WinFrog Device Group:	COUNTER
Device Name/Model:	ALC 3000
Device Manufacturer:	
Device Data String(s) Output to WinFrog:	Nil
WinFrog Data String(s) Output to Device:	Cable Count in metres at 25Hz (frequency)
WinFrog .raw Data Record Type(s):	COUNT 492

DEVICE DESCRIPTION:

This device is designed to read the raw cable count from the ALC 3000 counter. This raw count can be scaled and offset to give a true cable count. This device also calculates a cable payout speed from the data.

DEVICE CONFIGURATION INSTRUCTIONS

WINFROG I/O DEVICES > EDIT I/O (WinFrog Suggested):

Baud Rate: 19200
Data Bits: 8
Stop Bits: 1
Parity: None

The ALC is interfaced through a standard serial cable. The unit provides a cable count in meters, with an update rate of approximately 25 Hz.

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 ALC 3000 Cable Counter dialog box appears, as seen below.
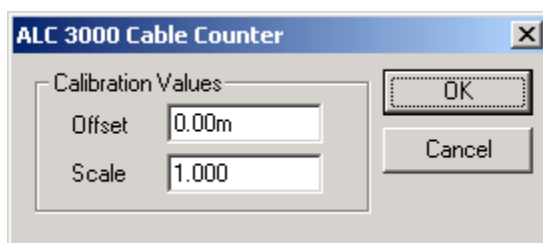
Calibration Values:
Data input from the ALC 3000 is scaled, and the Offset value (calibration of the zero point) of the cable is then added directly in the device reader. That is to say, the corrected data is passed through the system as Raw Data in the type 492 record. This information is then used to compute a cable speed in meters per second. This is accomplished by maintaining a fading history of the last 25 updates and computing a mean speed over this range. This equates to a speed averaged over 1 second (updates at approximately 25 Hz). Offset and scale factor corrections must be entered in this dialog box in order to obtain the correct real time cable count for any project.

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

The COUNTER,ALC 3000,COUNT data item is added to the vehicles' device list and should be edited to suit the application. The data item is only added to the vehicle with the counter installed. When the COUNT item is edited from the Configure Vehicle Devices dialog box, the Configure Counter dialog box shown below appears.
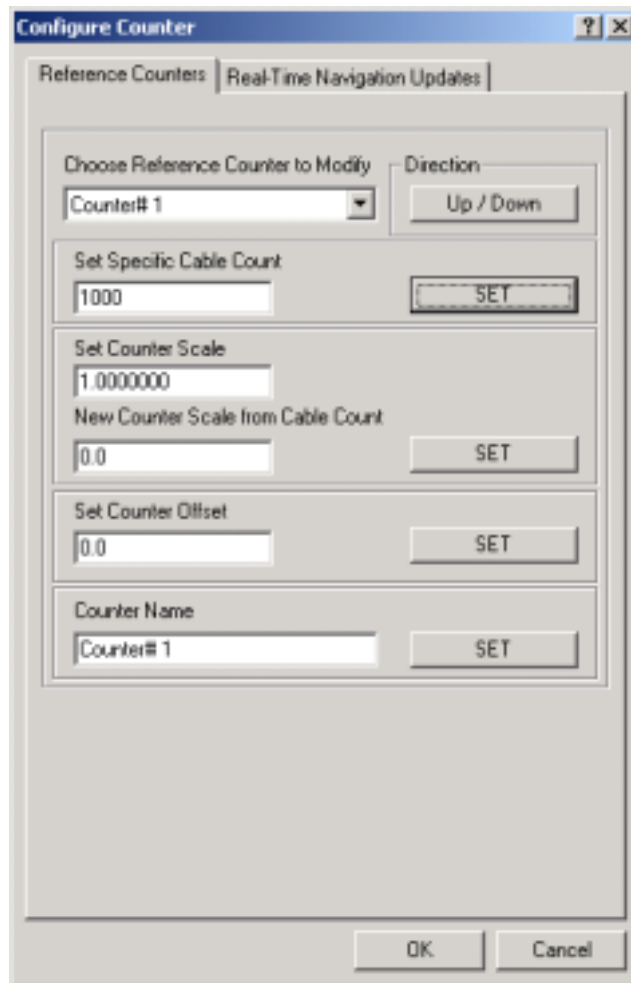
Reference Counters:
The Reference Counters portion of the Configure Counter dialog box allows for cable naming, setting of cable offsets, and scaling of the counter for monitoring purposes. It should be noted that the best option is to set the offset and scale factor at the I/O Device level and maintain these values throughout the project.

One common use for the Reference Counters page 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.
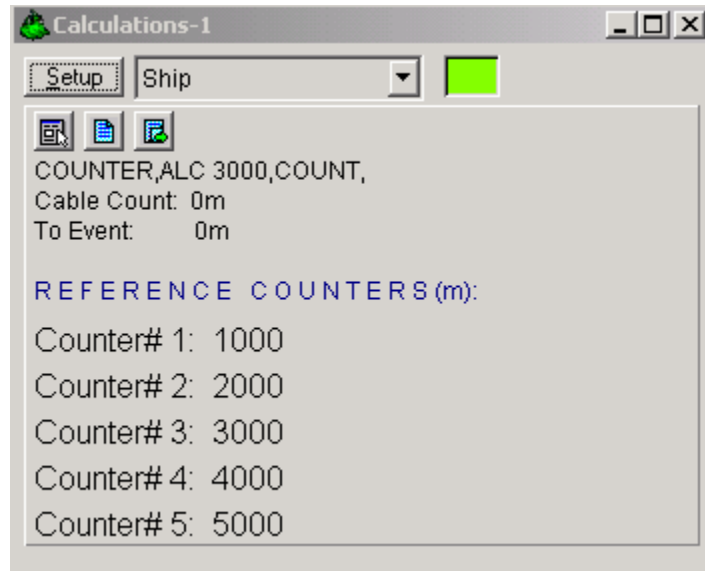
View and configure the Calculations window (shown below) by completing the following steps.
Note: To view the reference counts, the COUNT data item must be attached to the vehicle.

1. Select View > Calculations from the main menu to open the Calculations window.
2. In the Calculations window click the Setup button to open the Setup Calculation Views dialog shown below.
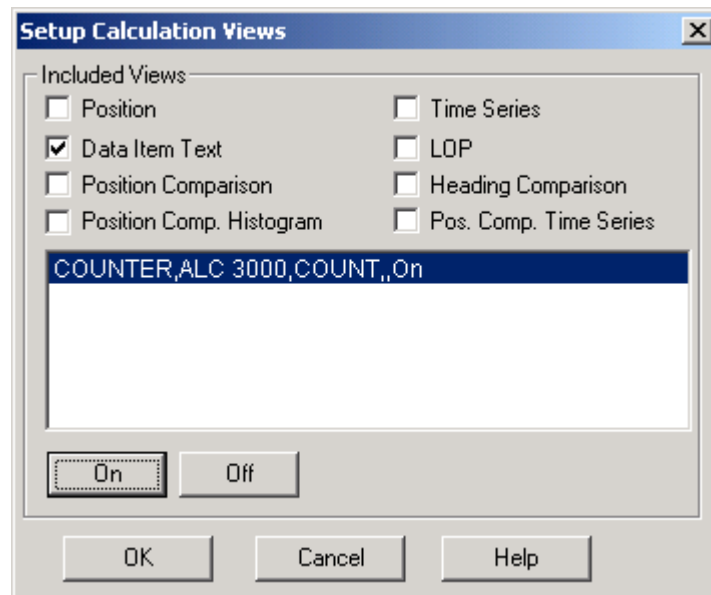
3. In the Setup Calculation Views dialog select the Data Item Text checkbox. Then turn On the COUNT data item by selecting the COUNT data item from the list and clicking the On button.
4. Click OK and the Calculations window opens as seen below.

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 accessed directly from the Calculations window by clicking the 🖳 icon in the Calculations window.)

Choose Reference Counter to Modify:
The counter can be chosen from a dropdown list. The name(s) of the (ALC 3000) counter are input under Counter Name at the bottom of the dialog box.

Direction:
The cable direction can be set to Down when deploying the cable, or Up when backing up on the cable.

Set Specific Cable Count:
This option allows you to input a beginning cable count, or input a former count if the cable has been picked up at a specific point. The SET button must be clicked on when a new cable count is input.

If the cable counter is not set to zero or a specific number, the setting in WinFrog can be adjusted by inputting the offset value and clicking on the SET button.

Set Counter Scale/New Counter Scale from Cable Count:
The measured payout length as compared with the payout from the ALC 3000 can be initially set or a new scale value input and set. Be sure to click on the SET button after inputting the value(s).

Set Counter Offset:
Similar to the Set Specific Cable Count option, a value may be input here for smaller adjustments of the counter, i.e. if the cable counter is not set to zero or a

specific number, the setting in WinFrog can be adjusted by inputting the offset value and clicking the SET button.

Counter Name:
The Counter Name can be left unchanged with Reference Counter Names ranging from Counter #1 to Counter #5, or specific names can be entered. Again the SET button must be clicked after the Counter Name is Input.

Real-Time Navigation Updates:
You can configure the navigation update rate for the raw data file logging. This affects the ALC 3000 sensor update rate in the RAW DATA FILES. This does not change the update rate of the vehicle event data in the raw data files (with the possible exception of the At Events raw data logging).
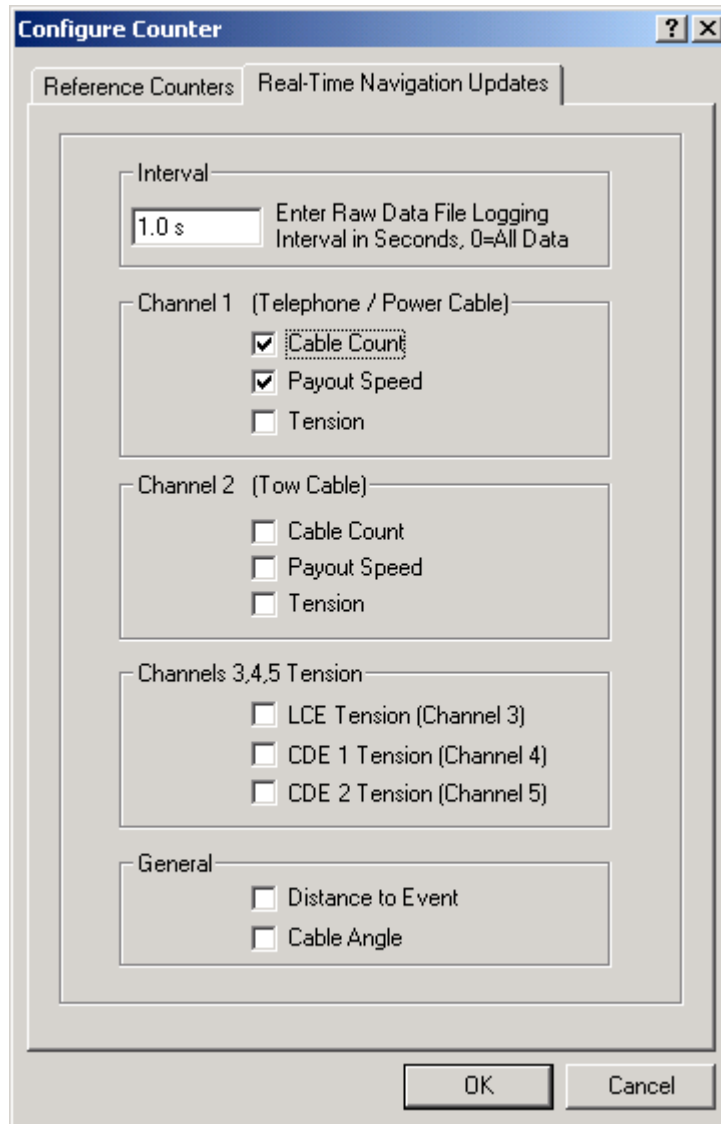
Interval:
Enter the sensor logging interval desired for the raw data file. This affects the type 492 record. If a zero (0) is entered here, the raw data file will update every time the ALC 3000 counter sends an update to WinFrog.

Channel 1:
Channel 1 is used for fiber-optic, telephone and power cables. You should select all relevant items for updates. There is no tension output with the ALC 3000 so this option should not be selected.

Channel 2:
Channel 2 is used for instrument tow cable. Again, you should select all relevant items for updates if the counter is being used for an instrument tow cable.

General:
The Distance to Event and the Cable Angle can be calculated in WinFrog using data from the ALC 3000. This data can then be written to the type 492 raw data record.

CONFIGURATION DETAILS:

Raw Data String:
The 492 raw data string can be found in Appendix B of the WinFrog User's Guide.