WinFrog Device Group:	**ROV**
Device Name/Model:	**UK94 BATHY**
Device Manufacturer:	Kongsberg Simrad Limited Campus 1 Aberdeen Science & Technology Park Balgownie Road Bridge of Don Aberdeen AB22 8GT Scotland
Device Data String(s) Output to WinFrog:	
WinFrog Data String(s) Output to Device:	
WinFrog Data Item(s) and their RAW record:	ELEVATION 372 BOTTOMDEPTH 911

DEVICE DESCRIPTION:

This is a driver designed to read depth/elevation data from the UK94 BATHY device. The UK94 is a high accuracy bathymetric system for measuring depth, altitude, temperature and optionally conductivity (salinity). The single subsea pod incorporates a digiquartz pressure sensor, temperature sensor and a mesotech 200khz altimeter. Bathymetric data is transmitted to the surface unit via 20mAcurrent loop, RS2332, or RS485 where this information is displayed and transmitted on an RS232 port.

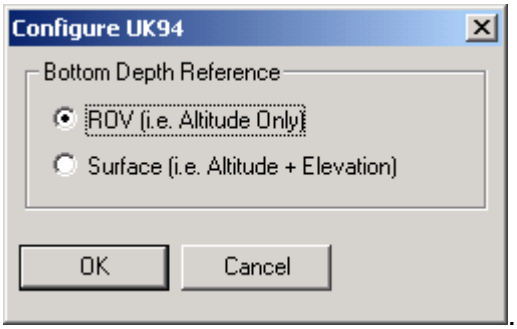
DEVICE CONFIGURATION INSTRUCTIONS

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 Configure UK94 dialog box appears, as seen below.



From this dialog box select the appropriate Bottom Depth Reference. The altitude is the vertical distance from the sea floor to the sensor and the elevation is the vertical distance from the sensor to the water's surface.

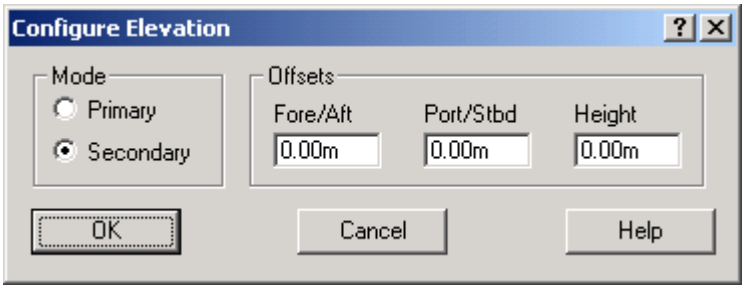
WINFROG VEHICLE > CONFIGURE VEHICLE DEVICES > DEVICE DATA ITEM > EDIT:

Adding the UK94 BATHY device creates two data items: ELEVATION and BOTTOMDEPTH. Once the data items have been added to the vehicle, they must be edited to suit the application.

Data item: ROV, UK94 BATHY, ELEVATION

Add the ELEVATION data item to a vehicle to record and/or assign the vehicle's height or depth.

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



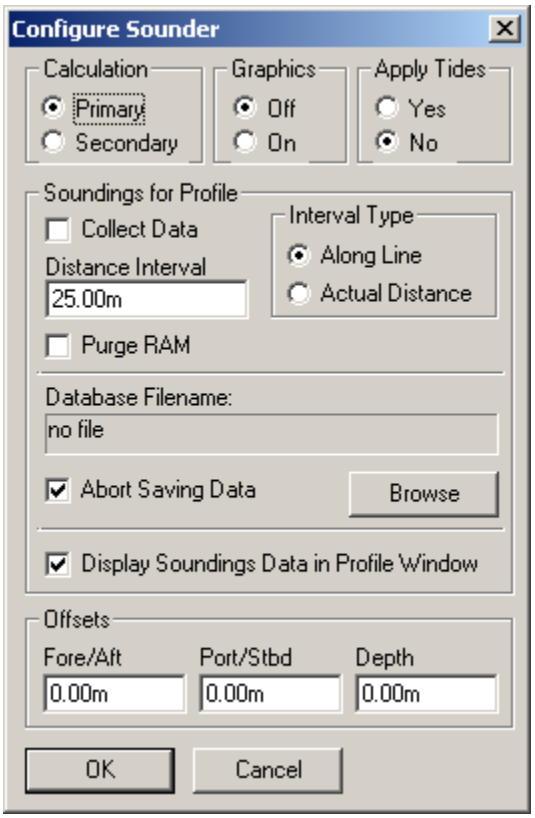
Assign the vehicle's height or depth by selecting the Primary or Secondary radio button on the dialog. In the Vehicle Text window, a vehicle's elevation (ELEV) will have the opposite sign of its depth (ROV D). The Height offset will be subtracted from the observed value. All the offsets are used for pitch and roll corrections.

Raw record
372, name, time, elevation, status, center elevation, raw data, temperature, relative humidity *where:*

- *372* is the raw data record identifier for an ELEVATION data item
- *name* is the operator-assigned device name
- *time* is the computer time for the data
- *elevation* is the elevation in meters
- *status* is the status flag for the data, 1 = OK, 0 = Bad
- *center elevation* is the elevation reduced to the CRP
- *raw data* is the raw elevation data (specifically for Elevation group devices)
- *temperature* is the temperature in Celsius
  relative humidity is the relative humidity in units of 0-1.0 (i.e. = % / 100)

Data item: ROV, UK94 BATHY, BOTTOMDEPTH

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



Calculation:
Set the type of calculation to Primary or Secondary using the appropriate radio button. WinFrog will only utilize (i.e. display and record) data from a Primary depth sensor device. If there is more than one Primary depth sensor attached to a vehicle's device list, WinFrog will not mean the data (as is done with positional devices), but rather alternate between the devices. Data from a Secondary status depth sensor will simply be monitored.

Graphics:
Select the On radio button to display a labeled square representing the location of the depth sensor in the Graphics and/or Bird's Eye windows.

Apply Tides:
If the Yes radio button is selected, WinFrog will apply tidal corrections to the observed water depths. Depths displayed in the Vehicle Text window and recorded in automatic event (i.e. .DAT, .SRC, and .RCV) and type 351 raw files will refer to the datum corrected depths. Note that type 911 raw data records will remain truly raw and will not reflect the tide correction.

The tide information can be supplied by a real time telemetry system or by predicted tide files. Either way, the tide "device" must also be attached to the same vehicle's device list. For more information, refer to documentation on Tide devices.

Soundings for Profile:
This section of the Configure Sounder dialog permits the collection of sounding data to an .mdb database file for display in WinFrog's Profile window. This collection is completely separate from automatic event or raw data collection.

Collect Data
Select this checkbox to enable the collection of data to an .mdb database file.

Interval Type
Select to utilize either Along Line or Actual Distance (i.e. between successive position updates) calculations for data collection intervals. Selecting Along Line requires that you also enable survey line tracking.

Distance Interval
Specify the distance interval at which the data will be collected.

Purge RAM
Sounding data is stored in the RAM memory of the computer. Any data collected which will not be required at later time can be deleted by selecting the Purge RAM checkbox, then clicking the OK button to exit the dialog box.

Database filename
Click the Browse button to define where and to what filename the .mdb file will be written. The file name and location is displayed in this window.

Abort Saving Data
Select this checkbox to abort saving data to the .mdb file. In other words, to save data to the .mdb file ensure that this box is NOT checked.

Display Soundings Data in Profile Window
Select this checkbox to enable the display of this data in WinFrog's Profile window.

Offsets
This section of the dialog allows for entry of offset values as measured from the vessel's Common Reference Point (CRP). Note that the Fore/Aft and Port/Stbd offsets are used for "cosmetic" visual purposes only: A depth sensor is not a positioning device, and hence its horizontal offsets have no application. If the depth sensor's position is to be recorded correctly, you must create and enable a vehicle Tracking Offset for that specific location. The offsets entered here can simply be used as a means of graphically confirming that the Tracking Offset values have been entered correctly.

The Depth Offset is applied; the entered value will be added to the received depth sensor data.

Depths displayed in the Vehicle Text window and recorded in automatic event (i.e. .DAT, .SRC, and .RCV) and type 351 raw files will refer to the corrected depths. Note that type 911 raw data records will remain truly raw and will not reflect the depth offset correction.