MaxNegGrade                   no
57    AvgTemperature                no
58    MaxTemperature                no
59    TotalMovingTime               no
60    AvgPosVerticalSpeed           no
61    AvgNegVerticalSpeed           no
62    MaxPosVerticalSpeed           no
63    MaxNegVerticalSpeed           no
64    MinHeartRate                  no
65    TimeInHRZone                  no
66    TimeInSpeedZone               no
67    TimeInCadenceZone             no
68    TimeInPowerZone               no
69    AvgLapTime                    no
70    BestLapIndex                  no
71    MinAltitude                   no
78    WorkTime                      no
79    AvgSwimCadence                no
80    AvgSwolf                      no
```

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 82    PlayerScore                       no
 83    OpponentScore                     no
 84    OpponentName                      no
 85    StrokeCount                       no
 86    ZoneCount                         no
 87    MaxBallSpeed                      no
 88    AvgBallSpeed                      no
 89    AvgVerticalOscillation            no
 90    AvgStanceTimePercent              no
 91    AvgStanceTime                     no
 92    AvgFractionalCadence              no
 93    MaxFractionalCadence              no
 94    TotalFractionalCycles             no
 95    AvgTotalHemoglobinConc            no
 96    MinTotalHemoglobinConc            no
 97    MaxTotalHemoglobinConc            no
 98    AvgSaturatedHemoglobinPercent     no
 99    MinSaturatedHemoglobinPercent     no
100    MaxSaturatedHemoglobinPercent     no
101    AvgLeftTorqueEffectiveness        no
102    AvgRightTorqueEffectiveness       no
103    AvgLeftPedalSmoothness            no
104    AvgRightPedalSmoothness           no
105    AvgCombinedPedalSmoothness        no
110    SportProfileName                  no
111    SportIndex                        no
112    TimeStanding                      no
113    StandCount                        no
114    AvgLeftPco                        no
115    AvgRightPco                       no
116    AvgLeftPowerPhase                 no
117    AvgLeftPowerPhasePeak             no
118    AvgRightPowerPhase                no
119    AvgRightPowerPhasePeak            no
120    AvgPowerPosition                  no
121    MaxPowerPosition                  no
122    AvgCadencePosition                no
123    MaxCadencePosition                no
124    EnhancedAvgSpeed                  no
125    EnhancedMaxSpeed                  no
126    EnhancedAvgAltitude               no
127    EnhancedMinAltitude               no
128    EnhancedMaxAltitude               no
129    AvgLevMotorPower                  no
130    MaxLevMotorPower                  no
131    LevBatteryConsumption             no
132    AvgVerticalRatio                  no
133    AvgStanceTimeBalance              no
134    AvgStepLength                     no
137    TotalAnaerobicTrainingEffect      no
139    AvgVam                            no
140    AvgDepth                          no
141    MaxDepth                          no
142    SurfaceInterval                   no
```

143	StartCns	no
144	EndCns	no
145	StartN2	no
146	EndN2	no
147	AvgRespirationRate	no
148	MaxRespirationRate	no
149	MinRespirationRate	no
150	MinTemperature	no
151	TotalSets	no
152	Volume	no
155	O2Toxicity	no
156	DiveNumber	no
168	TrainingLoadPeak	no
169	EnhancedAvgRespirationRate	no
170	EnhancedMaxRespirationRate	no
177	CaloriesConsumed	no
178	EstSweatLoss	no
179	FluidConsumed	no
180	EnhancedMinRespirationRate	no
181	TotalGrit	no
182	TotalFlow	no
183	JumpCount	no
185	ExecutionScore	no
186	AvgGrit	no
187	AvgFlow	no
188	PrimaryBenefit	no
192	WorkoutFeel	no
193	WorkoutRpe	no
194	AvgSPO2	no
195	AvgStress	no
196	MetabolicCalories	no
197	SDRRHRV	no
198	RMSSD_HRV	no
199	TotalFractionalAscent	no
200	TotalFractionalDescent	no
202	RecoveryHeartRate	no
205	BeginningPotential	no
206	EndingPotential	no
207	MinStamina	no
208	AvgCoreTemperature	no
209	MinCoreTemperature	no
210	MaxCoreTemperature	no
211	GradeAdjustedSpeed	no
212	WindData	no
215	BeginningBodyBattery	no
216	EndingBodyBattery	no
220	PackWeight	no
222	StepSpeedLossDistance	no
223	StepSpeedLossPercent	no
224	AvgForce	no
225	MaxForce	no
226	NormalizedForce	no

Garmin Lap Tags

Tag ID	Tag Name	Writable
0	Event	no
1	EventType	no
2	GPSDateTime	no
3	GPSLatitude	no
4	GPSLongitude	no
5	GPSDestLatitude	no
6	GPSDestLongitude	no
7	TotalElapsedTime	no
8	TotalTimerTime	no
9	TotalDistance	no
10	TotalCycles	no
11	TotalCalories	no
12	TotalFatCalories	no
13	AvgSpeed	no
14	MaxSpeed	no
15	AvgHeartRate	no
16	MaxHeartRate	no
17	AvgCadence	no
18	MaxCadence	no
19	AvgPower	no
20	MaxPower	no
21	TotalAscent	no
22	TotalDescent	no
23	Intensity	no
24	LapTrigger	no
25	Sport	no
26	EventGroup	no
27	NECLatitude	no
28	NECLongitude	no
29	SWCLatitude	no
30	SWCLongitude	no
32	NumLengths	no
33	NormalizedPower	no
34	LeftRightBalance	no
35	FirstLengthIndex	no
37	AvgStrokeDistance	no
38	SwimStroke	no
39	SubSport	no
40	NumActiveLengths	no
41	TotalWork	no
42	AvgAltitude	no
43	MaxAltitude	no
44	GPSAccuracy	no
45	AvgGrade	no
46	AvgPosGrade	no
47	AvgNegGrade	no
48	MaxPosGrade	no
49	MaxNegGrade	no
50	AvgTemperature	no
51	MaxTemperature	no
52	TotalMovingTime	no
53	AvgPosVerticalSpeed	no

```
 54    AvgNegVerticalSpeed                 no
 55    MaxPosVerticalSpeed                 no
 56    MaxNegVerticalSpeed                 no
 57    TimeInHRZone                        no
 58    TimeInSpeedZone                     no
 59    TimeInCadenceZone                   no
 60    TimeInPowerZone                     no
 61    RepetitionNum                       no
 62    MinAltitude                         no
 63    MinHeartRate                        no
 71    WktStepIndex                        no
 73    AvgSwolf                            no
 74    OpponentScore                       no
 75    StrokeCount                         no
 76    ZoneCount                           no
 77    AvgVerticalOscillation              no
 78    AvgStanceTimePercent                no
 79    AvgStanceTime                       no
 80    AvgFractionalCadence                no
 81    MaxFractionalCadence                no
 82    TotalFractionalCycles               no
 83    PlayerScore                         no
 84    AvgTotalHemoglobinConc              no
 85    MinTotalHemoglobinConc              no
 86    MaxTotalHemoglobinConc              no
 87    AvgSaturatedHemoglobinPercent       no
 88    MinSaturatedHemoglobinPercent       no
 89    MaxSaturatedHemoglobinPercent       no
 91    AvgLeftTorqueEffectiveness          no
 92    AvgRightTorqueEffectiveness         no
 93    AvgLeftPedalSmoothness              no
 94    AvgRightPedalSmoothness             no
 95    AvgCombinedPedalSmoothness          no
 98    TimeStanding                        no
 99    StandCount                          no
100    AvgLeftPco                          no
101    AvgRightPco                         no
102    AvgLeftPowerPhase                   no
103    AvgLeftPowerPhasePeak               no
104    AvgRightPowerPhase                  no
105    AvgRightPowerPhasePeak              no
106    AvgPowerPosition                    no
107    MaxPowerPosition                    no
108    AvgCadencePosition                  no
109    MaxCadencePosition                  no
110    EnhancedAvgSpeed                    no
111    EnhancedMaxSpeed                    no
112    EnhancedAvgAltitude                 no
113    EnhancedMinAltitude                 no
114    EnhancedMaxAltitude                 no
115    AvgLevMotorPower                    no
116    MaxLevMotorPower                    no
117    LevBatteryConsumption               no
118    AvgVerticalRatio                    no
```

119	AvgStanceTimeBalance	no
120	AvgStepLength	no
121	AvgVam	no
122	AvgDepth	no
123	MaxDepth	no
124	MinTemperature	no
136	EnhancedAvgRespirationRate	no
137	EnhancedMaxRespirationRate	no
145	EstSweatLoss	no
147	AvgRespirationRate	no
148	MaxRespirationRate	no
149	TotalGrit	no
150	TotalFlow	no
151	JumpCount	no
152	ExecutionScore	no
153	AvgGrit	no
154	AvgFlow	no
155	RestingCalories	no
156	TotalFractionalAscent	no
157	TotalFractionalDescent	no
158	AvgCoreTemperature	no
159	MinCoreTemperature	no
160	MaxCoreTemperature	no
161	GradeAdjustedSpeed	no
163	Unpaved	no
164	StepSpeedLossDistance	no
165	StepSpeedLossPercentage	no
166	AvgForce	no
167	MaxForce	no
168	NormalizedForce	no

Garmin Record Tags

Tag ID	Tag Name	Writable
0	GPSLatitude	no
1	GPSLongitude	no
2	GPSAltitude	no
3	HeartRate	no
4	Cadence	no
5	Distance	no
6	GPSSpeed	no
7	Power	no
8	CompressedSpeedDistance	no
9	Grade	no
10	Resistance	no
11	TimeFromCourse	no
12	CycleLength	no
13	Temperature	no
17	Speed_1s	no
18	Cycles	no
19	TotalCycles	no
28	CompressedAccumulatedPower	no
29	AccumulatedPower	no
30	LeftRightBalance	no
31	GPSAccuracy	no

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 32    VerticalSpeed                      no
 33    Calories                           no
 39    VerticalOscillation                no
 40    StanceTimePercent                  no
 41    StanceTime                         no
 42    ActivityType                       no
 43    LeftTorqueEffectiveness            no
 44    RightTorqueEffectiveness           no
 45    LeftPedalSmoothness                no
 46    RightPedalSmoothness               no
 47    CombinedPedalSmoothness            no
 48    Time128                            no
 49    StrokeType                         no
 50    Zone                               no
 51    BallSpeed                          no
 52    Cadence256                         no
 53    FractionalCadence                  no
 54    TotalHemoglobinConc                no
 55    TotalHemoglobinConcMin             no
 56    TotalHemoglobinConcMax             no
 57    SaturatedHemoglobinPercent         no
 58    SaturatedHemoglobinPercentMin      no
 59    SaturatedHemoglobinPercentMax      no
 62    DeviceIndex                        no
 67    LeftPco                            no
 68    RightPco                           no
 69    LeftPowerPhase                     no
 70    LeftPowerPhasePeak                 no
 71    RightPowerPhase                    no
 72    RightPowerPhasePeak                no
 73    GPSSpeed                           no
 78    GPSAltitude                        no
 81    BatterySoc                         no
 82    MotorPower                         no
 83    VerticalRatio                      no
 84    StanceTimeBalance                  no
 85    StepLength                         no
 87    CycleLength16                      no
 90    PerformanceCondition               no
 91    AbsolutePressure                   no
 92    Depth                              no
 93    NextStopDepth                      no
 94    NextStopTime                       no
 95    TimeToSurface                      no
 96    NdlTime                            no
 97    CnsLoad                            no
 98    N2Load                             no
 99    RespirationRate                    no
108    EnhancedRespirationRate            no
114    Grit                               no
115    Flow                               no
116    CurrentStress                      no
117    EbikeTravelRange                   no
118    EbikeBatteryLevel                  no
```

119	EbikeAssistMode	no
120	EbikeAssistLevelPercent	no
121	TotalAscent	no
123	AirTimeRemaining	no
124	PressureSac	no
125	VolumeSac	no
126	Rmv	no
127	AscentRate	no
129	PO2	no
136	WristHeartRate	no
137	StaminaPotential	no
138	Stamina	no
139	CoreTemperature	no
140	GradeAdjustedSpeed	no
143	BodyBattery	no
144	ExternalHeartRate	no
146	StepSpeedLossDistance	no
147	StepSpeedLossPercentage	no
148	Force	no

Garmin Event Tags

Tag ID	Tag Name	Writable
0	Event	no
1	EventType	no
2	Data16	no
3	Data	no
4	EventGroup	no
7	Score	no
8	OpponentScore	no
9	FrontGearNum	no
10	FrontGear	no
11	RearGearNum	no
12	RearGear	no
13	DeviceIndex	no
14	ActivityType	no
15	StartTimeStamp	no
21	RadarThreatLevelMax	no
22	RadarThreatCount	no
23	RadarThreatAvgApproachSpeed	no
24	RadarThreatMaxApproachSpeed	no

Garmin DeviceUsed Tags

Tag ID	Tag Name	Writable
0	DevSpeed	no
1	DevDistance	no
2	DevCadence	no
3	DevElevation	no
4	DevHeartRate	no
6	DevPower	no

Garmin DeviceInfo Tags

Tag ID	Tag Name	Writable
0	DeviceIndex	no
1	DeviceType	no
2	Manufacturer	no
3	SerialNumber	no
4	Product	no
5	SoftwareVersion	no
6	HardwareVersion	no
7	CumOperatingTime	no
10	BatteryVoltage	no
11	BatteryStatus	no
18	SensorPosition	no
19	Descriptor	no
20	AntTransmissionType	no
21	AntDeviceNumber	no
22	AntNetwork	no
24	AntID	no
25	SourceType	no
27	ProductName	no
32	BatteryLevel	no

Garmin Workout Tags

Tag ID	Tag Name	Writable
4	Sport	no
5	Capabilities	no
6	NumValidSteps	no
8	WorkoutName	no
9	DurationType	no
10	DurationValue	no
11	SubSport	no
14	PoolLength	no
15	PoolLengthUnit	no
17	WorkoutDescription	no
20	WorkoutIndex	no
21	Time	no
22	Distance	no

Garmin WorkoutStep Tags

Tag ID	Tag Name	Writable
0	WktStepName	no
1	DurationType	no
2	DurationValue	no
3	TargetType	no
4	TargetValue	no
5	CustomTargetValueLow	no
6	CustomTargetValueHigh	no
7	Intensity	no
8	Notes	no
9	Equipment	no
10	ExerciseCategory	no
11	ExerciseName	no
12	ExerciseWeight	no

13	WeightDisplayUnit	no
18	SkipLastRecover	no
19	SecondaryTargetType	no
20	SecondaryTargetValue	no
21	SecondaryCustomTargetValueLow	no
22	SecondaryCustomTargetValueHigh	no
31	WorkoutIndex	no

Garmin Schedule Tags

Tag ID	Tag Name	Writable
0	Manufacturer	no
1	Product	no
2	SerialNumber	no
3	TimeCreated	no
4	Completed	no
5	ScheduleType	no
6	ScheduledTime	no

Garmin Location Tags

Tag ID	Tag Name	Writable
0	LocationName	no
1	GPSLatitude	no
2	GPSLongitude	no
3	LocationSymbol	no
4	GPSAltitude	no
5	EnhancedAltitude	no
6	LocationDescription	no

Garmin WeightScale Tags

Tag ID	Tag Name	Writable
0	Weight	no
1	PercentFat	no
2	PercentHydration	no
3	VisceralFatMass	no
4	BoneMass	no
5	MuscleMass	no
7	BasalMet	no
8	PhysiqueRating	no
9	ActiveMet	no
10	MetabolicAge	no
11	VisceralFatRating	no
12	UserProfileIndex	no
13	Bmi	no

Garmin Course Tags

Tag ID	Tag Name	Writable
4	Sport	no
5	CourseName	no
6	Capabilities	no
7	SubSport	no

Garmin CoursePoint Tags

Tag ID	Tag Name	Writable
1	GPSDateTime	no
2	GPSLatitude	no
3	GPSLongitude	no
4	Distance	no
5	CoursePointType	no
6	CoursePointName	no
8	Favorite	no
13	Cutoff	no
14	Notes	no
15	Rest	no

Garmin Totals Tags

Tag ID	Tag Name	Writable
0	TimerTime	no
1	Distance	no
2	Calories	no
3	Sport	no
4	ElapsedTime	no
5	Sessions	no
6	ActiveTime	no
9	SportIndex	no
10	ActivityProfile	no

Garmin Activity Tags

Tag ID	Tag Name	Writable
0	TotalTimerTime	no
1	NumSessions	no
2	ActivityType	no
3	Event	no
4	EventType	no
5	LocalTimeStamp	no
6	EventGroup	no

Garmin Software Tags

Tag ID	Tag Name	Writable
3	Version	no
5	PartNumber	no

Garmin FileCapabilities Tags

Tag ID	Tag Name	Writable
0	FileCapabilitiesType	no
1	Flags	no
2	Directory	no
3	MaxCount	no
4	MaxSize	no

Garmin MesgCapabilities Tags

Tag ID	Tag Name	Writable
0	File	no
1	MesgNum	no
2	CountType	no
3	Count	no

Garmin FieldCapabilities Tags

Tag ID	Tag Name	Writable
0	File	no
1	MesgNum	no
2	FieldNum	no
3	Count	no

Garmin FileCreator Tags

Tag ID	Tag Name	Writable
0	SoftwareVersion	no
1	HardwareVersion	no

Garmin BloodPressure Tags

Tag ID	Tag Name	Writable
0	SystolicPressure	no
1	DiastolicPressure	no
2	MeanArterialPressure	no
3	Map_3SampleMean	no
4	MapMorningValues	no
5	MapEveningValues	no
6	HeartRate	no
7	HeartRateType	no
8	Status	no
9	UserProfileIndex	no

Garmin SpeedZone Tags

Tag ID	Tag Name	Writable
0	HighValue	no
1	SpeedZoneName	no

Garmin Monitoring Tags

Tag ID	Tag Name	Writable
0	DeviceIndex	no
1	Calories	no
2	Distance	no
3	Cycles	no
4	ActiveTime	no
5	ActivityType	no
6	ActivitySubtype	no
7	ActivityLevel	no
8	Distance_16	no
9	Cycles_16	no
10	ActiveTime_16	no

11	LocalTimeStamp	no
12	Temperature	no
14	TemperatureMin	no
15	TemperatureMax	no
16	ActivityTime	no
19	ActiveCalories	no
24	CurrentActivityTypeIntensity	no
25	TimeStampMin_8	no
26	TimeStamp_16	no
27	HeartRate	no
28	Intensity	no
29	DurationMin	no
30	Duration	no
31	Ascent	no
32	Descent	no
33	ModerateActivityMinutes	no
34	VigorousActivityMinutes	no

Garmin MapLayer Tags

Tag ID	Tag Name	Writable
2	ReliefShading	no
11	Orientation	no
13	UserLocations	no
14	AutoZoom	no
15	GuideText	no
16	TrackLog	no
20	Courses	no
23	SpotSoundings	no
24	LightSectors	no
27	Segments	no
28	Contours	no
29	SomeLabel	no
31	Popularity	no

Garmin Routing Tags

Tag ID	Tag Name	Writable
0	RoutingMode	no
1	CalculationMethod	no
2	LockOnRoad	no
3	Avoidances	no
4	RouteRecalculation	no
5	RoutingType	no
7	CourseRecalculation	no

Garmin TrainingFile Tags

Tag ID	Tag Name	Writable
0	TrainingFileType	no
1	Manufacturer	no
2	Product	no
3	SerialNumber	no
4	TimeCreated	no

Garmin HRV Tags

Tag ID	Tag Name	Writable
0	Time	no

Garmin UserMetrics Tags

Tag ID	Tag Name	Writable
0	VO2Max	no
1	Age	no
2	Height	no
3	Weight	no
4	Gender	no
6	MaxHR	no
8	RemainingRecoveryTime	no
11	Lthr	no
12	Ltpower	no
13	Ltspeed	no
15	BeginningBodyBattery	no
16	StartOfActivity	no
19	FirstVO2Max	no
32	BeginningPotential	no
35	EndOfPreviousActivity	no
39	WakeUpTime	no

Garmin AntRx Tags

Tag ID	Tag Name	Writable
0	FractionalTimeStamp	no
1	MesgID	no
2	MesgData	no
3	ChannelNumber	no
4	Data	no

Garmin AntTx Tags

Tag ID	Tag Name	Writable
0	FractionalTimeStamp	no
1	MesgID	no
2	MesgData	no
3	ChannelNumber	no
4	Data	no

Garmin AntChannelID Tags

Tag ID	Tag Name	Writable
0	ChannelNumber	no
1	DeviceType	no
2	DeviceNumber	no
3	TransmissionType	no
4	DeviceIndex	no

Garmin OpenWaterEvent Tags

Tag ID	Tag Name	Writable
0	EventType	no
5	SwimStroke	no

Garmin Length Tags

Tag ID	Tag Name	Writable
0	Event	no
1	EventType	no
2	StartTime	no
3	TotalElapsedTime	no
4	TotalTimerTime	no
5	TotalStrokes	no
6	AvgSpeed	no
7	SwimStroke	no
9	AvgSwimmingCadence	no
10	EventGroup	no
11	TotalCalories	no
12	LengthType	no
18	PlayerScore	no
19	OpponentScore	no
20	StrokeCount	no
21	ZoneCount	no
22	EnhancedAvgRespirationRate	no
23	EnhancedMaxRespirationRate	no
24	AvgRespirationRate	no
25	MaxRespirationRate	no

Garmin MonitoringInfo Tags

Tag ID	Tag Name	Writable
0	LocalTimeStamp	no
1	ActivityType	no
3	CyclesToDistance	no
4	CyclesToCalories	no
5	RestingMetabolicRate	no

Garmin DeviceStatus Tags

Tag ID	Tag Name	Writable
0	BatteryVoltage	no
2	BatteryLevel	no
3	Temperature	no

Garmin SlaveDevice Tags

Tag ID	Tag Name	Writable
0	Manufacturer	no
1	Product	no

Garmin BestEffort Tags

Tag ID	Tag Name	Writable
1	Sport	no
2	Distance	no
3	Time	no
4	StartTime	no
5	PersonalRecord	no

Garmin PersonalRecord Tags

Tag ID	Tag Name	Writable
0	Metric	no
1	Sport	no
2	Distance	no
5	Record	no

Garmin Connectivity Tags

Tag ID	Tag Name	Writable
0	BluetoothEnabled	no
1	BluetoothLeEnabled	no
2	AntEnabled	no
3	ConnectivityName	no
4	LiveTrackingEnabled	no
5	WeatherConditionsEnabled	no
6	WeatherAlertsEnabled	no
7	AutoActivityUploadEnabled	no
8	CourseDownloadEnabled	no
9	WorkoutDownloadEnabled	no
10	GPSEphemerisDownloadEnabled	no
11	IncidentDetectionEnabled	no
12	GrouptrackEnabled	no

Garmin WeatherConditions Tags

Tag ID	Tag Name	Writable
0	WeatherReport	no
1	Temperature	no
2	Condition	no
3	WindDirection	no
4	WindSpeed	no
5	PrecipitationProbability	no
6	TemperatureFeelsLike	no
7	RelativeHumidity	no
8	Location	no
9	GPSDateTime	no
10	GPSLatitude	no
11	GPSLongitude	no
12	DayOfWeek	no
13	HighTemperature	no
14	LowTemperature	no

Garmin WeatherAlert Tags

Tag ID	Tag Name	Writable
0	ReportID	no
1	IssueTime	no
2	ExpireTime	no
3	Severity	no
4	WeatherAlertType	no

Garmin CadenceZone Tags

Tag ID	Tag Name	Writable
0	HighValue	no
1	CadenceZoneName	no

Garmin HR Tags

Tag ID	Tag Name	Writable
0	FractionalTimeStamp	no
1	Time256	no
6	FilteredBpm	no
9	EventTimeStamp	no
10	EventTimeStamp_12	no

Garmin ActivityMetrics Tags

Tag ID	Tag Name	Writable
1	NewHRMax	no
4	AerobicTrainingEffect	no
7	VO2Max	no
9	RecoveryTime	no
11	Sport	no
14	Lthr	no
15	Ltpower	no
16	Ltspeed	no
17	EndingPerformanceCondition	no
20	AnaerobicTrainingEffect	no
25	EndingBodyBattery	no
29	FirstVO2Max	no
41	PrimaryBenefit	no
48	LocalTimeStamp	no
50	EndingPotential	no
60	TotalAscent	no
61	TotalDescent	no
62	AveragePower	no
63	AverageHeartRate	no

Garmin EPOStatus Tags

Tag ID	Tag Name	Writable
0	Status	no
1	StartTime	no
2	EndTime	no

Garmin SegmentLap Tags

Tag ID	Tag Name	Writable
0	Event	no
1	EventType	no
2	GPSDateTime	no
3	GPSLatitude	no
4	GPSLongitude	no
5	GPSDestLatitude	no
6	GPSDestLongitude	no
7	TotalElapsedTime	no
8	TotalTimerTime	no
9	TotalDistance	no
10	TotalCycles	no
11	TotalCalories	no
12	TotalFatCalories	no
13	AvgSpeed	no
14	MaxSpeed	no
15	AvgHeartRate	no
16	MaxHeartRate	no
17	AvgCadence	no
18	MaxCadence	no
19	AvgPower	no
20	MaxPower	no
21	TotalAscent	no
22	TotalDescent	no
23	Sport	no
24	EventGroup	no
25	NECLatitude	no
26	NECLongitude	no
27	SWCLatitude	no
28	SWCLongitude	no
29	SegmentLapName	no
30	NormalizedPower	no
31	LeftRightBalance	no
32	SubSport	no
33	TotalWork	no
34	AvgAltitude	no
35	MaxAltitude	no
36	GPSAccuracy	no
37	AvgGrade	no
38	AvgPosGrade	no
39	AvgNegGrade	no
40	MaxPosGrade	no
41	MaxNegGrade	no
42	AvgTemperature	no
43	MaxTemperature	no
44	TotalMovingTime	no
45	AvgPosVerticalSpeed	no
46	AvgNegVerticalSpeed	no
47	MaxPosVerticalSpeed	no
48	MaxNegVerticalSpeed	no
49	TimeInHRZone	no
50	TimeInSpeedZone	no
51	TimeInCadenceZone	no

52	TimeInPowerZone	no
53	RepetitionNum	no
54	MinAltitude	no
55	MinHeartRate	no
56	ActiveTime	no
57	WktStepIndex	no
58	SportEvent	no
59	AvgLeftTorqueEffectiveness	no
60	AvgRightTorqueEffectiveness	no
61	AvgLeftPedalSmoothness	no
62	AvgRightPedalSmoothness	no
63	AvgCombinedPedalSmoothness	no
64	Status	no
65	UUID	no
66	AvgFractionalCadence	no
67	MaxFractionalCadence	no
68	TotalFractionalCycles	no
69	FrontGearShiftCount	no
70	RearGearShiftCount	no
71	TimeStanding	no
72	StandCount	no
73	AvgLeftPco	no
74	AvgRightPco	no
75	AvgLeftPowerPhase	no
76	AvgLeftPowerPhasePeak	no
77	AvgRightPowerPhase	no
78	AvgRightPowerPhasePeak	no
79	AvgPowerPosition	no
80	MaxPowerPosition	no
81	AvgCadencePosition	no
82	MaxCadencePosition	no
83	Manufacturer	no
84	TotalGrit	no
85	TotalFlow	no
86	AvgGrit	no
87	AvgFlow	no
89	TotalFractionalAscent	no
90	TotalFractionalDescent	no
91	EnhancedAvgAltitude	no
92	EnhancedMaxAltitude	no
93	EnhancedMinAltitude	no

Garmin MultisportSettings Tags

Tag ID	Tag Name	Writable
0	MultisportSettingsName	no
1	Transitions	no
2	NumberOfActivities	no
3	AutoPause	no
4	Alerts	no
5	AutoLap	no
6	PowerSaveTimeout	no
7	AutoScroll	no
8	Repeat	no
10	SportChange	no

Garmin MultisportActivity Tags

Tag ID	Tag Name	Writable
0	Sport	no
1	SubSport	no
2	LockDevice	no
3	MultisportActivityName	no

Garmin MemoGlob Tags

Tag ID	Tag Name	Writable
0	Memo	no
1	MesgNum	no
2	ParentIndex	no
3	FieldNum	no
4	Data	no

Garmin SensorSettings Tags

Tag ID	Tag Name	Writable
0	AntID	no
2	SensorSettingsName	no
10	WheelSizeManual	no
11	CalibrationFactor	no
21	WheelSizeAuto	no
32	Product	no
33	Manufacturer	no
45	UseForSpeed	no
46	UseForDistance	no
51	ConnectionType	no
52	SensorDeviceType	no
91	ProductName	no

Garmin SegmentID Tags

Tag ID	Tag Name	Writable
0	SegmentIDName	no
1	UUID	no
2	Sport	no
3	Enabled	no
4	UserProfilePrimaryKey	no
5	DeviceID	no
6	DefaultRaceLeader	no
7	DeleteStatus	no
8	SelectionType	no

Garmin SegmentLeaderboardEntry Tags

Tag ID	Tag Name	Writable
0	SegmentLeaderboardName	no
1	SegLeaderboardType	no
2	GroupPrimaryKey	no
3	ActivityID	no
4	SegmentTime	no
5	ActivityIDString	no

Garmin SegmentPoint Tags

Tag ID	Tag Name	Writable
1	GPSLatitude	no
2	GPSLongitude	no
3	Distance	no
4	GPSAltitude	no
5	LeaderTime	no
6	GPSAltitude	no

Garmin SegmentFile Tags

Tag ID	Tag Name	Writable
1	FileUUID	no
3	Enabled	no
4	UserProfilePrimaryKey	no
7	LeaderType	no
8	LeaderGroupPrimaryKey	no
9	LeaderActivityID	no
10	LeaderActivityIDString	no
11	DefaultRaceLeader	no

Garmin Metronome Tags

Tag ID	Tag Name	Writable
0	Enabled	no
1	BeatsPerMinute	no
2	AlertFrequency	no
3	SoundAndVibe	no

Garmin WorkoutSession Tags

Tag ID	Tag Name	Writable
0	Sport	no
1	SubSport	no
2	NumValidSteps	no
3	FirstStepIndex	no
4	PoolLength	no
5	PoolLengthUnit	no

Garmin WatchfaceSettings Tags

Tag ID	Tag Name	Writable
0	Mode	no
1	Layout	no

Garmin GPS Tags

Tag ID	Tag Name	Writable
0	TimeStamp_ms	no
1	GPSLatitude	no
2	GPSLongitude	no
3	GPSAltitude	no
4	GPSSpeed	no
5	GPSTrack	no
6	GPSDateTime	no
7	Velocity	no

Garmin CameraEvent Tags

Tag ID	Tag Name	Writable
0	TimeStamp_ms	no
1	CameraEventType	no
2	CameraFileUUID	no
3	CameraOrientation	no

Garmin TimeStampCorrelation Tags

Tag ID	Tag Name	Writable
0	FractionalTimeStamp	no
1	SystemTimeStamp	no
2	FractionalSystemTimeStamp	no
3	LocalTimeStamp	no
4	TimeStamp_ms	no
5	SystemTimeStamp_ms	no

Garmin GyroscopeData Tags

Tag ID	Tag Name	Writable
0	TimeStamp_ms	no
1	SampleTimeOffset	no
2	GyroX	no
3	GyroY	no
4	GyroZ	no
5	CalibratedGyroX	no
6	CalibratedGyroY	no
7	CalibratedGyroZ	no

Garmin AccelerometerData Tags

Tag ID	Tag Name	Writable
0	TimeStamp_ms	no
1	SampleTimeOffset	no
2	AccelX	no
3	AccelY	no
4	AccelZ	no
5	CalibratedAccelX	no
6	CalibratedAccelY	no
7	CalibratedAccelZ	no
8	CompressedCalibratedAccelX	no
9	CompressedCalibratedAccelY	no
10	CompressedCalibratedAccelZ	no

Garmin ThreeDSensorCalibration Tags

Tag ID	Tag Name	Writable
0	SensorType	no
1	CalibrationFactor	no
2	CalibrationDivisor	no
3	LevelShift	no
4	OffsetCal	no
5	OrientationMatrix	no

Garmin VideoFrame Tags

Tag ID	Tag Name	Writable
0	TimeStamp_ms	no
1	FrameNumber	no

Garmin ConnectIQField Tags

Tag ID	Tag Name	Writable
1	AppID	no
2	DataField	no
100	ScreenID	no
101	FieldBits	no

Garmin Clubs Tags

Tag ID	Tag Name	Writable
6	AverageDistance	no
19	MaxDistance	no

Garmin OBDIIData Tags

Tag ID	Tag Name	Writable
0	TimeStamp_ms	no
1	TimeOffset	no
2	Pid	no
3	RawData	no
4	PidDataSize	no
5	SystemTime	no
6	StartTimeStamp	no
7	StartTimeStamp_ms	no

Garmin NMEASentence Tags

Tag ID	Tag Name	Writable
0	TimeStamp_ms	no
1	Sentence	no

Garmin AviationAttitude Tags

Tag ID	Tag Name	Writable
0	TimeStamp_ms	no
1	SystemTime	no
2	Pitch	no
3	Roll	no
4	AccelLateral	no
5	AccelNormal	no
6	TurnRate	no
7	Stage	no
8	AttitudeStageComplete	no
9	Track	no
10	Validity	no

Garmin Video Tags

Tag ID	Tag Name	Writable
0	URL	no
1	HostingProvider	no
2	Duration	no

Garmin VideoTitle Tags

Tag ID	Tag Name	Writable
0	MessageCount	no
1	Text	no

Garmin VideoDescription Tags

Tag ID	Tag Name	Writable
0	MessageCount	no
1	Text	no

Garmin VideoClip Tags

Tag ID	Tag Name	Writable
0	ClipNumber	no
1	StartTimeStamp	no
2	StartTimeStamp_ms	no
3	EndTimeStamp	no
4	EndTimeStamp_ms	no
6	ClipStart	no
7	ClipEnd	no

Garmin OHRSettings Tags

Tag ID	Tag Name	Writable
0	Enabled	no

Garmin WaypointHandling Tags

Tag ID	Tag Name	Writable
0	Action	no

Garmin GolfCourse Tags

Tag ID	Tag Name	Writable
0	CourseID	no
1	GolfCourseName	no
2	LocalTime	no
3	StartTime	no
4	EndTime	no
8	Out	no
9	In	no
10	Total	no
11	Tee	no
12	Slope	no
21	Rating	no

Garmin GolfStats Tags

Tag ID	Tag Name	Writable
0	GolfStatsName	no
2	Out	no
3	In	no
4	Total	no
7	FairwayHit	no
8	Gir	no
9	Putts	no

Garmin Score Tags

Tag ID	Tag Name	Writable
1	HoleNumber	no
2	Score	no
5	Putts	no
6	Fairway	no

Garmin Hole Tags

Tag ID	Tag Name	Writable
0	HoleNumber	no
1	Distance	no
2	Par	no
3	Handicap	no
4	PositionLat	no
5	PositionLong	no

Garmin Shot Tags

Tag ID	Tag Name	Writable
1	HoleNumber	no
2	StartPositionLat	no
3	StartPositionLong	no
4	EndPositionLat	no
5	EndPositionLong	no
7	ClubType	no

Garmin ExdScreenConfiguration Tags

Tag ID	Tag Name	Writable
0	ScreenIndex	no
1	FieldCount	no
2	Layout	no
3	ScreenEnabled	no

Garmin ExdDataFieldConfiguration Tags

Tag ID	Tag Name	Writable
0	ScreenIndex	no
1	ConceptField	no
2	FieldID	no
3	ConceptCount	no
4	DisplayType	no
5	Title	no

Garmin ExdDataConceptConfiguration Tags

Tag ID	Tag Name	Writable
0	ScreenIndex	no
1	ConceptField	no
2	FieldID	no
3	ConceptIndex	no
4	DataPage	no
5	ConceptKey	no
6	Scaling	no
8	DataUnits	no
9	Qualifier	no
10	Descriptor	no
11	IsSigned	no

Garmin FieldDescription Tags

Tags used to define custom developer fields.

Tag ID	Tag Name	Writable
0	DeveloperDataIndex	no
1	FieldDefinitionNumber	no
2	FitBaseTypeID	no
3	FieldName	no
4	Array	no
5	Components	no
6	Scale	no
7	Offset	no
8	Units	no
9	Bits	no
10	Accumulate	no
13	FitBaseUnitID	no
14	NativeMesgNum	no
15	NativeFieldNum	no

Garmin DeveloperDataID Tags

Developer identification tags.

Tag ID	Tag Name	Writable
0	DeveloperID	no
1	ApplicationID	no
2	ManufacturerID	no
3	DeveloperDataIndex	no
4	ApplicationVersion	no

Garmin MagnetometerData Tags

Tag ID	Tag Name	Writable
0	TimeStamp_ms	no
1	SampleTimeOffset	no
2	MagX	no
3	MagY	no
4	MagZ	no
5	CalibratedMagX	no
6	CalibratedMagY	no
7	CalibratedMagZ	no

Garmin BarometerData Tags

Tag ID	Tag Name	Writable
0	TimeStamp_ms	no
1	SampleTimeOffset	no
2	BaroPres	no

Garmin OneDSensorCalibration Tags

Tag ID	Tag Name	Writable
0	SensorType	no
1	CalibrationFactor	no
2	CalibrationDivisor	no
3	LevelShift	no
4	OffsetCal	no

Garmin MonitoringHRData Tags

Tag ID	Tag Name	Writable
0	RestingHeartRate	no
1	CurrentDayRestingHeartRate	no

Garmin TimeInZone Tags

Tag ID	Tag Name	Writable
0	ReferenceMesg	no
1	ReferenceIndex	no
2	TimeInHRZone	no
3	TimeInSpeedZone	no
4	TimeInCadenceZone	no
5	TimeInPowerZone	no
6	HRZoneHighBoundary	no
7	SpeedZoneHighBoundary	no
8	CadenceZoneHighBondary	no
9	PowerZoneHighBoundary	no
10	HRCalcType	no
11	MaxHeartRate	no
12	RestingHeartRate	no
13	ThresholdHeartRate	no
14	PwrCalcType	no
15	FunctionalThresholdPower	no

Garmin AlarmSettings Tags

Tag ID	Tag Name	Writable
0	Time	no
1	Repeat	no
2	Enabled	no
3	Sound	no
4	Backlight	no
5	TimeCreated	no
8	Label	no
11	TimeUpdated	no

Garmin Set Tags

Tag ID	Tag Name	Writable
0	Duration	no
3	Repetitions	no
4	Weight	no
5	SetType	no
6	StartTime	no
7	Category	no
8	CategorySubtype	no
9	WeightDisplayUnit	no
10	MessageIndex	no
11	WktStepIndex	no

Garmin StressLevel Tags

Tag ID	Tag Name	Writable
0	StressLevelValue	no
1	StressLevelTime	no
3	BodyBattery	no

Garmin MaxMetData Tags

Tag ID	Tag Name	Writable
0	UpdateTime	no
2	VO2Max	no
5	Sport	no
6	SubSport	no
8	MaxMetCategory	no
9	CalibratedData	no
12	HRSource	no
13	SpeedSource	no

Garmin MusicInfo Tags

Tag ID	Tag Name	Writable
0	StartTime	no
2	Title	no
3	Artist	no
4	Genre	no
5	Duration	no

Garmin DiveSettings Tags

Tag ID	Tag Name	Writable
0	DiveSettingsName	no
1	Model	no
2	GfLow	no
3	GfHigh	no
4	WaterType	no
5	WaterDensity	no
6	PO2Warn	no
7	PO2Critical	no
8	PO2Deco	no
9	SafetyStopEnabled	no
10	BottomDepth	no
11	BottomTime	no
12	ApneaCountdownEnabled	no
13	ApneaCountdownTime	no
14	BacklightMode	no
15	BacklightBrightness	no
16	BacklightTimeout	no
17	RepeatDiveInterval	no
18	SafetyStopTime	no
19	HeartRateSourceType	no
20	HeartRateSource	no
21	TravelGas	no
22	CCRLowSetpointSwitchMode	no
23	CCRLowSetpoint	no
24	CCRLowSetpointDepth	no

25	CCRHighSetpointSwitchMode	no
26	CCRHighSetpoint	no
27	CCRHighSetpointDepth	no
29	GasConsumptionDisplay	no
30	UpKeyEnabled	no
35	DiveSounds	no
36	LastStopMultiple	no
37	NoFlyTimeMode	no

Garmin DiveGas Tags

Tag ID	Tag Name	Writable
0	HeliumContent	no
1	OxygenContent	no
2	Status	no
3	Mode	no

Garmin DiveAlarm Tags

Tag ID	Tag Name	Writable
0	Depth	no
1	Time	no
2	Enabled	no
3	AlarmType	no
4	Sound	no
5	DiveTypes	no
6	ID	no
7	PopupEnabled	no
8	TriggerOnDescent	no
9	TriggerOnAscent	no
10	Repeating	no
11	Speed	no

Garmin ExerciseTitle Tags

Tag ID	Tag Name	Writable
0	ExerciseCategory	no
1	ExerciseName	no
2	WktStepName	no

Garmin DiveSummary Tags

Tag ID	Tag Name	Writable
0	ReferenceMesg	no
1	ReferenceIndex	no
2	AvgDepth	no
3	MaxDepth	no
4	SurfaceInterval	no
5	StartCns	no
6	EndCns	no
7	StartN2	no
8	EndN2	no
9	O2Toxicity	no
10	DiveNumber	no
11	BottomTime	no

12	AvgPressureSac	no
13	AvgVolumeSac	no
14	AvgRmv	no
15	DescentTime	no
16	AscentTime	no
17	AvgAscentRate	no
22	AvgDescentRate	no
23	MaxAscentRate	no
24	MaxDescentRate	no
25	HangTime	no

Garmin SPO2Data Tags

Tag ID	Tag Name	Writable
0	ReadingSPO2	no
1	ReadingConfidence	no
2	Mode	no

Garmin SleepDataInfo Tags

Tag ID	Tag Name	Writable
1	SampleLength	no
2	LocalTimeStamp	no
4	Version	no

Garmin SleepLevel Tags

Tag ID	Tag Name	Writable
0	SleepLevel	no

Garmin Jump Tags

Tag ID	Tag Name	Writable
0	Distance	no
1	Height	no
2	Rotations	no
3	HangTime	no
4	Score	no
5	GPSLatitude	no
6	GPSLongitude	no
7	GPSSpeed	no
8	GPSSpeed	no

Garmin AADAccelFeatures Tags

Tag ID	Tag Name	Writable
0	Time	no
1	EnergyTotal	no
2	ZeroCrossCnt	no
3	Instance	no
4	TimeAboveThreshold	no

Garmin BeatIntervals Tags

Tag ID	Tag Name	Writable
0	TimeStamp_ms	no
1	Time	no

Garmin RespirationRate Tags

Tag ID	Tag Name	Writable
0	RespirationRate	no

Garmin HSAAccelerometerData Tags

Tag ID	Tag Name	Writable
0	TimeStamp_ms	no
1	SamplingInterval	no
2	AccelX	no
3	AccelY	no
4	AccelZ	no
5	TimeStamp_32k	no

Garmin HSAStepData Tags

Tag ID	Tag Name	Writable
0	ProcessingInterval	no
1	Steps	no

Garmin HSA_SPO2Data Tags

Tag ID	Tag Name	Writable
0	ProcessingInterval	no
1	ReadingSPO2	no
2	Confidence	no

Garmin HSAStressData Tags

Tag ID	Tag Name	Writable
0	ProcessingInterval	no
1	StressLevel	no

Garmin HSARespirationData Tags

Tag ID	Tag Name	Writable
0	ProcessingInterval	no
1	RespirationRate	no

Garmin HSAHeartRateData Tags

Tag ID	Tag Name	Writable
0	ProcessingInterval	no
1	Status	no
2	HeartRate	no

Garmin MtbCx Tags

Tag ID	Tag Name	Writable
1	GritFlowJumpRecording	no
2	JumpAlerts	no

Garmin Race Tags

Tag ID	Tag Name	Writable
3	GoalTime	no
4	GoalSpeed	no
5	Distance	no
7	SplitDistance	no

Garmin SplitTime Tags

Tag ID	Tag Name	Writable
0	Time	no
1	Distance	no
2	SplitTime	no
3	SplitDistance	no
4	SplitSpeeds	no
9	StartPositionLat	no
10	StartPositionLong	no
11	EndPositionLat	no
12	EndPositionLong	no
13	StartAltitude	no
14	EndAltitude	no

Garmin Split Tags

Tag ID	Tag Name	Writable
0	SplitType	no
1	TotalElapsedTime	no
2	TotalTimerTime	no
3	TotalDistance	no
4	AvgSpeed	no
7	StartDistance	no
9	GPSDateTime	no
11	Sport	no
12	SubSport	no
13	TotalAscent	no
14	TotalDescent	no
15	AvgHeartRate	no
16	MaxHeartRate	no
21	GPSLatitude	no
22	GPSLongitude	no
23	GPSDestLatitude	no
24	GPSDestLongitude	no
25	MaxSpeed	no
26	AvgVertSpeed	no
27	EndTime	no
28	TotalCalories	no
29	AvgCadence	no
30	MaxCadence	no
32	AvgTemperature	no

33	MaxTemperature	no
34	MinTemperature	no
35	AvgVerticalOscillation	no
36	AvgVerticalRatio	no
37	AvgStanceTime	no
38	AvgStanceTimeBalance	no
39	AvgStepLength	no
40	AvgPower	no
41	MaxPower	no
42	NormalizedPower	no
67	LapIndex	no
74	StartElevation	no
79	RestingCalories	no
93	GradeAdjustedSpeed	no
94	AvgHRV	no
95	MaxHRV	no
105	PedalingTime	no
106	CruisingTime	no
107	BeginningPotential	no
108	EndingPotential	no
109	MinStamina	no
110	TotalMovingTime	no
130	StepSpeedLossDistance	no
131	StepSpeedLossPercentage	no

Garmin SplitSummary Tags

Tag ID	Tag Name	Writable
0	SplitType	no
3	NumSplits	no
4	TotalTimerTime	no
5	TotalDistance	no
6	AvgSpeed	no
7	MaxSpeed	no
8	TotalAscent	no
9	TotalDescent	no
10	AvgHeartRate	no
11	MaxHeartRate	no
12	AvgVertSpeed	no
13	TotalCalories	no
14	AvgCadence	no
15	MaxCadence	no
17	AvgTemperature	no
19	MinTemperature	no
20	AvgVerticalOscillation	no
21	AvgVerticalRatio	no
22	AvgStanceTime	no
24	AvgStepLength	no
25	AvgPower	no
26	MaxPower	no
27	NormalizedPower	no
52	AvgSplitAscent	no
53	MaxSplitAscent	no
60	MaxSplitDistance	no
64	RestingCalories	no

72	AvgHRV	no
73	MaxHRV	no
77	TotalMovingTime	no
79	FirstStartTime	no
83	StepSpeedLossDistance	no
84	StepSpeedLossPercentage	no

Garmin HSABodyBatteryData Tags

Tag ID	Tag Name	Writable
0	ProcessingInterval	no
1	Level	no
2	Charged	no
3	Uncharged	no

Garmin HSAEvent Tags

Tag ID	Tag Name	Writable
0	EventID	no

Garmin ClimbPro Tags

Tag ID	Tag Name	Writable
0	GPSLatitude	no
1	GPSLongitude	no
2	ClimbProEvent	no
3	ClimbNumber	no
4	ClimbCategory	no
5	CurrentDist	no

Garmin TankUpdate Tags

Tag ID	Tag Name	Writable
0	Sensor	no
1	Pressure	no

Garmin PowerMode Tags

Tag ID	Tag Name	Writable
0	LowBatteryAlert	no
1	DefaultMode	no
3	AutoEnableTime	no

Garmin TankSummary Tags

Tag ID	Tag Name	Writable
0	Sensor	no
1	StartPressure	no
2	EndPressure	no
3	VolumeUsed	no

Garmin GPSEvent Tags

Tag ID	Tag Name	Writable
0	EventType	no
1	Data	no
100	GPS_1	no
101	Glonass	no
102	Unknown_1	no
104	Qzss_1	no
105	Unknown_2	no
106	Galileo_1	no
107	Beidou_1	no
108	AutoSelect	no
109	Unknown_3	no
110	GPSgalileobeidou_5	no
113	Qzss_5	no

Garmin ECGSummary Tags

Tag ID	Tag Name	Writable
2	RawSampleRate	no
3	SmoothSampleRate	no
4	ECGTimeStamp	no
5	LocalTimeStamp	no
7	AverageHeartRate	no
11	SampleTime	no
12	SDRRHRV	no

Garmin ECGRawSample Tags

Tag ID	Tag Name	Writable
0	Value	no

Garmin ECGSmoothSample Tags

Tag ID	Tag Name	Writable
0	Value	no

Garmin SleepAssessment Tags

Tag ID	Tag Name	Writable
0	CombinedAwakeScore	no
1	AwakeTimeScore	no
2	AwakeningsCountScore	no
3	DeepSleepScore	no
4	SleepDurationScore	no
5	LightSleepScore	no
6	OverallSleepScore	no
7	SleepQualityScore	no
8	SleepRecoveryScore	no
9	RemSleepScore	no
10	SleepRestlessnessScore	no
11	AwakeningsCount	no
14	InterruptionsScore	no
15	AverageStressDuringSleep	no

Garmin FunctionalMetrics Tags

Tag ID	Tag Name	Writable
4	FunctionalThresholdPower	no
7	RunningLactateThresholdPower	no
8	RunningLactateThresholdHR	no
9	CyclingLactaceThresholdHR	no

Garmin RaceEvent Tags

Tag ID	Tag Name	Writable
1	EventID	no
2	StartTime	no
3	LocalTimeStamp	no
4	RaceEventName	no
5	Location	no
6	StartPointLat	no
7	StartPointLong	no
10	Distance	no
12	TargetTime	no
24	City	no
26	Country	no

Garmin TrainingReadiness Tags

Tag ID	Tag Name	Writable
0	TrainingReadiness	no
1	Level	no
20	LocalTimeStamp	no

Garmin HRVStatusSummary Tags

Tag ID	Tag Name	Writable
0	WeeklyAverage	no
1	LastNightAverage	no
2	LastNight_5MinHigh	no
3	BaselineLowUpper	no
4	BaselineBalancedLower	no
5	BaselineBalancedUpper	no
6	Status	no

Garmin HRVValue Tags

Tag ID	Tag Name	Writable
0	Value	no

Garmin RawBBI Tags

Tag ID	Tag Name	Writable
0	TimeStamp_ms	no
1	Data	no
2	Time	no
3	Quality	no
4	Gap	no

Garmin DeviceAuxBatteryInfo Tags

Tag ID	Tag Name	Writable
0	DeviceIndex	no
1	BatteryVoltage	no
2	BatteryStatus	no
3	BatteryIdentifier	no

Garmin HSAGyroscopeData Tags

Tag ID	Tag Name	Writable
0	TimeStamp_ms	no
1	SamplingInterval	no
2	GyroX	no
3	GyroY	no
4	GyroZ	no
5	TimeStamp_32k	no

Garmin TrainingLoad Tags

Tag ID	Tag Name	Writable
3	AcuteTrainingLoad	no
4	ChronicTrainingLoad	no

Garmin SleepSchedule Tags

Tag ID	Tag Name	Writable
0	BedTime	no
1	WakeTime	no

Garmin SleepRestlessMoments Tags

Tag ID	Tag Name	Writable
1	RestlessMomentsCount	no
2	Durations	no

Garmin ChronoShotSession Tags

Tag ID	Tag Name	Writable
0	MinSpeed	no
1	MaxSpeed	no
2	AvgSpeed	no
3	ShotCount	no
4	ProjectileType	no
5	GrainWeight	no
6	StandardDeviation	no

Garmin ChronoShotData Tags

Tag ID	Tag Name	Writable
0	ShotSpeed	no
1	ShotNum	no

Garmin HSAConfigurationData Tags

Tag ID	Tag Name	Writable
0	Data	no
1	DataSize	no

Garmin DiveApneaAlarm Tags

Tag ID	Tag Name	Writable
0	Depth	no
1	Time	no
2	Enabled	no
3	AlarmType	no
4	Sound	no
5	DiveTypes	no
6	ID	no
7	PopupEnabled	no
8	TriggerOnDescent	no
9	TriggerOnAscent	no
10	Repeating	no
11	Speed	no

Garmin CPEStatus Tags

Tag ID	Tag Name	Writable
0	Status	no
1	StartTime	no
2	EndTime	no

Garmin SkinTempOvernight Tags

Tag ID	Tag Name	Writable
0	LocalTimeStamp	no
1	AverageDeviation	no
2	Average_7DayDeviation	no
4	NightlyValue	no

Garmin HillScore Tags

Tag ID	Tag Name	Writable
0	HillScore	no
1	HillStrength	no
2	HillEndurance	no
4	Level	no

Garmin EnduranceScore Tags

Tag ID	Tag Name	Writable
0	EnduranceScore	no
1	Level	no
3	LowerBoundIntermediate	no
4	LowerBoundTrained	no
5	LowerBoundWellTrained	no
6	LowerBoundExpert	no
7	LowerBoundSuperior	no
8	LowerBoundElite	no

Garmin HSAWristTemperatureData Tags

Tag ID	Tag Name	Writable
0	ProcessingInterval	no
1	Value	no

Garmin NapEvent Tags

Tag ID	Tag Name	Writable
0	StartTime	no
1	StartTimezoneOffset	no
2	EndTime	no
3	EndTimezoneOffset	no
4	Feedback	no
5	IsDeleted	no
6	Source	no
7	UpdateTimeStamp	no

Garmin WorkoutSchedule Tags

Tag ID	Tag Name	Writable
1	WorkoutIndex	no
3	EstBenefit	no
5	EstAerobicTe	no
6	EstAnaerTe	no
7	Sport	no
9	Duration	no

Garmin SleepDisruptionSeverityPeriod Tags

Tag ID	Tag Name	Writable
0	Severity	no

Garmin SleepDisruptionOvernightSeverity Tags

Tag ID	Tag Name	Writable
0	Severity	no

FITS Tags

This table lists some standard Flexible Image Transport System (FITS) tags, but ExifTool will extract any other tags found. See <https://fits.gsfc.nasa.gov/fits_standard.html> for the specification.

Tag ID	Tag Name	Writable
'AUTHOR'	Author	no
'BACKGRND'	Background	no
'COMMENT'	Comment	no
'DATE'	CreateDate	no
'DATE-END'	ObservationDateEnd	no
'DATE-OBS'	ObservationDate	no
'HISTORY'	History	no
'INSTRUME'	Instrument	no
'OBJECT'	Object	no
'OBSERVER'	Observer	no
'REFERENC'	Reference	no
'TELESCOP'	Telescope	no

```
'TIME-END'   ObservationTimeEnd              no
'TIME-OBS'   ObservationTime                 no
```

XISF Tags

This table lists some standard Extensible Image Serialization Format (XISF) tags, but ExifTool will extract any other tags found. See <https://pixinsight.com/xisf/> for the specification.

```
Tag ID                Tag Name               Writable
------                --------               --------
'Abstract'            Abstract               no
'AccessRights'        AccessRights           no
'Authors'             Authors                no
'BibliographicReferences'
                      BibliographicReferences no
'BriefDescription'    BriefDescription       no
'CompressionCodecs'   CompressionCodecs      no
'CompressionLevel'    CompressionLevel       no
'Contributors'        Contributors           no
'Copyright'           Copyright              no
'CreationTime'        CreateDate             no
'CreatorApplication'  CreatorApplication     no
'CreatorModule'       CreatorModule          no
'CreatorOS'           CreatorOS              no
'Description'         Description            no
'ImageBounds'         ImageBounds            no
'ImageColorSpace'     ColorSpace             no
'ImageData'           ImageData              no
'ImageGeometry'       ImageGeometry          no
'ImageICCProfile'     ICC_Profile            no
'ImageICCProfileLocation' ICCProfileLocation  no
'ImageId'             ImageID                no
'ImageImageType'      ImageType              no
'ImageLocation'       ImageLocation          no
'ImageOffset'         ImagePixelOffset       no
'ImageOrientation'    Orientation            no
'ImagePixelStorage'   ImagePixelStorage      no
'ImageResolutionHorizontal' XResolution      no
'ImageResolutionUnit' ResolutionUnit         no
'ImageResolutionVertical' YResolution        no
'ImageSampleFormat'   ImageSampleFormat      no
'ImageUuid'           UUID                   no
'Keywords'            Keywords               no
'Languages'           Languages              no
'License'             License                no
'OriginalCreationTime' DateTimeOriginal      no
'RelatedResources'    RelatedResources       no
'Title'               Title                  no
```

HTML Tags

Meta information extracted from the header of HTML and XHTML files. This is a mix of information found in the `META` elements, `XML` element, and the `TITLE` element.

Tag ID	Tag Name	Writable
'abstract'	Abstract	no
'author'	Author	no
'classification'	Classification	no
'content-language'	ContentLanguage	no
'copyright'	Copyright	no
'dc'	DC	HTML dc
'description'	Description	no
'distribution'	Distribution	no
'doc-class'	DocClass	no
'doc-rights'	DocRights	no
'doc-type'	DocType	no
'formatter'	Formatter	no
'generator'	Generator	no
'generatorversion'	GeneratorVersion	no
'googlebot'	GoogleBot	no
'http-equiv'	HTTP-equiv	HTML equiv
'keywords'	Keywords	no+
'mssmarttagspreventparsing'	NoMSSmartTags	no
'ncc'	NCC	HTML ncc
'o'	Office	HTML Office
'originator'	Originator	no
'owner'	Owner	no
'prod'	Prod	HTML prod
'progid'	ProgID	no
'rating'	Rating	no
'refresh'	Refresh	no
'resource-type'	ResourceType	no
'revisit-after'	RevisitAfter	no
'robots'	Robots	no+
'title'	Title	no
'vw96'	VW96	HTML vw96

HTML dc Tags

Dublin Core schema tags (also used in XMP).

Tag ID	Tag Name	Writable
'contributor'	Contributor	no+
'coverage'	Coverage	no
'creator'	Creator	no+
'date'	Date	no+
'description'	Description	no
'format'	Format	no
'identifier'	Identifier	no
'language'	Language	no+
'publisher'	Publisher	no+
'relation'	Relation	no+
'rights'	Rights	no
'source'	Source	no
'subject'	Subject	no+
'title'	Title	no
'type'	Type	no+

HTML equiv Tags

These tags have a family 1 group name of ‘‘HTTP-equiv’’.

Tag ID	Tag Name	Writable
'cache-control'	CacheControl	no
'content-disposition'	ContentDisposition	no
'content-language'	ContentLanguage	no
'content-script-type'	ContentScriptType	no
'content-style-type'	ContentStyleType	no
'content-type'	ContentType	no
'default-style'	DefaultStyle	no
'expires'	Expires	no
'ext-cache'	ExtCache	no
'imagetoolbar'	ImageToolbar	no
'lotus'	Lotus	no
'page-enter'	PageEnter	no
'page-exit'	PageExit	no
'pics-label'	PicsLabel	no
'pragma'	Pragma	no
'refresh'	Refresh	no
'reply-to'	ReplyTo	no
'set-cookie'	SetCookie	no
'site-enter'	SiteEnter	no
'site-exit'	SiteExit	no
'vary'	Vary	no
'window-target'	WindowTarget	no

HTML ncc Tags

Tag ID	Tag Name	Writable
'charset'	CharacterSet	no
'depth'	Depth	no
'files'	Files	no
'footnotes'	Footnotes	no
'generator'	Generator	no
'kbytesize'	KByteSize	no
'maxpagenormal'	MaxPageNormal	no
'multimediatype'	MultimediaType	no
'narrator'	Narrator	no
'pagefront'	PageFront	no
'pagenormal'	PageNormal	no
'pagespecial'	PageSpecial	no
'prodnotes'	ProdNotes	no
'produceddate'	ProducedDate	no
'producer'	Producer	no
'revision'	Revision	no
'revisiondate'	RevisionDate	no
'setinfo'	SetInfo	no
'sidebars'	Sidebars	no
'sourcedate'	SourceDate	no
'sourceedition'	SourceEdition	no
'sourcepublisher'	SourcePublisher	no
'sourcerights'	SourceRights	no
'sourcetitle'	SourceTitle	no
'tocitems'	TOCItems	no

'totaltime'	Duration	no

HTML Office Tags

Tags written by Microsoft Office applications.

Tag ID	Tag Name	Writable
'Author'	Author	no
'Category'	Category	no
'Characters'	Characters	no
'CharactersWithSpaces'	CharactersWithSpaces	no
'Company'	Company	no
'Created'	CreateDate	no
'Description'	Description	no
'Keywords'	Keywords	no
'LastAuthor'	LastAuthor	no
'LastPrinted'	LastPrinted	no
'LastSaved'	ModifyDate	no
'Lines'	Lines	no
'Manager'	Manager	no
'Pages'	Pages	no
'Paragraphs'	Paragraphs	no
'Revision'	RevisionNumber	no
'Subject'	Subject	no
'Template'	Template	no
'TotalTime'	TotalEditTime	no
'Version'	RevisionNumber	no
'Words'	Words	no

HTML prod Tags

Tag ID	Tag Name	Writable
'recengineer'	RecEngineer	no
'reclocation'	RecLocation	no

HTML vw96 Tags

Tag ID	Tag Name	Writable
'objecttype'	ObjectType	no

Palm Tags

Information extracted from Palm database files (PDB and PRC extensions), Mobipocket electronic books (MOBI), and Amazon Kindle KF7 and KF8 books (AZW and AZW3).

Index4	Tag Name	Writable
0	DatabaseName	no
9	CreateDate	no
10	ModifyDate	no
11	LastBackupDate	no
12	ModificationNumber	no
15	PalmFileType	no

Palm MOBI Tags

Information extracted from the MOBI header of Mobipocket and Amazon Kindle KF7 and KF8 files.

Index4	Tag Name	Writable
0	Compression	no
1	UncompressedTextLength	no
3	Encryption	no
6	MobiType	no
7	CodePage	no
9	MobiVersion	no
21	BookName	no
26	MinimumVersion	no

Palm EXTH Tags

Information extracted from the MOBI extended header.

Tag ID	Tag Name	Writable
0x0001	DRMServerID	no
0x0002	DRMCommerceID	no
0x0003	DRM_E-BookBaseID	no
0x0064	Author	no
0x0065	Publisher	no
0x0066	Imprint	no
0x0067	Description	no
0x0068	ISBN	no
0x0069	Subject	no+
0x006a	PublishDate	no
0x006b	Review	no
0x006c	Contributor	no
0x006d	Rights	no
0x006e	SubjectCode	no
0x006f	BookType	no
0x0070	Source	no
0x0071	ASIN	no
0x0072	BookVersion	no
0x0073	SampleFlag	no
0x0074	StartReading	no
0x0075	Adult	no
0x0076	RetailPrice	no
0x0077	RetailPriceCurrency	no
0x007d	ResourceCount	no
0x0081	KF8CoverURI	no
0x00c8	DictionaryShortName	no
0x00cc	CreatorSoftware	no
0x00cd	CreatorMajorVersion	no
0x00ce	CreatorMinorVersion	no
0x00cf	CreatorBuildNumber	no
0x00d0	Watermark	no
0x00d1	Tamper-proofKeys	no
0x0191	ClippingLimit	no
0x0192	PublisherLimit	no
0x0194	TextToSpeech	no
0x0195	RentalFlag	no
0x0196	RentalExpirationDate	no
0x01f5	CDEType	no
0x01f6	LastUpdateTime	no

0x01f7	UpdatedTitle	no
0x01f8	ASIN2	no
0x020c	Language	no
0x020d	Alignment	no
0x0217	CreatorBuildNumber2	no

Torrent Tags

Below are tags commonly found in BitTorrent files. As well as these tags, any other existing tags will be extracted. For convenience, list items are expanded into individual tags with an index in the tag name, but only the tags with index "1" are listed in the tables below. See <https://wiki.theory.org/BitTorrentSpecification> for the BitTorrent specification.

Tag ID	Tag Name	Writable
'announce'	Announce	no
'announce-list'	AnnounceList1	no
'comment'	Comment	no
'created by'	Creator	no
'creation date'	CreateDate	no
'encoding'	Encoding	no
'info'	Info	Torrent Info
'url-list'	URLList1	no

Torrent Info Tags

Tag ID	Tag Name	Writable
'file-duration'	File1Duration	no
'file-media'	File1Media	no
'files'	Files	Torrent Files
'length'	Length	no
'md5sum'	MD5Sum	no
'name'	Name	no
'name.utf-8'	NameUTF-8	no
'piece length'	PieceLength	no
'pieces'	Pieces	no
'private'	Private	no
'profiles'	Profiles	Torrent Profiles

Torrent Files Tags

Tag ID	Tag Name	Writable
'length'	File1Length	no
'md5sum'	File1MD5Sum	no
'path'	File1Path	no
'path.utf-8'	File1PathUTF-8	no

Torrent Profiles Tags

Tag ID	Tag Name	Writable
'acodec'	Profile1AudioCodec	no
'height'	Profile1Height	no
'vcodec'	Profile1VideoCodec	no
'width'	Profile1Width	no

EXE Tags

This module extracts information from various types of Windows, MacOS and Unix executable and library files. The first table below lists information extracted from the header of Windows PE (Portable

Executable) EXE files and DLL libraries.

Index2	Tag Name	Writable
0	MachineType	no
2	TimeStamp	no
9	ImageFileCharacteristics	no
10	PEType	no
11	LinkerVersion	no
12	CodeSize	no
14	InitializedDataSize	no
16	UninitializedDataSize	no
18	EntryPoint	no
30	OSVersion	no
32	ImageVersion	no
34	SubsystemVersion	no
44	Subsystem	no

EXE PEVersion Tags

Information extracted from the VS_VERSION_INFO structure of Windows PE files.

Index4	Tag Name	Writable
2	FileVersionNumber	no
4	ProductVersionNumber	no
6	FileFlagsMask	no
7	FileFlags	no
8	FileOS	no
9	ObjectFileType	no
10	FileSubtype	no

EXE PEString Tags

Resource strings found in Windows PE files. The **TagID**'s are not shown because they are the same as the **Tag Name**. ExifTool will extract any existing StringFileInfo tags even if not listed in this table.

Tag Name	Writable
BuildDate	no
BuildVersion	no
CharacterSet	no
Comments	no
CompanyName	no
Copyright	no
FileDescription	no
FileVersion	no
InternalName	no
LanguageCode	no
LegalCopyright	no
LegalTrademarks	no
OriginalFileName	no
PrivateBuild	no
ProductName	no
ProductVersion	no
SpecialBuild	no

EXE DebugRSDS Tags

CodeView RSDS debug information found in some Windows EXE files.

Index1	Tag Name	Writable
0	PDBModifyDate	no
20	PDBAge	no
24	PDBFileName	no

EXE DebugNB10 Tags

CodeView NB10 debug information found in some Windows EXE files.

Index1	Tag Name	Writable
0	PDBModifyDate	no
8	PDBCreateDate	no
12	PDBAge	no
16	PDBFileName	no

EXE Misc Tags

Miscellaneous CodeView debug information in Windows EXE files.

Index1	Tag Name	Writable
12	EXEFileName	no

EXE MachO Tags

Information extracted from Mach-O (Mac OS X) executable files and DYLIB libraries.

Index	Tag Name	Writable
0	CPUArchitecture	no
1	CPUByteOrder	no
2	CPUCount	no
3	CPUType	no+
4	CPUSubtype	no+
5	ObjectFileType	no
6	ObjectFlags	no

EXE PEF Tags

Information extracted from PEF (Classic MacOS) executable files and libraries.

Index4	Tag Name	Writable
2	CPUArchitecture	no
3	PEFVersion	no
4	TimeStamp	no

EXE ELF Tags

Information extracted from ELF (Unix) executable files and SO libraries.

Index1	Tag Name	Writable
4	CPUArchitecture	no
5	CPUByteOrder	no
16	ObjectFileType	no
18	CPUType	no

EXE AR Tags

Information extracted from static libraries.

Index1	Tag Name	Writable
16	CreateDate	no

EXE CHM Tags

Tags extracted from Microsoft Compiled HTML files.

Index4	Tag Name	Writable
1	CHMVersion	no
5	LanguageCode	no

LNK Tags

Information extracted from MS Shell Link (Windows shortcut) files.

Index1	Tag Name	Writable
0x0014	Flags	no
0x0018	FileAttributes	no
0x001c	CreateDate	no
0x0024	AccessDate	no
0x002c	ModifyDate	no
0x0034	TargetFileSize	no
0x0038	IconIndex	no
0x003c	RunWindow	no
0x0040	HotKey	no
0x10000	ItemID	LNK ItemID
0x20000	LinkInfo	LNK LinkInfo
0x30004	Description	no
0x30008	RelativePath	no
0x30010	WorkingDirectory	no
0x30020	CommandLineArguments	no
0x30040	IconFileName	no
0xa0000000	UnknownData	LNK UnknownData
0xa0000001	EnvVarData	LNK EnvVarData
0xa0000002	ConsoleData	LNK ConsoleData
0xa0000003	TrackerData	LNK TrackerData
0xa0000004	ConsoleFEData	LNK ConsoleFEData
0xa0000005	SpecialFolderData	LNK UnknownData
0xa0000006	DarwinData	LNK UnknownData
0xa0000007	IconEnvData	LNK UnknownData
0xa0000008	ShimData	LNK UnknownData
0xa0000009	PropertyStoreData	LNK UnknownData
0xa000000b	KnownFolderData	LNK UnknownData
0xa000000c	VistaIDListData	LNK UnknownData

LNK ItemID Tags

Tag ID	Tag Name	Writable
0x0000	ControlPanelCPL	LNK ControlPanelCPL
	GameFolderInfo	LNK GameFolderInfo
	PropertyStore	LNK PropertyStore
	MTPType2	LNK MTPType2
	Item00Info	LNK Item00Info
0x0001	ControlPanelInfo	LNK ControlPanelInfo
0x001e	RootFolder	LNK RootFolder
0x001f	RootFolder	LNK RootFolder
0x002e	VolumeGUID	no
0x002f	VolumeName	no
0x0031	TargetInfo	LNK TargetInfo
0x0040	NetworkLocation	no
0x0052	CompressedFolder	no
0x0061	URI	LNK URI
0x0070	ControlPanelShellItem	no
0x0071	ControlPanelShellItem	no
0x0072	Printers	no
0x0073	CommonPlacesFolder	no
0x0074	UsersFilesFolder	LNK UsersFilesFolder
0x00ff	VendorData	no
0xbeef0003	Beef0003	LNK Beef0003
0xbeef0004	Beef0004	LNK Beef0004
0xbeef0014	Beef0014	LNK Beef0014
0xbeef0025	Beef0025	LNK Beef0025
0xbeef0026	Beef0026a	LNK Beef0026a
	Unknown_beef0026	no

LNK ControlPanelCPL Tags

Index1	Tag Name	Writable
4	Item00SpecialType	no
12	CPLFilePath	no
24	CPLFilePath	no

LNK GameFolderInfo Tags

Index1	Tag Name	Writable
4	Item00SpecialType	no

LNK PropertyStore Tags

Index1	Tag Name	Writable
12	PropertyStoreGUID	no

LNK MTPType2 Tags

Index1	Tag Name	Writable
54	MTPStorageName	no
54.1	MTPStorageID	no
54.2	MTPFileSystem	no
56	MTP_GUID1	no
134	MTP_GUID2	no
212	MTP_GUID3	no
290	MTP_GUID4	no
368	MTP_GUID5	no
446	MTP_GUID6	no
524	MTP_GUID7	no
602	MTP_GUID8	no

LNK Item00Info Tags

Index1	Tag Name	Writable
6	Item00Type	no
24	PropertyString1	no
24.1	PropertyString2	no

LNK ControlPanelInfo Tags

Index1	Tag Name	Writable
8	ControlPanelCategory	no

LNK RootFolder Tags

Index1	Tag Name	Writable
3	SortIndex	no
4	RootFolderGUID	no

LNK TargetInfo Tags

Index1	Tag Name	Writable
8	TargetFileModifyDate	no
12	TargetFileAttributes	no
14	TargetFileDOSName	no

LNK URI Tags

Index1	Tag Name	Writable
8	URI	no
14	TimeStamp	no
46	FTPHost	no
51	FTPUserName	no
56	FTPPassword	no
57	URI	no

LNK UsersFilesFolder Tags

Index1	Tag Name	Writable
6	DelegateClassGUID	no
22	DelegateFolderGUID	no

LNK Beef0003 Tags

Index1	Tag Name	Writable
8	UnknownGUID	no

LNK Beef0004 Tags

TargetInfo extensions.

Index1	Tag Name	Writable
8	TargetFileCreateDate	no
12	TargetFileAccessDate	no
16	OperatingSystem	no
18	TargetFileName	no

LNK Beef0014 Tags

URI extensions.

Tag ID	Tag Name	Writable
0x0000	AbsoluteURI	no
0x0001	URIAuthority	no
0x0002	DisplayURI	no
0x0003	URIDomain	no
0x0004	URIExtension	no
0x0005	URIFragment	no
0x0006	URIHost	no
0x0007	URIPassword	no
0x0008	URIPath	no
0x0009	URIPathAndQuery	no
0x000a	URIQuery	no
0x000b	RawURI	no
0x000c	URISchemeName	no
0x000d	URIUserInfo	no
0x000e	URIUserName	no
0x000f	URIHostType	no
0x0010	URIPort	no
0x0011	URIScheme	no
0x0012	URIZone	no

LNK Beef0025 Tags

Index1	Tag Name	Writable
12	FileTime1	no
20	FileTime2	no

LNK Beef0026a Tags

Index1	Tag Name	Writable
12	CreateDate	no
20	ModifyDate	no
28	LastAccessDate	no

LNK LinkInfo Tags

Tag Name	Writable
CommonNetworkRelLink	no
CommonPathSuffix	no
CommonPathSuffixUnicode	no
DeviceName	no
DriveSerialNumber	no
DriveType	no
LocalBasePath	no
NetName	no
NetProviderType	no
VolumeID	no
VolumeLabel	no

LNK UnknownData Tags

Index1	Tag Name	Writable
[no tags known]		

LNK EnvVarData Tags

Index1	Tag Name	Writable
8	EnvironmentTarget	no
268	EnvironmentTargetUnicode	no

LNK ConsoleData Tags

Index1	Tag Name	Writable
8	FillAttributes	no
10	PopupFillAttributes	no
12	ScreenBufferSize	no
16	WindowSize	no
20	WindowOrigin	no
32	FontSize	no
36	FontFamily	no
40	FontWeight	no
44	FontName	no
108	CursorSize	no
112	FullScreen	no
116	QuickEdit	no
120	InsertMode	no
124	WindowOriginAuto	no
128	HistoryBufferSize	no
132	NumHistoryBuffers	no
136	RemoveHistoryDuplicates	no

LNK TrackerData Tags

Index1	Tag Name	Writable
16	MachineID	no

LNK ConsoleFEData Tags

Index1	Tag Name	Writable
8	CodePage	no

LNK INI Tags

Tags found in INI-format Windows .URL files.

Tag Name	Writable
Author	no
Comment	no
Desc	no
HotKey	no
IDList	no
IconFile	no
IconIndex	no
Modified	no
Roamed	no
ShowCommand	no
URL	no
WhatsNew	no
WorkingDirectory	no

PCAP Tags

Tags extracted from CAP, PCAP and PCAPNG Packet Capture files.

Tag ID	Tag Name	Writable
0x0001	Comment	no
0x0bac	CustomOption1	no
0x0bad	CustomOption2	no
0x4bac	CustomOption3	no
0x4bad	CustomOption4	no
'ByteOrder'	ByteOrder	no
'IDB-2'	DeviceName	no
'IDB-3'	Description	no
'IDB-4'	IPv4Addr	no
'IDB-5'	IPv6Addr	no
'IDB-6'	MACAddr	no
'IDB-7'	EUIAddr	no
'IDB-8'	Speed	no
'IDB-9'	TimeStampResolution	no
'IDB-10'	TimeZone	no
'IDB-11'	Filter	no
'IDB-12'	OperatingSystem	no
'IDB-13'	FrameCheckSequenceLength	no
'IDB-14'	TimeStampOffset	no
'IDB-15'	Hardware	no
'IDB-16'	TXSpeed	no
'IDB-17'	RXSpeed	no
'IDB-18'	TimezoneName	no
'LinkType'	LinkType	no
'PCAPVersion'	PCAPVersion	no
'SHB-2'	Hardware	no
'SHB-3'	OperatingSystem	no
'SHB-4'	UserApplication	no
'TimeStamp'	TimeStamp	no

Font Tags

This table contains a collection of tags found in font files of various formats. ExifTool current recognizes OTF, TTF, TTC, DFONT, PFA, PFB, PFM, AFM, ACFM, AMFM, WOFF and WOFF2 font files.

Tag ID	Tag Name	Writable
'AFM'	AFM	Font AFM
'C2PA'	C2PA	Jpeg2000
'PFM'	PFMHeader	Font PFM
'PSInfo'	PSFontInfo	Font PSInfo
'WOFFVersion'	WOFFVersion	no
'XML'	XML	Font XML
'fontname'	FontName	no
'name'	Name	Font Name
'numfonts'	NumFonts	no
'postfont'	PostScriptFontName	no

Font AFM Tags

Tags extracted from Adobe Font Metrics files (AFM, ACFM and AMFM).

Tag ID	Tag Name	Writable
'Ascender'	Ascender	no
'CapHeight'	CapHeight	no
'CharacterSet'	CharacterSet	no
'Characters'	Characters	no
'Creation Date'	CreateDate	no
'Descender'	Descender	no
'EncodingScheme'	EncodingScheme	no
'EscChar'	EscChar	no
'FamilyName'	FontFamily	no
'FontName'	FontName	no
'FullName'	FullName	no
'IsBaseFont'	IsBaseFont	no
'IsFixedV'	IsFixedV	no
'MappingScheme'	MappingScheme	no
'Notice'	Notice	no
'Version'	Version	no
'Weight'	Weight	no
'XHeight'	XHeight	no

Font PFM Tags

Tags extracted from the PFM file header.

Index1	Tag Name	Writable
0	PFMVersion	no
6	Copyright	no
66	FontType	no
68	PointSize	no
70	YResolution	no
72	XResolution	no
74	Ascent	no
76	InternalLeading	no
78	ExternalLeading	no
80	Italic	no
81	Underline	no

82	Strikeout	no
83	Weight	no
85	CharacterSet	no
86	PixWidth	no
88	PixHeight	no
90	PitchAndFamily	no
91	AvgWidth	no
93	MaxWidth	no
95	FirstChar	no
96	LastChar	no
97	DefaultChar	no
98	BreakChar	no
99	WidthBytes	no

Font PSInfo Tags

Tags extracted from PostScript font files (PFA and PFB).

Tag ID	Tag Name	Writable
'Copyright'	Copyright	no
'FSType'	FSType	no
'FamilyName'	FontFamily	no
'FontName'	FontName	no
'FontType'	FontType	no
'FullName'	FullName	no
'ItalicAngle'	ItalicAngle	no
'Notice'	Notice	no
'UnderlinePosition'	UnderlinePosition	no
'UnderlineThickness'	UnderlineThickness	no
'Weight'	Weight	no
'isFixedPitch'	IsFixedPitch	no
'version'	Version	no

Font XML Tags

Tags found in WOFF and WOFF2 XML metadata.

Tag ID	Tag Name	Writable
'copyrightText'	Copyright	no
'creditsCreditClass'	CreditClass	no
'creditsCreditDir'	CreditDir	no
'creditsCreditName'	CreditName	no
'creditsCreditRole'	CreditRole	no
'creditsCreditUrl'	CreditURL	no
'descriptionText'	Description	no
'descriptionUrl'	DescriptionUrl	no
'extensionId'	ExtensionID	no
'extensionItemId'	ExtensionItemID	no
'extensionItemName'	ExtensionItemName	no
'extensionItemValue'	ExtensionItemValue	no
'extensionName'	ExtensionName	no
'licenseId'	LicenseID	no
'licenseText'	License	no
'licenseUrl'	LicenseURL	no
'licenseeClass'	LicenseeClass	no
'licenseeDir'	LicenseeDir	no

'licenseeName'	LicenseeName	no
'trademarkText'	Trademark	no
'uniqueidId'	UniqueID	no
'vendorClass'	VendorClass	no
'vendorDir'	VendorDir	no
'vendorName'	VendorName	no
'vendorUrl'	VendorURL	no
'version'	Version	no

Font Name Tags

The following tags are extracted from the TrueType font ''name'' table found in OTF, TTF, TTC, DFONT, WOFF and WOFF2 files. These tags support localized languages by adding a hyphen followed by a language code to the end of the tag name (eg. ''Copyright-fr'' or ''License-en-US''). Tags with no language code use the default language of ''en''.

Tag ID	Tag Name	Writable
0x0000	Copyright	no
0x0001	FontFamily	no
0x0002	FontSubfamily	no
0x0003	FontSubfamilyID	no
0x0004	FontName	no
0x0005	NameTableVersion	no
0x0006	PostScriptFontName	no
0x0007	Trademark	no
0x0008	Manufacturer	no
0x0009	Designer	no
0x000a	Description	no
0x000b	VendorURL	no
0x000c	DesignerURL	no
0x000d	License	no
0x000e	LicenseInfoURL	no
0x0010	PreferredFamily	no
0x0011	PreferredSubfamily	no
0x0012	CompatibleFontName	no
0x0013	SampleText	no
0x0014	PostScriptFontName	no
0x0015	WWSFamilyName	no
0x0016	WWSSubfamilyName	no

VCard Tags

This table lists common vCard tags, but ExifTool will also extract any other vCard tags found. Tag names may have ''Pref'' added to indicate the preferred instance of a vCard property, and other ''TYPE'' parameters may also added to the tag name. VCF files may contain multiple vCard entries which are distinguished by the ExifTool family 3 group name (document number). See <http://tools.ietf.org/html/rfc6350> for the vCard 4.0 specification.

Tag ID	Tag Name	Writable
'Adr'	Address	no
'Anniversary'	Anniversary	no
'Bday'	Birthday	no
'Email'	Email	no
'Fn'	FormattedName	no
'Gender'	Gender	no
'Geo'	Geolocation	no
'Impp'	IMPP	no
'Lang'	Language	no
'Logo'	Logo	no
'N'	Name	no
'Nickname'	Nickname	no
'Note'	Note	no
'Org'	Organization	no
'Photo'	Photo	no
'Prodid'	Software	no
'Rev'	Revision	no
'Sound'	Sound	no
'Tel'	Telephone	no
'Title'	JobTitle	no
'Tz'	TimeZone	no
'Uid'	UID	no
'Url'	URL	no
'Version'	VCardVersion	no
'X-abdate'	ABDate	no
'X-ablabel'	ABLabel	no
'X-abrelatednames'	ABRelatedNames	no
'X-abuid'	AB_UID	no
'X-aim'	AIM	no
'X-icq'	ICQ	no
'X-socialprofile'	SocialProfile	no

VCard VCalendar Tags

The VCard module is also used to process iCalendar ICS files since they use a format similar to vCard. The following table lists standard iCalendar tags, but any existing tags will be extracted. Top-level iCalendar components (eg. Event, Todo, Timezone, etc.) are used for the family 1 group names, and embedded components (eg. Alarm) are added as a prefix to the tag name. See <http://tools.ietf.org/html/rfc5545> for the official iCalendar 2.0 specification.

Tag ID	Tag Name	Writable
'Acknowledged'	Acknowledged	no
'Action'	Action	no
'Attach'	Attachment	no
'Attendee'	Attendee	no
'Calscale'	CalendarScale	no
'Categories'	Categories	no
'Class'	Classification	no
'Comment'	Comment	no
'Completed'	DateTimeCompleted	no
'Contact'	Contact	no
'Created'	DateCreated	no
'Description'	Description	no

```
'Dtend'               DateTimeEnd             no
'Dtstamp'             DateTimeStamp           no
'Dtstart'             DateTimeStart           no
'Due'                 DateTimeDue             no
'Duration'            Duration                no
'Exdate'              ExceptionDateTimes      no
'Freebusy'            FreeBusyTime            no
'Geo'                 Geolocation             no
'Last-modified'       ModifyDate              no
'Location'            Location                no
'Method'              Method                  no
'Organizer'           Organizer               no
'Percent-complete'    PercentComplete         no
'Priority'            Priority                no
'Prodid'              Software                no
'Rdate'               RecurrenceDateTimes     no
'Recurrence-id'       RecurrenceID            no
'Related-to'          RelatedTo               no
'Repeat'              Repeat                  no
'Request-status'      RequestStatus           no
'Resources'           Resources               no
'Rrule'               RecurrenceRule          no
'Sequence'            SequenceNumber          no
'Status'              Status                  no
'Summary'             Summary                 no
'Transp'              TimeTransparency        no
'Trigger'             Trigger                 no
'Tzid'                TimezoneID              no
'Tzname'              TimezoneName            no
'Tzoffsetfrom'        TimezoneOffsetFrom      no
'Tzoffsetto'          TimezoneOffsetTo        no
'Tzurl'               TimeZoneURL             no
'Uid'                 UID                     no
'Url'                 URL                     no
'Version'             VCalendarVersion        no
'X-apple-calendar-color' CalendarColor        no
'X-apple-default-alarm' DefaultAlarm          no
'X-apple-local-default-alarm'
                      LocalDefaultAlarm       no
'X-microsoft-cdo-alldayevent' AllDayEvent     no
'X-microsoft-cdo-appt-sequence'
                      AppointmentSequence     no
'X-microsoft-cdo-busystatus' BusyStatus       no
'X-microsoft-cdo-importance' Importance       no
'X-microsoft-cdo-insttype' InstanceType       no
'X-microsoft-cdo-intendedstatus'
                      IntendedBusyStatus      no
'X-microsoft-cdo-ownerapptid'
                      OwnerAppointmentID      no
'X-microsoft-disallow-counter'
                      DisallowCounterProposal no
'X-microsoft-donotforwardmeeting'
                      DoNotForwardMeeting     no
'X-microsoft-locations' MeetingLocations      no
```

'X−wr−alarmuid'	AlarmUID	no
'X−wr−caldesc'	CalendarDescription	no
'X−wr−calname'	CalendarName	no
'X−wr−relcalid'	CalendarID	no
'X−wr−timezone'	TimeZone2	no

VCard VNote Tags

Tags extracted from V−Note VNT files.

Tag ID	Tag Name	Writable
'Body'	Body	no
'Dcreated'	CreateDate	no
'Last−modified'	ModifyDate	no
'Version'	Version	no

Text Tags

Although basic text files contain no metadata, the following tags are determined from a simple analysis of the data in TXT and CSV files. Statistics are generated only for 8−bit encodings, but the FastScan (−fast) option may be used to limit processing to the first 64 KiB in which case some tags are not produced. To avoid long processing delays, ExifTool will issue a minor warning and process only the first 64 KiB of any file larger than 20 MiB unless the IgnoreMinorErrors (−m) option is used.

Tag Name	Writable
ByteOrderMark	no
ColumnCount	no
Delimiter	no
LineCount	no
MIMEEncoding	no
Newlines	no
Quoting	no
RowCount	no
WordCount	no

RSRC Tags

Tags extracted from Mac OS resource files, DFONT files and ‘‘._’’ sidecar files. These tags may also be extracted from the resource fork of any file in OS X, either by adding ‘‘/..namedfork/rsrc’’ to the filename to process the resource fork alone, or by using the ExtractEmbedded (−ee) option to process the resource fork as a sub-document of the main file. When writing, ExifTool preserves the Mac OS resource fork by default, but it may deleted with `-rsrc:all=` on the command line.

Tag ID	Tag Name	Writable
'8BIM'	PhotoshopInfo	Photoshop
'POST_0x01f5'	PostscriptFont	PostScript
'STR _0xbff3'	ApplicationMissingMsg	no
'STR _0xbff4'	CreatorApplication	no
'STR#_0x0080'	Keywords	no
'TEXT_0x0080'	Description	no
'sfnt'	Font	Font Name
'usro_0x0000'	OpenWithApplication	no
'vers_0x0001'	ApplicationVersion	no

Rawzor Tags

Rawzor files store compressed images of other formats. As well as the information listed below, exiftool uncompresses and extracts the meta information from the original image.

Tag Name	Writable
CompressionFactor	no
OriginalFileSize	no
OriginalFileType	no
RawzorCreatorVersion	no
RawzorRequiredVersion	no

ZIP Tags

The following tags are extracted from ZIP archives. ExifTool also extracts additional meta information from compressed documents inside some ZIP-based files such Office Open XML (DOCX, PPTX and XLSX), Open Document (ODB, ODC, ODF, ODG, ODI, ODP, ODS and ODT), iWork (KEY, PAGES, NUMBERS), Capture One Enhanced Image Package (EIP), Adobe InDesign Markup Language (IDML), Electronic Publication (EPUB), and Sketch design files (SKETCH). The ExifTool family 3 groups may be used to organize ZIP tags by embedded document number (ie. the exiftool `-g3` option).

Index2	Tag Name	Writable
2	ZipRequiredVersion	no
3	ZipBitFlag	no
4	ZipCompression	no
5	ZipModifyDate	no
7	ZipCRC	no
9	ZipCompressedSize	no
11	ZipUncompressedSize	no
15	ZipFileName	no
'_com'	ZipFileComment	no

ZIP GZIP Tags

These tags are extracted from GZIP (GNU ZIP) archives, but currently only for the first file in the archive.

Index1	Tag Name	Writable
2	Compression	no
3	Flags	no
4	ModifyDate	no
8	ExtraFlags	no
9	OperatingSystem	no
10	ArchivedFileName	no
11	Comment	no

ZIP RAR Tags

These tags are extracted from RAR archive files.

Index1	Tag Name	Writable
0	CompressedSize	no
4	UncompressedSize	no
8	OperatingSystem	no
13	ModifyDate	no
18	PackingMethod	no
25	ArchivedFileName	no

ZIP RAR5 Tags

These tags are extracted from RAR v5 and 7z archive files.

Tag Name	Writable
ArchivedFileName	no
CompressedSize	no
FileVersion	no
ModifyDate	no
OperatingSystem	no
UncompressedSize	no

RTF Tags

This table lists standard tags of the RTF information group, but ExifTool will also extract any non-standard tags found in this group. As well, ExifTool will extract any custom properties that are found. See <http://www.microsoft.com/en−ca/download/details.aspx?id=10725> for the specification.

Tag ID	Tag Name	Writable
'author'	Author	no
'buptim'	BackupTime	no
'category'	Category	no
'comment'	Comment	no
'company'	Company	no
'copyright'	Copyright	no
'creatim'	CreateDate	no
'doccomm'	Comments	no
'edmins'	TotalEditTime	no
'hlinkbase'	HyperlinkBase	no
'id'	InternalIDNumber	no
'keywords'	Keywords	no
'manager'	Manager	no
'nofchars'	Characters	no
'nofcharsws'	CharactersWithSpaces	no
'nofpages'	Pages	no
'nofwords'	Words	no
'operator'	LastModifiedBy	no
'printim'	LastPrinted	no
'revtim'	ModifyDate	no
'subject'	Subject	no
'title'	Title	no
'vern'	InternalVersionNumber	no
'version'	RevisionNumber	no

OOXML Tags

The Office Open XML (OOXML) format was introduced with Microsoft Office 2007 and is used by file types such as DOCX, PPTX, XLSX and VSDX. These are essentially ZIP archives containing XML files. The table below lists some tags which have been observed in OOXML documents, but ExifTool will extract any tags found from XML files of the OOXML document properties (‘‘docProps’’) directory.

Tips:

1) Structural ZIP tags may be ignored (if desired) with `--ZIP:all` on the command line.

2) Tags may be grouped by their document number in the ZIP archive with the `-g3` or `-G3` option.

Tag Name	Writable
AppVersion	no
Application	no
Category	no
Characters	no
CharactersWithSpaces	no
CheckedBy	no
Client	no
Company	no
CreateDate	no
DateCompleted	no
Department	no
Destination	no
Disposition	no
Division	no
DocSecurity	no
DocumentNumber	no
Editor	no
ForwardTo	no
Group	no
HeadingPairs	no
HiddenSlides	no
HyperlinkBase	no
HyperlinksChanged	no
Keywords	no
Language	no
LastModifiedBy	no
LastPrinted	no
Lines	no
LinksUpToDate	no
MMClips	no
Mailstop	no
Manager	no
Matter	no
ModifyDate	no
Notes	no
Office	no
Owner	no
Pages	no
Paragraphs	no
PresentationFormat	no
Project	no
Publisher	no
Purpose	no
ReceivedFrom	no
RecordedBy	no
RecordedDate	no
Reference	no
RevisionNumber	no
ScaleCrop	no
SharedDoc	no
Slides	no
Source	no

Status	no
TelephoneNumber	no
Template	no
TitlesOfParts	no
TotalEditTime	no
Typist	no
Words	no

iWork Tags

The Apple iWork '09 file format is a ZIP archive containing XML files similar to the Office Open XML (OOXML) format. Metadata tags in iWork files are extracted even if they don't appear below.

Tag Name	Writable
Author	no
Comment	no
Copyright	no
Keywords	no
Projects	no+
Title	no

ISO Tags

Tags extracted from ISO 9660 disk images.

Tag ID	Tag Name	Writable
0x0000	BootRecord	ISO BootRecord
0x0001	PrimaryVolume	ISO PrimaryVolume

ISO BootRecord Tags

Index1	Tag Name	Writable
7	BootSystem	no
39	BootIdentifier	no

ISO PrimaryVolume Tags

Index1	Tag Name	Writable
8	System	no
40	VolumeName	no
80	VolumeBlockCount	no
120	VolumeSetDiskCount?	no
124	VolumeSetDiskNumber?	no
128	VolumeBlockSize	no
132	PathTableSize?	no
140	PathTableLocation?	no
174	RootDirectoryCreateDate	no
190	VolumeSetName	no
318	Publisher	no
446	DataPreparer	no
574	Software	no
702	CopyrightFileName	no
740	AbstractFileName	no
776	BibligraphicFileName	no
813	VolumeCreateDate	no
830	VolumeModifyDate	no
847	VolumeExpirationDate	no

```
   864    VolumeEffectiveDate                  no
```

MacOS Tags

On MacOS systems, the there are additional MDItem and XAttr Finder tags that may be extracted. These tags are not extracted by default — they must be specifically requested or enabled via an API option. (Except when reading MacOS ‘‘._’’ files directly, see below.)

The tables below list some of the tags that may be extracted, but ExifTool will extract all available information even for tags not listed.

Tags in these tables are referred to as ‘‘pseudo’’ tags because their information is not stored in the file itself. As such, **Writable** tags in these tables may be changed without having to rewrite the file.

Note that on some filesystems, MacOS creates sidecar files with names that begin with ‘‘._’’. ExifTool will read these files if specified, and extract the information listed in the following table without the need for extra options, but these files are not writable directly.

```
Tag ID   Tag Name                             Writable
------   --------                             --------
0x0002   RSRC                                 RSRC
0x0009   ATTR                                 MacOS XAttr
```

MacOS XAttr Tags

XAttr tags are extracted using the ‘‘xattr’’ utility. They are extracted if any ‘‘XAttr*’’ tag or the MacOS group is specifically requested, or by setting the API XAttrTags option to 1 or the API RequestAll option to 2 or higher. And they are extracted by default from MacOS ‘‘._’’ files when reading these files directly.

```
Tag Name                                      Writable
--------                                      --------
XAttrAppleMailDateReceived                    no
XAttrAppleMailDateSent                        no
XAttrAppleMailIsRemoteAttachment              no
XAttrFinderInfo                               no
XAttrLastUsedDate                             no
XAttrMDItemDownloadedDate                     no
XAttrMDItemFinderComment                      no
XAttrMDItemWhereFroms                         yes!
XAttrMDLabel                                  no
XAttrQuarantine                               yes!
XAttrResourceFork                             no
```

MacOS MDItem Tags

MDItem tags are extracted using the ‘‘mdls’’ utility. They are extracted if any ‘‘MDItem*’’ tag or the MacOS group is specifically requested, or by setting the API MDItemTags option to 1 or the API RequestAll option to 2 or higher. Note that these tags do not necessarily reflect the current metadata of a file — it may take some time for the MacOS mdworker daemon to index the file after a metadata change.

```
Tag Name                                      Writable
--------                                      --------
AppleMailDateReceived                         no
AppleMailDateSent                             no
AppleMailFlagged                              no
AppleMailIsRemoteAttachment                   no
AppleMailMessageID                            no
AppleMailPriority                             no
AppleMailRead                                 no
AppleMailRepliedTo                            no
MDItemAccountHandles                          no
MDItemAccountIdentifier                       no
```

```
MDItemAcquisitionMake                   no
MDItemAcquisitionModel                  no
MDItemAltitude                          no
MDItemAperture                          no
MDItemAudioBitRate                      no
MDItemAudioChannelCount                 no
MDItemAuthorEmailAddresses              no
MDItemAuthors                           no
MDItemBitsPerSample                     no
MDItemBundleIdentifier                  no
MDItemCity                              no
MDItemCodecs                            no
MDItemColorSpace                        no
MDItemComment                           no
MDItemContentCreationDate               no
MDItemContentCreationDateRanking        no
MDItemContentCreationDate_Ranking       no
MDItemContentModificationDate           no
MDItemContentType                       no
MDItemContentTypeTree                   no
MDItemContributors                      no
MDItemCopyright                         no
MDItemCountry                           no
MDItemCreator                           no
MDItemDateAdded                         no
MDItemDateAdded_Ranking                 no
MDItemDescription                       no
MDItemDisplayName                       no
MDItemDownloadedDate                    no
MDItemDurationSeconds                   no
MDItemEXIFGPSVersion                    no
MDItemEXIFVersion                       no
MDItemEmailConversationID               no
MDItemEncodingApplications              no
MDItemExposureMode                      no
MDItemExposureProgram                   no
MDItemExposureTimeSeconds               no
MDItemFNumber                           no
MDItemFSContentChangeDate               no
MDItemFSCreationDate                    yes!
MDItemFSCreatorCode                     no
MDItemFSFinderFlags                     no
MDItemFSHasCustomIcon                   no
MDItemFSInvisible                       no
MDItemFSIsExtensionHidden               no
MDItemFSIsStationery                    no
MDItemFSLabel                           yes!
MDItemFSName                            no
MDItemFSNodeCount                       no
MDItemFSOwnerGroupID                    no
MDItemFSOwnerUserID                     no
MDItemFSSize                            no
MDItemFSTypeCode                        no
MDItemFinderComment                     yes!
```

```
MDItemFlashOnOff                        no
MDItemFocalLength                       no
MDItemGPSDateStamp                      no
MDItemGPSStatus                         no
MDItemGPSTrack                          no
MDItemHasAlphaChannel                   no
MDItemISOSpeed                          no
MDItemIdentifier                        no
MDItemImageDirection                    no
MDItemInterestingDateRanking            no
MDItemInterestingDate_Ranking           no
MDItemIsApplicationManaged              no
MDItemIsExistingThread                  no
MDItemIsLikelyJunk                      no
MDItemKeywords                          no
MDItemKind                              no
MDItemLastUsedDate                      no
MDItemLastUsedDate_Ranking              no
MDItemLatitude                          no
MDItemLensModel                         no
MDItemLogicalSize                       no
MDItemLongitude                         no
MDItemMailDateReceived_Ranking          no
MDItemMailboxes                         no
MDItemMediaTypes                        no
MDItemNumberOfPages                     no
MDItemOrientation                       no
MDItemOriginApplicationIdentifier       no
MDItemOriginMessageID                   no
MDItemOriginSenderDisplayName           no
MDItemOriginSenderHandle                no
MDItemOriginSubject                     no
MDItemPageHeight                        no
MDItemPageWidth                         no
MDItemPhysicalSize                      no
MDItemPixelCount                        no
MDItemPixelHeight                       no
MDItemPixelWidth                        no
MDItemPrimaryRecipientEmailAddresses    no
MDItemProfileName                       no
MDItemRecipients                        no
MDItemRedEyeOnOff                       no
MDItemResolutionHeightDPI               no
MDItemResolutionWidthDPI                no
MDItemSecurityMethod                    no
MDItemSpeed                             no
MDItemStateOrProvince                   no
MDItemStreamable                        no
MDItemSubject                           no
MDItemTimestamp                         no
MDItemTitle                             no
MDItemTotalBitRate                      no
MDItemUseCount                          no
MDItemUsedDates                         no
```

MDItemUserDownloadedDate	no
MDItemUserDownloadedUserHandle	no
MDItemUserSharedReceivedDate	no
MDItemUserSharedReceivedRecipient	no
MDItemUserSharedReceivedRecipientHandle	no
MDItemUserSharedReceivedSender	no
MDItemUserSharedReceivedSenderHandle	no
MDItemUserSharedReceivedTransport	no
MDItemUserTags	yes!+
MDItemVersion	no
MDItemVideoBitRate	no
MDItemWhereFroms	no
MDItemWhiteBalance	no

Extra Tags

The extra tags provide extra features or extra information extracted or generated by ExifTool that is not directly associated with another tag group. The **Group** column lists the family 1 group name when reading. Tags with a ''−'' in this column are write-only.

Tags in the family 1 ''System'' group are referred to as ''pseudo'' tags because they don't represent real metadata in the file. Instead, this information is stored in the directory structure of the filesystem. The **Writable** System ''pseudo'' tags in this table may be written without modifying the file itself. The TestName tag is used for dry-run testing before writing FileName.

Tag Name	Group	Writable
Adobe	Adobe	yes!
BaseName	System	no
CanonDR4	CanonVRD	yes!^
CanonVRD	CanonVRD	yes!^
Comment	File	yes
CurrentIPTCDigest	File	no
Directory	System	yes!
EXIF	EXIF	yes!
EmbeddedVideo	File	no
Error	ExifTool	no
ExifByteOrder	File	yes
ExifToolVersion	ExifTool	no
ExifUnicodeByteOrder	−	yes
FileAccessDate	System	no
FileAttributes	System	no
FileBlockCount	System	no
FileBlockSize	System	no
FileCreateDate	System	yes!
FileDeviceID	System	no
FileDeviceNumber	System	no
FileGroupID	System	yes!
FileHardLinks	System	no
FileInodeChangeDate	System	no
FileInodeNumber	System	no
FileModifyDate	System	yes!
FileName	System	yes!
FilePath	System	no
FilePermissions	System	yes!
FileSequence	ExifTool	no
FileSize	System	no

FileType	File	no
FileTypeExtension	File	no
FileUserID	System	yes!
ForceWrite	-	yes
Geolocate	-	yes
GeolocationBearing	ExifTool	no
GeolocationCity	ExifTool	no
GeolocationCountry	ExifTool	no
GeolocationCountryCode	ExifTool	no
GeolocationDistance	ExifTool	no
GeolocationFeatureCode	ExifTool	no
GeolocationFeatureType	ExifTool	no
GeolocationPopulation	ExifTool	no
GeolocationPosition	ExifTool	no
GeolocationRegion	ExifTool	no
GeolocationSubregion	ExifTool	no
GeolocationTimeZone	ExifTool	no
GeolocationWarning	ExifTool	no
Geosync	-	yes
Geotag	-	yes
Geotime	-	yes
HardLink	-	yes!
ICC_Profile	ICC_Profile	yes!
ID3Size	File	no
IPTC	IPTC	yes!
ImageDataHash	File	no
ImageHeight	File	no
ImageWidth	File	no
JPEGDigest	File	no
JPEGImageLength	File	no
JPEGQualityEstimate	File	no
JUMBF	JUMBF	no
MIMEType	File	no
MakerNoteByteOrder	File	no
MaxVal	File	no
NewGUID	ExifTool	no
NewUUID	ExifTool	no
Now	ExifTool	no
NumPlanes	File	no
OtherImage	File	no
PageCount	File	no
PreviewImage	File	yes
PreviewJXL	File	no
PreviewPDF	File	no
PreviewPNG	File	no
PreviewTIFF	File	no
PreviewWMF	File	no
ProcessingTime	ExifTool	no
ResourceForkSize	System	no
SphericalVideoXML	GSpherical	yes!
SymLink	-	yes!
TestName	-	yes!
ThumbnailImage	File	no
Trailer	File	yes!

Validate	ExifTool	no
Warning	ExifTool	no
XML	XML	no
XMP	XMP	yes!
XResolution	File	no
YResolution	File	no
ZoneIdentifier	System	yes!

Composite Tags

The values of the composite tags are **Derived From** the values of other tags. These are convenience tags which are calculated after all other information is extracted. Only a few of these tags are writable directly, the others are changed by writing the corresponding **Derived From** tags. User-defined Composite tags, also useful for custom-formatting of tag values, may created via the ExifTool configuration file.

Tag Name	Derived From	Writable
AdvancedSceneMode	Model	no
	SceneMode	
	AdvancedSceneType	
Aperture	FNumber	no
	ApertureValue	
AudioBitrate	MPEG:MPEGAudioVersion	no
	MPEG:SampleRate	
	MPEG:VBRBytes	
	MPEG:VBRFrames	
AutoFocus	Nikon:FocusMode	no
AvgBitrate	QuickTime::MediaDataSize	no
	QuickTime::Duration	
BlueBalance	WB_RGGBLevels	no
	WB_RGBGLevels	
	WB_RBGGLevels	
	WB_GRBGLevels	
	WB_GRGBLevels	
	WB_GBRGLevels	
	WB_RGBLevels	
	WB_GRBLevels	
	WB_RBLevels	
	WBBlueLevel	
	WBGreenLevel	
CDDBDiscPlayTime	CDDB1Info	no
CDDBDiscTracks	CDDB1Info	no
CFAPattern	CFARepeatPatternDim	no
	CFAPattern2	
CircleOfConfusion	ScaleFactor35efl	no
ConditionalFEC	FlashExposureComp	no
	FlashBits	
ContrastDetectAF	Nikon:FocusMode	no
	Nikon:AFDetectionMethod	
DOF	FocalLength	no
	Aperture	
	CircleOfConfusion	
	FocusDistance	
	SubjectDistance	
	ObjectDistance	
	ApproximateFocusDistance	
	FocusDistanceLower	

```
                        FocusDistanceUpper
    DateCreated         Kodak:YearCreated       no
                        Kodak:MonthDayCreated
    DateTimeCreated     IPTC:DateCreated        no
                        IPTC:TimeCreated
    DateTimeOriginal    DateTimeCreated         no
                        DateCreated
                        TimeCreated
    DateTimeOriginal    ID3:RecordingTime       no
                        ID3:Year
                        ID3:Date
                        ID3:Time
    DepthMapTiff        DepthMapData            no
                        DepthMapWidth
                        DepthMapHeight
    DigitalCreationDateTime IPTC:DigitalCreationDate no
                        IPTC:DigitalCreationTime
    DigitalZoom         Canon:ZoomSourceWidth   no
                        Canon:ZoomTargetWidth
                        Canon:DigitalZoom
    DriveMode           ContinuousDrive         no
                        SelfTimer
    Duration            AIFF:SampleRate         no
                        AIFF:NumSampleFrames
    Duration            APE:SampleRate          no
                        APE:TotalFrames
                        APE:BlocksPerFrame
                        APE:FinalFrameBlocks
    Duration            FLAC:SampleRate         no
                        FLAC:TotalSamples
    Duration            FileSize                no
                        ID3Size
                        MPEG:AudioBitrate
                        MPEG:VideoBitrate
                        MPEG:VBRFrames
                        MPEG:SampleRate
                        MPEG:MPEGAudioVersion
    Duration            RIFF:FrameRate          no
                        RIFF:FrameCount
                        VideoFrameRate
                        VideoFrameCount
    Duration            RIFF:AvgBytesPerSec     no
                        FileSize
                        FrameCount
                        VideoFrameCount
    Duration            Vorbis:NominalBitrate   no
                        FileSize
    ExtenderStatus      Olympus:Extender        no
                        Olympus:LensType
                        MaxApertureValue
    FOV                 FocalLength             no
                        ScaleFactor35efl
                        FocusDistance
    FileNumber          DirectoryIndex          yes
```

```
                      FileIndex
Flash                 XMP:FlashFired           yes
                      XMP:FlashReturn
                      XMP:FlashMode
                      XMP:FlashFunction
                      XMP:FlashRedEyeMode
                      XMP:Flash
FlashType             FlashBits                no
FocalLength35efl      FocalLength              no
                      ScaleFactor35efl
FocusDistance         Sony:FocusPosition       no
                      FocalLength
FocusDistance2        Sony:FocusPosition2      no
                      FocalLengthIn35mmFormat
GPSAltitude           GPS:GPSAltitude          no
                      GPS:GPSAltitudeRef
                      XMP:GPSAltitude
                      XMP:GPSAltitudeRef
GPSAltitude           QuickTime:GPSCoordinates no
GPSAltitude           QuickTime:LocationInformation no
GPSAltitudeRef        QuickTime:GPSCoordinates no
GPSAltitudeRef        QuickTime:LocationInformation no
GPSDateTime           GPS:GPSDateStamp         no
                      GPS:GPSTimeStamp
GPSDateTime           Parrot:GPSLatitude       no
                      Main:CreateDate
                      SampleTime
GPSDateTime           Sony:GPSDateStamp        no
                      Sony:GPSTimeStamp
GPSDestLatitude       GPS:GPSDestLatitude      no
                      GPS:GPSDestLatitudeRef
GPSDestLatitudeRef    XMP-exif:GPSDestLatitude no
GPSDestLongitude      GPS:GPSDestLongitude     no
                      GPS:GPSDestLongitudeRef
GPSDestLongitudeRef   XMP-exif:GPSDestLongitude no
GPSLatitude           GPS:GPSLatitude          yes/
                      GPS:GPSLatitudeRef
GPSLatitude           QuickTime:GPSCoordinates no
GPSLatitude           QuickTime:LocationInformation no
GPSLatitude           Sony:GPSLatitude         no
                      Sony:GPSLatitudeRef
GPSLatitudeRef        XMP-exif:GPSLatitude     no
GPSLongitude          GPS:GPSLongitude         yes/
                      GPS:GPSLongitudeRef
GPSLongitude          QuickTime:GPSCoordinates no
GPSLongitude          QuickTime:LocationInformation no
GPSLongitude          Sony:GPSLongitude        no
                      Sony:GPSLongitudeRef
GPSLongitudeRef       XMP-exif:GPSLongitude    no
GPSPosition           GPSLatitude              yes!
                      GPSLongitude
HiddenData            Sony:HiddenDataOffset    no
                      Sony:HiddenDataLength
HyperfocalDistance    FocalLength              no
```

```
                    Aperture
                    CircleOfConfusion
IDCPreviewImage     IDCPreviewStart          no
                    IDCPreviewLength
ISO                 Canon:CameraISO          no
                    Canon:BaseISO
                    Canon:AutoISO
ImageHeight         IFD0:SensorTopBorder     no
                    IFD0:SensorBottomBorder
ImageHeight         Main:PostScript:ImageData no
                    PostScript:BoundingBox
ImageSize           ImageWidth               no
                    ImageHeight
                    ExifImageWidth
                    ExifImageHeight
                    RawImageCroppedSize
ImageWidth          IFD0:SensorLeftBorder    no
                    IFD0:SensorRightBorder
ImageWidth          Main:PostScript:ImageData no
                    PostScript:BoundingBox
JpgFromRaw          JpgFromRawStart          yes
                    JpgFromRawLength
Lens                Canon:MinFocalLength     no
                    Canon:MaxFocalLength
Lens35efl           Canon:MinFocalLength     no
                    Canon:MaxFocalLength
                    Lens
                    ScaleFactor35efl
LensID              LensType                 no
                    FocalLength
                    MaxAperture
                    MaxApertureValue
                    MinFocalLength
                    MaxFocalLength
                    LensModel
                    LensFocalRange
                    LensSpec
                    LensType2
                    LensType3
                    LensFocalLength
                    RFLensType
LensID              LensModel                no
                    Lens
                    XMP-aux:LensID
                    Make
LensID              Nikon:LensIDNumber       no
                    LensFStops
                    MinFocalLength
                    MaxFocalLength
                    MaxApertureAtMinFocal
                    MaxApertureAtMaxFocal
                    MCUVersion
                    Nikon:LensType
LensID              Ricoh:LensFirmware       no
```

```
LensID                XMP-aux:LensID           no
                      Make
                      LensInfo
                      FocalLength
                      LensModel
                      MaxApertureValue
LensSpec              Nikon:Lens               no
                      Nikon:LensType
LensType              LensTypeMake             no
                      LensTypeModel
LightValue            Aperture                 no
                      ShutterSpeed
                      ISO
MPImage               MPImageStart             no
                      MPImageLength
                      MPImageType
Megapixels            ImageSize                no
OriginalDecisionData  OriginalDecisionDataOffset yes!
OtherImage            OtherImageStart          yes
                      OtherImageLength
                      OtherImageStart (1)
                      OtherImageLength (1)
PeakSpectralSensitivity FLIR:PlanckB           no
PhaseDetectAF         Nikon:FocusPointSchema   no
                      Nikon:AFDetectionMethod
PreviewImage          PreviewImageStart        yes
                      PreviewImageLength
                      PreviewImageValid
                      PreviewImageStart (1)
                      PreviewImageLength (1)
PreviewImage          ScreenNail               no
PreviewImageSize      PreviewImageWidth        no
                      PreviewImageHeight
PreviewJXL            PreviewJXLStart          no
                      PreviewJXLLength
                      PreviewJXLStart (1)
                      PreviewJXLLength (1)
RedBalance            WB_RGGBLevels            no
                      WB_RGBGLevels
                      WB_RBGGLevels
                      WB_GRBGLevels
                      WB_GRGBLevels
                      WB_GBRGLevels
                      WB_RGBLevels
                      WB_GRBLevels
                      WB_RBLevels
                      WBRedLevel
                      WBGreenLevel
RedEyeReduction       CanonFlashMode           no
                      FlashBits
RicohPitch            Ricoh:Accelerometer      no
RicohRoll             Ricoh:Accelerometer      no
Rotation              QuickTime:MatrixStructure yes!
                      QuickTime:HandlerType
```

```
RunTimeSincePowerUp  Apple:RunTimeValue       no
                     Apple:RunTimeScale
ScaleFactor35efl     FocalLength              no
                     FocalLengthIn35mmFormat
                     Composite:DigitalZoom
                     FocalPlaneDiagonal
                     SensorSize
                     FocalPlaneXSize
                     FocalPlaneYSize
                     FocalPlaneResolutionUnit
                     FocalPlaneXResolution
                     FocalPlaneYResolution
                     ExifImageWidth
                     ExifImageHeight
                     CanonImageWidth
                     CanonImageHeight
                     ImageWidth
                     ImageHeight
ShootingMode         CanonExposureMode        no
                     EasyMode
                     BulbDuration
ShutterCurtainHack   FlashBits                no
                     ShutterCurtainSync
ShutterSpeed         ExposureTime             no
                     ShutterSpeedValue
                     BulbDuration
SingleShotDepthMapTiff SingleShotDepthMap     no
                     SegWidth
                     SegHeight
SubSecCreateDate     EXIF:CreateDate          yes
                     EXIF:SubSecTimeDigitized
                     EXIF:OffsetTimeDigitized
SubSecDateTimeOriginal EXIF:DateTimeOriginal  yes
                     EXIF:SubSecTimeOriginal
                     EXIF:OffsetTimeOriginal
SubSecModifyDate     EXIF:ModifyDate          yes
                     EXIF:SubSecTime
                     EXIF:OffsetTime
ThumbnailImage       ThumbnailOffset          yes
                     ThumbnailLength
ThumbnailTIFF        SubfileType              no
                     Compression
                     ImageWidth
                     ImageHeight
                     BitsPerSample
                     PhotometricInterpretation
                     StripOffsets
                     SamplesPerPixel
                     RowsPerStrip
                     StripByteCounts
                     PlanarConfiguration
                     Orientation
VolumeSize           ISO:VolumeBlockCount     no
                     ISO:VolumeBlockSize
```

WB_RGBLevels	KDC_IFD:WhiteBalance	no
	WB_RGBLevelsAuto	
	WB_RGBLevelsFluorescent	
	WB_RGBLevelsTungsten	
	WB_RGBLevelsDaylight	
	WB_RGBLevels4	
	WB_RGBLevels5	
	WB_RGBLevelsShade	
WB_RGBLevels	KodakIFD:WhiteBalance	no
	WB_RGBMul0	
	WB_RGBMul1	
	WB_RGBMul2	
	WB_RGBMul3	
	WB_RGBCoeffs0	
	WB_RGBCoeffs1	
	WB_RGBCoeffs2	
	WB_RGBCoeffs3	
	KodakIFD:ColorTemperature	
	Kodak:WB_RGBLevels	
WB_RGGBLevels	Canon:WhiteBalance	no
	WB_RGGBLevelsAsShot	
	WB_RGGBLevelsAuto	
	WB_RGGBLevelsDaylight	
	WB_RGGBLevelsCloudy	
	WB_RGGBLevelsTungsten	
	WB_RGGBLevelsFluorescent	
	WB_RGGBLevelsFlash	
	WB_RGGBLevelsCustom	
	WB_RGGBLevelsShade	
	WB_RGGBLevelsKelvin	
WB_RGGBLevels	WB_RGGBLevelsUncorrected	no
	WB_RGGBLevelsBlack	
ZoomedPreviewImage	ZoomedPreviewStart	no
	ZoomedPreviewLength	

Shortcuts Tags

Shortcut tags are convenience tags that represent one or more other tag names. They are used like regular tags to read and write the information for a specified set of tags.

The shortcut tags below have been pre-defined, but user-defined shortcuts may be added via the `%Image::ExifTool::UserDefined::Shortcuts` lookup in the =/.ExifTool_config file. See the Image::ExifTool::Shortcuts documentation for more details.

Tag Name	Refers To	Writable
AllDates	DateTimeOriginal	yes
	CreateDate	
	ModifyDate	
Canon	FileName	yes
	Model	
	DateTimeOriginal	
	ShootingMode	
	ShutterSpeed	
	Aperture	
	MeteringMode	
	ExposureCompensation	

```
                        ISO
                        Lens
                        FocalLength
                        ImageSize
                        Quality
                        Flash
                        FlashType
                        ConditionalFEC
                        RedEyeReduction
                        ShutterCurtainHack
                        WhiteBalance
                        FocusMode
                        Contrast
                        Sharpness
                        Saturation
                        ColorTone
                        ColorSpace
                        LongExposureNoiseReduction
                        FileSize
                        FileNumber
                        DriveMode
                        OwnerName
                        SerialNumber
    ColorSpaceTags      ExifIFD:ColorSpace      yes
                        ExifIFD:Gamma
                        InteropIFD:InteropIndex
                        ICC_Profile
    Common              FileName                yes
                        FileSize
                        Model
                        DateTimeOriginal
                        ImageSize
                        Quality
                        FocalLength
                        ShutterSpeed
                        Aperture
                        ISO
                        WhiteBalance
                        Flash
    CommonIFD0          IFD0:ImageDescription   yes
                        IFD0:Make
                        IFD0:Model
                        IFD0:Software
                        IFD0:ModifyDate
                        IFD0:Artist
                        IFD0:Copyright
                        IFD0:Rating
                        IFD0:RatingPercent
                        IFD0:DNGLensInfo
                        IFD0:PanasonicTitle
                        IFD0:PanasonicTitle2
                        IFD0:XPTitle
                        IFD0:XPComment
                        IFD0:XPAuthor
```

	IFD0:XPKeywords	
	IFD0:XPSubject	
ImageDataMD5	ImageDataHash	yes
LargeTags	CanonVRD	yes
	DLOData	
	EXIF	
	ICC_Profile	
	IDCPreviewImage	
	ImageData	
	IPTC	
	JpgFromRaw	
	OriginalRawImage	
	OtherImage	
	PreviewImage	
	ThumbnailImage	
	TIFFPreview	
	XML	
	XMP	
	ZoomedPreviewImage	
MakerNotes	MakerNotes	yes
	MakerNoteApple	
	MakerNoteCanon	
	MakerNoteCasio	
	MakerNoteCasio2	
	MakerNoteDJI	
	MakerNoteDJIInfo	
	MakerNoteFLIR	
	MakerNoteFujiFilm	
	MakerNoteGE	
	MakerNoteGE2	
	MakerNoteGoogle	
	MakerNoteHasselblad	
	MakerNoteHP	
	MakerNoteHP2	
	MakerNoteHP4	
	MakerNoteHP6	
	MakerNoteISL	
	MakerNoteJVC	
	MakerNoteJVCText	
	MakerNoteKodak1a	
	MakerNoteKodak1b	
	MakerNoteKodak2	
	MakerNoteKodak3	
	MakerNoteKodak4	
	MakerNoteKodak5	
	MakerNoteKodak6a	
	MakerNoteKodak6b	
	MakerNoteKodak7	
	MakerNoteKodak8a	
	MakerNoteKodak8b	
	MakerNoteKodak8c	
	MakerNoteKodak9	
	MakerNoteKodak10	
	MakerNoteKodak11	

```
MakerNoteKodak12
MakerNoteKodakUnknown
MakerNoteKyocera
MakerNoteMinolta
MakerNoteMinolta2
MakerNoteMinolta3
MakerNoteMotorola
MakerNoteNikon
MakerNoteNikon2
MakerNoteNikon3
MakerNoteNintendo
MakerNoteOlympus
MakerNoteOlympus2
MakerNoteOlympus3
MakerNoteLeica
MakerNoteLeica2
MakerNoteLeica3
MakerNoteLeica4
MakerNoteLeica5
MakerNoteLeica6
MakerNoteLeica7
MakerNoteLeica8
MakerNoteLeica9
MakerNoteLeica10
MakerNotePanasonic
MakerNotePanasonic2
MakerNotePanasonic3
MakerNotePentax
MakerNotePentax2
MakerNotePentax3
MakerNotePentax4
MakerNotePentax5
MakerNotePentax6
MakerNotePhaseOne
MakerNoteReconyxHyperFire
MakerNoteReconyxUltraFire
MakerNoteReconyxHyperFire2
MakerNoteReconyxMicroFire
MakerNoteReconyxHyperFire4K
MakerNoteRicohPentax
MakerNoteRicoh
MakerNoteRicoh2
MakerNoteRicohText
MakerNoteSamsung1a
MakerNoteSamsung1b
MakerNoteSamsung2
MakerNoteSanyo
MakerNoteSanyoC4
MakerNoteSanyoPatch
MakerNoteSigma
MakerNoteSony
MakerNoteSony2
MakerNoteSony3
MakerNoteSony4
```

```
                    MakerNoteSony5
                    MakerNoteSonyEricsson
                    MakerNoteSonySRF
                    MakerNoteUnknownText
                    MakerNoteUnknownBinary
                    MakerNoteUnknown
    Nikon           Model                   yes
                    SubSecDateTimeOriginal
                    ShutterCount
                    LensSpec
                    FocalLength
                    ImageSize
                    ShutterSpeed
                    Aperture
                    ISO
                    NoiseReduction
                    ExposureProgram
                    ExposureCompensation
                    WhiteBalance
                    WhiteBalanceFineTune
                    ShootingMode
                    Quality
                    MeteringMode
                    FocusMode
                    ImageOptimization
                    ToneComp
                    ColorHue
                    ColorSpace
                    HueAdjustment
                    Saturation
                    Sharpness
                    Flash
                    FlashMode
                    FlashExposureComp
    Unsafe          IFD0:YCbCrPositioning   yes
                    IFD0:YCbCrCoefficients
                    IFD0:TransferFunction
                    ExifIFD:ComponentsConfiguration
                    ExifIFD:CompressedBitsPerPixel
                    InteropIFD:InteropIndex
                    InteropIFD:InteropVersion
                    InteropIFD:RelatedImageWidth
                    InteropIFD:RelatedImageHeight
    ls-l            FilePermissions         yes
                    FileHardLinks
                    FileUserID
                    FileGroupID
                    FileSize#
                    FileModifyDate
                    FileName
```

MWG Tags

The Metadata Working Group (MWG) recommends techniques to allow certain overlapping EXIF, IPTC and XMP tags to be reconciled when reading, and synchronized when writing. The MWG Composite tags below are designed to aid in the implementation of these recommendations. As well, the MWG defines new XMP

tags which are listed in the subsequent tables below. See <https://web.archive.org/web/20180919181934/http://www.metadataworkinggroup.org/pdf/mwg_guidance.pdf> for the official MWG specification.

MWG Composite Tags

The table below lists special Composite tags which are used to access other tags based on the MWG 2.0 recommendations. These tags are only accessible when explicitly loaded, but this is done automatically by the exiftool application if MWG is specified as a group for any tag on the command line, or manually with the `-use MWG` option. Via the API, the MWG Composite tags are loaded by calling "`Image::ExifTool::MWG::Load()`".

When reading, the value of each MWG tag is **Derived From** the specified tags based on the MWG guidelines. When writing, the appropriate associated tags are written. The value of the IPTCDigest tag is updated automatically when the IPTC is changed if either the IPTCDigest tag didn't exist beforehand or its value agreed with the original IPTC digest (indicating that the XMP is synchronized with the IPTC). IPTC information is written only if the original file contained IPTC.

Loading the MWG module activates ''strict MWG conformance mode'', which has the effect of causing EXIF, IPTC and XMP in non-standard locations to be ignored when reading, as per the MWG recommendations. Instead, a ''Warning'' tag is generated when non-standard metadata is encountered. This feature may be disabled by setting `$Image::ExifTool::MWG::strict = 0` in the ExifTool config file (or from your Perl script when using the API). Note that the behaviour when writing is not changed: ExifTool always creates new records only in the standard location, but writes new tags to any EXIF/IPTC/XMP records that exist.

Contrary to the EXIF specification, the MWG recommends that EXIF ''ASCII'' string values be stored as UTF-8. To honour this, the exiftool application sets the default internal EXIF string encoding to ''UTF8'' when the MWG module is loaded, but via the API this must be done manually by setting the CharsetEXIF option.

A complication of the MWG specification is that although the MWG:Creator property may consist of multiple values, the associated EXIF tag (EXIF:Artist) is only a simple string. To resolve this discrepancy the MWG recommends a technique which allows a list of values to be stored in a string by using a semicolon-space separator (with quotes around values if necessary). When the MWG module is loaded, ExifTool automatically implements this policy and changes EXIF:Artist to a list-type tag.

Tag Name	Derived From	Writable
City	IPTC:City	yes
	XMP-photoshop:City	
	XMP-iptcExt:LocationShownCity	
	CurrentIPTCDigest	
	IPTCDigest	
Copyright	EXIF:Copyright	yes
	IPTC:CopyrightNotice	
	XMP-dc:Rights	
	CurrentIPTCDigest	
	IPTCDigest	
Country	IPTC:Country-PrimaryLocationName	yes
	XMP-photoshop:Country	
	XMP-iptcExt:LocationShownCountryName	
	CurrentIPTCDigest	
	IPTCDigest	
CreateDate	Composite:SubSecCreateDate	yes
	EXIF:CreateDate	
	IPTC:DigitalCreationDate	
	IPTC:DigitalCreationTime	
	XMP-xmp:CreateDate	

```
                        CurrentIPTCDigest
                        IPTCDigest
  Creator               EXIF:Artist               yes+
                        IPTC:By-line
                        XMP-dc:Creator
                        CurrentIPTCDigest
                        IPTCDigest
  DateTimeOriginal      Composite:SubSecDateTimeOriginal yes
                        EXIF:DateTimeOriginal
                        IPTC:DateCreated
                        IPTC:TimeCreated
                        XMP-photoshop:DateCreated
                        CurrentIPTCDigest
                        IPTCDigest
  Description           EXIF:ImageDescription     yes
                        IPTC:Caption-Abstract
                        XMP-dc:Description
                        CurrentIPTCDigest
                        IPTCDigest
  Keywords              IPTC:Keywords             yes+
                        XMP-dc:Subject
                        CurrentIPTCDigest
                        IPTCDigest
  Location              IPTC:Sub-location         yes
                        XMP-iptcCore:Location
                        XMP-iptcExt:LocationShownSublocation
                        CurrentIPTCDigest
                        IPTCDigest
  ModifyDate            Composite:SubSecModifyDate yes
                        EXIF:ModifyDate
                        XMP-xmp:ModifyDate
                        CurrentIPTCDigest
                        IPTCDigest
  Orientation           EXIF:Orientation          yes
  Rating                XMP-xmp:Rating            yes
  State                 IPTC:Province-State       yes
                        XMP-photoshop:State
                        XMP-iptcExt:LocationShownProvinceState
                        CurrentIPTCDigest
                        IPTCDigest
```

MWG Collections Tags

Collections metadata defined by the MWG 2.0 specification. See <https://web.archive.org/web/20180919181934/http://www.metadataworkinggroup.org/pdf/mwg_guidance.pdf> for the official specification.

These tags belong to the ExifTool XMP-mwg-coll family 1 group.

```
  Tag Name                                  Writable
  --------                                  --------
  Collections                               MWG CollectionInfo Struct+
  CollectionName                            string_+
  CollectionURI                             string_+
```

MWG CollectionInfo Struct

Field Name	Writable
CollectionName	string
CollectionURI	string

MWG Keywords Tags

Hierarchical keywords metadata defined by the MWG 2.0 specification. ExifTool unrolls keyword structures to an arbitrary depth of 6 to allow individual levels to be accessed with different tag names, and to avoid infinite recursion. See <https://web.archive.org/web/20180919181934/http://www.metadataworkinggroup.org/pdf/mwg_guidance.pdf> for the official specification.

These tags belong to the ExifTool XMP-mwg-kw family 1 group.

Tag Name	Writable
KeywordInfo	MWG KeywordInfo Struct
HierarchicalKeywords	MWG KeywordStruct Struct_+
HierarchicalKeywords1Applied	boolean_+
HierarchicalKeywords1Children	MWG KeywordStruct Struct_+
HierarchicalKeywords2Applied	boolean_+
HierarchicalKeywords2Children	MWG KeywordStruct Struct_+
HierarchicalKeywords3Applied	boolean_+
HierarchicalKeywords3Children	MWG KeywordStruct Struct_+
HierarchicalKeywords4Applied	boolean_+
HierarchicalKeywords4Children	MWG KeywordStruct Struct_+
HierarchicalKeywords5Applied	boolean_+
HierarchicalKeywords5Children	MWG KeywordStruct Struct_+
HierarchicalKeywords6Applied	boolean_+
HierarchicalKeywords6	string_+
HierarchicalKeywords5	string_+
HierarchicalKeywords4	string_+
HierarchicalKeywords3	string_+
HierarchicalKeywords2	string_+
HierarchicalKeywords1	string_+

MWG KeywordInfo Struct

Field Name	Writable
Hierarchy	MWG KeywordStruct Struct+

MWG KeywordStruct Struct

Field Name	Writable
Applied	boolean
Children	MWG KeywordStruct Struct+
Keyword	string

MWG Regions Tags

Image region metadata defined by the MWG 2.0 specification. These tags may be accessed without the need to load the MWG Composite tags above. See <https://web.archive.org/web/20180919181934/http://www.metadataworkinggroup.org/pdf/mwg_guidance.pdf> for the official specification.

These tags belong to the ExifTool XMP-mwg-rs family 1 group.

Tag Name	Writable
RegionInfo	MWG RegionInfo Struct
RegionAppliedToDimensions	Dimensions Struct_
RegionAppliedToDimensionsH	real_
RegionAppliedToDimensionsUnit	string_
RegionAppliedToDimensionsW	real_
RegionList	MWG RegionStruct Struct_+
RegionArea	Area Struct_+
RegionAreaD	real_+
RegionAreaH	real_+
RegionAreaUnit	string_+
RegionAreaW	real_+
RegionAreaX	real_+
RegionAreaY	real_+
RegionBarCodeValue	string_+
RegionDescription	string_+
RegionExtensions	MWG Extensions Struct_+
RegionFocusUsage	string_+
RegionName	string_+
RegionRotation	real_+
RegionSeeAlso	string_+
RegionType	string_+

MWG RegionInfo Struct

Field Name	Writable
AppliedToDimensions	Dimensions Struct
RegionList	MWG RegionStruct Struct+

MWG RegionStruct Struct

Field Name	Writable
Area	Area Struct
BarCodeValue	string
Description	string
Extensions	MWG Extensions Struct
FocusUsage	string
Name	string
Rotation	real
Type	string
SeeAlso	string

MWG Extensions Struct

This structure may contain any top-level XMP tags, but none have been pre-defined in ExifTool. Since no flattened tags have been pre-defined, RegionExtensions is writable only as a structure (eg. `{xmp-dc:creator=me,rating=5}`). Fields for this structure are identified using the standard ExifTool tag name (with optional leading group name, and/or trailing language code, and/or trailing # symbol to disable print conversion).

Field Name	Writable
[no tags known]	

NOTES

This document generated automatically by Image::ExifTool::BuildTagLookup.

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SEE ALSO

Image::ExifTool (3pm)