DIGITAL YACHT

TECHNICAL NOTES

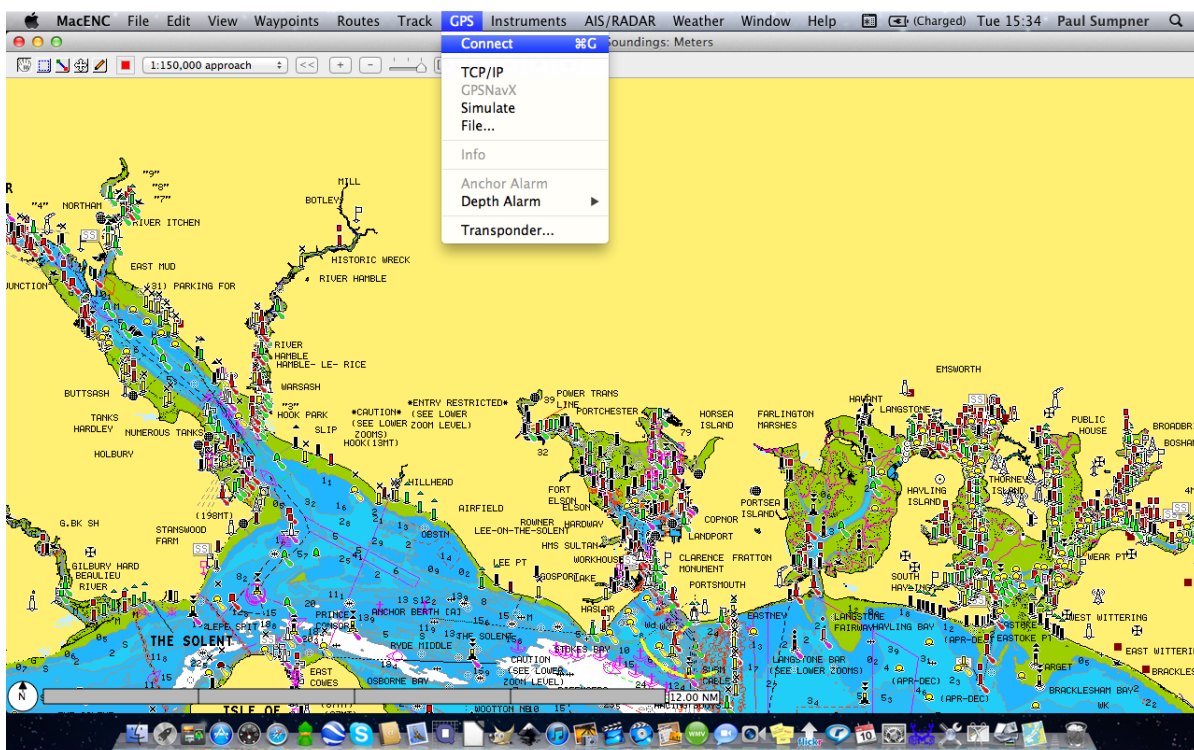Article Number -   00033-2012

Date -   10th April 2012

Article applies to – Digital Yacht AIT1000

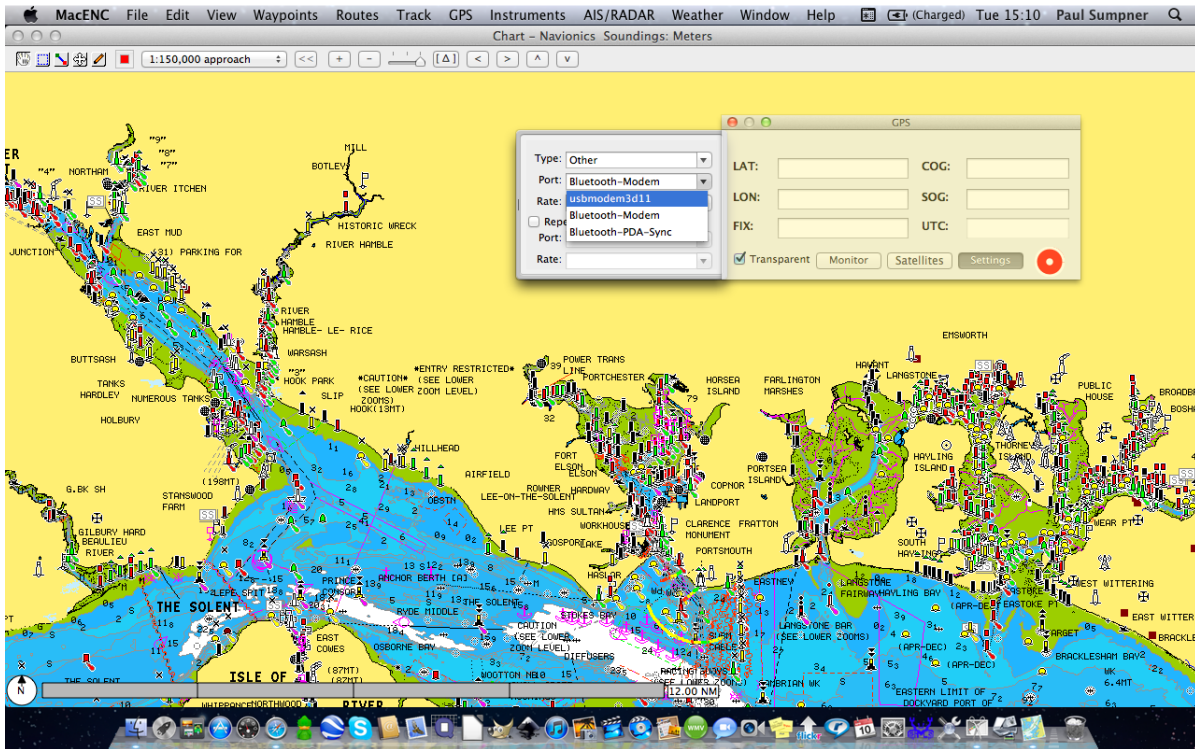## ISSUE: Configuring MacENC to read GPS and AIS data from the AIT2000

MacENC is the leading navigation software for Macs and with more and more people now using Macs, requests for a simple and reliable GPS and AIS solution have increased, leading to Digital Yacht publishing this technical note. By connecting the AIT2000 Class B Transponder to the Mac via USB, all of the required GPS and AIS data for safe navigation will be received and displayed by MacENC making this a very neat and elegant solution for all Mac sailors.

The drivers for the AIT2000 are included in the Mac OSX operating system, so connection is very simple with no special driver installation necessary. Simply plug the AIT2000 in to a spare USB socket on the Mac and it will be automatically detected and the correct driver selected and installed.
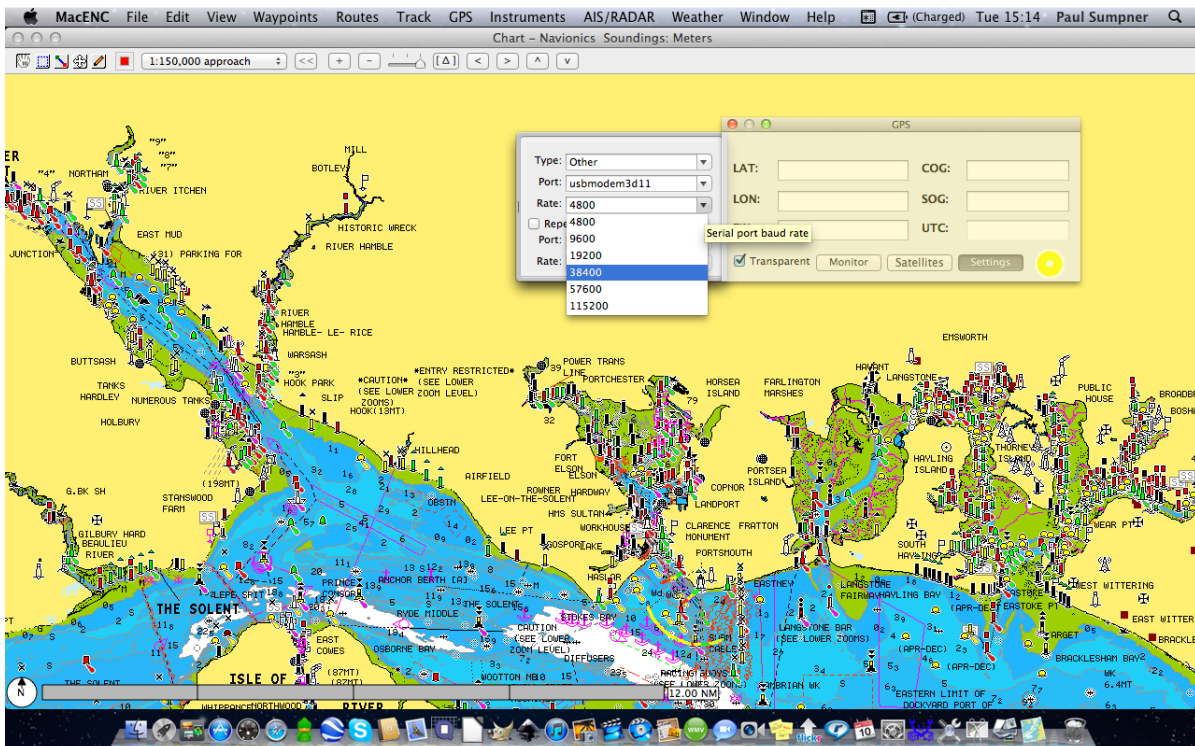
Open MacENC and you will see a screen similar to that below. The Mac that the following screen shots were taken from had Navionics charts installed, if you are using other chart formats (S57, Raster, etc.) then the screens you will see will look slightly different but the specified procedure is still the same.
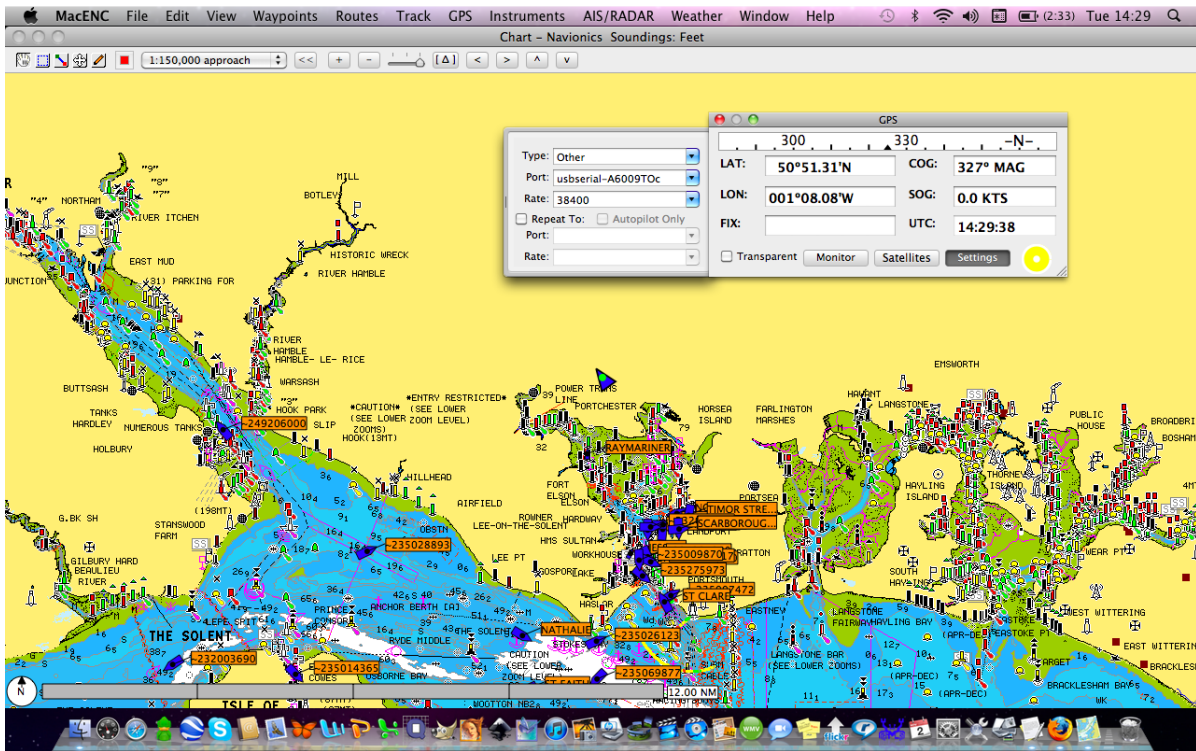
From the menu bar, click on "GPS" and select "Connect" as shown above and the GPS connection window will be displayed as shown in the next image.

Click on the "Settings" button and then click on the "Port" drop down menu. Select "usbmodemXXXX" where XXXX is a 4 digit code that may vary from one AIT2000 to another. Then click on the "Rate" drop down menu and select "38400" the standard high speed baud rate for NMEA0183 data from an AIS.
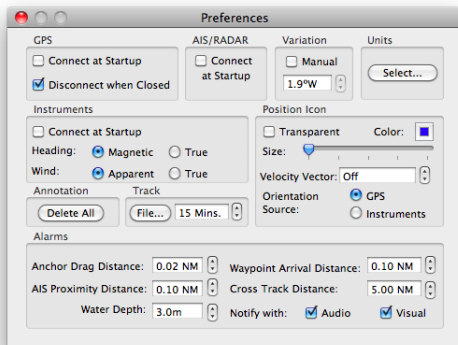
Once you have set these two settings and assuming the AIT2000 is connected, turned on, receiving a GPS fix and getting AIS targets, then you should see the boat's position shown on the chart, along with any AIS targets that the AIT2000 is receiving, as shown in the next image.
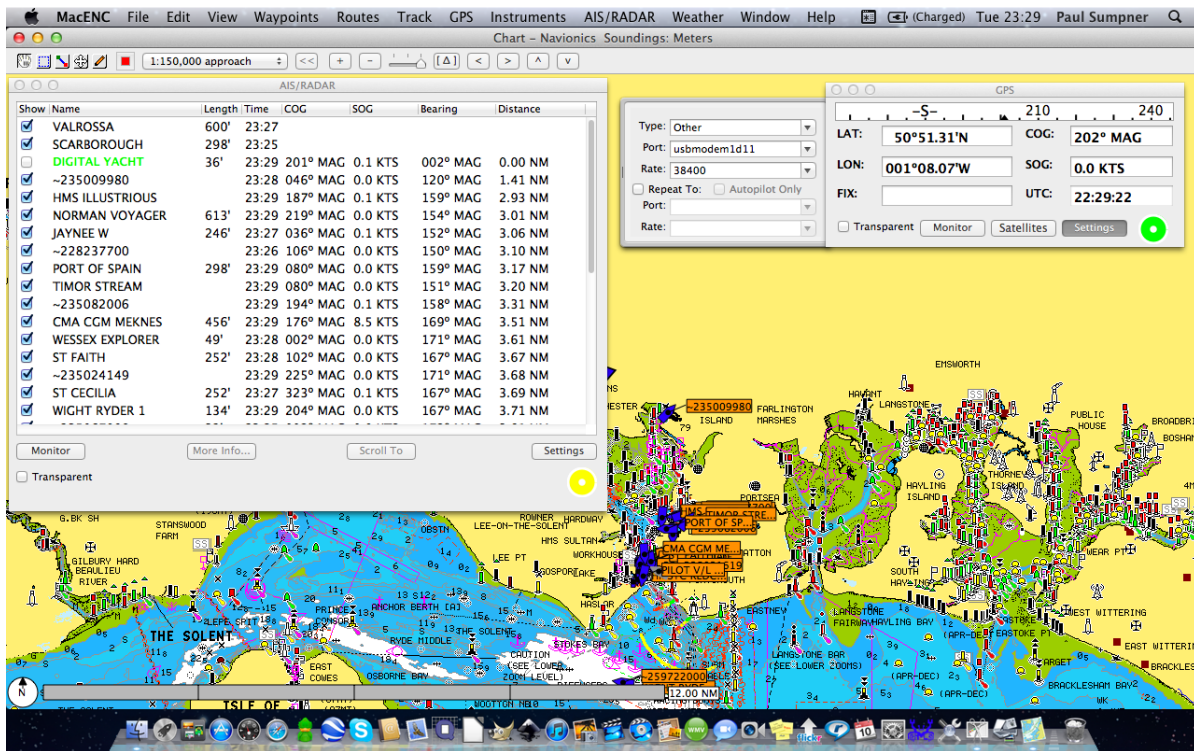

The only data that the AIT2000 does not transmit, is the Satellite Status, so you will not be able to display a valid location diagram in the "Satellites" tab and the "Fix" box will be blank. However, this will not inhibit normal operation and all of the other data will be displayed correctly.

One point to note, is that by default, when you close the GPS window, it disconnects the GPS and AIS connection and data is no longer displayed. This effectively means that you must always have the GPS window displayed to get GPS and AIS data. However, if from the menu bar you click "MacENC" and then select "Preferences", in the Preferences window you can uncheck the GPS "Disconnect when closed" tick box and this will allow you to close the GPS window without stopping the GPS and AIS data from being displayed

In most situations, it is also worth ticking the "Connect at Startup" tick box and this will make MacENC automatically connect to the GPS and AIS data, each time you run MacENC.

MacENC defaults the AIS connection to the same connection as the GPS, so there is no need to set any additional settings to get AIS data. AIS targets are displayed as blue triangles with small orange name tags that will show the MMSI number of the vessel or after a maximum of 6 minutes the Name of the vessel (this static data is only output every 6 minutes).

To display a list of the AIS targets that are currently being displayed, from the menu bar click "AIS/RADAR" and then select "Connect". The AIS/RADAR window will then be displayed (shown above). You can sort this list in various ways and also select individual targets to display more information about them or scroll to them on the chart (centres the chart on the selected AIS target).

For more information about MacENC, please visit www.macenc.com