

<b>WinFrog Device Group:</b>	<b>COUNTER</b>
<b>Device Name/Model:</b>	<b>Red Lion PAX CDC</b>
<b>Device Manufacturer:</b>	Red Lion Controls 20 Willow Springs Circle York PA 17402 Phone: +1 (717) 767-6511 Fax: +1 (717) 764-0839 Email: techsupport@redlion-controls.com
<b>Device Data String(s) Output to WinFrog:</b>	
<b>WinFrog Data String(s) Output to Device:</b>	
<b>WinFrog Data Item(s) and their RAW record:</b>	CABLE COUNT      492

**DEVICE DESCRIPTION:**

This is a driver that reads the raw cable count from the Red Lion PAX CDC counter. It also allows the operator to apply compensating scale factors to the raw count to obtain the actual count in the meters. Note the operator must scale the count so it is in meters. In addition, this driver allows the operator to reset the counter, to zero, from WinFrog.

***DEVICE CONFIGURATION INSTRUCTIONS***

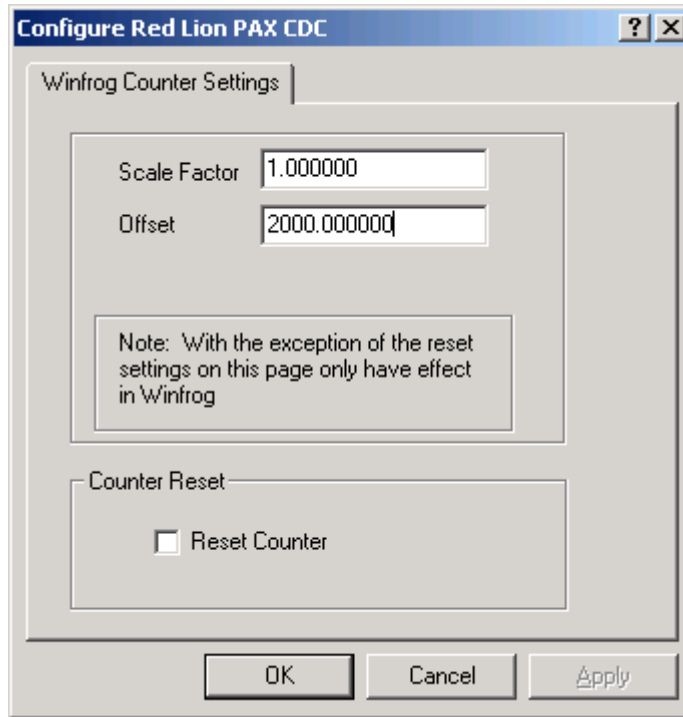
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**WINFROG I/O DEVICES > EDIT I/O:**

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 configuration dialog box appears, as seen below.



### WinFrog Counter Settings Tab

These values are retained within WinFrog; they are not sent to the counter.

#### **Scale Factor:**

If the operator determines that the incoming cable count is incorrect, possibly due to an uncalibrated counter, a compensating scale factor can be entered here. This can also be used to convert incoming units to the desired units if necessary. The result must be in meters.

#### **Offset:**

This offset is added to the result of the multiplication above. This value must be in meters.

#### **Counter Reset:**

Resets the TOT register to 0. The TOT register is the one used for the count.

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

Adding the Red Lion Paxi 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, Red Lion CDC, COUNT**

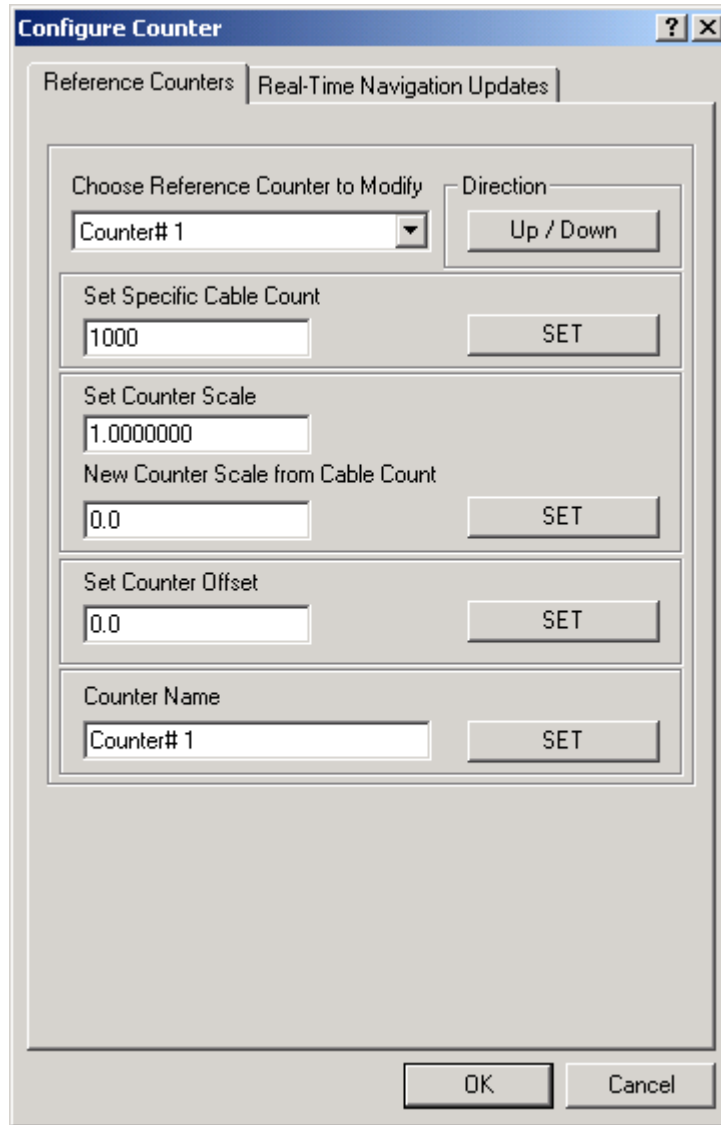
Highlighting the COUNTER, Red Lion CDC, COUNT data item in the vehicle's device list and clicking on Edit opens the Configure Counter dialog box.

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

### ***Reference Counters Page***

This page (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.

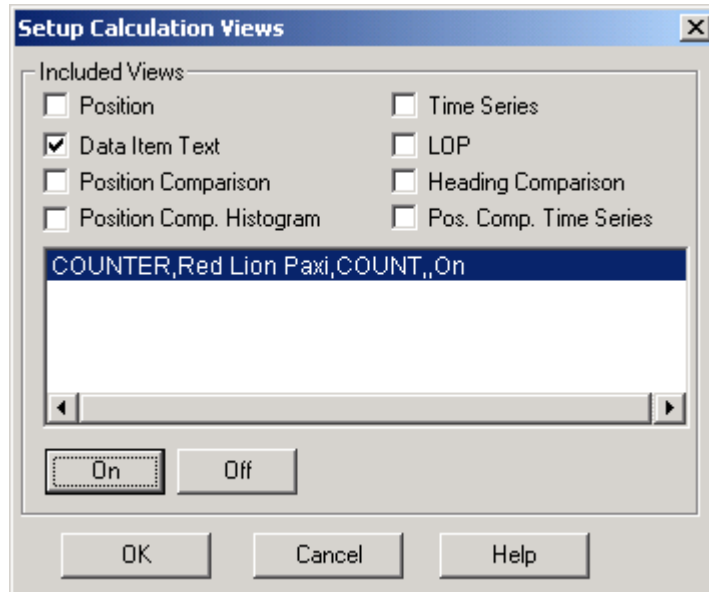
One common use for the Reference Counters page is to have a 'count down' between cable body deployment. This is accomplished by entering the cable spans between cable bodies in the 'Set Specific Cable Count' field(s), selecting the 'Direction' as 'Down' and exiting with OK when the first cable body is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



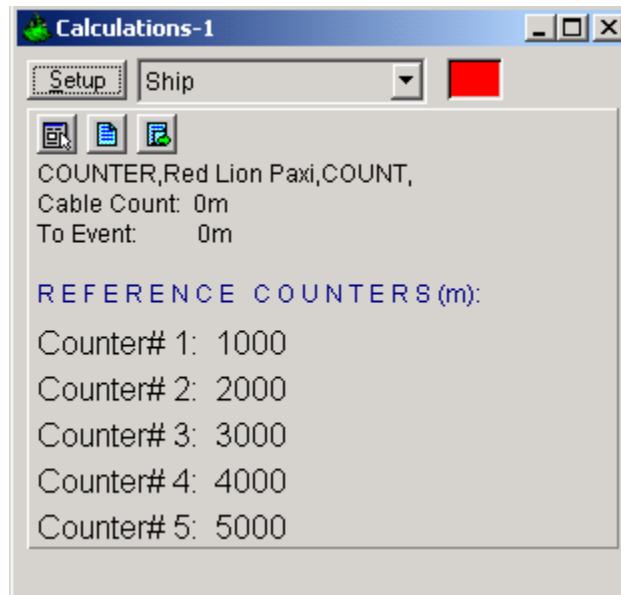
View and configure the Calculations window (shown below) by completing the following steps.


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

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. Select the Data Item Text checkbox in the Setup Calculation Views dialog. Then to turn On the COUNT data item, select 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 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 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 Page

The screenshot shows a 'Configure Counter' dialog box with two tabs: 'Reference Counters' and 'Real-Time Navigation Updates'. The 'Real-Time Navigation Updates' tab is active. It contains the following sections:

- Interval:** A text box containing '1.0 s' and a label 'Enter Raw Data File Logging Interval in Seconds, 0=All Data'.
- Channel 1 (Telephone / Power Cable):** Three checkboxes: 'Cable Count' (checked), 'Payout Speed' (checked), and 'Tension' (unchecked).
- Channel 2 (Tow Cable):** Three checkboxes: 'Cable Count' (checked), 'Payout Speed' (checked), and 'Tension' (unchecked).
- Channels 3,4,5 Tension:** Three checkboxes: 'LCE Tension (Channel 3)' (unchecked), 'CDE 1 Tension (Channel 4)' (unchecked), and 'CDE 2 Tension (Channel 5)' (unchecked).
- General:** Two checkboxes: 'Distance to Event' (unchecked) and 'Cable Angle' (unchecked).

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

This page enables/disables certain data from this device to be passed to the vehicle. Unlike the Reference Counters page, data from the Real-Time Navigation Updates page can be logged to the raw files if RAW file storage is enabled. 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 from this device 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 this 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).

This device only provides one cable count, so only one cable count box should be checked and all other checkboxes should be unchecked.

### **TELGRAM SPECIFICATION (INPUT to WinFrog):**

Byte	Description
1,2	2 byte node address field (00-99). May not be present
3	Space
4-6	3 Byte register mnemonic (TOT or INP)
7-18	12 byte data field; 10 bytes for number, one for sign, one for decimal point
19	<CR>
20	<LF>

### **TELGRAM SPECIFICATION (OUTPUT from WinFrog):**

**Message 1, resets TOT register to 0**

RB\*

**Message 2, resets requests contents of B register**

TB\*

**Message 3, resets requests contents of A register**

TA\*

**Note:** There is an abbreviated telegram from the Red Lion that does not contain the register label; this telegram must not be used. The unit needs to be programmed so abbreviated printing is off. (Abru No).

This Red Lion counter is expected to be a single unit (CDC 20) not requiring a node address.