

PROVEN DURABILITY  
AND RELIABILITY FOR  
MARINE ENVIRONMENTS



## VESSEL AUTOMATION



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PON

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The processes involved in a ship's operation are as complex as they are diverse. Optimum co-ordination can only be achieved by using an integrated, transparent control system, thereby ensuring profitability of the ship's operation. Our integrated automation solutions unlock the potential for this and eliminate sources or errors across all on board processes. They also minimize potential operating error sources and thus are effective in protecting people and technology from risk.

## FULL MONITORING, AUTOMATION AND CONTROL

- Ship Systems Integration
- Navigation
- Alarm & Monitoring
- Control of Critical Systems
- Power Management
- PLC Network Based
- Dual Redundant Bus
- Profibus / Ethernet
- Touchscreen Displays
- Meets ABS/SOLAS

## VESSEL AUTOMATION

On a ship there are many parameters that need to be controlled or monitored including: temperatures, pressure, level, viscosity, flow control, position of vessel, speed, torque control, voltage, current, machinery status (on/off), and equipment status (open/closed). As the market is driving ship owners to become more efficient with reduced staff on board it called for an automatic control and monitoring system for the ship that enabled unattended operation of machinery spaces. Vessels capable of safe operation at any period of time qualify as UMS (Unattended Machinery Space) ships.

A modern automation and control system is a fully integrated systems covering many aspects of the ship operation that includes the propulsion plant operation, power management operation on the auxiliary engines, auxiliary machinery operation, cargo on-and-off-loading operation, navigation and administration of maintenance and purchasing of spares.



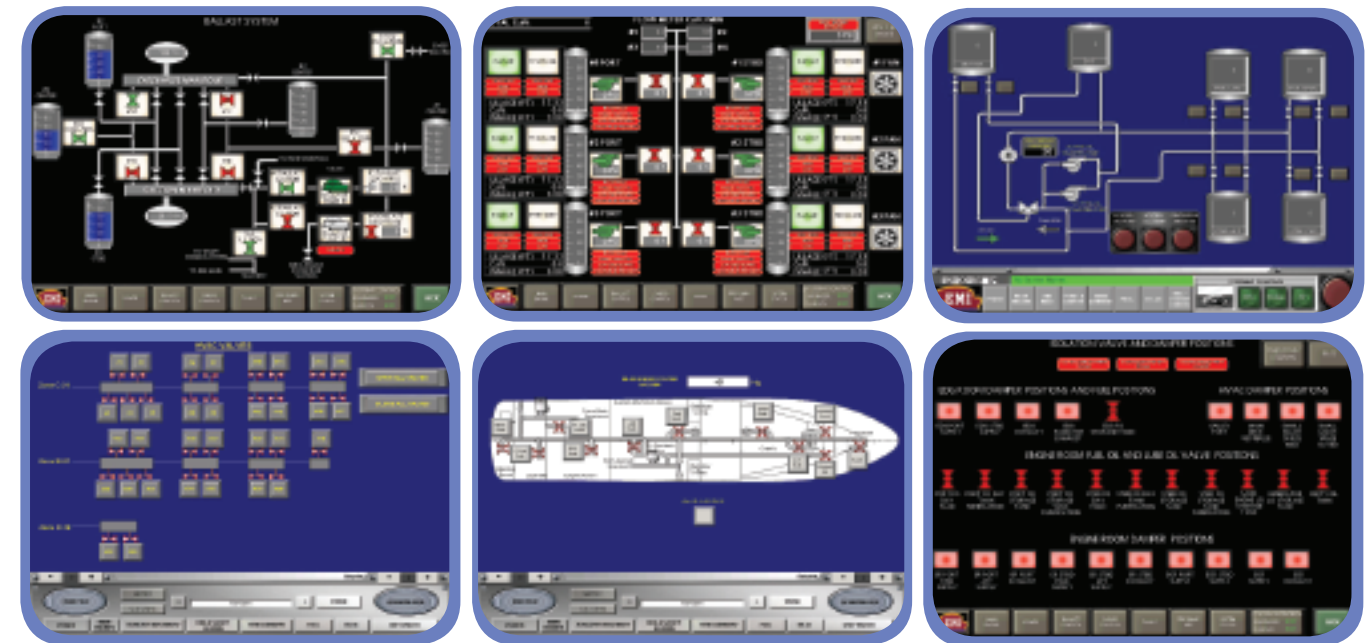
## HOW YOU CAN BENEFIT FROM OUR AUTOMATION SOLUTIONS

- Increased efficiency for all onboard processes.
- Transparency for better-informed decisions.
- Scalability and future-proofing.
- Cost-effectiveness and safe investment.

## FULL CONTROL OF ALL PROCESSES

Automation solutions offered by Siemens Marine Solutions integrate all onboard technical processes in a unified system and control their interaction in line with defined parameters. Easy-to-operate system overviews are integrated with subsystems via standardized interfaces, enabling the crew to make better-informed decisions. Your operators will have full control of all processes and be able to react quickly and appropriately in all situations. As a technology leader in automation, Siemens has the know-how to allow ships of all sizes to attain their best levels of performance and operating efficiency and give long-term investment protection.

## VALVE AUTOMATION



### ■ INDUSTRIAL ETHERNET

- High-Performance network for the cell level.
- Basis for IT solutions.

### ■ PROFIBUS

- Field and cell bus.
- Functions, e.g., for monitoring, control and safety-oriented applications.

### ■ AS-INTERFACE

- Serial interface for binary switching devices.
- Eliminates extensive wire runs on vessel valve control application