



# Cluster & Route

## Offshore Supply Planning Tool

### **Cluster & Route application**

The Cluster & Route application has been developed as a tool for scheduling supply vessels for the offshore industry.

The application can be used for:

- Strategic, tactical and operational planning of supplying offshore installations.
- Cost reduction of offshore logistics.
- Fleet composition.
- Vessel optimisation.
- Pool fleet scheduling.

### **Cost reduction and improvement efficiency**

Use of the system resulted in considerable cost reduction up to 20% of the variable costs and improvement of efficiency.

### **Optimization algorithm**

Cluster & Route incorporates an optimisation algorithm that generates optimised fleet schedules and roundtrips. In optimising the following is taken into account:

- Material requirements of offshore installations.
- Vessel capacity for different types of cargo.
- Costs of the vessel.
- Delivery window for the installations.

The supply schedules state the following for every route to be sailed:

- Vessel name.
- Duration of the route.
- Length of the route.
- Calling order including ETA at the installations.
- Cargo to be carried.

The scheduling algorithm generates a clear report of the sailing schedules for different vessels and the sailing routes are shown in each map in MARPLOT, the

geographical interface.

### **Geographical interface MARPLOT**

HMC planning systems are developed as application under MARPLOT. MARPLOT is a geographical information system that can be used for:

- Displaying the generated sailing tracks of the Cluster & Route planning application.
- Transport engineering.
- composing your own maps.
- Distance calculations world-wide using standard sailing routes.
- Vessel tracking, displaying the positions of the vessel on-line using the communications module.

MARPLOT is based on a flexible, user friendly database. All kinds of data can be displayed as object in each map in MARPLOT. Additional data can be attached to every object.

*For more information, please contact HMC via [info@hmc.nl](mailto:info@hmc.nl).*