WinFrog Device Group:	**Profiler**
Device Name/Model:	**Tritech SKV4 DHSS**
Device Manufacturer:	Peregrine Road Westhill Business Park Westhill Aberdeen AB32 6JL United Kingdom Tel: +44 (0)1224 744111 Fax: +44 (0)1224 741771 Email: **support@tritech.co.uk**
Device Data String(s) Output to WinFrog:	
WinFrog Data String(s) Output to Device:	
WinFrog Data Item(s) and their RAW record:	PROFILE 1916 and 1917

DEVICE DESCRIPTION:

Tritech profilers can be used for cross-sectional profiling as well as underwater positioning and inspection.

This driver can be used with both the Tritech SKV4 DHSS and the Tritech SCU-3 formats.

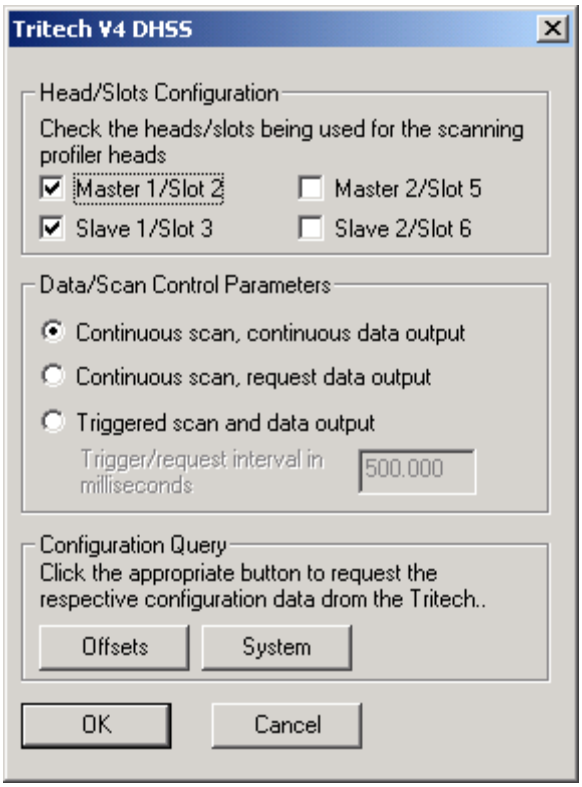
DEVICE CONFIGURATION INSTRUCTIONS

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 Tritech V4 DHSS dialog box appears, as seen below.



In the Head/Slots Configuration section you must assign the Master and Slave heads to specific Slots. The Slots are the outputs from the control unit. The default is the Master in Slot 2 and the Slave in Slot 3 (for a dual head configuration). The other recommended configuration is to assign the Master to Slot 5 and the Slave to Slot 6. It is important to specify which Heads are assigned to which Slots as WinFrog instructs the control unit to initiate scans by sending commands that include the Master's Slot number. WinFrog supports the use of anywhere from 1 Head up to 4 Heads simultaneously.

In the Data/Scan Control Parameters section you can select the desired mode of data collection from the three available options. If the Triggered Scan and data output option is selected you must enter a time (in milliseconds) for WinFrog to initiate a scan.

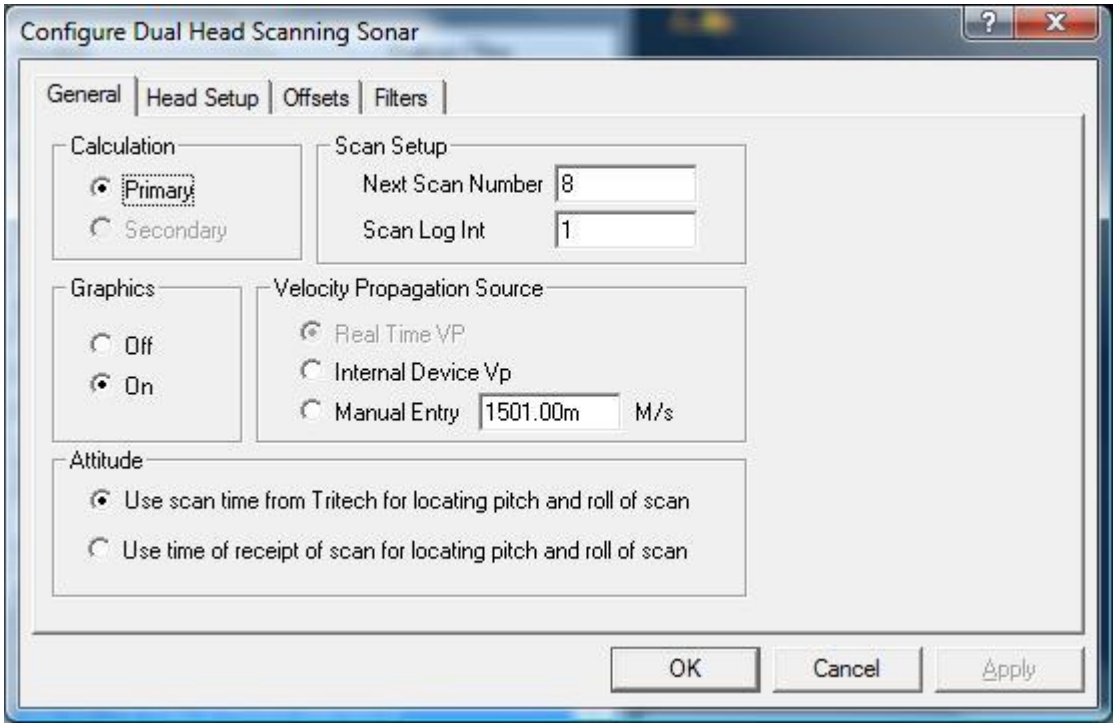
In the Configuration Query section clicking either the Offsets or System button will query the control unit for the Head offsets or system settings respectively.

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

Adding the Tritech SKV4 DHSS device creates the PROFILE data item. Once the data item has been added to the vehicle, it must be edited to suit the application.

Data item: PROFILER, Tritech SKV4 DHSS, PROFILE

Highlight the PROFILE data item and click the Edit button to open the Configure Dual Head Scanning Sonar dialog box as seen below. This dialog consists of four tabs, each of which require some configuration.



In the General tab, selecting either the Primary or Secondary option has no effect on the operation of this device or the data collected.

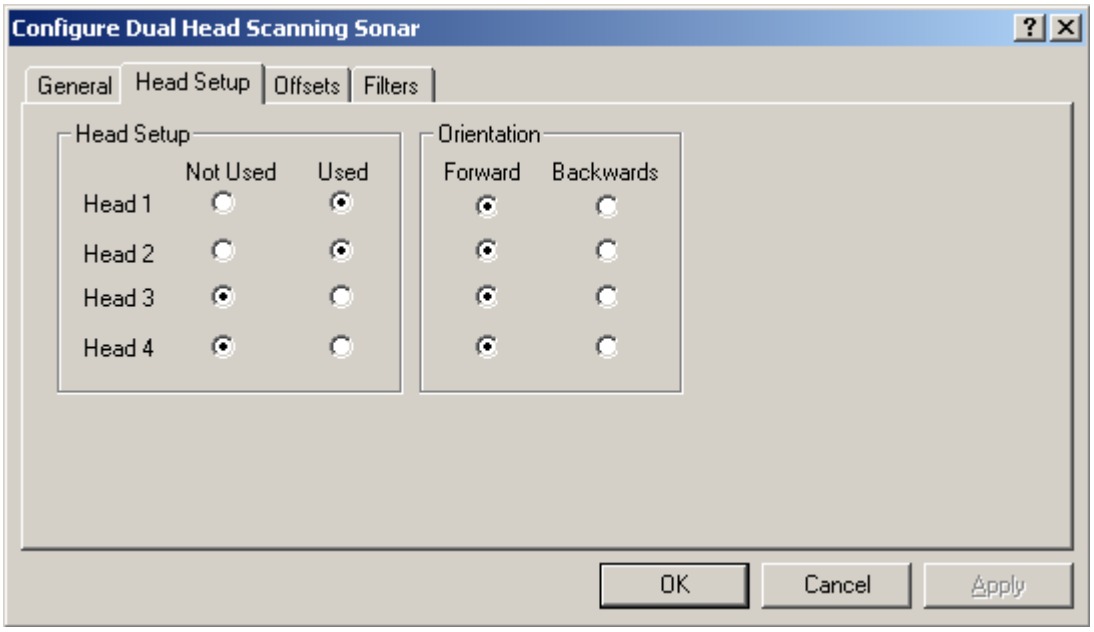
Selecting the Graphics On option will plot a square and the device's name in the Graphics and Bird's Eye windows.

In the Scan Setup section you can specify the next scan number as a means of tracking scans. WinFrog will automatically increment the scan numbers as the data is received until the scan number reaches 999999 (at which point it resets to 1) or you enter a new scan number. The Scan Log Int option controls how often the raw data is written (logged) to the raw files. The default of 1 means that all scan data will be logged to the raw files.

In the Velocity Propagation Source section you can select either the Internal Device Vp option (if available) or enter the velocity, in m/s in the Manual Entry field.

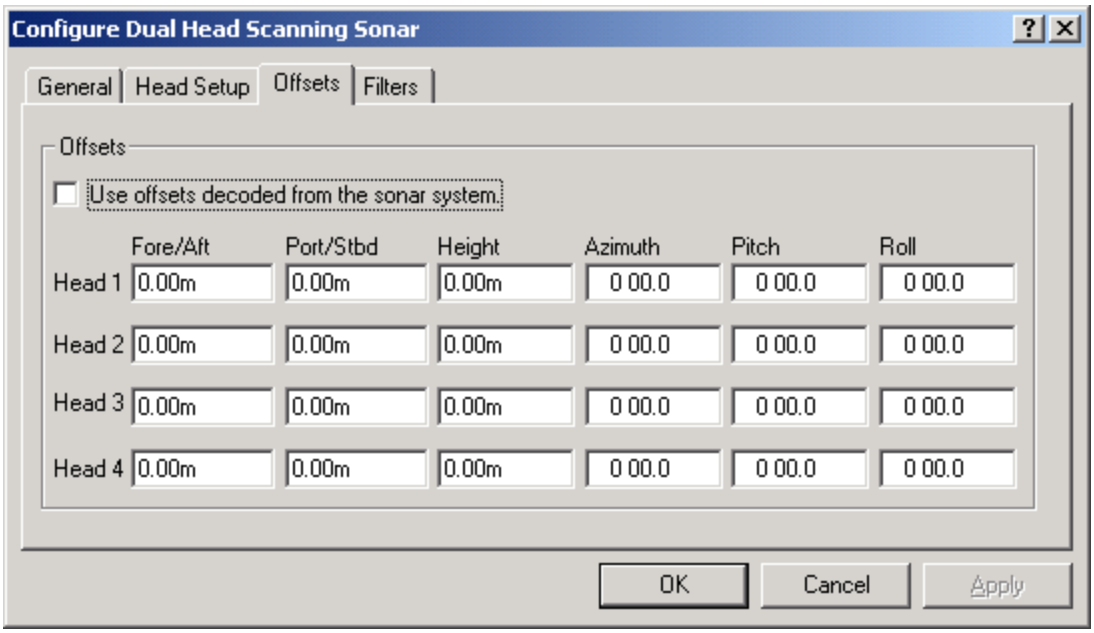
The pitch and roll (if available) of the vehicle will be written to the 1916 raw record. These values are extracted from the time series of recorded attitude data. The time used for the extraction is selected here. If the Tritech profiler is synchronized to the same time as WinFrog then you can select **Use scan time from Tritech for locating pitch and roll of scan**. This will then use the time that the Tritech places in the scan

record to obtain the pitch and roll when the scan occurred. The selection **Use time of receipt of scan for locating pitch and roll of scan** is to be used if the clocks are not synchronized.

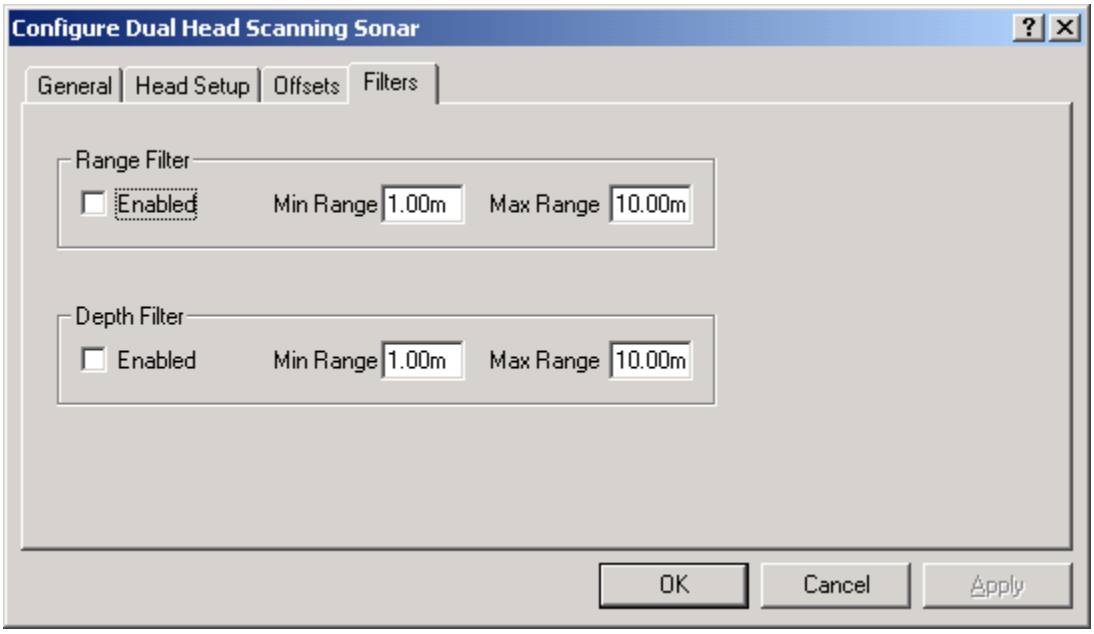


In the Head Setup tab, the Head Setup section allows you to select those heads that are to be used. If the data for a scanning head is to be used, and logged to a raw file if raw data logging is active, it must be selected as *Used*. Selecting *Not Used* results in the data from the driver for that head not being passed to the vehicle that the data item is associated with and is therefore neither used nor logged to the raw file.

In the Orientation section it is important for you to know how the Head is physically mounted (i.e. facing forward or aft), as well as how it is configured in the control unit. If the Head is facing forward, all that needs to be done is to select the Forward option. If the Head is facing aft, the idea is to rotate the data as if the Head was facing forward. This can be accomplished in two ways. If it is configured in the control unit as facing aft, then the data will be rotated in the control unit prior to being output to WinFrog. In this case you would select the Forward option as the data has already been rotated. If the Head is facing aft and is configured in the control unit as facing forward, then the Backwards option must be selected to instruct WinFrog to rotate the data.



In the Offsets tab you have two options for applying offsets. By selecting the Use offsets decoded from the sonar system checkbox, WinFrog will use the offsets as entered in the control unit. These offsets are included in the data string from the control unit. Alternatively, you can leave that checkbox unselected and enter the offsets manually.



In the Filters tab you can enable the Range and Depth filters by selecting the appropriate checkbox. These filters function as gates where you enter the minimum and maximum expected Range/Depth values and WinFrog will discard any data that falls outside of the specified ranges.