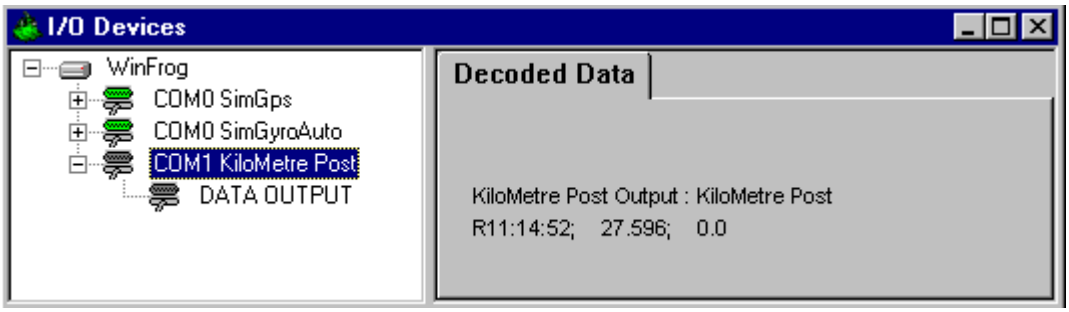
WinFrog Device Group:	**Output**
Device Name/Model:	**Kilometre Post**
Device Manufacturer:	
Device Data String(s) Output to WinFrog:	Nil
WinFrog Data String(s) Output to Device:	KP Data (See Configuration Details for the two data output formats)
WinFrog .raw Data Record Type(s):	Type: 450

DEVICE DESCRIPTION:
The KiloMetre Post Output allows WinFrog to send the distance from the start of a Survey Line in Kilometres (KP), to a recording device such as a Side Scan Sonar, Sounder etc. The ASCII output string can be only the Kilometre Post Value, or it can have the computer time attached.

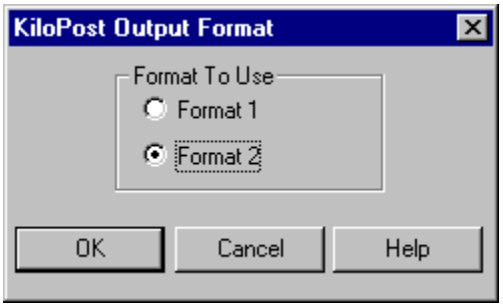
DEVICE CONFIGURATION INSTRUCTIONS (WinFrog Suggested):
Baud Rate: 9600
Data Bits: 8
Stop Bits: 1
Parity: None

The 9600-8-N-1 suggested port settings are the most common used for interfacing to WinFrog. The Output Port settings should match the communication parameters of the Device accepting the data string.

WINFROG I/O DEVICES > CONFIG OPTIONS:
Kilometre Post Output is added to WinFrog from the OUTPUT device types. The **DATA OUTPUT** data item is added with the **Kilometre Post** device. Shown below is the I/O Devices Window after the Kilometre Post, DATA OUTPUT is added to a vehicle and Format 2 is selected.



Two data formats can be output from the Kilometre Post Output Device. These are designated as **Format 1** and **Format 2** as shown in the dialog box below. This dialog box is accessible after the device is added to WinFrog, via the *Configure* > *I/O Devices* > *Configuration* command or highlight the device in the I/O Device window, right-click and select *Configure Device*. Refer to the section on Configuration Details for description of these two output formats.



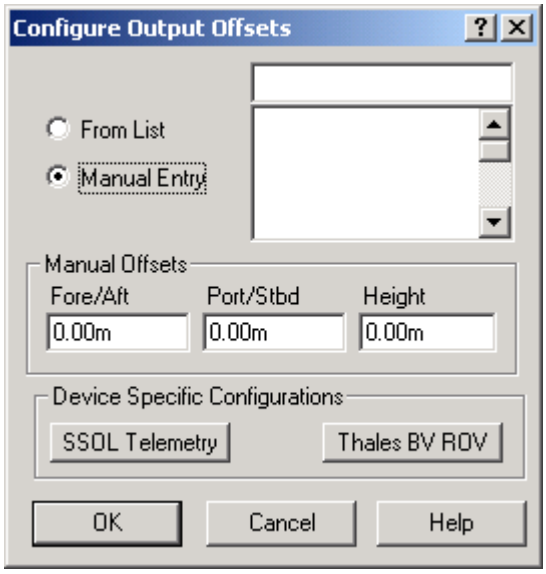
The data being output can be viewed via a terminal program.

WINFROG VEHICLE TEXT WINDOW > CONFIGURE VEHICLE DEVICES > DEVICE > EDIT OPTIONS:

The **OUTPUT, Kilometre Post, DATA OUTPUT** data item is added to the vehicle tracking the Survey Line to which the Kilometre Post (KP) data is referenced. The same vehicle or a separate vehicle may be using the data being output.

Configure Output:

The **KiloMetre Post Data Output** can be edited for offsets and output data strings. The following dialog box is accessible via the Configure Vehicle-Devices > Edit option.



Configure Offsets:
The offset applied to the KP Output can either be taken from the list of vessel offsets or a manual offset entry can be input. The Surveyor should turn on the appropriate radio button (From List or Manual Entry). The offset can now be highlighted from the list, or if Manual Entry is chosen, the offset values can be input. The KP value will now be referenced to the offset chosen.

Device Specific Configurations:
Under Device Specific Configurations, two dialog boxes can be accessed: **SSOL Telemetry**, and **Thales BV ROV**. These dialog boxes are only to be modified for specific applications. You should not modify these items unless completely familiar with the outcome.

SSOL Telemetry:
The SSOL configuration is specifically designed for the SubSea Telemetry system. Other companies, specifically those working in the North Sea, have adopted this output format. Refer to the I/O Document on NMEA Output for information on configuring this item.

Thales BV ROV:
This configuration is designed to output the Thales BV ROV Driver position to the ROV Data Logging software/system Thales BV ROV. Refer to the I/O Document on NMEA Output for information on configuring this item.

CONFIGURATION DETAILS:

Raw Data Logging (Type 450 record):

When the KiloMeter Post Output data type is attached to a vehicle, the type 450 raw record is logged to file. This record is described in the WinFrog User's Guide (Appendix B) and is as follows:

In WinFrog:

```
sprintf(rawStr, "450,%s,%.2f,%.8f,%.8f,%.8f,%.8f,%.3f,%.3f,%.3f,%.8f,%.8f\n",name,
                fixTime,centreLat,centreLon,
                waypointX,waypointY,desiredBrg,desiredSpeed,desiredRange,
                currentX,currentY);
```

Raw 450 Record:

450,KiloMetre Post,983447227.39,46.23470086,-63.19889913,
0.00000000,0.00000000,0.000,0.000,1.651,0.00000000,0.00000000

Where:

983447227.39, is the time of the last position,

46.23470086,-63.19889913, is the latitude and longitude of the vessel position,

1.651, is the distance from the start of line (not line segment) in Kilometres. I.E. KP Output.

Output Formats:

Two output formats can be chosen from the KiloPost Output Format Window described previously. These are as follows:

Format 1:

S 1.651 (or "S%8.3lf\r\n")

Where:

1.651 refers to the KP value.

Format 2:

R15:47:56; 1.651; 0.0 (or"R%02d:%02d:%02.0lf;%10.3lf; 0.0\r\n")

Where:

15:47:56; refers to the Computer Time (HH:MM:SS)

1.651; refers to the KP value