WinFrog Device Group:	**CABLE MACHINERY**
Device Name/Model:	**Plantscape System**
Device Manufacturer:	Honeywell Australia

Device Data String(s) Output to WinFrog:

Network OPC Interface

Data	Units	Point Name	Comments
Time	sec	PSc_Time.PV	
Telephone Cable Count	m	Tel_Cable_Count.PV	
Tow Cable Count	m	Tow_Cable_Count.PV	
Observed Telephone Cable Speed	m/s	Tel_Cable_Speed.PV	
Observed Tow Cable Speed	m/s	Tow_Cable_Speed.PV	
Observed Telephone Cable Tension	kN	Tel_Cable_Ten.PV	
Observed Tow Cable Tension	kN	Tow_Cable_Ten.PV	
Emergency Stop		Emergency_Stop.PV	0 = Normal 1 = Emergency
LCE Cable Tension	N	LCE_Dyn_Tension.PV	
CDE1 Cable Tension	N	CDE1_Dyn_Tension.PV	
CDE2 Cable Tension	N	CDE2_Dyn_Tension.PV	
Stonker State		Stonker.PV	0 = Open 1 = Closed
Plough Mode		Plough_Mode.PV	0 = Stopped 1 = Ready 2 = Stop in Progress 3 = LTM Mode 4 = LR Mode 5 = RM Mode 6 = Error
Repeater Detected		Repeater.PV	0 = None Detected 1 = Repeater Detected 2 = Splice Box Detected
Desired Mode of Operation		Cable_Eng_Mode.PV	0 = Stopped 1 = MSM 2 = ASM 3 = BTM 4 = BSM 5 = Error
LCE Cable Count	m	LCE_Dyn_Count.PV	
LCE Cable Speed	m/s	LCE_Dyn_Speed.PV	
CDE1 Cable Count	m	CDE1_Dyn_Count.PV	
CDE1 Cable Speed	m/s	CDE1_Dyn_Speed.PV	
CDE2 Cable Count	m	CDE2_Dyn_Count.PV	
CDE2 Cable Speed	m/s	CDE2_Dyn_Speed.PV	

WinFrog Data Type(s) and their RAW record:	COUNT: 492 PLANTSCAPEDATA: 499

DEVICE DESCRIPTION:

A Cable machinery device used to read data from the *PLANTSCAPE* cable machinery control system developed by Honeywell.

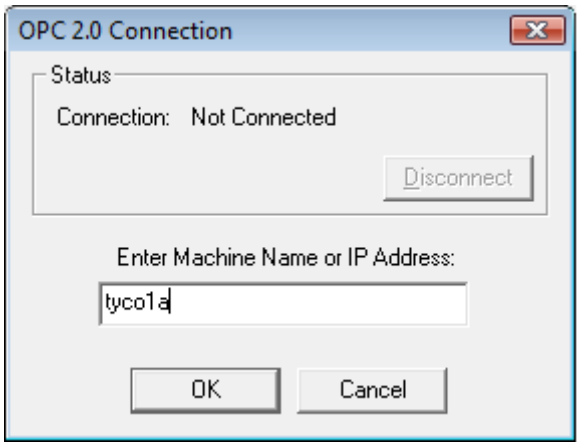
Data transfer via this interface utilizes the *OPC* network protocol, which is based on a client server relationship. In this case the Plantscape cable machinery control system software acts as the server while the WinFrog Plantscape System driver acts as the client. This interface requires that the computers acting as the OPC server (Plantscape) and the OPC client (WinFrog) are connected via a Local Area Network (LAN) and are members of the same workgroup. Additionally, to initiate this connection the WinFrog operator (on the client computer) must be logged on using a user account that is duplicated on the Plantscape server computer.

All the information received is logged in the raw record 499-001. The counter related data (count, tension, etc.) is also logged in the 492-001 raw record.

DEVICE CONFIGURATION INSTRUCTIONS:

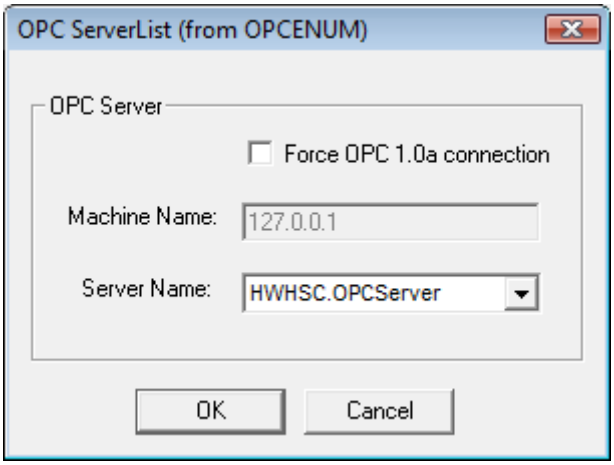
WINFROG I/O DEVICES > EDIT I/O:

Initiating this device (via the I/O Device window > Edit I/O dialog) will launch the HWHSC.OPCServer application on the desired computer. The Plantscape cable control system will then write data to the HWHSC.OPCServer, which will then be read by the Plantscape System device in WinFrog. The Device I/O Setup dialog shown below allows you to select the computer on the network on which to launch the HWHSC.OPCServer.



Enter the computer name or IP address of the Plantscape host computer and click OK. This will cause WinFrog to look for all the OPC servers available on the computer indicated.

The OPC ServerList dialog box will open automatically after the OPCWFServer application has been launched. The drop-down list in this next dialog will list all the OPC servers available on the desired computer.

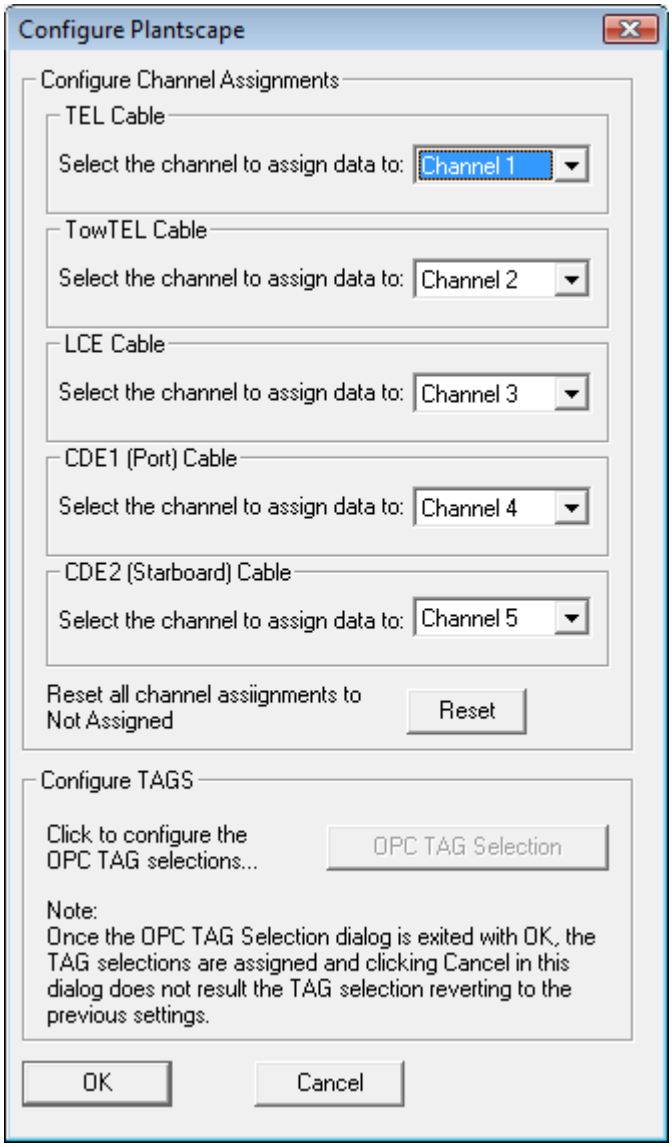


Select the HWHSC.OPCServer from the drop-down list and click OK.

> **Note:** For the dedicated network connection with the Plantscape cable control software to initiate, duplicate user accounts must be set up on both the client and the server computers that have identical user names and passwords and the WinFrog user must be logged on using this account

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 Plantscape dialog will appear.



Configure Channel Assignments

The specific TEL, TOW, LCE, CDE1 and CDE2 data retrieved from the Plantscape/Experion system can be assigned to any of the five channels supported by WinFrog. Note that generally channel one is for the telephone or product cable data, channel two is for the tow cable data, channel three is for the LCE data, channel four is for the CDE1 data, and channel five is for the CDE3

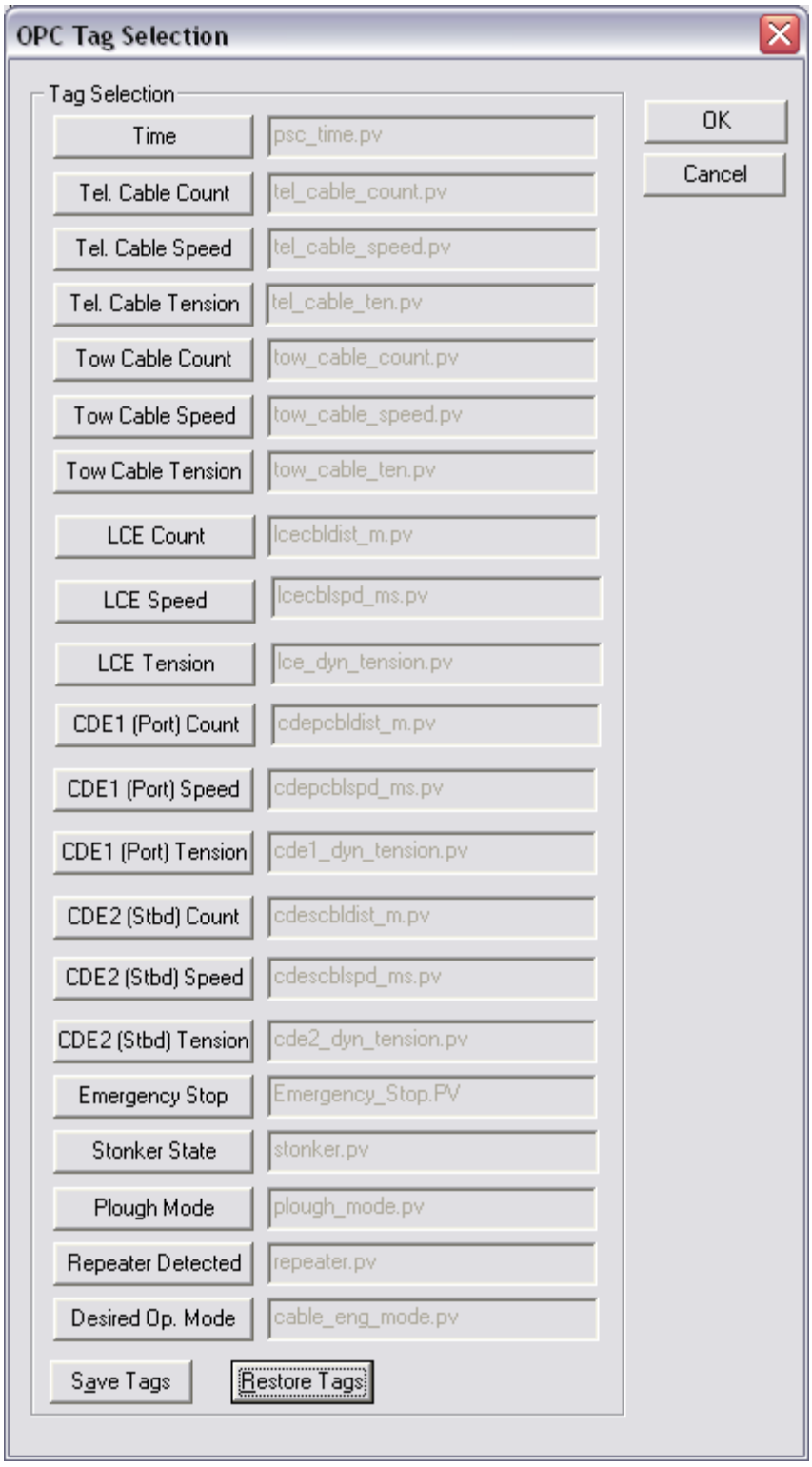
data. If the data is not to be assigned, it can be set to **Not Assigned** from the drop down list.

For the respective Plantscape data, select the channel to assign it to in WinFrog from the associated drop down list. Note that different data cannot be assigned to the same channel and therefore the available channels in any dropdown list are only the channel that is already assigned to that data and any that are not already assigned to any other data.

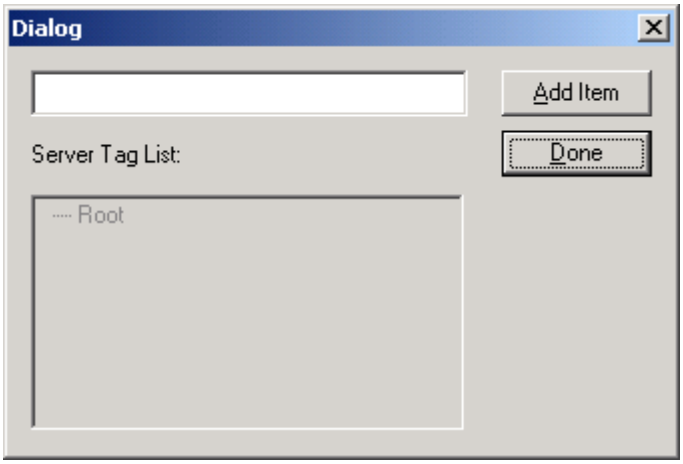
To simplify re-configuring of the channel assignments, clicking the **Reset** button will set all data to **Not Assigned** thus making all channels available for selection in all drop down lists.

Configure TAGS
To configure where WinFrog is to look for the data on the HWHSC.OPCServer, click the **OPC TAG Selection** button. Note that this button is only accessible if the OPC connection has been made. The OPC Tag Selection dialog will appear.

Note: The Plantscape device supports what Honeywell refers to as the 64 bit values. This requires the TAGs to use ".PV".



The data item tags can be entered individually or restored from a file all at once. Click a data item button to open the following dialog in which to enter the data item tag id.



To enter the tag values individually, click each data item button, then in the tag entry dialog:

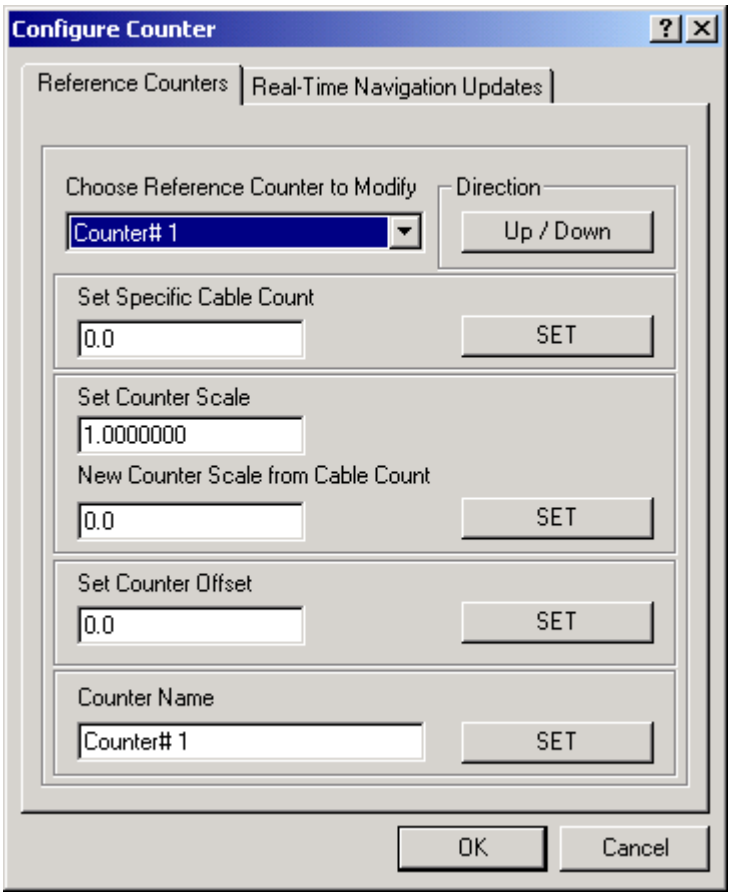
1. enter the point name (refer to the “Device Data String(s) Output to WinFrog” section above)
2. click Add Item
3. click Done

To restore a previously saved set of tags from a file, click the Restore Tags button and select the appropriate tag file (ex. Plantscape_Data.tag).

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

Add the CABLE MACHINERY, Plantscape System,COUNT data item to the cable-laying vessel. Once it has been added, it must be edited to suit the application.

Data item: CABLE MACHINERY,Plantscape System,COUNT

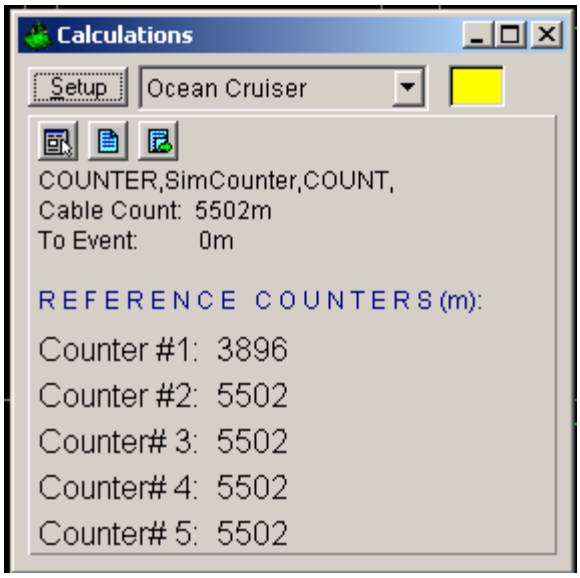


This data item configuration dialog has two pages, the Reference Counters page and the Real-Time Navigation Updates page.

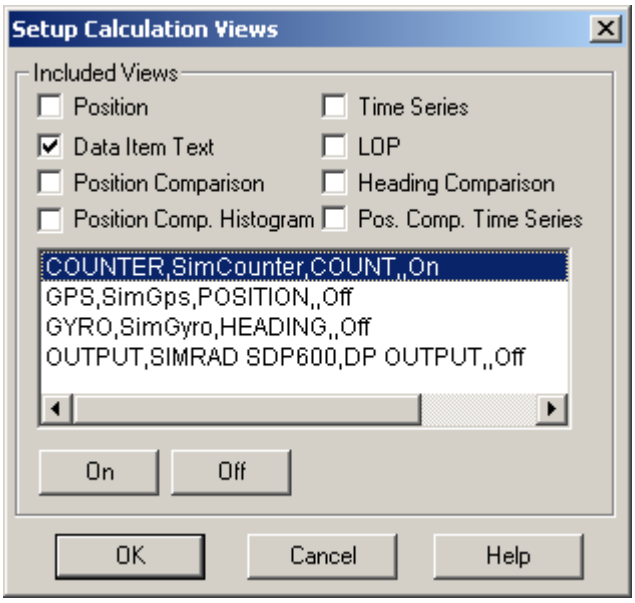
Reference Counters Page

This page is used in conjunction with the Calculations window to maintain up to five reference counts based on the Channel One (cable) count. These reference counts are not used for any real-time calculations and are not logged to any file; they are intended for reference purposes only.

View and configure the Calculations window (shown below) by completing the following steps.
Note: To view the reference counts the COUNT data item must be attached to the vehicle.



1. From the WinFrog main menu, select View > Calculations to open the Calculations window.
2. In the Calculations window click the Setup button to open the Setup Calculation Views dialog box.



3. In the Setup Calculation Views dialog box, select the Data Item Text checkbox. Then turn on the COUNT data item by selecting the COUNT data item from the list and click the On button.
4. Click OK.

Once the Calculations window has been opened and configured the five reference counters can be modified using the Reference Counters page of the Configure Counter

dialog. (Note: the Configure Counter dialog can be directly accessed from the Calculations window by clicking the  icon in the Calculations window.)

The Reference Counter page allows the reference counters to be modified in a number of ways, as described below. Start by selecting the reference counter you want to modify from the drop-down list box at the top of the page.

Direction
When the *Up/Down* button is not depressed the reference count will increase if the input cable count increases, and decrease if the input cable count decreases. When the *Up/Down* button is depressed the reference count will decrease if the input cable count increases, and increase if the input cable count decreases.

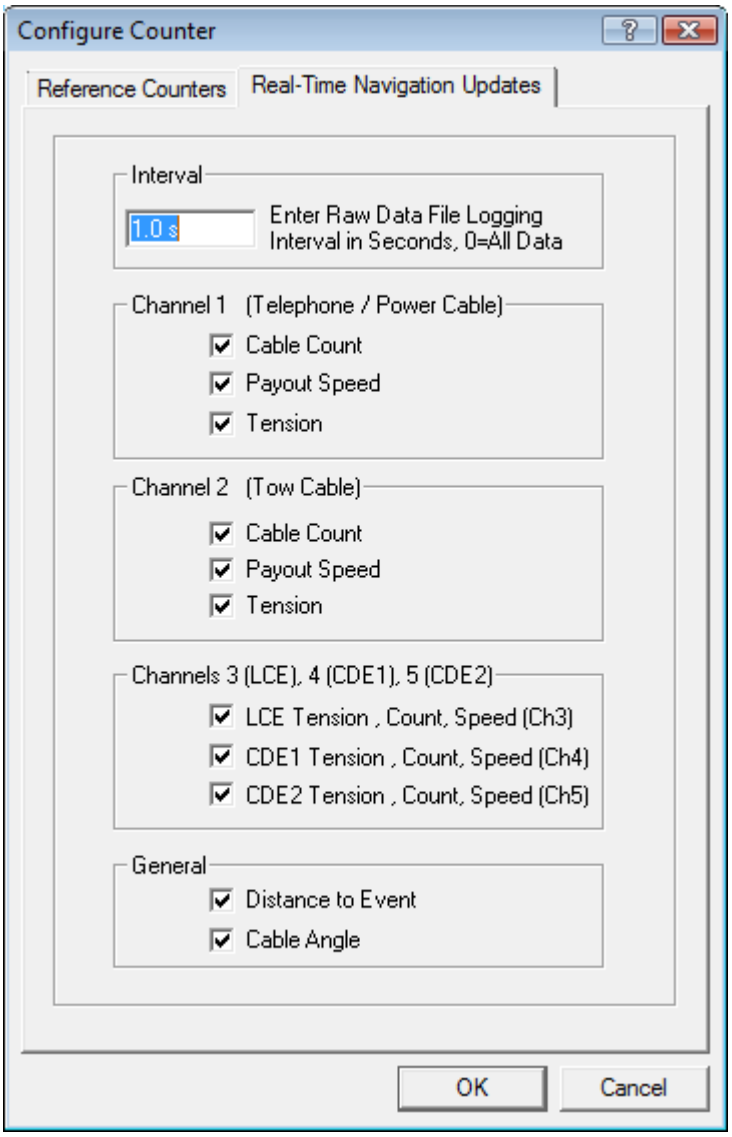
Set Specific Cable Count
To set the reference counter to a specific cable count, enter the desired value in the field, then click the *Set* button. When the Configure Counter dialog OK button is then clicked, the desired reference counter value will be set to the entered value. This value will then continue to increment or decrement based on the input cable count and the current settings for the reference count.

Set Counter Scale
To change the scale at which the reference count will increment or decrement relative to the input cable count, enter the desired scale factor into the scale field. Leave the *New Counter Scale from Cable Count* value at its present value to apply the scale from the current point onward. Enter in a count value into the *New Counter Scale from Cable Count* field to apply the scale from a previous count value onward. Once the desired scale factor and count value is entered, click the *Set* button and the click the *OK* button.

Set Counter Offset
To set an offset from the input cable count to the reference count, enter the desired value into the Set Counter Offset field, click the *Set* button and then click the *OK* button. This value will be added to the input cable count.

Counter Name
To change the reference counter name, enter the desired name into the *Counter Name* field. Click the *Set* button and then the *OK* button to enter the change.

Real-Time Navigation Updates Page



This page enables/disables data from this device to be passed to the vehicle. This allows the vehicle to have more than one COUNT data item added to it which is required if it is necessary to log data from more than one counter (raw device data is only logged if the data item is associated with a vehicle). If a checkbox is selected, the data value will be passed to the vehicle. For example, if the *Cable Count* checkbox is selected in the *Channel 1* section, then the cable count from the input device will be passed to the vehicles channel 1 count.

The *Interval* section sets the data logging interval used when the “With Events” Logging Control option is selected (refer to the Eventing chapter of the WinFrog User’s Guide for more information).

Data item: CABLE MACHINERY,Plantscape System,PLANTSCAPEDATA
The CABLE MACHINERY, Plantscape System, PLANTSCAPEDATA data item does not need to be added to the vehicle's device list. The Plantscape Device will read data from the Plantscape server as soon as it is added to WinFrog, at the I/O Device level, and is properly initialized. The data can be viewed in the I/O Devices/Decoded Data tab. However, this data item contains flags such as repeater and splice box detection, cable engine and tow winch modes. If this data item is not added to the ship then this information cannot be saved to the raw file nor passed to Makai Lay should Makai Lay be in use.