

Functions in JSON Query

Let us show you the built-in functions in JSON Query and how to use them in FileMaker with [MBS FileMaker Plugin](#).

abs

Returns the absolute value of a number.

Run abs() on a value in an array:

```
MBS( "JSON.Query"; "[-3]"; "abs($[0])")
```

```
[  
  3  
]
```

Or find all values with an absolute value > 3, so we remove small values from the array:

```
MBS( "JSON.Query"; "[-3, 5, -6, 1]"; "$[?abs(@)> 3]")
```

```
[  
  5,  
 -6  
]
```

avg

Returns the average of the items in an array of numbers.

Average up an array:

```
MBS( "JSON.Query"; "[1,2,9]"; "avg($)")
```

```
[  
  4.0  
]
```

Or use it to find the average of values in an array of objects:

```
MBS( "JSON.Query"; "[{\"test\":23}, {\"test\":5}]"; "avg($[*].test)")
```

```
[  
  14.0  
]
```

ceil

Returns the smallest integer value not less than a given number.

```
MBS( "JSON.Query"; "{}"; "ceil(2.34)")
```

```
[  
  3.0  
]
```

contains

Returns true if a source array contains a search value, or a source string contains a search string.

```
MBS( "JSON.Query"; "["Hello\", \"other\", \"Lolly\""]; "$[?(contains(@, \"ll\"))])"
```

```
[  
  "Hello",  
  "Lolly"  
]
```

ends_with

Returns true if the source string ends with the suffix string, otherwise false.

```
MBS( "JSON.Query"; "["Hello\", \"other\", \"Lolly\""]; "$[?(ends_with(@, \"r\"))])"
```

```
[  
  "other"  
]
```

floor

Returns the largest integer value not greater than a given number.

```
MBS( "JSON.Query"; "{}"; "floor(2.34)")
```

```
[  
  2.0  
]
```

keys

Returns an array of keys in an object.

```
MBS( "JSON.Query"; "{\"test\":1, \"second\":2}"; "keys($)")
```

```
[
```

```
["test", "second"]  
]
```

length

Returns the length of an array, object or string.

```
MBS( "JSON.Query"; "[1,2,3]"; "length($")
```

```
[  
  3  
]
```

```
MBS( "JSON.Query"; "[\"Hello\"]"; "length($[0])")
```

```
[  
  5  
]
```

```
MBS( "JSON.Query"; "{\"test\":4, \"second\":5}"; "length($")
```

```
[  
  2  
]
```

max

Returns the highest number found in an array of numbers, or the highest string in an array of strings.

```
MBS( "JSON.Query"; "[1,5,3]"; "max($")
```

```
[  
  5  
]
```

min

Returns the lowest number found in an array of numbers, or the lowest string in an array of strings.

```
MBS( "JSON.Query"; "[1,5,3]"; "min($")
```

```
[  
  1  
]
```

prod

Returns the product of the items in an array of numbers.

```
MBS( "JSON.Query"; "[1,5,3]"; "prod($")
```

```
[  
    15.0  
]
```

starts_with

Returns true if the source string starts with the prefix string, otherwise false.

```
MBS( "JSON.Query"; "[\"Hello\", \"other\", \"Lolly\"]"; "$[?(starts_with(@, \"o\"))])#
```

```
[  
    "other"  
]
```

sum

Returns the sum of the items in an array of numbers.

```
MBS( "JSON.Query"; "[1,5,3]"; "sum($")
```

```
[  
    9.0  
]
```

to_number

If string, returns the parsed number. If number, returns the passed in value.

```
MBS( "JSON.Query"; "[\"9.3\", \"12.3\"]"; "$[?(to_number(@) > 10)]")
```

```
[  
    "12.3"  
]
```

tokenize

Returns an array of strings formed by splitting the source string into an array of strings, separated by substrings that match a given regular expression pattern.

Let us just split text with spaces:

```
MBS( "JSON.Query"; "[\"Hello World everyone!\"]"; "tokenize($[0], \" \")
```

```
[  
    ["Hello", "World", "everyone!"]  
]
```

]

Or better find all the phone numbers in a JSON array based on the area code on the beginning:

```
MBS( "JSON.Query"; "["123-456-789\", \"555-555-5555\", \"555-123-4567\",  
\"987-654-3210\"]"; "$[?tokenize(@, \"-\")[0] == \"555\"]")
```

[

```
"555-555-5555",  
"555-123-4567"
```

]

Let us know if you have questions. See also [JSON Query in FileMaker](#).