WinFrog Device Group:	COUNTER	
Device Name/Model:	SIMULATED	
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:	COUNT	492

DEVICE DESCRIPTION:

This is a simulated device designed to provide data similar to real time counter devices. This device is typically used for simulation and training purposes with the WinFrog Cable Management Extension Module more often referred to as the Cable Model.

DEVICE CONFIGURATION INSTRUCTIONS

WINFROG I/O DEVICES > EDIT I/O:

No I/O parameters - Simulated Device

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 Simulation Counter Configuration dialog box appears, as seen below.

Si	Simulation Counter Configuration							
	- Channel One Tension (T):	0.00		- Channel Tu Tension (T)	wo —	00		
	Rate (m/s):	0.04		Rate (m/s)	0.	00		
	Offset (m):	3744.3		Offset (m):	0.	0		
	Options, Channel One Image: Match Rate (sim. payout speed) with the desired payout speed computed by Cable Model Image: Match Cable Count with the desired Cable Count computed by Cable Model							
OK Cancel Help								

In this dialog box you can manually enter values for the Tension, payout rate and an Offset for both channels one and two. Typically Channel One would contain telephone cable data and Channel Two would contain tow cable data.

In the Options, Channel One section you can instruct this device to match both the cable count and payout rate as computed by the Cable Model. The Cable Model will make these calculations based upon information in the currently loaded database and the vessel's current speed and position. This is often a useful tool for training and practice with using the Cable Model or to run a simulation over a particular section of the proposed cable route.

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

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

Data item: COUNTER, SimCounter, COUNT

Highlight the COUNTER, SimCounter, 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, the Reference Counters tab and the Real-Time Navigation Updates tab.

Reference Counters tab

This tab (shown below) 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.

onfigure Counter	<u>:</u>	? >		
Reference Counters Real-Time Navigation Updates				
		_		
Choose Reference Counter to Modify	Direction			
Counter# 1	Up / Down			
Set Specific Cable Count				
1002.2	SET			
Set Counter Scale				
1.0000000				
New Counter Scale from Cable Count				
1002.2	SET			
Set Counter Offset				
-2998.6	SET			
Counter Name				
Counter# 1	SET			
	OK Cance	.1		
		·I		

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.

🖑 Calculations-1
Setup TOW1
COUNTER,SimCounter,COUNT, Cable Count: 3999m To Event: 0m
REFERENCE COUNTERS(m):
Counter# 1: 1000
Counter# 2: 2000
Counter# 3: 3000
Counter#4: 4000
Counter# 5: 5000

- 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.

Setup Calculation Views	×
Included Views	
E Position	Time Series
🔽 Data Item Text	LOP
Position Comparison	Heading Comparison
🔲 Position Comp. Histogram	🗖 Pos. Comp. Time Series
On Off	
OK Cance	Help

- 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 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 tab 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 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* button and then the *OK* button to enter the change.

Real-Time Navigation Updates tab

Configure Counter	? ×
Reference Counters Real-Time Navigation Updates	
Interval 1.0 s Enter Raw Data File Logging Interval in Seconds, 0=All Data Channel 1 (Telephone / Power Cable) Cable Count Payout Speed	
✓ Tension Channel 2 (Tow Cable) ✓ Cable Count ✓ Payout Speed ✓ Tension	
Channels 3,4,5 Tension LCE Tension (Channel 3) CDE 1 Tension (Channel 4) CDE 2 Tension (Channel 5)	
General Distance to Event Cable Angle	
OK (Cancel

Although this is a simulated device, typically only used for training or simulation, it is good practice to follow the guidelines outlined below.

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 from this page. 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).

TELGRAM SPECIFICATION:

None – Simulated Device.