WinFrog Device Group:	RHO/THETA
Device Name/Model:	Polarfix
Device Manufacturer:	STN ATLAS Elektronik GmbH Sebaldsbrücker Heerstrasse 235 28305 Bremen Germany Tel: (04 21) 4 57 – 0 Fax: 04 21) 4 57 - 29 00
Device Data String(s) Output to WinFrog:	
WinFrog Data String(s) Output to Device:	
WinFrog Data Item(s) and their RAW record:	TARGET 530

DEVICE DESCRIPTION:

The Polarfix device is a range azimuth positioning system that uses a laser beam for range measurement and a shaft encoder for angle measurement. The angle is referenced to a baseline established between the position of the Polarfix shore station and the position of a visible reference target. The survey vessel is fitted with a ring of 12 reflecting prisms, the range and azimuth of which is measured and transmitted by a UHF radio link from the shore station to the Polarfix survey processor (in this case WinFrog) aboard the vessel. WinFrog then uses the polar coordinates (range and bearing) from the known laser head position to calculate the vessel position.

DEVICE CONFIGURATION INSTRUCTIONS

WINFROG I/O DEVICES > EDIT I/O:

Serial
Configurable Parameters

### WINFROG I/O DEVICES > CONFIGURE DEVICE:

No configuration is required at the I/O Device window level.

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

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

Data item: RHO/THETA, Polarfix, TARGET

Highlight the TARGET data item in the vehicle's device list and click the Edit button to open the Configure Rho/Theta dialog box as seen below.
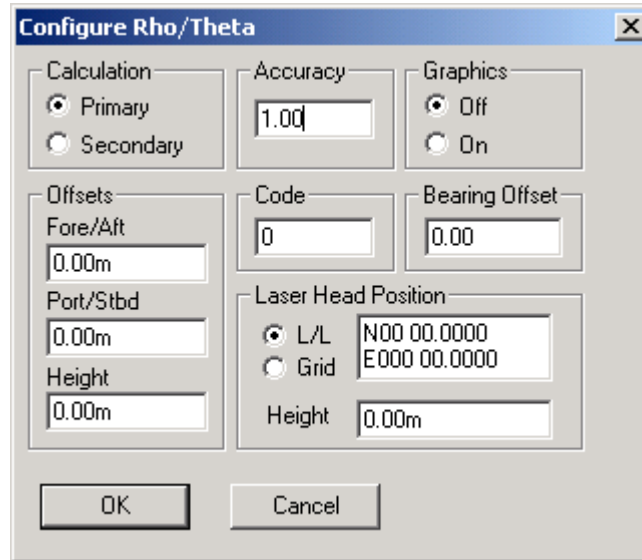
In the Calculation section, the default setting is Secondary. Select the Primary option if this device is to be used as the main positioning source.

Enter a realistic accuracy for this device, keeping in mind that the accuracy value entered affects the final filtered position calculated by WinFrog. The smaller the number entered, the more accurate it is deemed to be and the more weight it will be given if combined with other position sources in a weighted mean solution.

Select the Graphics On option to display a square with the device name, at the device's location, in both the Graphics and Bird's Eye windows.

The offsets are entered similar to other devices in WinFrog, i.e. measured from the CRP to the device location.

The Code field is not used by this device, so this can be left at the default value of zero.

In the Bearing Offset field you can enter an angular offset to orient the Artemis device to the local datum.

In the Laser Head Position section, you can enter the coordinates of the Artemis device in either latitude/longitude or Grid format. The height, in the working datum, is entered in the Height dialog box.