



ECOMER

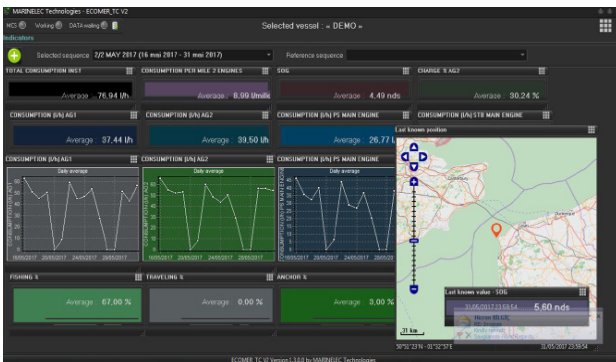
Analytical econometer

ECOMER is a tool to reduce fuel consumption and emissions.

It is presented in the form of 2 systems, to which additional options can be added:

- ▶ ECOMER EMB (embedded)
- ▶ ECOMER TC (curve plotter)

PRESENTATION



▶ **ECOMER EMB** is an intelligent system to assist in the economical operation of the ship. It collects, analyses and displays in real time the consumption of the various equipment on the ship. This information allows the captain on the bridge to make decisions to:

- ▶ generate consumption savings
- ▶ reduce (polluting) emissions

FUNCTIONAL CHARACTERISTICS

ECOMER EMB inputs

Non-exhaustive list, which depends on the type of vessel, its configuration and customer requirements.

- ▶ Tank level (sensors).
- ▶ Diesel consumption of internal combustion engines (by flow meter and/or digital link).
- ▶ Propulsive efficiency data (engine speed, torque, propeller pitch).
- ▶ Energy production (sensors and/or digital link).
- ▶ Power consumption per station (sensors).
- ▶ Status of the equipment (on/off).
- ▶ Position and state of the ship (link with GPS, loch, inertial unit, etc...)
- ▶ Environmental data (connection with temperature sensors, brightness, wind).
- ▶ Time stamping
- ▶

ECOMER EMB outputs

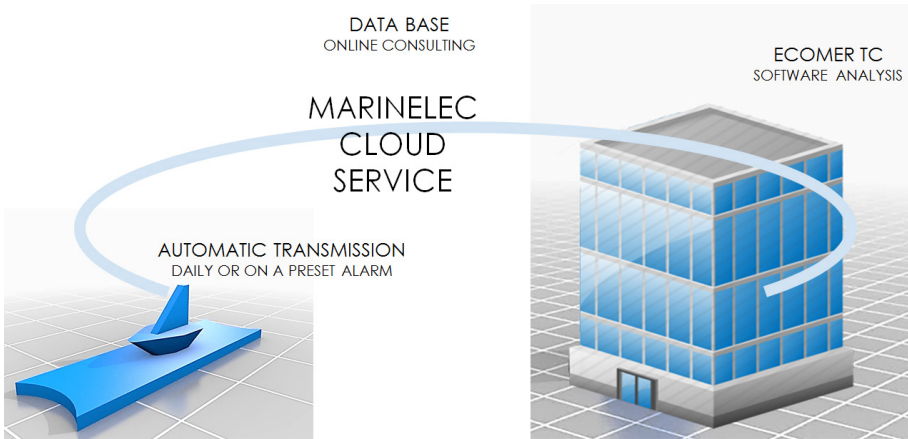
- ▶ Visualization of the data on screen in the form of a dashboard and graphs.
- ▶ Visualization of pollutant emission levels.
- ▶ Proposed actions
- ▶ Archiving.

REFERENCES & OPTIONS

- ▶ Routing module offering several route options (the most economical, the fastest, the shortest).
- ▶ Automatic command module to optimize the management of the consumers.



PRESENTATION



- ▶ **ECOMER TC** is a software tool based on a data collector recorded on board (e.g. ECOMER EMB).
- ▶ It allows an analysis on shore of the ship's data by the shipowner, in order to suggest new modes of operation in order to:
 - ▶ validate investments
 - ▶ suggest new ways of operating
 - ▶ guide investment choices
- ▶ It is also a tool that can be useful to naval architects in a spirit of conceptual analysis.

FUNCTIONAL CHARACTERISTICS

ECOMER TC inputs

Data files transmitted from the vessel via GSM, satellite or USB key.

Non-exhaustive list, which depends on the type of vessel, its configuration and customer requirements.

- ▶ Tank level.
- ▶ Diesel fuel consumption of internal combustion engines.
- ▶ Propulsive efficiency data (engine speed, torque, propeller pitch).
- ▶ Energy production.
- ▶ Power consumption per station.
- ▶ Position and state of the vessel (position, speed, trim and list, etc.).
- ▶ Environmental data (temperature, brightness, wind).
- ▶ Vessel business data (e.g. tonnage fished, towing carried out, passengers carried, etc.).
- ▶ Time stamping.

ECOMER TC outputs

- ▶ Customizable dashboard.
- ▶ Visualization and comparison of raw and calculated data in the form of customizable graphs.
- ▶ Consumption identified on the ship's routes.
- ▶ Visualization of emission levels (pollutants).
- ▶ Visualization and comparison of data between several vessels of the same fleet.

REFERENCES & OPTIONS

- ▶ An analysis service can be proposed to the shipowner.
- ▶ Note: the data collected are the property of the shipowner, and although saved on a MARINELEC server, in the case of ECOMERTC, they are accessible only by the shipowner unless otherwise agreed in a contract.



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sail safely

