



# ILS

## Inbound Logistics System

The ILS system is developed to optimise the transport of iron ore and coal from several ports of loading worldwide to one or more ports of discharge. The Inbound Logistics System (ILS) is a user friendly and flexible application developed for the geographical interface MARPLOT. Both systems are developed by HMC in the Netherlands. Use of MARPLOT guarantees graphical display of generated routes, printing of maps and reports and flexible data handling.

For every port of discharge requirements with respect to quantities and ultimate delivery dates of every type of iron ore and coal can be specified. These requirements of the ports of discharge are called requests. For each request every vessel/port of loading combination is analysed. For available vessel and ports of loading that supply the required material a sailing schedule is calculated. Other requests can be added to this sailing schedule when enough extra vessel capacity is available.

For a certain specified period groups of ships, loading ports and one or more ports of discharge are selected. Beginning with the first request all requests in the planning period are analysed and assigned to one or more ships. The planning can be generated for every length of a planning period (default 6 months). To all requests with an ultimate delivery date inside the planning period a vessel is assigned when this vessel is available.

The best sailing schedule with respect to user defined criteria is chosen. The user can specify his priorities in selecting a vessel.

Output for each voyage:

- Ship
- Type of ore

- Port of loading
- Quantity of cargo
- Loading time
- Different ports of discharge
- Quantities of cargo for each port of discharge
- Discharge time
- Total sailing time
- Availability of a vessels for new shipments

The planning algorithm takes the following aspects into account:

- Draught of vessels versus maximum allowable draught of ports for that type of ship.
- Own fleet or spot market vessels.
- Loading and discharging speed.
- Self- or not self discharging ports and vessels.
- Vessels assigned to certain regions.

The development of the ILS system has just completed the prototyping phase. A prototype that can generate realistic sailing schedules is available for demonstrations.

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