

# Engine Monitoring Alarm & Control

IMACS is an Integrated Monitoring, Alarm and Control System for Engines and Machinery onboard ships.

## System Highlights

- Use of Commercial-Off-The-Shelf hardware (PLC Siemens S7) eliminates the dependence on dedicated, more expensive and less accessible “marine” spare parts – enabling easy service and/or repair anywhere in the world
- Full redundancy of CPU and BUS – automatic take over if one PLC fails
- All work stations are connected by a common network and each station can take over the entire system regardless of other station failure (redundancy of work station)
- On Line Stability Monitoring (GM Measurement)
- Fuel Efficiency module including handling of flow meters, shaft torque, thrust, ship performance etc

## Special Features

- Data Analysis: Offline Analysis of data from History files (Alarm statistics, MultiSensor Analysis) – an excellent tool for easy preventive maintenance
- “Office” version for shore supervision provides extensive offline analysis of both data and alarms (whole month data on CD-R or just “last hour file” by Email)
- Other computers on ship’s LAN can log into the system at will (for monitoring only)
- Integrated Anti Heeling and PMS
- Control of machinery (valves, pumps, generators etc.) from friendly mimics



**Typical one line diagram of IMACS.**  
**Configuration and scope will vary from one type of ship to the other.**

