Marco Software User Guide

Version 1.0

OCEAN SONICS
Giving Our Oceans A Voice

Marco Software

Marco helps you to find and check the status of your icListen Smart Hydrophone.

Using Marco is as simple as turning on your icListen and opening Marco. With a couple clicks of a button, Marco will locate your hydrophone using the instruments unique IP address. Within seconds, Marco will show you all the live hydrophones on your network and their status. Marco will then connect you to the web interface where users can change hydrophone settings; set up the sample rates, set up event triggers and view live spectral data.

Contents

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Install the Marco Application

1. Plug the Ocean Sonics USB thumb drive into your computer (located in the icListen case)
2. Open the Marco Folder
3. Double click to run the Marco executable (.exe) file
4. Click through instructions to install the software program
5. Once installed, Open the Marco Application

Connect to the icListen

CAUTION:
Connect equipment in order shown below.
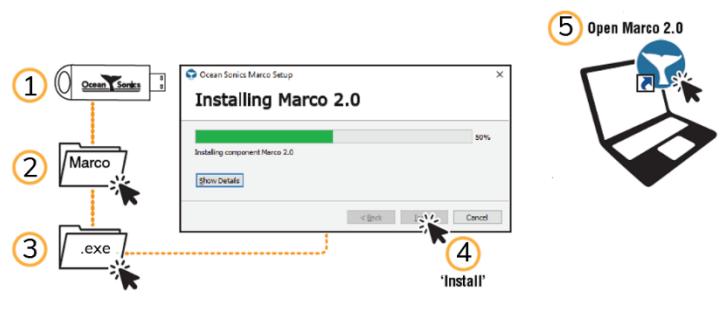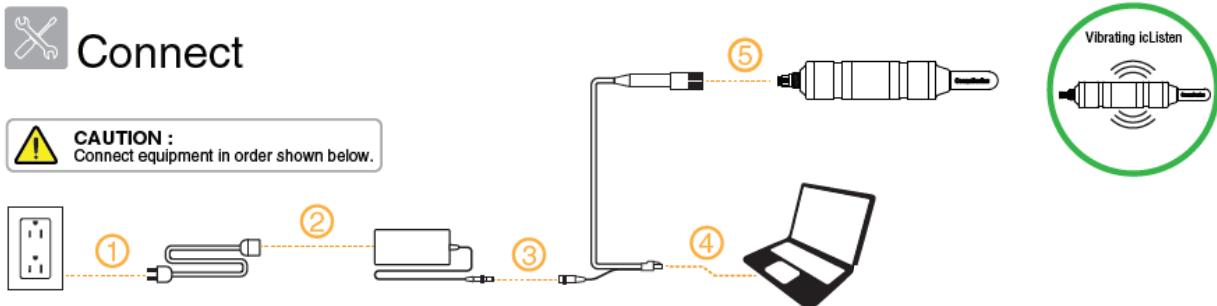
Open the icListen in a Web Browser

1. Open the Marco Application (if not open previously)
2. Clear the list of hydrophones
3. Refresh the list of hydrophones
4. Select the icListen
5. Click Open in Web Browser

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HOME   ABOUT   SETTINGS   DATA   OPERATIONS   SUPPORT

icListen HF #1711

Unit Status	Ready
Battery	81% (Not Charging)
Unit Time	Wed, 21 Aug 2019 14:54:24 UTC
Time Sync	Sync'd to PPS (Offset 0.00µs)
Temperature	34.5°C
Humidity	14.1%

WAV FFT Recording Status

Record WAV	Off (400 Hz)
Record FFT	Off (12.8 kHz)
Epoch	1 - 2 - 3 - 4 - 5

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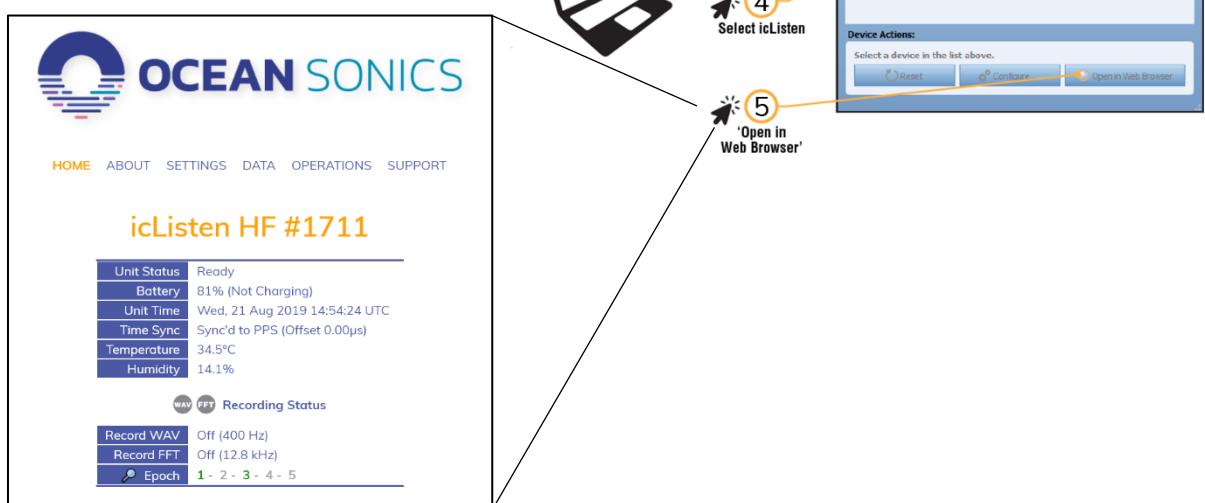
Marco Tools

List of Hydrophones
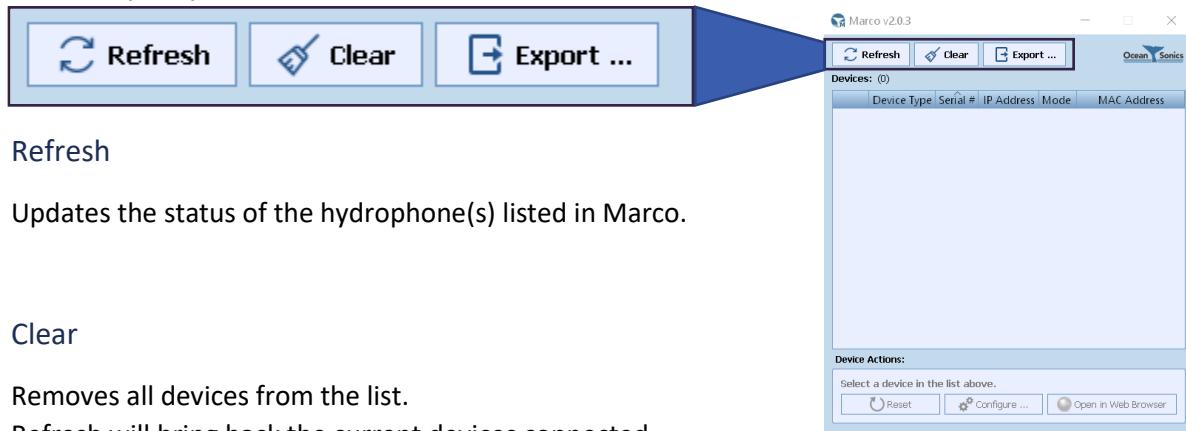
Refresh

Updates the status of the hydrophone(s) listed in Marco.

Clear

Removes all devices from the list.
Refresh will bring back the current devices connected.

Export

Will save a list of the devices in Marco to your computer in csv format.

Serial	Device Type	IP Address	Subnet Mask	Gateway	DNS Server	Address mode	MAC Address
9810	Host Link	172.16.0.133	255.255.0.0	172.16.0.1	172.16.0.1	DHCP	fc:af:6a:7f:2c:08
1773	icListen HF	172.16.0.24	255.255.0.0	172.16.0.1	172.16.0.1	DHCP	00:08:ee:0b:b5:1b
9997	icListen HF	172.16.0.227	255.255.0.0	172.16.0.1	172.16.0.1	DHCP	00:08:ee:40:80:5a
1711	icListen HF	172.16.0.230	255.255.0.0	172.16.0.1	172.16.0.1	DHCP	00:08:ee:0b:7e:8c
1247	icListen HF	172.16.0.244	255.255.0.0	172.16.0.1	172.16.0.1	DHCP	00:08:ee:07:34:4e
9701	Host Controll	172.16.0.170	255.255.0.0	172.16.0.1	172.16.0.1	DHCP	d0:63:b4:01:41:f6
1386	icListen HF	172.16.0.146	255.255.0.0	172.16.0.1	172.16.0.1	DHCP	00:08:ee:0a:1e:54
9802	icListen HF	172.16.0.226	255.255.0.0	172.16.0.1	172.16.0.1	DHCP	00:08:ee:08:d8:5d
9701	Host Controll	172.16.0.33	255.255.0.0	172.16.0.1	172.16.0.1	DHCP	d0:63:b4:00:7a:78

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Device Actions

Hydrophone Settings

Reset

Resets the icListen hydrophone. A reboot is performed on the Linux system inside the hydrophone. This puts the hydrophone into standby and then turns the hydrophone back on.

The hydrophone will buzz then double buzz, if the hydrophone does not have power supplied during the Reset it will go into standby mode. To turn back on from standby mode plug in the power on the test cable.

Configure…

Allows the user to make changes to the IP Addressing of the icListen hydrophone.

Automatic (DHCP)

This is the default addressing for the hydrophones. The IP address will be given to the hydrophone based on the available IP addresses on your network. This setting is suggested for most deployments, especially when using a Wi-Fi product from Ocean Sonics such as the Launch Box or Drifting Coastal Buoy.

The Dynamic Host Configuration Protocol (DHCP) is a network management protocol where the DHCP server dynamically assigns IP addresses and other network configuration parameters to each device on a network so they can communicate with other IP networks. If your server has DHCP, the hydrophone will use this to find an IP address.

If your hydrophone is not connected to a DHCP server, the hydrophone will find the IP addressing of your network and find an available address.
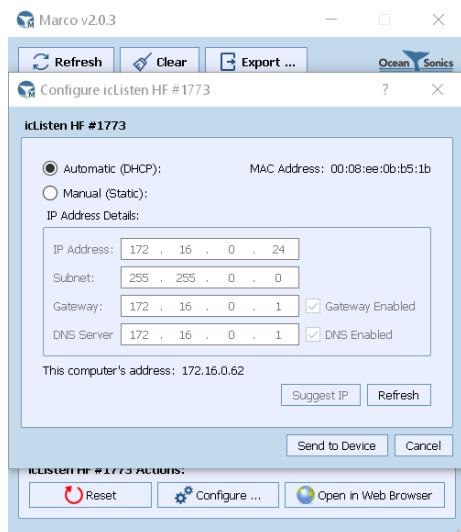
Manual (Static)

The hydrophone can be given a static IP address that will not change. The IP address must be allocated by the user, so it does not interfere with other IP addresses on the network. The IP address must be valid with the network the user is connected to.

To find a Static address on your network:

1. Click **Suggest IP**
2. Check the boxes (Gateway Enabled / DNS Enabled) as applicable
3. Click **Send to Device**
4. Wait for the hydrophone to receive the new IP address (up to 2 minutes)
5. The box beside the hydrophone should change from Red to Green
    a. You can update the status of the hydrophone by clicking the **Refresh** button on the main Marco App page.
6. If the box does not turn green within a minute, try another IP address.
    a. Repeat Steps 1-4
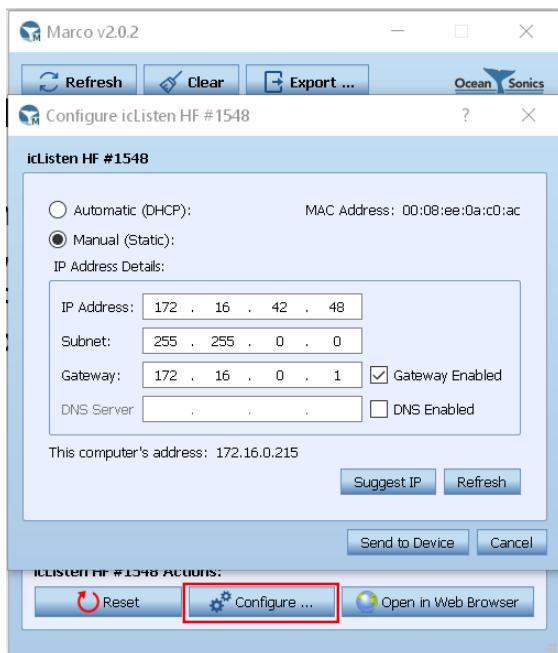
Open in Web Browser

Opens the hydrophone web page in default web browser.

Troubleshooting

The hydrophone isn't showing up on Marco

To begin the troubleshooting perform these steps in order to see if these resolve your issue:

1. Clear and Refresh Marco
2. Turn hydrophone power off and on again (using power down tool or Launch Box)
   a. Refresh Marco
3. While turning on hydrophone ensure it buzzes once and then buzzes twice.
   a. If it does not buzz, contact Ocean Sonics.
   b. If it buzzes but still does not show up in Marco after refreshing continue on to next step.
4. Check the cabling to ensure there is no damage.
5. Check the firewalls on your network if you are using a limited access computer (some workplaces have firewalls installed on work computers).
6. Check to see if you have automated IP addressing on your computer.
7. If you are using the Launch Box or wireless communications to the hydrophone, ensure your wi-fi is turned on, connected to the Launch Box, and is close enough to detect the signal.

Have you powered up your hydrophone?

- The icListen will not turn on until it is powered (plugged into a power source).
- You should hear the icListen buzz once and then buzz twice.
- After the second buzzes it should appear in Marco.

If the hydrophone buzzes three (or more) times it was not able to power on and there is an error.

Do you have firewalls preventing the hydrophone from showing up on the network?

- Some workplaces have firewalls that will prevent the icListen from connecting.

Have you changed your IP addressing on your computer/server?

➢ If your computer does not have automatic IP addressing turned on the hydrophone can not find an automatic IP address based on your computer settings
➢ Choose Manual (static) IP Address and use a suggested IP address for your computer.

The hydrophone is showing up periodically

➢ The hydrophone can not obtain a proper IP address
➢ Check the connection of the hydrophone, cables and power
➢ If you are using other equipment with the hydrophone it could be interfering.

If there are other DHCPs or IP addressing protocols on your server, it could be trying to readdress the hydrophone.

This is sometimes a problem when using a smart cable for the first time with a Wi-Fi network such as the Launch Box.

When setting up a Launch Box with a smart cable, plug the cable in first, then plug in the smart cable with 1 hydrophone. If the hydrophone does not show up, unplug the cable and plug back in with the hydrophone connected. Once the first hydrophone has established a connection with an IP address, plug in the second hydrophone. Once they both have IP addresses continue to add the hydrophones one by one.

After the first time configuring the IP addresses of the hydrophones for the Launch Box it does not appear to be a problem when plugging the hydrophones in again with the smart cable unless their IP addresses were changed.

The hydrophone has a grey block

If a hydrophone is removed from a network, the settings have changed, or it doesn't respond in time to the enquired message when Marco is Refreshed it will appear grey.

If the list is cleared and then refreshed it will only show hydrophones and devices that are currently available on the network.

The hydrophone is showing up with a yellow or red block

If your hydrophone shows up a red block in Marco, the IP address is not compatible with your network. You must change the IP address of the hydrophone to Automatic DHCP or suggest a new manual address (see Configure Manual (Static)).

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