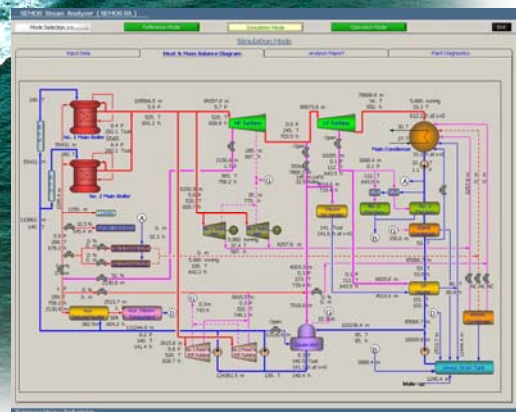
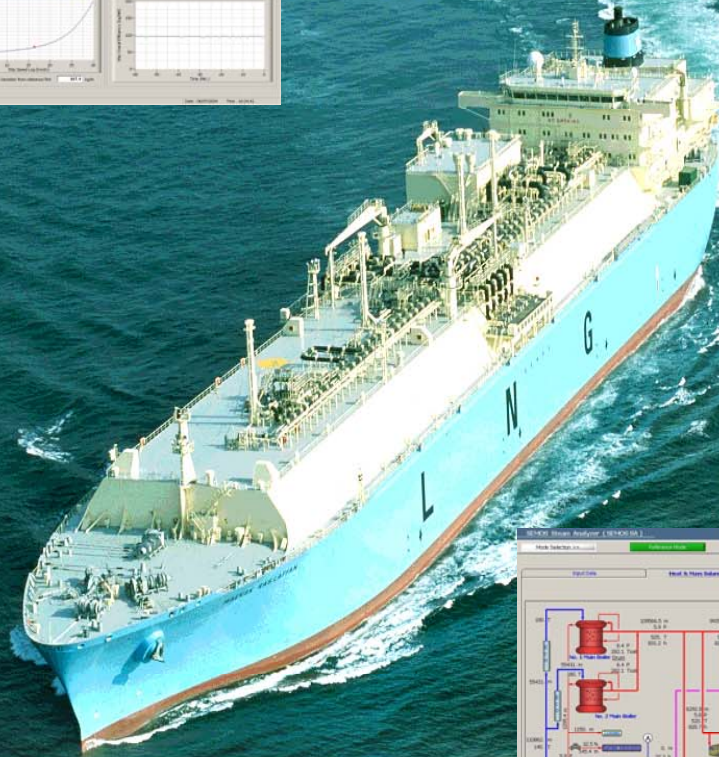
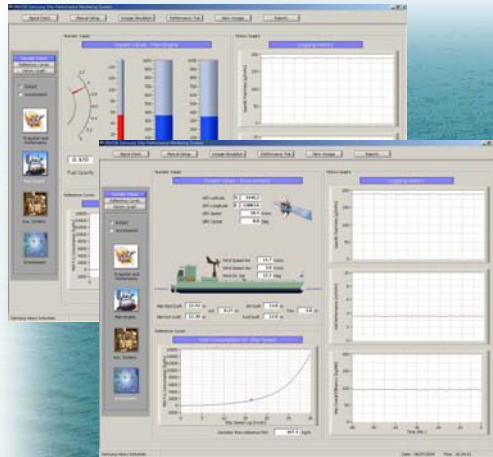


# ***SHAFT TORQUE METER & SHIP PERFORMANCE MONITORING SYSTEM***



**GME** Leader in Measurement  
and Analysis

**Global Maritime Engineering**

# Shaft Torque Meter & Ship Performance Monitoring System

## SPMS (SHIP PERFORMANCE MONITORING SYSTEM)

SPMS (Ship Performance Monitoring System) is to display and monitor main engine and propulsion performance data continuously.

The system can be adapted to various types of vessels and machinery configurations, and is also very flexible with regards to type and number of signal inputs.

The purpose of the SPMS is to give the operator information about the energy flows from fuel input to ship speed, and the corresponding efficiencies of main engine, propeller and hull.

The system is also an efficient tool for automatic generation of fuel consumption report and condition monitoring through trending of performance parameters.

The system will normally include a Shaft Torque Meter which measures Torque, Power, RPM and Thrust (option).

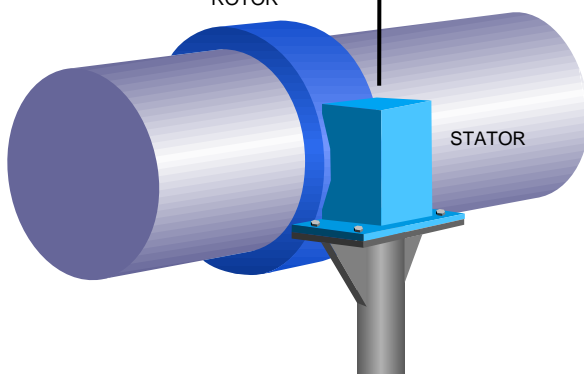
For presentation of shaft power/torque meter data and performance parameters, the display units are installed at convenient locations, typically in the ECR and on the bridge.

ENGINE CONTROL CONSOLE

DISPLAY UNIT



ROTOR

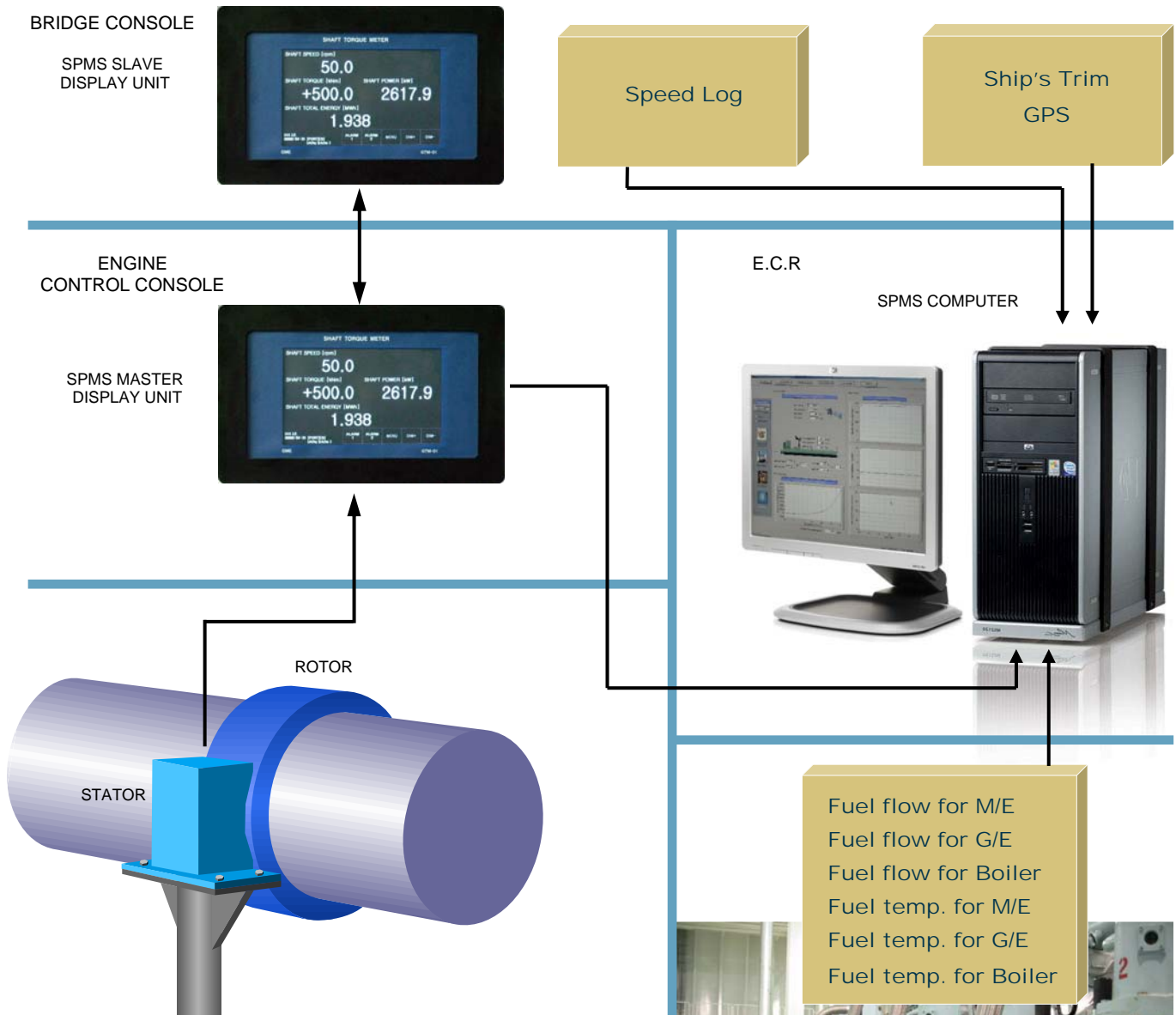


SHAFT TORQUE METER

## FEATURES FOR SHAFT TORQUE METER

- Strain Gauge Technology applied
- Contact Free Power Transmission to Rotor
- Contact Free Data Transmission from Rotor via RF Technology
- Optional Thrust Measurement
- Interface via Analog (4-20mA) and Digital (RS-422) Outputs
- 7" TFT LCD Display with Touch Screen Menu
- Adjustable Screen Brightness
- Selectable Time Integration of Measured Values
- Easy Operation by one Screen for all Menus
- Selectable System of Units – Metric, SI or US
- Easy Zero Calibration by Manual or Automatic
- No Maintenance needed System
- On Line Diagnostic available from Display

## SYSTEM CONFIGURATION FOR SPMS



## BENEFITS

- Minimizing fuel oil consumption
- Improving ship performance
- Reducing maintenance costs
- Early warning of propulsion trouble
- Overload protection

## OPTIONS

For overall system control, for generation of fuel consumption reports, for trending and for graphical presentation of performance data, a central computer with VGA color monitor and printer can be included in the system.

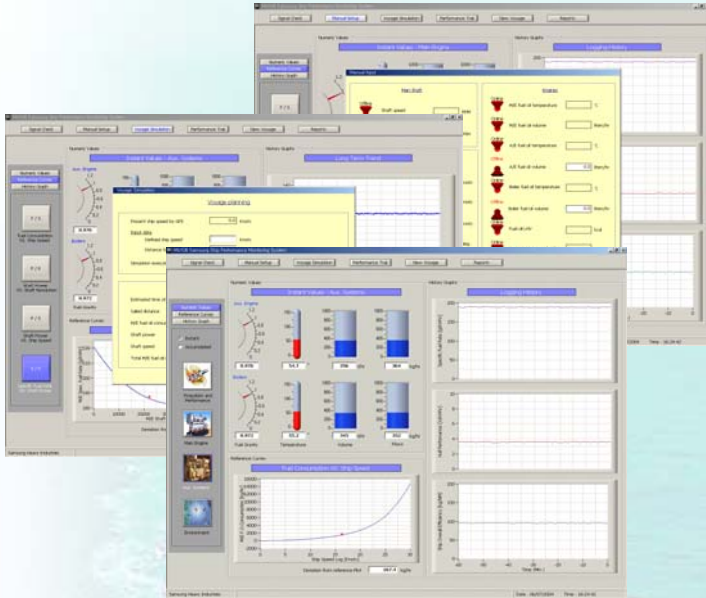
The computer is connected to the main display unit through a serial data line, and can repeat all propulsion and performance data as presented on the local monitors.



# COMPUTER-MONITOR PRESENTATION

SPMS will present continuous output information about measured and calculated values to the monitor.

The output information available will be dependent on type of vessel and machinery configuration. All output information will be presented in SI unit according to system specification and various output information can be selected from the pull-down menu.



## CONTINUOUS MONITORING SCREEN

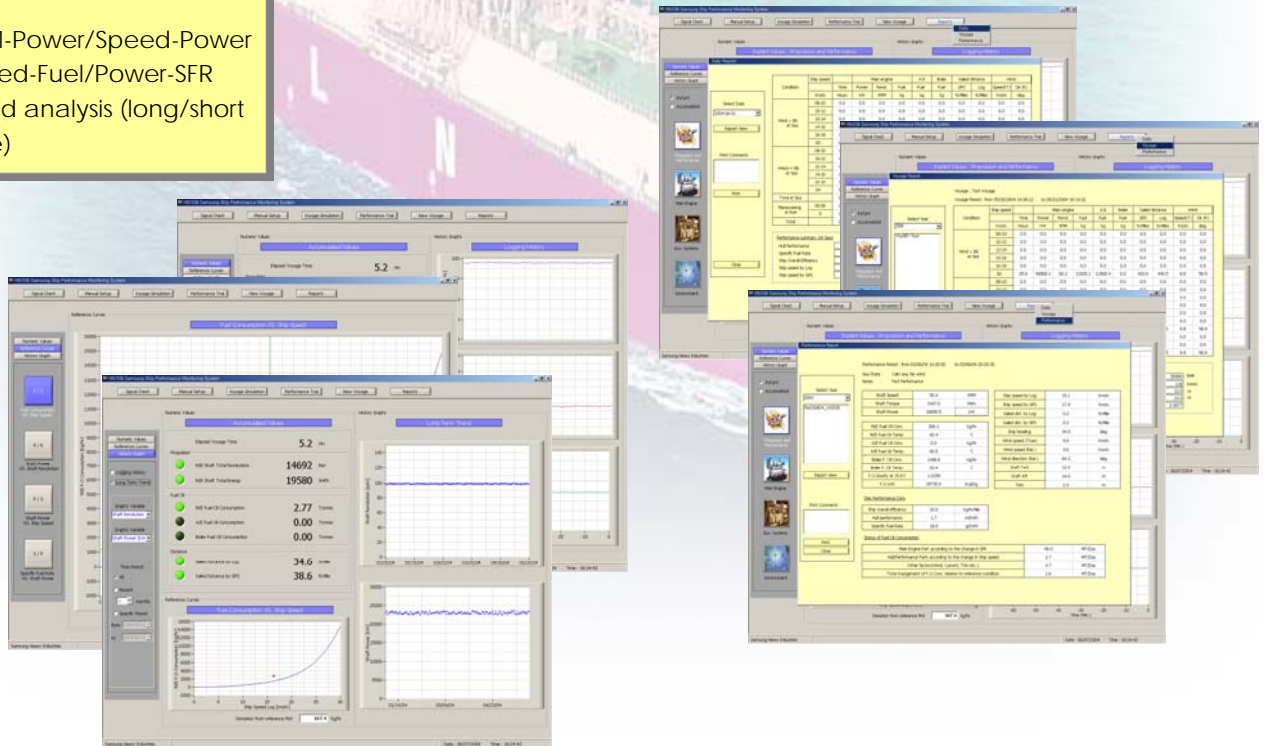
- On/Off line mode
- Instant/Accumulated data display
- Voyage simulation function
- Ship performance calculation

## REPORT MENU

- Daily/Voyage/Performance report
- Start/Terminate performance trial
- Print output
- GMT/Local time display

## GRAPHIC PRESENTATION

- RPM-Power/Speed-Power
- Speed-Fuel/Power-SFR
- Trend analysis (long/short time)



Global Maritime Engineering Co.,Ltd.  
 78-20, Sandan 7-ro, Jeongwan-eup,  
 Gijang-gun, Busan, Korea  
 Tel : +82 (0)51 265 2001, Fax : +82 (0)51 265 2005  
 www.gmeng.com E-mail : gme@gmeng.com

