

# Instructions for Dumping Leopold and Stevens Level- Logger Tide Station on Oyster Harbor

John Porter – 18 March 2005

## **Additional Information**

The full Leopold and Stevens manual should be in the case with the logger. If missing, it is available at: [http://www.vcrlter.virginia.edu/monitoring/pionly/Stevens\\_420\\_LevelLoggerPDF.pdf](http://www.vcrlter.virginia.edu/monitoring/pionly/Stevens_420_LevelLoggerPDF.pdf) but you will need your LTER username and password to access it. The manual for the depth sensor is also available at:

[http://www.vcrlter.virginia.edu/monitoring/pionly/Stevens\\_Submersible\\_Depth\\_Transmitter\\_IL.pdf](http://www.vcrlter.virginia.edu/monitoring/pionly/Stevens_Submersible_Depth_Transmitter_IL.pdf)

## **Preparing to download data**

You will need:

1. a laptop computer with a built-in serial port or USB-Serial adapter
2. HyperTerm software (built into Windows 98 on)
3. A HyperTerm configuration file

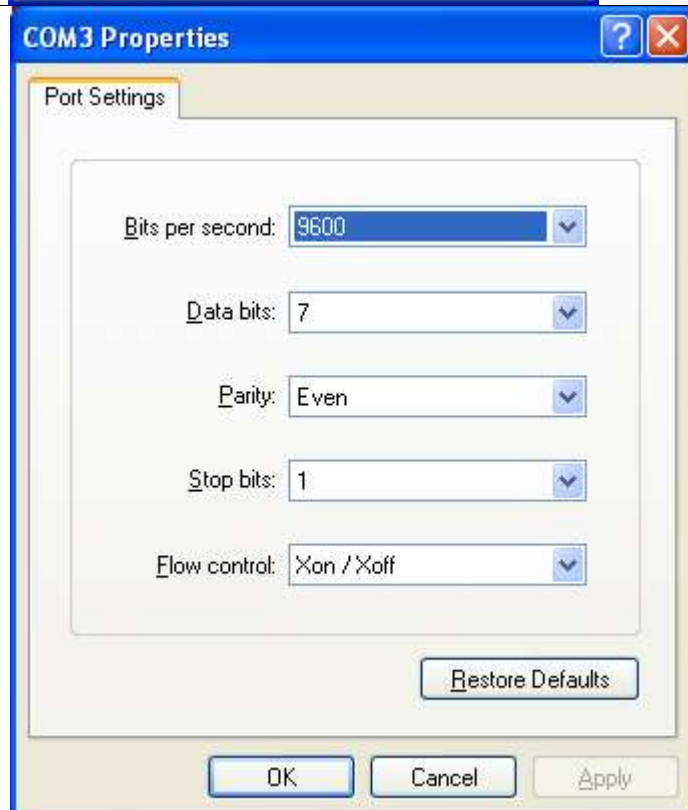
Check

START/PROGRAMS/ACCESSORIES/COMMUNICATIONS/HYPERTERMINAL for existing configuration files for Hyperterminal (.ht) files. If you have an existing .ht file for the L&S logger.ht or OysterTide.ht (names may vary), open it. See the table below for instructions on how to set up a new, or correct an old .ht file.



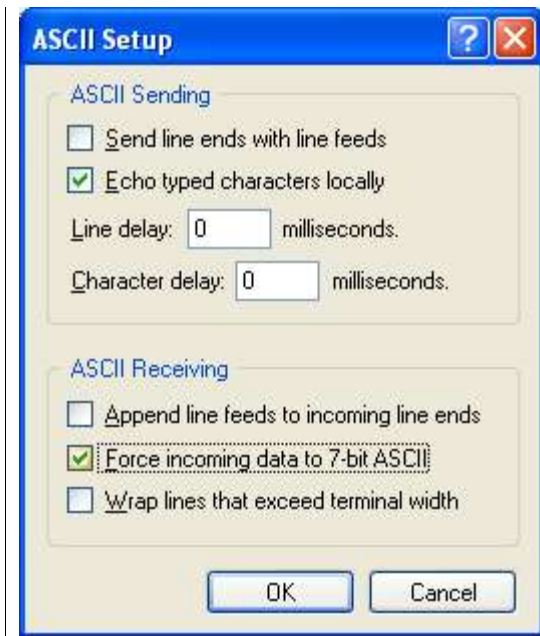
If you don't have a ready-made configuration file, open HyperTerm and select File/New Connection and input a name for the connection. Then set “connect using” to the COM port assigned to the serial port or USB-Serial adaptor.

Note: the USB to serial adapters may auto-configure as different serial ports each time you install them on the system. If in doubt, try several different ports to find the right one.



Set the port settings to 9600 baud, 7 data bits, even parity with Xon/Xoff flow control.

If you are using a configuration file, you can check these settings by going to File/Properties/Configure/Port Settings



You may also need to open the File/Properties and select the “Settings” tab. Click on ASCII setup to get this window. Set it to echo typed characters.

## Dumping Data

1. Hit the “SELECT MENU” button on the logger to successively have the logger display its settings 1-7. If the date and time are wrong, note the erroneous values (they will be important for attempts to correct the existing data) and see the Troubleshooting section below.
2. Open the Hyperterm configuration file from the Windows Start/Programs/Accessories/Communications/Hyperterminal
3. Connect the serial cable connected to the tide station to the serial port or USB-to-serial adapter on your PC
4. Hit the “Enter” key – you should see a line of data appear on the screen (if not, go to File/Properties and try selecting a different COM port).
5. Select Transfer/Capture Text and put in the name of the output file. The file name for Oyster Tide should have the format: OT050317.txt where 05 is the year, 03 is the month and 17 is the day (OTyymmdd.txt).
6. Type DD to start the data dump. Data should scroll across the screen.
7. Select Transfer/Capture Text/Stop to close the text file.
8. Open the output text file (e.g., OT050317.txt) using Notepad, Wordpad or Word. Inspect the file to make sure that everything looks correct.
9. If the data all looked OK in the previous step, return to the Hyperterm window and type CL to clear the data from the logger memory. The logger will ask you “Are you sure?” and you can reply “Y” to delete the data.
10. Once the logger reports that the data card is cleared, you can disconnect the PC from the logger.
11. To start a new data collection interval, open briefly (1-2 sec) and then close the door on the right of the logger (that covers the data card). Make sure the door is properly closed and that the first digit in the display is not flashing before leaving

the logger to do its work.

## Data Management

1. After you return to the lab, upload the data file (e.g., OT050317.txt) via the web link [http://www.vcrlter.virginia.edu/monitoring/upload\\_data.html](http://www.vcrlter.virginia.edu/monitoring/upload_data.html) and upload the file as TIDE data.

## Troubleshooting

<b>Problem</b>	<b>Solution</b>
Logger display is blank	<p>The logger display is normally blank to save power. Hit any button on the front of the logger to see a display of the current value.</p> <p>If that does not work, there may be a power problem with the logger. Use a voltmeter to check the battery and inspect for loose connections.</p>
Logger Settings are bad	<p>If power has been lost, the logger settings need to be restored. Logger settings are set by hitting the “SELECT MENU” button. Successive hits of the buttons will select menus 1-7 listed below the button. Use “Select digit” buttons and the up and down arrows to set the date, time (always Eastern Standard Time), interval and station ID. Where needed, correct settings are written in pencil next to the menu items.</p> <p>To get to special options &gt;7, you need to use SELECT MENU to advance to menu 7, then hold down the SELECT DIGIT button while hitting SELECT MENU an additional time.</p>
The loggers menu digit (the first digit in the display flashes)	<p>Check to make sure that the door on the right of the logger (which covers the data card) is completely closed. If that doesn't work, consult the L&amp;S manual in the “password protected” area of the manuals web page <a href="http://www.vcrlter.virginia.edu/monitoring/manuals.html">http://www.vcrlter.virginia.edu/monitoring/manuals.html</a></p>