

WinFrog Device Group:	COUNTER
Device Name/Model:	CabDepTen1
Device Manufacturer:	
Device Data String(s) Output to WinFrog:	
WinFrog Data String(s) Output to Device:	
WinFrog Data Item(s) and their RAW record:	COUNT 492 PLOWDATA 490

DEVICE DESCRIPTION:

This is a driver designed to read cable count, speed and tension as well as burial depth data. It also calculates instantaneous slack by comparing the incoming cable rate data to the ship speed as calculated by WinFrog.

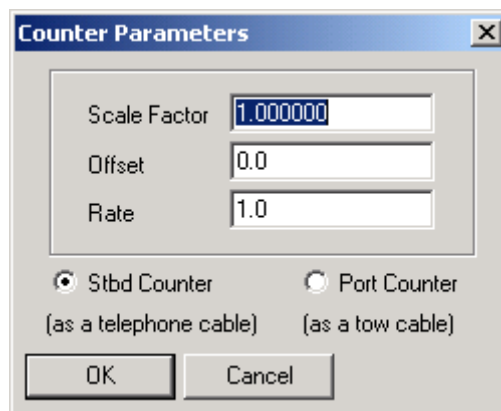
DEVICE CONFIGURATION INSTRUCTIONS

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 Counter Parameters dialog box appears, as seen below.



If you determine that the incoming cable count is incorrect, possibly due to a mis-calibration of the counter itself, a compensating Scale Factor can be entered here. Also, an offset value and cable payout rate can be entered in the appropriate fields. The payout rate factor works the same as the Scale Factor where you can compensate for a mis-calibration. The Stdb Counter and Port Counter buttons are not used by this device.

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

Adding the CabDepTen1 device creates two data items: COUNT and PLOWDATA. Once the data items have been added to the vehicle, they must be edited to suit the application.

Data item: COUNTER, CabDepTen1, COUNT

Highlight the COUNTER, CabDepTen1, COUNT data item in the vehicle's device list and click the Edit button to open the Configure Counter dialog box.

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

Reference Counters

The screenshot shows a dialog box titled "Configure Counter" with two tabs: "Reference Counters" (selected) and "Real-Time Navigation Updates". The dialog contains several sections for configuring a counter:

- Choose Reference Counter to Modify:** A dropdown menu showing "Counter# 1".
- Direction:** A button labeled "Up / Down".
- Set Specific Cable Count:** A text input field containing "1000" and a "SET" button.
- Set Counter Scale:** A text input field containing "1.0000000".
- New Counter Scale from Cable Count:** A text input field containing "0.0" and a "SET" button.
- Set Counter Offset:** A text input field containing "0.0" and a "SET" button.
- Counter Name:** A text input field containing "Counter# 1" and a "SET" button.

At the bottom of the dialog are "OK" and "Cancel" buttons.

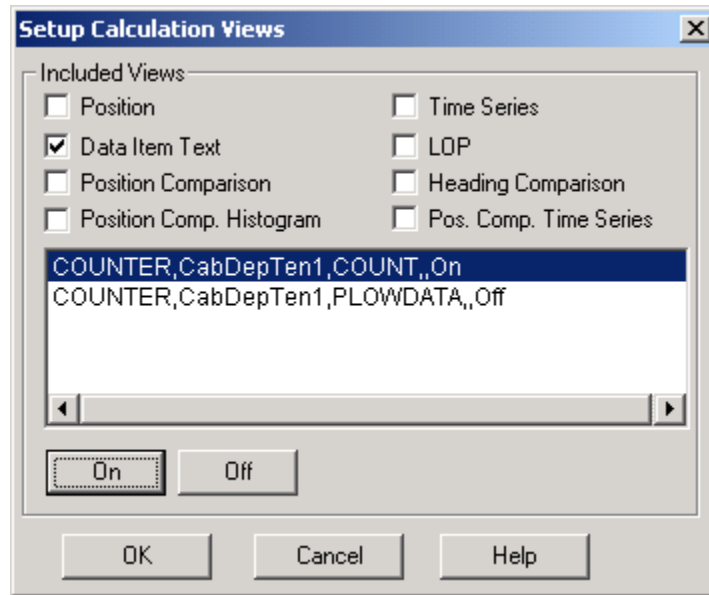
This tab is used in conjunction with a Calculations window to maintain up to five reference counts based on the Channel One (cable) count. These reference counts are not used for any real-time calculations and are not logged to any file; they are intended for reference purposes only.

One common use for the Reference Counters tab is to have a 'count down' between cable body deployment. This is accomplished by entering the cable spans between cable bodies in the 'Set Specific Cable Count' field(s), selecting the 'Direction' as 'Down' and exiting with OK when the first cable body is launched. The results of this configuration are typically viewed in a Calculations window.

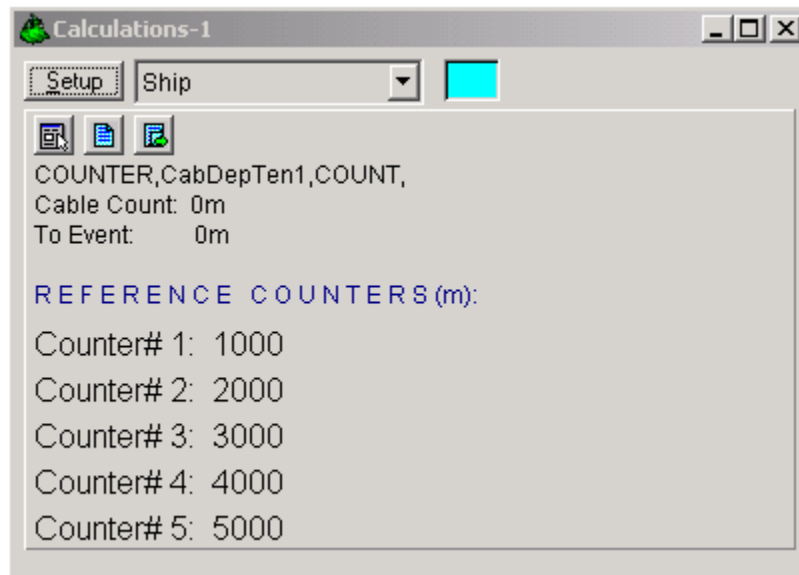
View and configure the Calculations window (shown below) by completing the following steps.


Note: To view the reference counts the COUNT data item must be attached to the vehicle.

1. From the WinFrog View menu select the Calculations item to open the Calculations window.
2. In the Calculations window click the Setup button to open the Setup Calculation Views dialog box shown below.



3. In the Setup Calculations window 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 and the Calculations window opens as seen below.



Once the Calculations window has been opened and configured, the five reference counters can be modified using the Reference Counters tab 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 tab allows the reference counters to be modified in a number of ways, as described below. Start by selecting the reference counter to be modified from the dropdown 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 edit 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 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 then 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* and then the *OK* button to enter the change.

Real-Time Navigation Updates

The screenshot shows the 'Configure Counter' dialog box with the 'Real-Time Navigation Updates' tab selected. The dialog has a title bar with a question mark and a close button. Below the title bar are two tabs: 'Reference Counters' and 'Real-Time Navigation Updates'. The 'Real-Time Navigation Updates' tab contains several sections:

- Interval:** A text box containing '1.0' with a small 's' to its right. Below it is the text 'Enter Raw Data File Logging Interval in Seconds, 0=All Data'.
- Channel 1 (Telephone / Power Cable):** A section with three checked checkboxes: 'Cable Count', 'Payout Speed', and 'Tension'.
- Channel 2 (Tow Cable):** A section with three unchecked checkboxes: 'Cable Count', 'Payout Speed', and 'Tension'.
- Channels 3,4,5 Tension:** A section with three unchecked checkboxes: 'LCE Tension (Channel 3)', 'CDE 1 Tension (Channel 4)', and 'CDE 2 Tension (Channel 5)'. Note that the text in the image incorrectly lists 'CDE 1' and 'CDE 2'.
- General:** A section with two unchecked checkboxes: 'Distance to Event' and 'Cable Angle'.

At the bottom of the dialog are 'OK' and 'Cancel' buttons.

This tab enables/disables certain data from this device to be passed to the vehicle. Unlike the Reference Counters tab, data from the Real-Time Navigation Updates tab can be logged to the raw files if this data item is associated with a vehicle. This allows the vehicle to have more than one COUNT without one conflicting with the other. One COUNTER device may provide the telephone cable count while the other provides the tow count. If a checkbox is selected (checked) 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.

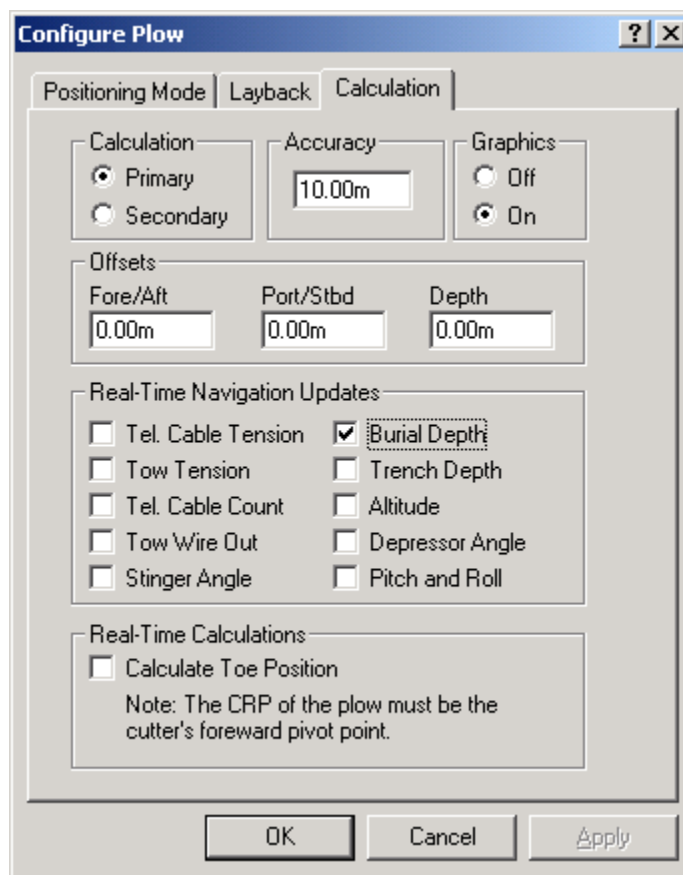
It is important to note that if the data string from the counter device does not contain certain data types (count, tension or speed), these options should not be selected. Selecting an option for which there is no data in the string causes WinFrog to assign

a zero in the selected field and it may result in valid data from other sources being overwritten with zeroes.

The *Interval* section sets the data logging interval used when the “With Events” Logging Control option is selected (refer to chapter 10 of the WinFrog User’s Guide for more information).

Data item: COUNTER, CabDepTen1, PLOWDATA

This data item is used to read burial depth data. It is not used to calculate a layback position, so the Positioning Mode and Layback tabs have no application.



Calculation tab

Calculation

Primary – when selected, the layback described above will be used to calculate this vehicle’s position, which will be assigned to it. However, since this data item is only used to read burial depth data set this option to Secondary.

Secondary – when selected, this device will not determine this vehicle’s position. This will allow WinFrog to read and record the burial depth data.

Accuracy

Not used by this device.

Graphics

Not used by this device.

Offsets

Not used by this device.

Real-Time Navigation Updates

The only option that should be selected from this section is the burial depth option. You should only select the checkboxes for data output by the device, as leaving these checkboxes selected causes data to be assigned to the vehicle. If the device does not output a particular type of data, 0 will be assigned for each item left selected and this may cause values from other devices to be overwritten.

Real-Time Calculations

Calculate Toe Position – Not used by this device.