WinFrog Device Group:	**ROV**
Device Name/Model:	**Pisces ROV**
Device Manufacturer:	
Device Data String(s) Output to WinFrog:	
WinFrog Data String(s) Output to Device:	
WinFrog Data Item(s) and their RAW record:	ROVDATA 496

DEVICE DESCRIPTION:

This is a driver designed to read ROV type data from the Pisces ROV.

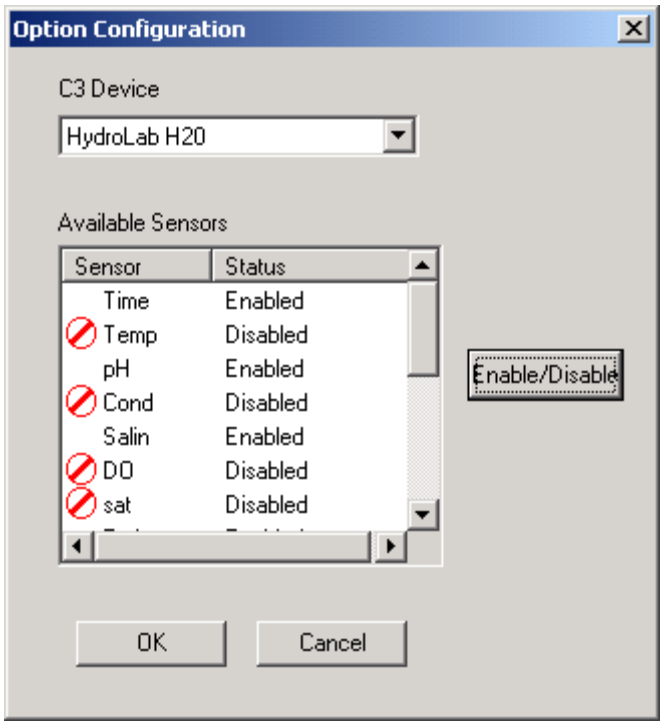
DEVICE CONFIGURATION INSTRUCTIONS

WINFROG I/O DEVICES > EDIT I/O:

Serial
Configurable Parameters

WINFROG I/O DEVICES > CONFIGURE DEVICE:

This device must be configured at the I/O Device window level. In the I/O Devices window, click the device name to select it, then right-click and select Configure Device. The Option Configuration dialog box appears, as seen below.



The HydroLab H2O instrument can output data for up to 16 sensors including; Time, Temp, pH, Conductivity, Salinity, DO, saturation, Turb-r, Redox , Depth, Battery, Sensor1, Sensor2, Sensor3, Sensor4, Sensor5. In the C3 Device section, select the HydroLab H2O device from the drop down menu. Next in the Available sensors section Enable/Disable individual sensors as required. Highlight each Sensor and click the Enable/Disable button to enable or disable the reception of data from each sensor. The ⊘ symbol beside each sensor type, along with the status column indicates that a particular sensor has been disabled for data output.

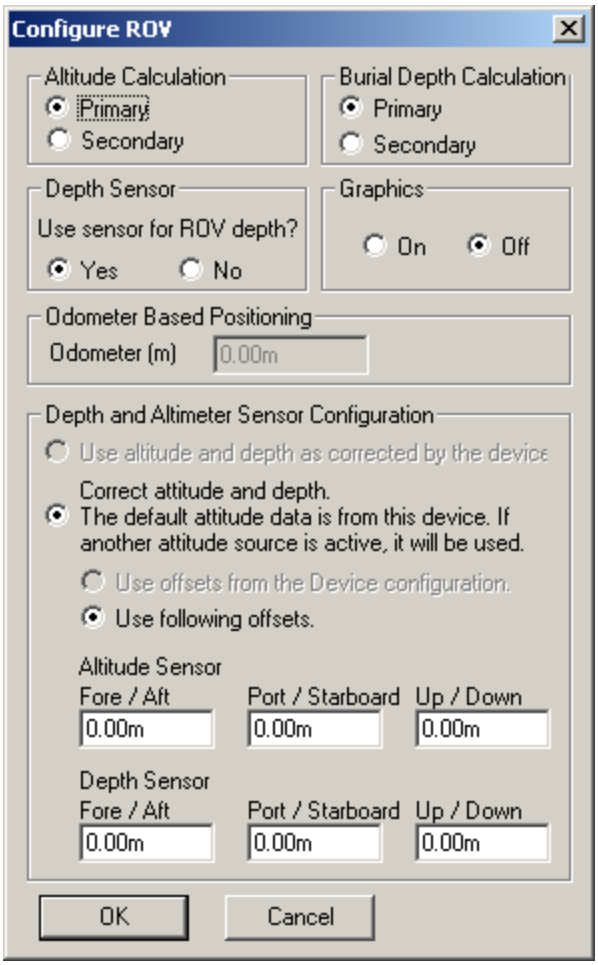
WINFROG VEHICLE > CONFIGURE VEHICLE DEVICES > DEVICE DATA ITEM > EDIT:

Adding the Pisces ROV device creates the ROVDATA data item. Once the data item has been added to the vehicle, it must be edited to suit the application.

Data item: ROV, Pisces ROV, ROVDATA

This data item is designed to read specific ROV type data from this device. The data to be read is configured at the I/O Devices window level as described above.

Highlight this data item in the vehicle's device list and click the Edit button to open the Configure ROV dialog box as seen below.



Altitude Calculation:
Primary will result in this vehicle's altitude being determined from the observed altitude value found in the string from this device minus the altitude offset also found on this dialog. This value can be displayed in the Vehicle Text window as ROV Alt.

Secondary will result in no calculation or assignment of the vehicle's altitude from this device. The raw data is still always recorded.

Burial Depth Calculation:
Primary will result in the burial depth (if applicable) being determined from the observed burial depth value found in the string from this device. This value will be assigned to the vehicle.

Secondary will result in no calculation or assignment of the burial depth from this device. The raw data is still always recorded.

Graphics:
Select the On radio button to display the device name and a square at the location of the tracked offset, within the Graphics and Bird's Eye windows.

Use sensor for ROV depth:
Selecting the Yes radio button will cause the depth of this vehicle's CRP to be determined from the observed depth value found in the string from this device plus the depth offset below. This vehicle's elevation will be the negative of this value. This value will be used to calculate the bottom depth.

The bottom depth will be determined as:
Observed depth + Depth Offset + observed altimeter - altitude Offset
The offsets (see below) are not corrected for pitch and roll when determining the water depth.

Selecting the No radio button will result in this device obtaining the depth of the CRP from the vehicle itself, as opposed to assigning it to the vehicle as above. You must assign another device to determine the depth of the vehicle (e.g. USBL and assigning it as the source for depth).

Note: The observed altimeter value is always used for depth determination regardless of the prime/secondary altimeter setting.

Odometer Based Positioning:
This is only used by the ROV device Sonsub Innovator3.

Depth and Altimeter Sensor Configuration:
For all ROV devices except Deep Blue ROV, the radio button settings cannot be changed. See the Deep Blue ROV device documentation for information on setting these radio buttons.

Vertical offsets of the altitude and depth sensors, relative to the CRP, can be entered here. The Altitude Offset is the vertical distance (positive up) from the ROV's CRP to the acoustic beacon tracking the seafloor. The Depth Offset is the vertical distance (positive up) from the ROV's CRP to the sensor that provides depth information of the ROV.

The offset position will be corrected for pitch and roll then the vertical offsets will be applied to determine the depth of the ROV and height of the ROV above the bottom.

TELGRAM SPECIFICATION:

Refer to manufacturer's documentation for Telegram information.