

VALEPORT LIMITED
Operating Manual
ROVLog Display Software

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1 **INTRODUCTION**

This document covers the operation of Valeport's ROVLog PC software for display and logging of data from the Model 803 ROV Current Meter.

1.1 **DESCRIPTION**

ROVLog is written in Delphi for Windows 95, and requires the following PC specification:

486DX2 or above
16Mbyte RAM
Windows 95 or above
Monitor running small fonts
Spare serial port

1.2 **INSTALLATION**

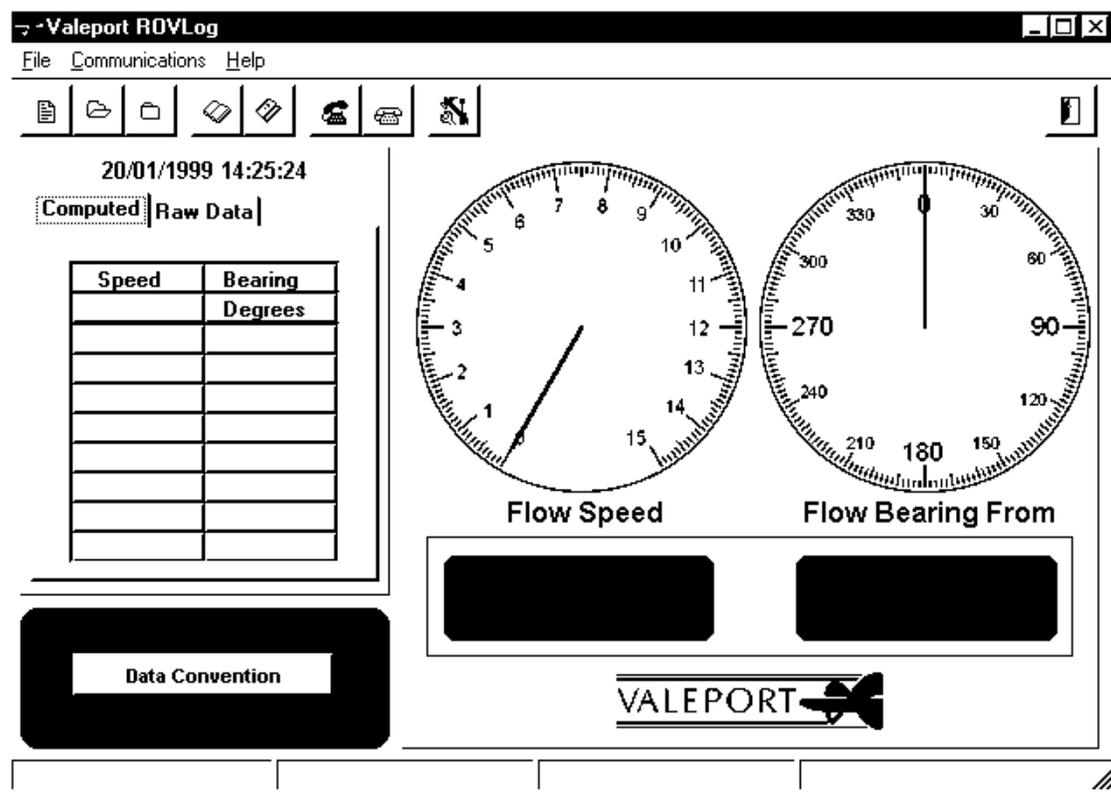
ROVLog is supplied on a single 1.44Mbyte 3.5" floppy disk.

The user should create a new ROVLog directory on the PC hard drive, and copy the ROVLog .exe and ROVLog.ini files from the floppy disk into this directory.

ROVLog may be run by double clicking the ROVLog.exe icon in Windows Explorer, or by adding the program to the Start Menu in standard Windows 95 procedure.

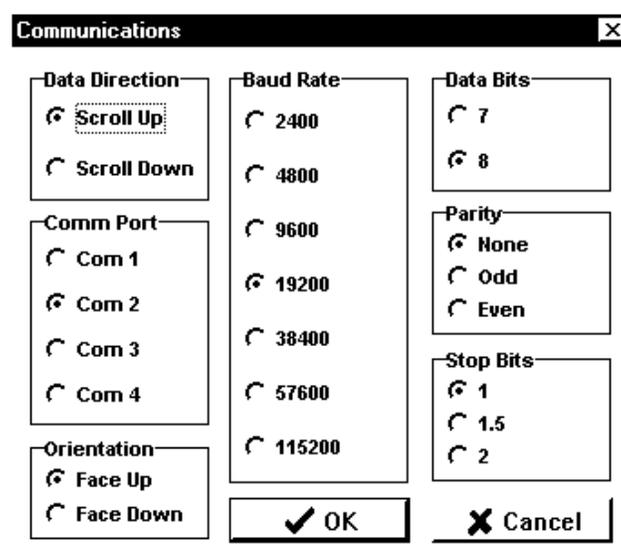
2 VIEWING REAL TIME DATA

When ROVLog is run, the following screen will appear:



All controls can be accessed through the drop down menus, or by clicking on the relevant button.

The first step is to setup the PC serial port to accept incoming data from the Model 803. Either select Options from the Communications menu, or click the Options button on the Toolbar. The following



screen will appear:

The Model 803 default output format is 19200 baud, 8 data bits, 1 stop bit, no parity bits. The user should check that the format has not been changed, and select the correct comm port and whether they wish to see data scrolled up or down. Finally, it is vital to set the orientation of the sensor correctly (Face Up or Face Down). Setting this wrongly will result in incorrect bearing data. When all settings are correct, press OK.

When power is applied to the Model 803, data will be output. However, this data will not be displayed until ROVLog is commanded to open the serial comm port. This is done by either selecting Connect from the Communications drop down menu, or by clicking on the Connect button. At any time, communications can be stopped by selecting Disconnect from the Communications menu, or by clicking the Disconnect button.

Although the Model 803 can output data in knots, m/s or mm/s formats, ROVLog will automatically detect which format the data is in, and display the data with the correct units.

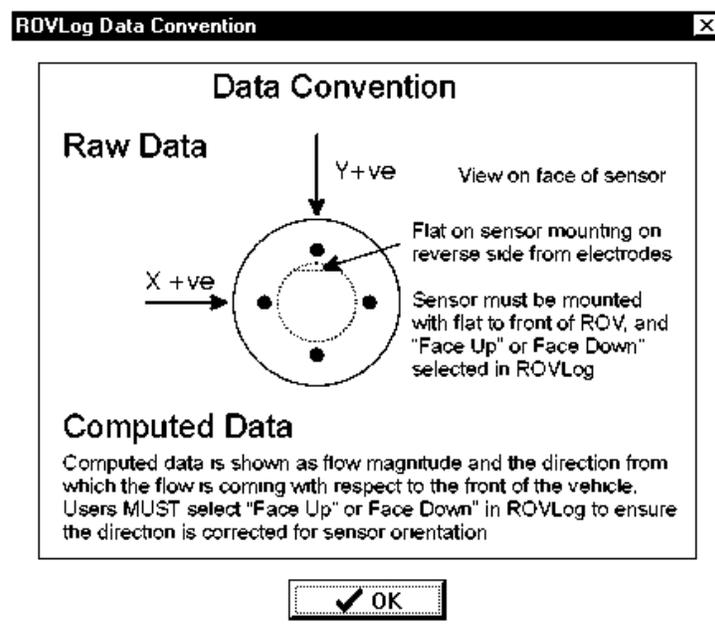
Output from the Model 803 is in the form of $X=x.xxx$ $Y=y.yyy$ which is simply the output from the 2 channels of the sensor. ROVLog converts this data into Speed and Bearing values, where bearing is given as the direction from whence the flow is coming.

On the left hand side of the display, the incoming data is scrolled in tabular format, with the most recent data point being shown in red. This will either be at the top or the bottom of the table, depending on whether data was set to scroll up or scroll down. By clicking the tabs above this table, the user may choose to see either the raw X and Y data values, or the calculated Speed and Direction values.

The most recent data point is also shown in large digits on the right hand side of the screen, and on dials above. These parts of the display will always show the calculated speed and direction, irrespective of which tab is selected on the scroll. Note that the bearing values will be displayed in green if the flow is coming from the starboard side of the vehicle, or red if the flow is coming from the port side.

2.1 DATA CONVENTION

Pressing the Data Convention button in the bottom left hand corner of the display, or selecting Data Convention from the Help Menu, reveals the following image:



This shows that looking at the face of the sensor, with the instrument mounted face up, +ve Y flow is into the vehicle, and +ve X flow is from left to right.

2.2 DEMONSTRATION MODE

ROVLog is equipped with a demonstration mode, which is accessed through the Help menu. This simple demonstration cycles through about 30 seconds worth of sample data, showing how the displays update.

3 LOGGING DATA

Incoming data can be logged on the PC as a text file, for analysis in a separate spreadsheet package, or viewing within the ROVLog environment.

To log incoming data, simply select New from the File menu, or click on the New File Button. You will be prompted to enter a filename, which will have the default extension .log.

To start logging, select Start Log from the File menu, or click on the Start Logging button. To stop logging, select Stop Log from the File menu, or click on the Stop Logging button.

Once a file has been created, new data will be appended to the file every time that logging is started. The user may start and stop logging as often as they wish within that file. Note that although each data point is time stamped, there is no separator between one period of logging and the next.

New data may not be appended to an old file that has been opened for viewing.

3.1 VIEWING LOGGED DATA

The user may view previously logged data within the ROVLog program. Simply open the data file by selecting Open from the File menu, or the Open File button, and choosing the appropriate file from the standard Windows display.

Once a previously logged file has been opened, new buttons will appear at the bottom of the screen as shown. The user may then play back the logged data as it occurred in real time, by clicking on the play button. The process may be stopped at any time by clicking the stop button, and the file may be rewound to the beginning by clicking the rewind button.

The screenshot shows the Valeport ROVLog software interface. The window title is "-Valeport ROVLog - C:\ROVLog\log4.log". The menu bar includes "File", "Communications", and "Help". The toolbar contains icons for file operations and a help icon. The main display area is divided into several sections:

- Time and Data Selection:** Shows the date and time "19/01/1999 16:29:03" and two radio buttons for "Computed" (selected) and "Raw Data".
- Data Table:** A table with two columns: "Speed" and "Bearing". The sub-headers are "Knots" and "Degrees". The data rows are:

Speed	Bearing
Knots	Degrees
00.99	011
00.97	010
00.97	009
00.99	009
01.02	011
01.02	011
01.02	011
01.00	013
- Gauges:** Two circular gauges are displayed. The left gauge is labeled "Flow Speed" and has a scale from 0 to 15. The right gauge is labeled "Flow Bearing From" and has a scale from 0 to 330. Below the gauges are two large digital display boxes showing "01.00 Kts" and "013°".
- Controls:** A "Data Convention" button is located below the table. At the bottom, there are playback controls: a "Source: File" field, a "Play >" button, and a "VALEPORT" logo with a stylized bird icon.