WinFrog Device Group:	**COUNTER**
Device Name/Model:	**NSW Counter PBCLCE**
Device Manufacturer:	BOLLE & CORDS Elektrotechnik GmbH Gewerbestrasse 16 / 16A 25358 Horst Handelsregister Itzehoe HRB0821 Geschäftsführer Dipl. Ing. Holger Cords
Device Data String(s) Output to WinFrog:	See below
WinFrog Data String(s) Output to Device:	None
WinFrog Data Type(s) and their RAW record	COUNT 492

DEVICE DESCRIPTION:
The LCE provides count, tension, and speed. The interface is RS422 serial. There is no control by WinFrog over the PLC.

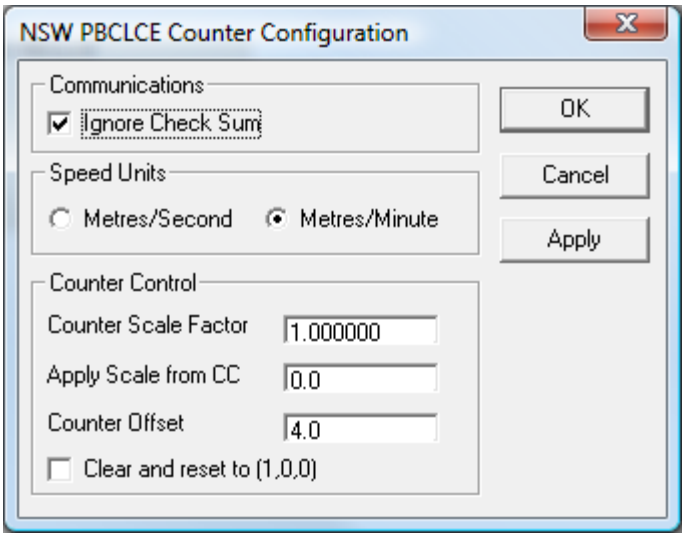
The device driver offers differential scaling of the count.

DEVICE CONFIGURATION INSTRUCTIONS:

WINFROG I/O DEVICES > EDIT I/O:
Baud Rate: (Adjustable) 9600
Bits Per Character: 8
Stop Bits: 1
Parity: NONE

WINFROG I/O DEVICES > CONFIGURE DEVICE:
This device is added to WinFrog from the COUNTER device group and when added, creates one data item: COUNT.

This device must be configured at the I/O Devices level. In the I/O Devices window, highlight the **NSW Counter PBCLCE** device, right-click and select Configure Device. The **NSWPBCLCE Counter Configuration** dialog box will appear, as seen below.



Communications
If you do not want WinFrog to check the checksum at the end of the telegram, check this box.

Counter Control
Enter an offset if there is an offset between the actual cable paid out and the counter value. This value should not change during a lay. The offset is applied after the count is scaled.

Scaling within WinFrog should only be used as a last resort. It is always better to have the cable engine output the correct cable count. Also, only the corrected cable count is recorded in the *.RAW files.

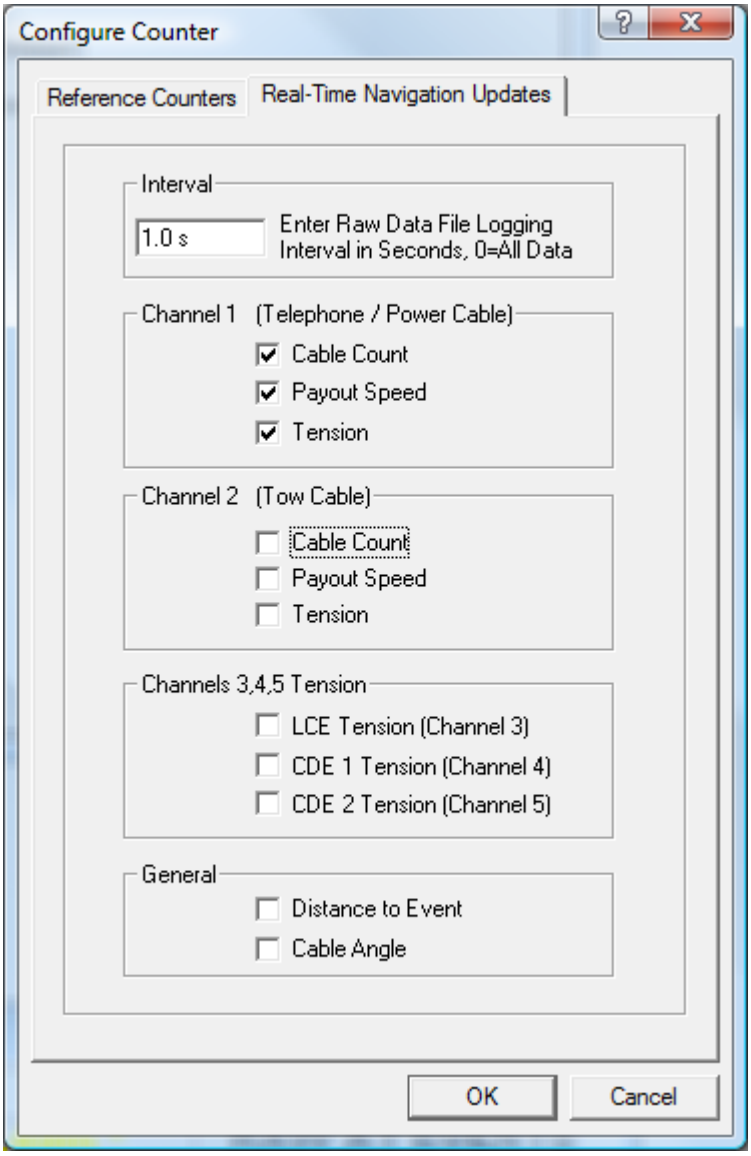
Usually a counter correction is determined by comparison of the count between cable bodies and the manufacturer's length between these cable bodies. If a scale factor is deemed necessary to be applied, enter the value in the **Counter Scale Factor** box. Scale corrections can only be applied to future cable payout, thus it must be applied from a particular count. Enter the cable count after which this scale factor is to apply in the **Apply Scale from CC box**. Always use the **Adjusted Count** value to determine a value to enter here. Since the scale factor should be close to 1, entering a cable count a few metres less than the current count will not cause a jump of the **Adjusted Count**, however, if you enter a count that is very different from the current count you will get a jump.

When doing subsequent counter calibrations, be sure to use the **Adjusted** count not the observed count to compare to the manufacturer's length. If subsequent counter calibrations reveal that the scale factor needs to be readjusted, enter the new scale factor and the value entered in the **Apply Scale from CC** box must be the current (within a few metres) **Adjusted Count**. WinFrog will do the necessary math so that the new scale factor only applies from the desire point forward.

Care is required when entering values here, as applying a scale to the current cable count can result in a cable count jump, if not applied properly, that will adversely affect the cable model. All entries should to be logged, as the INI and CFG files only record the accumulated effect of all the scale changes. Only the adjusted cable count is recorded.

To clear all scaling and offsets, select the Clear and reset (1,0,0) checkbox.

WINFROG VEHICLE > CONFIGURE VEHICLE-DEVICES > DEVICE > EDIT:
The **NSW Counter PBCLCE** data item must be edited once it is added to a vehicle's device list. Highlight the **COUNTER, NSW Counter PBCLCE, COUNT** data item in the vehicle's device list and click the **Edit** button. The **Configure Counter** dialog box appears as seen below.



This dialog has two tabs. The first, **Reference Counters**, does not apply to this counter and should be left at the defaults. The second, **Real-Time Navigation Updates**, enables or disables this device's data from being passed to the vehicle. The three values available from this device are placed into Channel 1. (Channel 1 is reserved for product cable and is where the cable model looks for its required data.) Uncheck all the other checkboxes as this device does not provide that data.

You can control the amount of data written to the raw file by changing the value in the interval box.

If another counter device that provides product cable count, tension, and/or speed (i.e. Channel 1 data) is attached to the same vehicle as this counter, you must decide which one is to be the prime source of the Channel 1 data. Leave the prime device's Channel 1 checkboxes checked and uncheck all of the secondary device's Channel 1 checkboxes.

TELGRAM SPECIFICATION:
Sent by the cable machinery to WinFrog.

This is a proprietary NMEA sentence. The message is checked for the following and only accepted and used if all are true:

- valid and accepted NMEA message characters
- correct header, $PBCLCE
- correct number of fields, 4 including the header

In addition, if the checksum is to be checked, the message is rejected if it is missing or it fails.

$PBCLCE, x.x,y.y,z.z*hh

Field	**Data**	
1	Header $PBCLCE	
2	x.x	cable count in metres
3	y.y	tension in kiloNewtons
4	z.z	cable speed in either m/s or m/min, specified in the configuration dialog
5	*hh	* delimiter for the end of the telegram followed by the two character checksum, may or may not be present