

WinFrog Device Group:	Sounder
Device Name/Model:	Reson SeaBat 7125
Device Manufacturer:	RESON A/S Fabriksvangen 13, 3550 Slangerup, Denmark Tel: +45 4738 0022 E-Mail: reson@reson.dk Website: www.reson.com
Device Data String(s) Output to WinFrog:	<p>Required:</p> <ul style="list-style-type: none"> ○ 7006 Bathymetric Data Record ○ 7004 Beam Geometry Record ○ 7000 Sonar Settings <p>Optional</p> <ul style="list-style-type: none"> ○ 7001 7K Configuration ○ 7002 7k Match Filter ○ 7005 7K Calibration Data ○ 7007 7K Backscatter Imagery (Sonar) ○ 7008 7K Beam Data (Snippets) ○ 7009 7K Vertical Depth ○ 7026 7K Detection Data ○ 7027 7K Raw Detection Data ○ 7028 7K Snippet Data (New Snippet Packet) ○ 70117K Image Data <p>Note: 1015 (Navigation) and 1016 (Attitude) records are written to the S7K file by Winfrog from data received via the POSMV (BINARY-TCP) and/or POSMV(BINARY-UDP) devices. These cannot be output by the Reson 7125 to Winfrog.</p> <p>If snippets are collected either 7008 or 7028 packets should be enabled, but not both.</p>
WinFrog Data String(s) Output to Device:	NONE
WinFrog Data Item(s) and their RAW record:	BOTTOMDEPTH 411, 911

DEVICE DESCRIPTION:

This device is designed to read time stamped bathymetry, sonar and snippet data from the Reson SeaBat 7125 multibeam echo sounder via UDP. This data can be logged to XTF and S7K files and used to create a coverage map. This device also provides the nadir depth as a BOTTOMDEPTH data item for association with a vehicle.

NOTE: The precise data time stamp that is required for multibeam bathymetric surveys is provided by the Reson unit, not WinFrog.

DEVICE CONFIGURATION INSTRUCTIONS

WINFROG I/O DEVICES > EDIT I/O:

UDP only, configurable parameters.

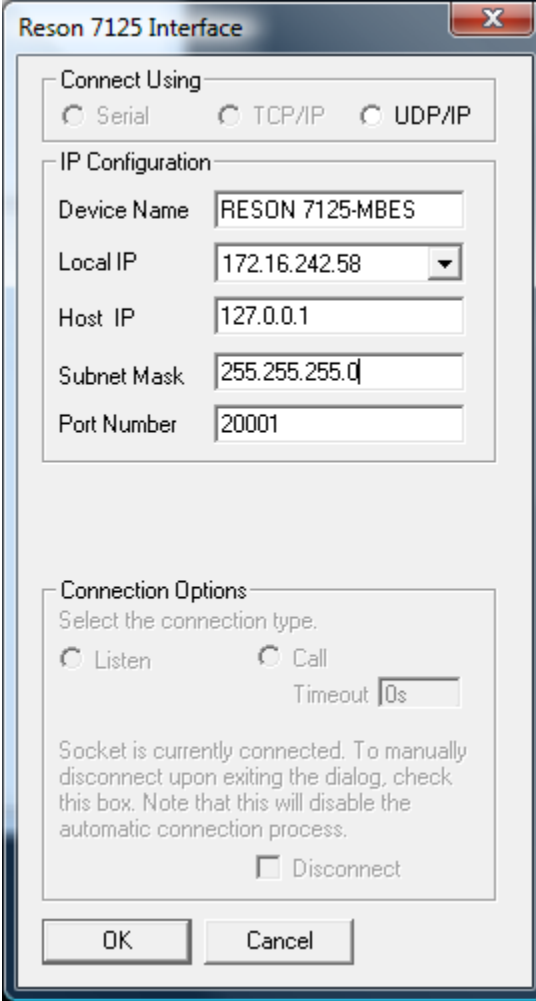
Device Name: Enter the name for the device as it is to be displayed and logged.

Host Address: From the drop down list of available local Ethernet addresses, select the address that is on the respective network.

IP Address: Enter the Reson's UDP broadcast address.

Subnet Mask: Enter the appropriate subnet mask.

Port Number: Enter the Reson's port number, the Reson default is 5025.



The screenshot shows a dialog box titled "Reson 7125 Interface". It has a standard Windows-style title bar with a close button (X) in the top right corner. The dialog is divided into several sections:

- Connect Using:** Three radio buttons are present: "Serial", "TCP/IP", and "UDP/IP". The "UDP/IP" option is selected.
- IP Configuration:** A group box containing five text input fields:
 - Device Name: "RESON 7125-MBES"
 - Local IP: "172.16.242.58" (with a dropdown arrow on the right)
 - Host IP: "127.0.0.1"
 - Subnet Mask: "255.255.255.0"
 - Port Number: "20001"
- Connection Options:** A group box containing:
 - Text: "Select the connection type."
 - Two radio buttons: "Listen" (selected) and "Call".
 - A text input field for "Timeout" with the value "0s".
 - Text: "Socket is currently connected. To manually disconnect upon exiting the dialog, check this box. Note that this will disable the automatic connection process."
 - A checkbox labeled "Disconnect", which is currently unchecked.
- Buttons:** "OK" and "Cancel" buttons are located at the bottom of the dialog.

WINFROG I/O DEVICES > CONFIGURE DEVICE:

The configuration for this device at the I/O Device window level allows you to specify if the data is to be logged to the XTF file. Also the 71XX data message subscriptions can be controlled. In the I/O Devices window, click the device name to select it, then right-click, select Configure Device and the Reson SeaBat 7125 XTF Logging dialog opens.

Reson SeaBat 7125 XTF Logging

Reson data is to be logged when MBES data logging is active.

Use Beam N For Water Depth 128

Head ID 0

71XX Remote Control Subscriptions

Enable Subscription:

- 7008 Snippets
- 7028 Snippets
- 7000 Sonar Settings
- 7004 Beam Geometry
- 7006 Bathy Data
- 7007 Sidescan Sonar
- 7503 Remote Control
- 7610 Sound Velocity
- 7026 Detection Data
- 7027 Raw Detection

Max Samples (7008) 0 = All 200

Sensor ID (7125,7111,etc) 7125

Protocol Version (5 = default) 5

Subscribe Now Stop Subscribers

OK Cancel

If the data is to be logged to the MBES (S7K) file when MBES data logging is active, check the box. If not, uncheck the box.

If the beam to use for the BOTTOMDEPTH value is to be other than the nadir, check the Use Beam N For Water Depth box and enter the beam to use.

The Head ID is used to identify a specific MBES sonar head. For single head use this value should be 0. For dual head use the port sonar ID is 0 and the starboard head ID is 1.

71XX Remote Control Subscriptions

71XX messages can be scheduled by remote control. If you are changing message subscriptions for the first time you should first press *Stop Subscriptions* to cancel all pending subscriptions. Then select the messages you want to receive and press *Subscribe Now*. If you do not press *Subscribe Now* the new subscriptions will not be made until WinFrog is restarted. Disabling Subscriptions will not stop the existing subscriptions.

In later versions of the 71XX firmware the full water column is output for the 7008 message unless a maximum sample size is specified by remote control. When a subscription is sent, the sample size of the 7008 message is set to the value *Max Samples*. If the full water column is desired, set this value to 0. Under most conditions a value between 200 and 300 should be sufficient to allow processing of the snippet backscatter.

The sensor ID should be set to the model number of the MBES sensor: 7111, 7125, etc.

The protocol version can be determined from the 71XX topside unit.

For normal operation the 7008 and 7028 messages should not be subscribed to at the same time. If both are enabled the data can be logged, but the QC display may not function properly.

WINFROG VEHICLE > CONFIGURE VEHICLE DEVICES > DEVICE DATA ITEM > EDIT:

Adding the Reson 7125-BATHY device creates one data item: BOTTOMDEPTH. This extracts the nadir depth from the data, unless another beam has been specified, and uses it as a single frequency echo sounder data item.

The data item does not require configuration once it has been added to the vehicle.