



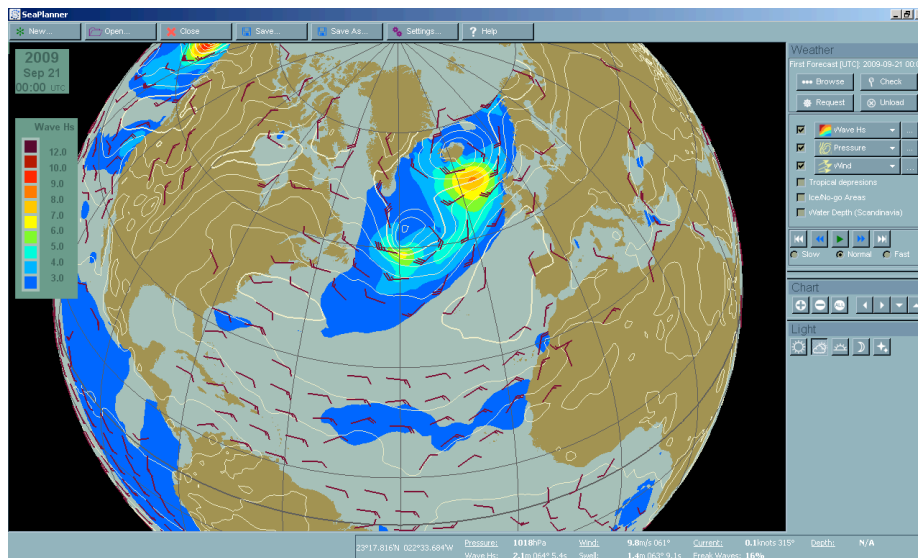
Maritime Service
Because weather matters



SeaPlanner with FuelSaver

Smart Planning, Increase Safety, Save Fuel, Reduce Co2

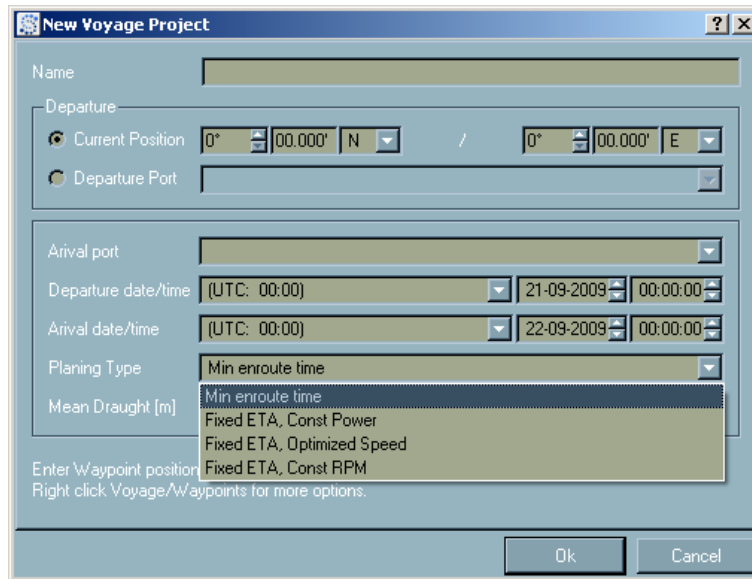
The SeaPlanner with FuelSaver is an onboard Route Planning Tool developed by Force Technology in cooperation with DMI – Maritime Service. The global numerical weather prognosis provided by DMI – Maritime Service has the highest level of accuracy available. In addition to the weather prognosis regional information regarding tropical storms and icebergs are provided, which will assist masters to plan safe routes across the oceans with full attention on fuel economy and limiting CO2 emissions.



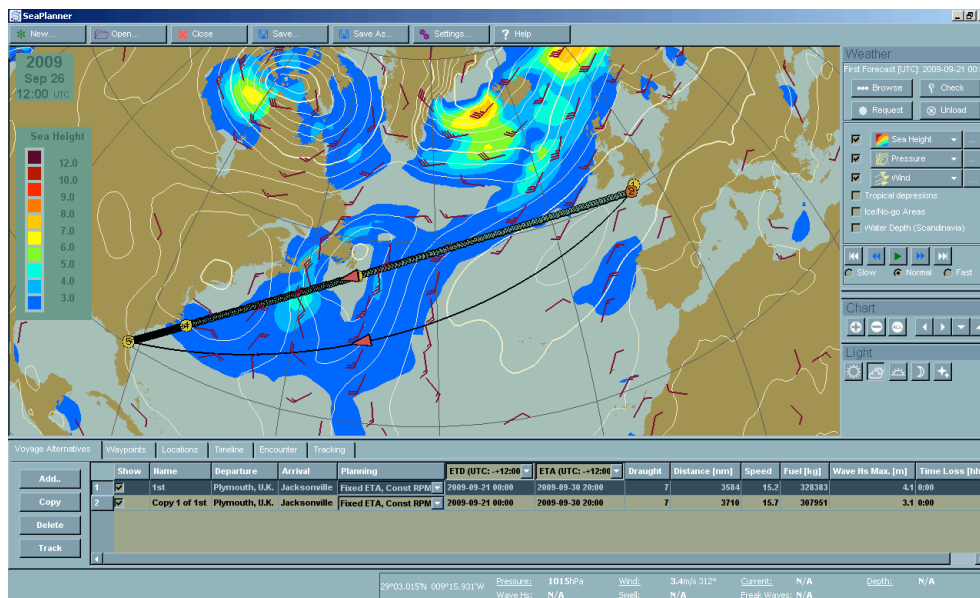
The heart of the SeaPlanner FuelSaver is a propulsion model developed by Force Technology. This model is designed to take all available information about the vessel into account. Some basic vessel particulars are required in order to get a reliable result. If more detailed information about the vessel is available, such as hull model test or full scale test, even more accurate results can be achieved.

The screenshot shows the Settings dialog box for SeaPlanner. The 'General' tab is selected. The 'Vessel' section includes fields for Vessel Name, IMO Number (0000007), Vessel Type (Bulk Carrier), and E-mail address (cnk@dmidk). The 'Voyage' section has a checked 'Load Latest Voyage' option and a 'Voyages Folder' field with a 'Browse' button and a 'Set Default' button. The 'Weather' section has a 'Check Weather Source' dropdown set to 'E-Mail' and a 'Weather Folder' field with a 'Browse' button and a 'Set Default' button. The 'External Monitor' section has a 'port' dropdown set to 'Auto'. The 'Version' section shows 'Version 2.0' and 'Build Sep 2 2009'. The dialog box has 'OK' and 'Cancel' buttons at the bottom.

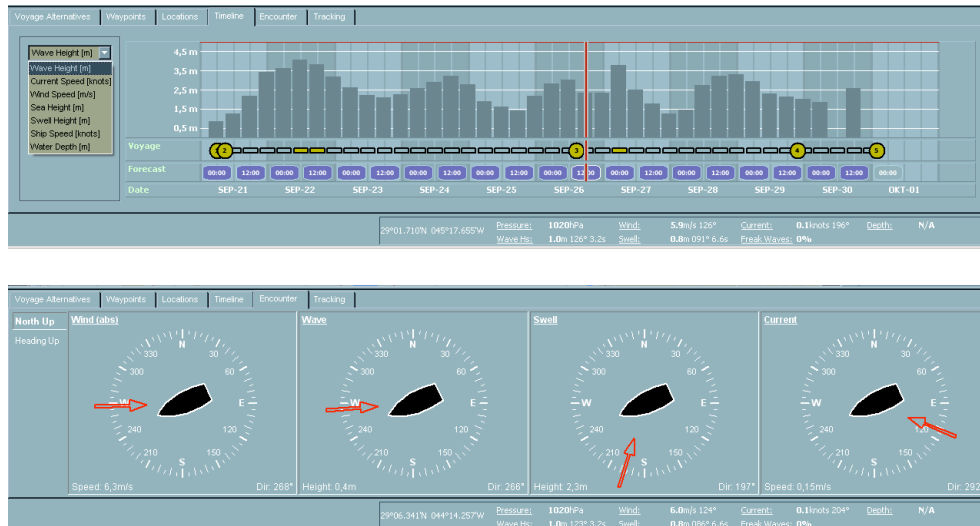
Route planning in the SeaPlanner with FuelSaver can be made in several different planning modes: Minimum Enroute Time, Fixed ETA with constant power, Fixed ETA with optimized speed and Fixed ETA with constant RPM:



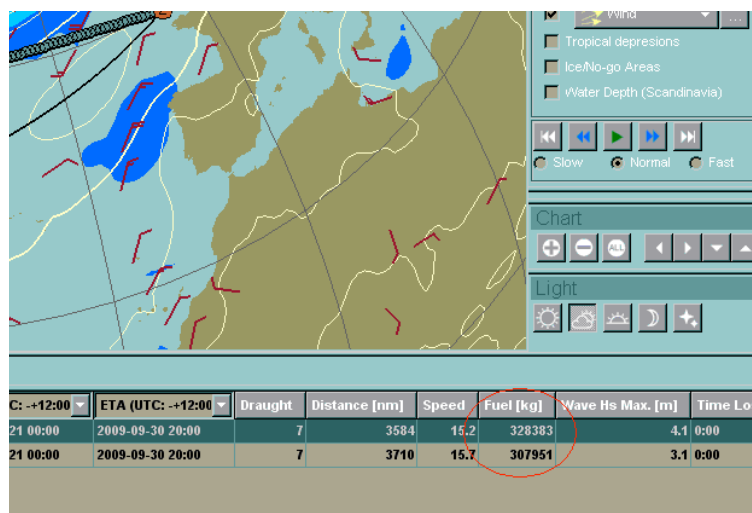
The graphical layout of the SeaPlanner with FuelSaver makes it easy to navigate between the different functionalities and to adjust the map to the point of interest. Below is two routes planned for a voyage between Plymouth and Jacksonville. One is a 'direct' Rhumb Line route and the other is shorter route consisting of a combination of Great Circle legs.



Conditions along the two routes can be viewed on the map or more detailed view can be found in the Timeline and Encounter panes:



The weather and wave prognoses show that both routes are safe for this specific vessel and additional information given is that the northerly route is about 125nm shorter than the southerly route. However fuel calculations show that the fuel consumption for the northerly route is roughly 20 tons higher than for the southerly route, which in this case means that using the southerly route the vessel will consume about 6% less fuel.



On average the SeaPlanner with FuelSaver will probably reduce your vessels fuel consumption with less than 6%. However, even when estimating a reduction of fuel consumption of 0.5-2% on a yearly basis for an entire fleet, the total amount of fuel saved would be significant – not only economically, but also in an environmental perspective reducing overall ship induced CO2 emissions.