

Navmaster[®] ECDIS

▶ Navmaster ECDIS is a second-generation Electronic Chart Display and Information System, incorporating the input of many navigators into its design.

The resulting system meets not only the latest ECDIS specification, but also the requirements of navigators who use it on a daily basis. It is logical to use within a familiar MS Windows environment and the design ensures that additional features do not distract the user from core navigation tasks.



Navmaster ECDIS, a powerful and flexible navigation system suited for installation on newbuilds and simple to retrofit into existing bridge layouts. Here it is shown retro-fitted on Cobelfret vessel MV Celandine.



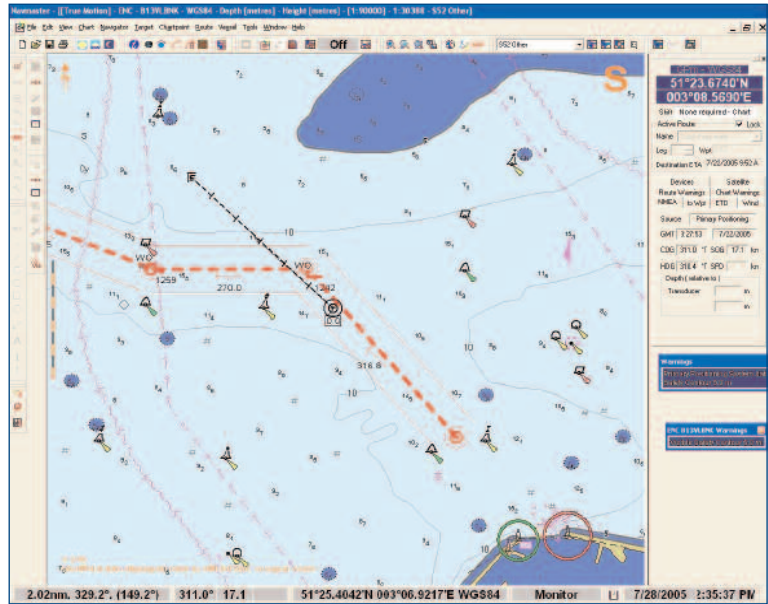
Key Benefits:

- Automatic position plotting and monitoring
- Excellent route planning and detailed passage plan documentation
- Developed with input from a wide cross-section of navigators over almost 10 years to improve ease of use and operational effectiveness
- Type Approved to the new IHO Colour and Symbol specifications (existing ECDIS systems must be updated by 1 January 2006)
- Suited to all types of vessel wishing to benefit from well-designed ECDIS technology
- Remote Diagnostics feature for rapid and low-cost support

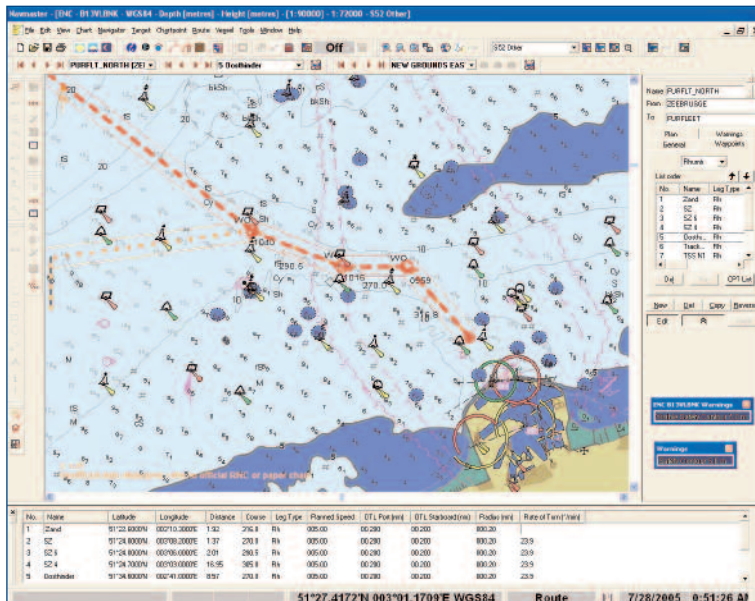
Real-time route monitoring

Navmaster ECDIS automatically displays primary and secondary ship position and provides the navigator with vital voyage information including:

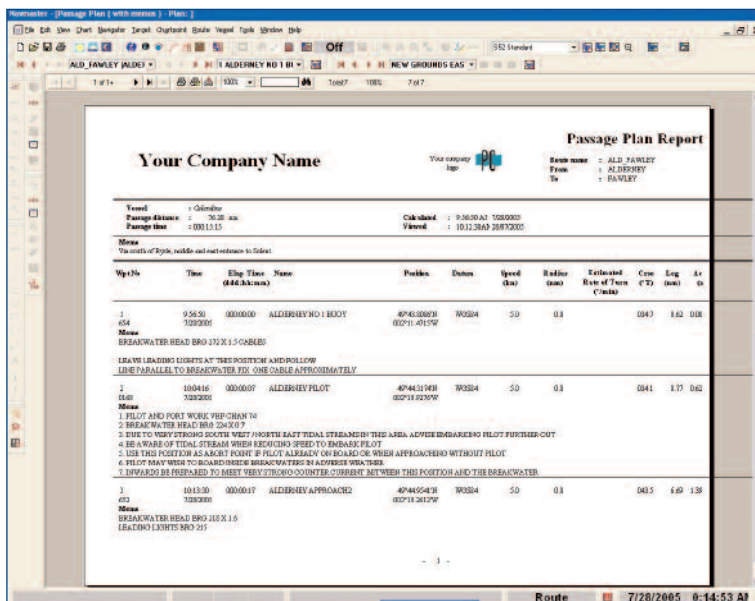
- ARPA target information
- Information from interfaced sensors
- Heading indicator
- Scaled ship outline (on suitable chart scale) to aid berthing
- Warnings and alarms such as safety contours, off-track, wheelover, critical point, chart status, interfaced sensor alarms, system integrity etc
- Automatic logbook, with manual entry option



Vessel underway with heading marker set to show predicted position at user-defined intervals.



Route planned from Zeebrugge with relevant data in tabular form listing waypoints by number and name. An alternate route is also visible on the chart.



Navmaster ECDIS passage plan report incorporates pilotage and navigation instructions and can be printed for hard-copy storage or exported to another application.

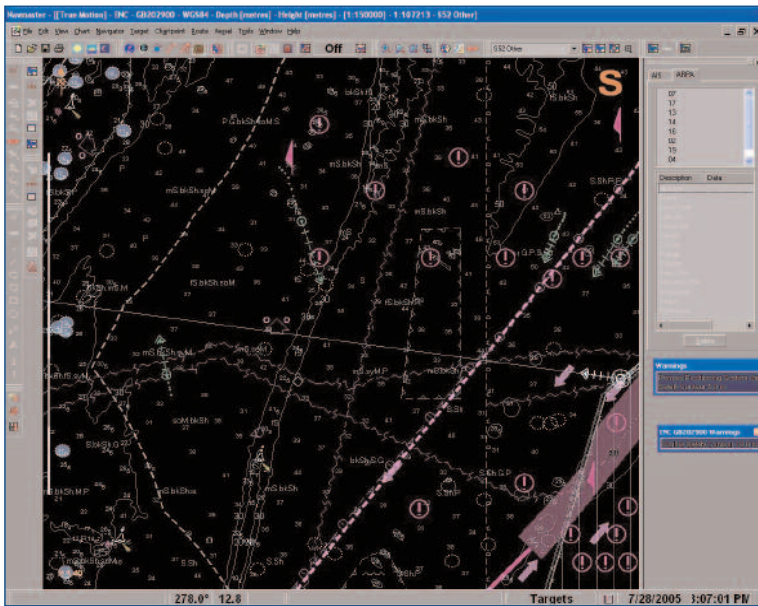
Berth-to-berth route planning

The organisation and structure of Navmaster ECDIS route planning is unique amongst ECDIS systems and superior to the normal standard.

The resulting passage plan documentation can be used to conform to the ISM Code and company quality requirements.

Navmaster's passage planning has been the standard for the Shell International fleet since 1997.

- Separate databases for waypoints and routes, to make planning informative and much more efficient
- Notes can be stored against each waypoint, and will be transferred into any routes which utilise that waypoint
- The detailed passage plan documentation incorporates the navigator's instructions and notes
- The plan report can be customised with a company logo and name
- Routes can be exported/shared with other vessels in the fleet
- Passage plans can be exported and emailed to head offices and third parties



Night view of own ship crossing southbound Channel traffic separation scheme, with other vessels in the vicinity.

ARPA & (U)AIS information and overlays

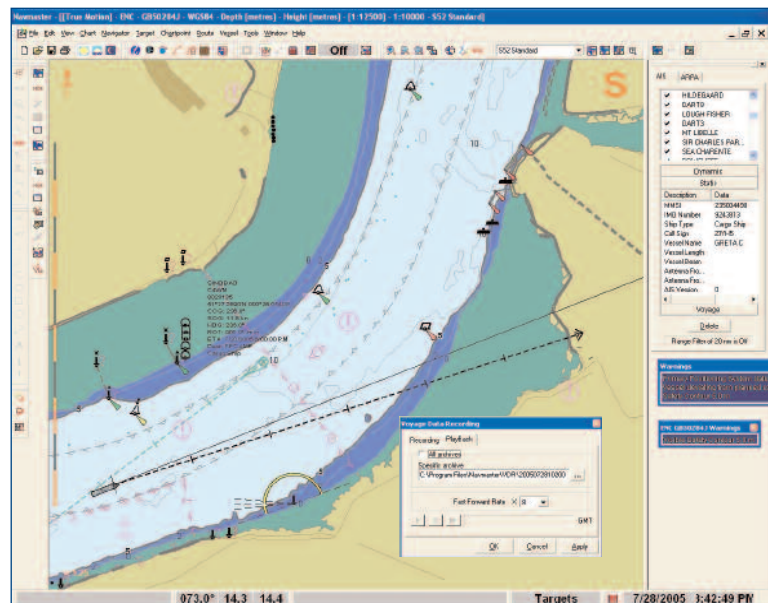
ARPA targets are continuously monitored by Navmaster ECDIS with additional data displayed in the side panel.

- Unlimited ARPA targets tracked
- Automatic storage of target data (with optional VDR module)
- Frequently used commands quickly accessible from toolbar
- Go-To-Target button for rapid view if target is not on the current chart

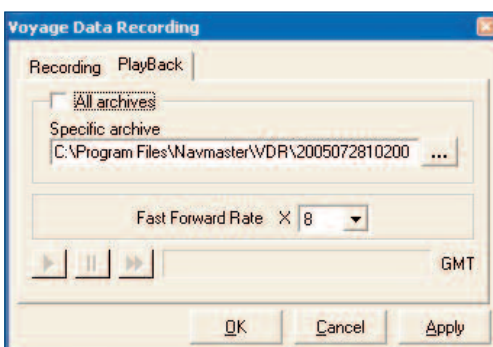
Interface with (U)AIS

When combined with ARPA, AIS provides the navigator with a comprehensive presentation of the traffic situation.

- Unlimited target display
- Information filtered between Static, Dynamic and Voyage data
- Quick View button to display selected text labels for user-defined time period
- All targets accessible in side panel
- Targets displayed in latest IHO symbology
- Enables easy upload of own ship voyage information to AIS



Own ship steaming down the Thames with incoming vessel visible and other AIS targets listed in the side panel.



The VDR playback dialog as shown on the AIS image above, illustrating how voyages can be replayed from captured data with Navmaster's VDR function.

Voyage data recording and playback

A very useful addition to ECDIS for vessels not yet required to carry type approved VDR, this feature automatically captures all own and other vessel data without crew action, stores the data compressed and encrypted in archives and enables voyages to be reconstructed from the playback function.

It provides vital evidence in the event of incident or damage and has assisted customers in resolving insurance claims.

For the data to be replayed on another PC, an office-based Navmaster installation is required.

Modular hardware

All components of the hardware have been type approved individually and as part of the Navmaster ECDIS. Modular components offer greater installation and maintenance flexibility and allow customers a degree of choice. The PC processor can be stored in under-counter housing with TFT display, keyboard and trackball at the conning position. Alternatively all components can be built into integrated bridge consoles. The display could be upgraded to a larger size for just the cost of the display or the PC components could be upgraded later to accommodate future ECDIS developments.

In the event of faults, individual components can be isolated and removed/replaced, allowing the ECDIS to continue functioning with a substitute component until maintenance is complete.

Aftercare and service

PC Maritime's aim is to provide customers with first class support. Although often not considered at initial purchase, experience has shown that the quality of subsequent support and maintenance are very important to customers and can significantly reduce running costs.

- Remote Diagnostics function in Navmaster for fast, efficient problem solving using email - engineer visits are rarely necessary
- Knowledgeable PC Maritime staff available to give personal support, even when supply is via a third party
- Practical hands-on training available onboard ship or at a shore-based location
- Upgrade and Support contract provides unlimited technical support by phone or email and automatic issue of upgrades, to allow for predicted changes in electronic chart delivery mechanisms over the next few years and for further regulatory changes as they occur



Intel Pentium 4, 2.8GHz, 512Mb RAM, 40 Gb vibration-proof hard drive. Certified to IEC60945 and IACS E10. Brackets are available for horizontal, vertical and 19" rack mounting. Measures 420 x 132 x 380mm.



20.1" TFT monitor (larger displays also available) with excellent brightness and contrast levels and direct dimming control. Certified to IEC60945, IEC61174 and IACS E10. Can be panel-mounted or supplied with protective aluminium casing and brackets for desktop, deck-head or wall mounting. Measures 534 x 481 x 223.5mm.

Electronic charts

Navmaster ECDIS is compatible with ENC's, CM-ENC's, ARCS, Seafarer and C-Map CM93/3 electronic charts.



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PC Maritime is a British company with a record of firsts in marine software development and marketing. The Company has won four UK Government SMART Awards, one SPUR Award and the Seatrade Award for Safety at Sea.

INTELLIGENT NAVIGATION SOLUTIONS