WinFrog Device Group:	**OUTPUT**
Device Name/Model:	**TAUT WIRE SPD**
Device Manufacturer:	
Device Data String(s) Output to WinFrog:	
WinFrog Data String(s) Output to Device:	
WinFrog Data Item(s) and their RAW record:	ANALOG SPD 455

DEVICE DESCRIPTION:

A Taut Wire system is based on a weight that is lowered to the seabed on a thin wire that is kept under constant tension. As the vessel moves from its desired position, the taut wire provides details (via a change in voltage) of either an alteration in the tension or change in the length and angle of the wire.

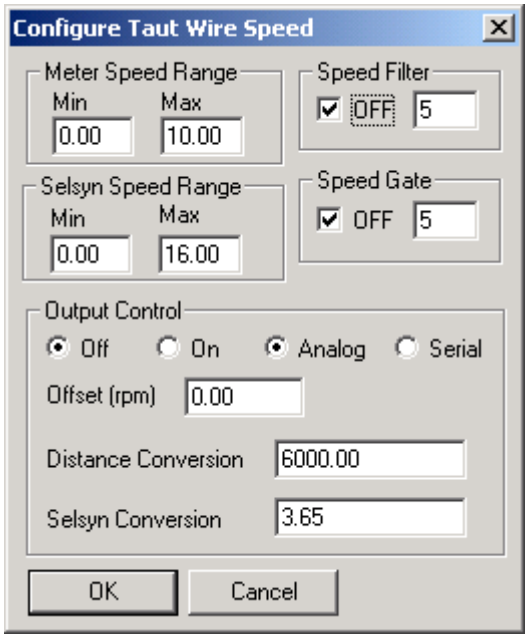
Selsyn indicators are very precise electro-mechanical devices used for transmitting angular data between two points. Selsyn indicators can measure with up to ± 1° accuracy.

DEVICE CONFIGURATION INSTRUCTIONS

WINFROG I/O DEVICES > EDIT I/O:
Serial
Configurable Parameters

Two serial ports must be dedicated to properly interface this device, one for the input of Taut Wire data from the Taut Wire Meter and the other for the output of the analog speed data from WinFrog.

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 Taut Wire Speed dialog box appears, as seen below.



From this dialog box you can set the minimum and maximum speed in knots, as well as the Speed Filter and Gate lengths. The **Speed Filter** uses a central tendency filter that seeks the median of the input values. The number entered for the Speed Filter defines the number of samples to be used. If the **Speed Gate** is enabled, the new data is tested against the data history based on the number of samples defined in the Speed Filter dialog box. If it exceeds the gate limits, as entered in the Speed Gate field, the data is rejected.

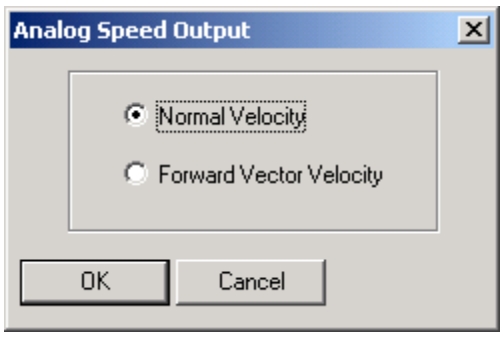
You must also select whether the output is On or Off, and if On, whether to output the speed as an Analog or Digital (serial) signal. In the bottom fields, you can enter the RPM Offset, as well as the Distance Conversion and Selsyn Conversion factors.

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

Adding the TAUT WIRE SPD device creates the ANALOG SPD data item. Once the data item has been added to the vehicle, it must be edited to suit the application.

Data item: OUTPUT, TAUT WIRE SPD, ANALOG SPD

Highlight the OUTPUT, TAUT WIRE SPD, ANALOG SPD data item and click the Edit button to open the Analog Speed Output dialog box, as seen below.



In this dialog box you can select one of the output velocity options. The Normal Velocity option outputs the velocity as calculated from successive positions (GPS or other positioning devices). The Forward Vector Velocity option outputs the forward (downline) velocity or the offline velocity whichever is greater. If the vehicle is not configured to track a line, then this option uses the speed of the vessel as the output velocity.