Wind Farm Route Planning

Description

The Wind Farm Route Planning utility makes it possible to plan a route through a wind farm for a vessel that is making scheduled service or delivery stops at several turbines.

The wind farm appears on the chart as a site-map with all its turbines and cable conduits displayed.

The operator specifies the turbines to be visited for the day by selecting them with a mouse.

He or she then selects the entry angle to be used for each turbine by consulting a graphical display of predicted wind, wave and current movements for the time of the vessel's planned arrival at the turbine.

Stop-over times are editable individually. If a longer or shorter stop-over is specified for a particular turbine, the software automatically updates:

- the vessel's planned time of arrival at each subsequent turbine in the route

- the wind, wave and current predictions for the planned time of arrival at each subsequent turbine in the route

While the route is being planned, it is clearly plotted on the site-map.

Once planning is finished, the operator can perform further route editing manually using the route editor in the main ECDIS/Planning Station application.

When the route is finished, it is sent to the Dynamic Positioning (auto-track) system to execute. No validation is required.

Features

- Simple software add-on for existing Kongsberg Maritime route planning tools.

- Detailed site-map of the wind farm displayed on chart (AutoCAD or GeoTIFF formats supported).

- Entry angle selectable for each turbine according to predicted wind, wave and current movements.

- Docking time editable for each turbine.

- Lines of approach for each turbine automatically assembled into a route for manual editing.

- Route transferrable to DP with one mouse click.

- Planning of docking facilitated by a ship symbol matching the vessel's shape (including gangway).

- Routes easily recalculated in response to new weather conditions and re-sent to DP.

Standards

The equipment is designed to conform to the following standards:

- IEC 60945 Ed.4.0 Marine Navigational Equipment, General Requirements. Methods of Testing and Required Test Results

- IEC 611612-1 Ed. 4.0 and IEC 611612-450 Ed. 1.0 Maritime Navigation and Radio Communication Equipment and Systems – Digital Interfaces

Electronic charts

- Official charts in S57 or S63 format

- Official charts in C-Map ENC format

- Official charts in Navtor SENC format

- Raster nautical charts in ARCS format

- Vector charts in C-Map CM93 Ed.3 format

- Site-map drawings (imported from AutoCAD) can be displayed on the chart

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