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|---|---|
| **WinFrog Device Group:** | **GYRO** |
| **Device Name/Model:** | **SimGyro** |
| **Device Manufacturer:** | |
| **Device Data String(s) Output to WinFrog:** | NONE |
| **WinFrog Data String(s) Output to Device:** | NONE |
| **WinFrog Data Item(s) and their RAW record:** | HEADING 409 |

**DEVICE DESCRIPTION:**

This is a simulated device designed to provide data similar to real time gyro devices. This device is typically used for simulation and training purposes, however, it can be used in real time situations if the heading of the vessel is known. The SimGyro device is also commonly used when resetting the Cable Model. When the SimGyro Heading data item is associated with a vehicle, the heading of the vehicle can be set manually in the device configuration page or changed using the  buttons in the 'Simulation Tools' toolbar.

## *DEVICE CONFIGURATION INSTRUCTIONS*

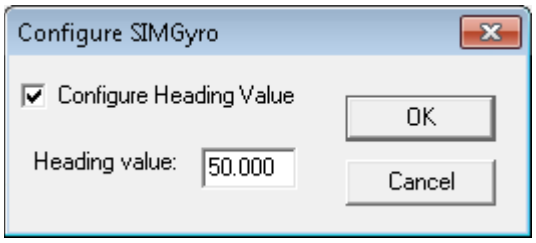
**WINFROG I/O DEVICES > EDIT I/O:**

No I/O parameters - Simulated Device

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

This device can 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 SIMGyro dialog box appears, as seen below.



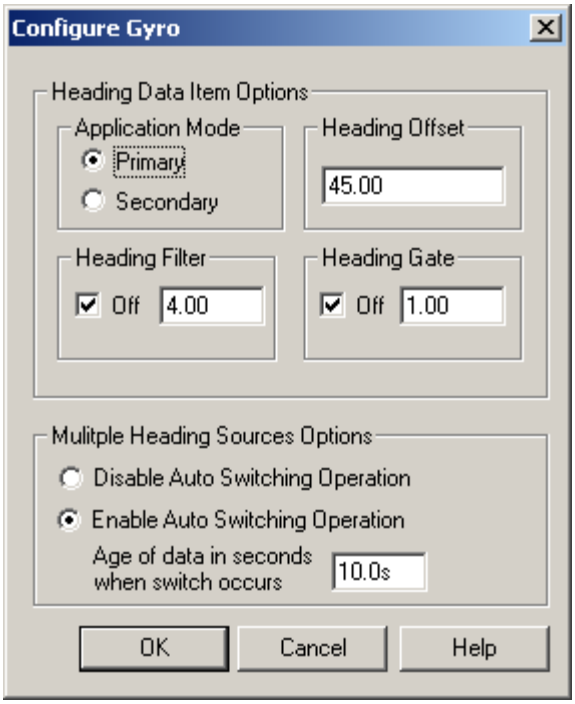
In this dialog, if the check box is checked, the heading value entered in the text box will be output from the device and the  buttons will have no effect on the heading value.

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

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

**Data item: GYRO, SimGyro, HEADING**

Highlight the GYRO, SimGyro, HEADING data item in the vehicle's device list and click the Edit button to open the Configure Gyro dialog box as seen below.




**Heading Data Item Options:**
**Application Mode (Primary/Secondary):**
Set the type of calculation to Primary or Secondary by selecting the appropriate radio button. Devices set to Primary are used to provide the vehicle heading information. Devices set to Secondary are simply monitored, and are not used in the vehicle's calculations.

Note that WinFrog supports automatic switching from a designated Primary to a Secondary in the case that data from the Primary fails (see Multiple Heading Sources Options).

**Heading Offset:**
This option is commonly used with the SimGyro device in order to configure the device to properly orient the vehicle. A correction value can be input in the Heading Offset box. This value is added to the heading value from the device to provide a corrected heading for the vehicle. Note that positive or negative values can be entered.

**Heading Filter/Heading Gate:**
Neither of these options are typically used with the SimGyro device and should both be set to Off.

**Multiple Heading Sources Options:**
WinFrog supports automatic switching from a designated Primary source to an alternate Secondary source in the event that the Primary fails. The first Secondary source to receive data after the Primary has failed becomes the alternate Primary providing the heading for the vehicle. When the designated Primary is detected as active again, the alternate Primary source reverts to Secondary and the designated Primary provides the heading data to the vehicle.

If an alternate Secondary fails and there are additional Secondary sources, it in turn is detected by the first of the remaining operational Secondary sources to receive data after the failure at which time this Secondary becomes the alternate Primary.

Note that this option is only available if more than 1 HEADING source is associated with the respective vehicle. Changes made to the Auto Switching options for any one of the HEADING data items are automatically assigned to the others upon exiting this dialog with OK. If the Auto Switching option is enabled and the respective HEADING source has been set to Primary, all others are automatically set to Secondary. The exception to this is when configuring a WinFrog Controlled Remote (WinFrog with a Remote module) from a Controller. In this case, changes made to one HEADING source are not automatically made to other HEADING sources. The operator must explicitly make them for each HEADING source.

This option is not available in the WinFrog Remote package.

**Disable/Enable Auto Switching Operation:**
Select the mode you wish to operate WinFrog.

**Age of data in seconds when switch occurs:**
Enter the age of data that is permitted before the source is considered to have failed.