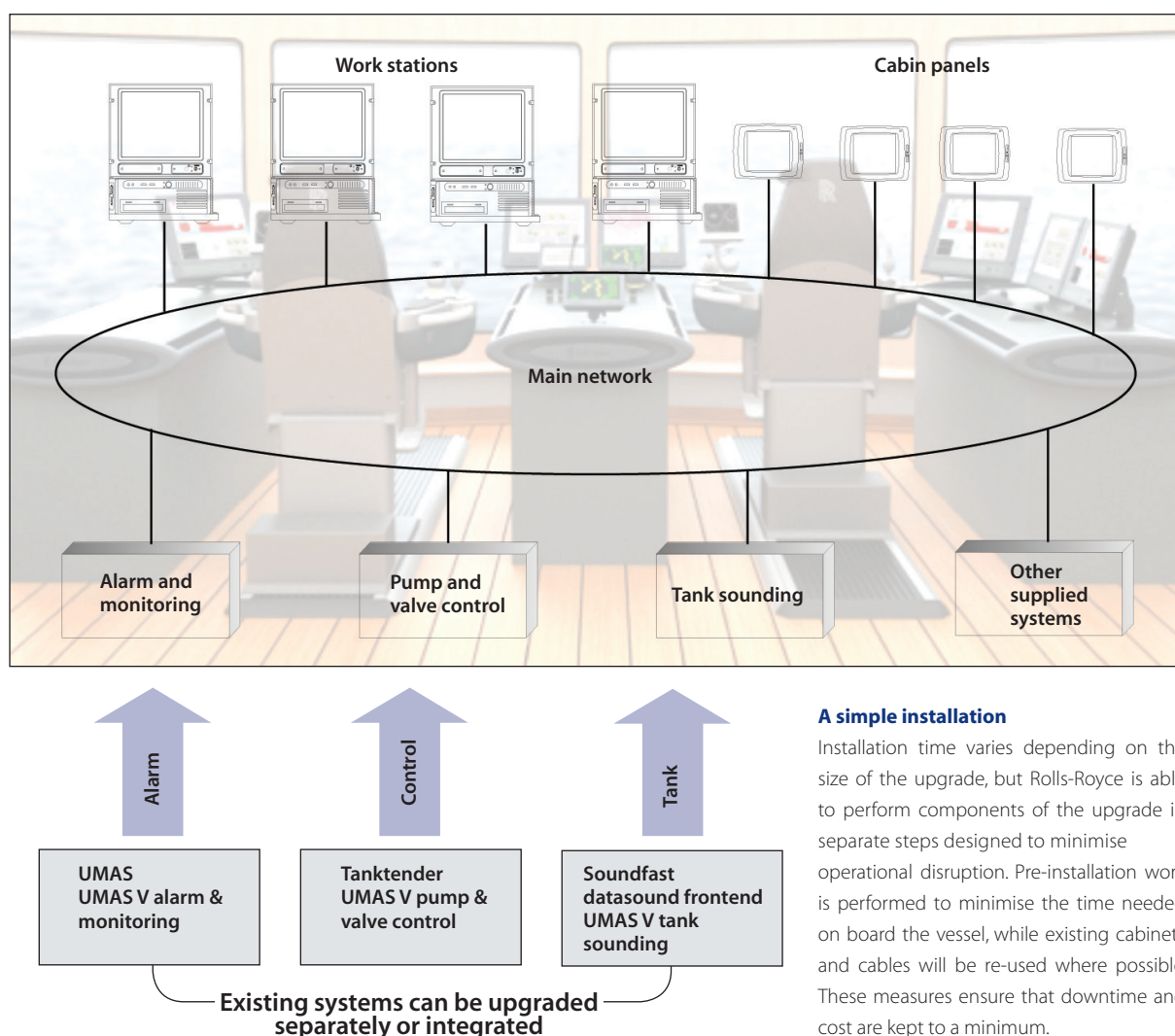


Automation system upgrades

Marine Services - automation and control system upgrades are tailored to the requirements of your vessel, allowing you to maximise your vessel's productivity with features from our latest generation of integrated system design.

Automation and control

The latest generation of Rolls-Royce integrated automation systems are designed to control and monitor ship operational systems in a robust, flexible, modern and reliable ship environment. These systems are available for sailing vessels through bespoke upgrade packages. Upgrades can be supplied as a complete integrated system or as separate systems, including alarm and monitoring, tank sounding, and pump and valve control, depending on the requirements of the vessel. Each solution is custom made to a vessel's operating profile, with a graphical user interface displaying all necessary information to facilitate operation of the systems.



Fact Sheet

Upgrades overview

Upgrades can be supplied as a complete integrated system or as separate systems, including alarm and monitoring, tank sounding, and pump and valve control. The integrated system can also interface with systems delivered by external suppliers, including power management systems, tank radars, load stability systems, and maintenance systems.

Work stations

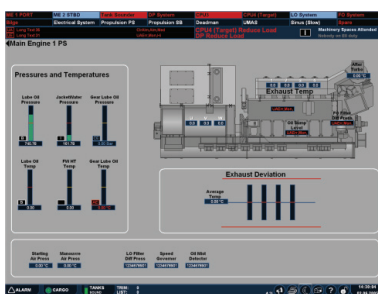
Rolls-Royce offers a multi-user system where each workstation operates independently. Using a multi-screen system, each station can include two colour monitors, making it easy to operate several systems simultaneously. A straightforward menu system and different colour modes for day and night facilitate safe operation in different light conditions.

Benefits of upgrading

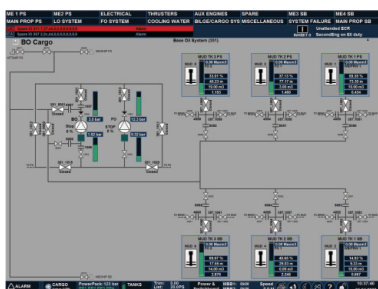
- Essential information is accessed more efficiently via graphical displays on Microsoft Windows-based operator stations
- Functionality is enhanced by integrating the alarm and monitoring system, pump and valve control and tank sounding system
- Components are based on a "common control platform" for seamless integration with other Rolls-Royce products and fewer spares are needed on-board
- Rolls-Royce uses its broad capability in vessel and system design to optimise the integration of automation and control systems
- Installation costs are economical due to reuse of existing cabinets and downtime is shorter due to preparation work performed onshore
- Continuity of spare parts and service supply is ensured through the world-wide network of Rolls-Royce Service Centres



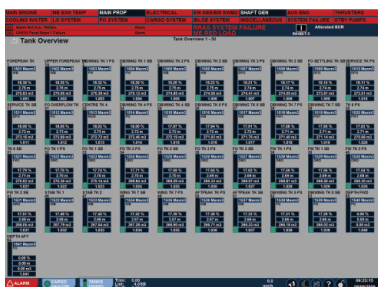
Stability



Main engine



Cargo control



Tank sounding

Network

Workstations and electronic units are linked together in an ethernet network. The network is either a twisted pair or fibre optic, single or redundant, star or ring network. The system can also contain sub networks for communication with other automation systems.

Alarm and monitoring

The alarm and monitoring system informs the operator of the condition of the equipment on board. Text and graphics give a complete overview of the different systems. Access panels can be located in the engine control room, on the bridge and in public rooms or cabins.

Pump and valve control

Pump and valve control provides an overview of cargo handling and machinery systems. Tanks and piping systems are displayed as graphical diagrams. When supplied as part of a full integrated solution, crew can view and control simultaneously from several workstations.

Tank sounding system

In the tank level gauging system, both electro-pneumatic and electronic sensors can be supplied. Tank information is displayed on system workstations or transferred to external computers. A pneumatic operator panel located in the main electronic cabinet is used for emergency sounding.



Rolls-Royce - a total solutions provider

Automation systems upgrades are just one of many performance and safety improvements Rolls-Royce provides for its extensive product range. At Rolls-Royce, we pride ourselves in our ability to work in partnership with our customers where we listen, establish requirements, and then offer service solutions to match. Our comprehensive menu of services is designed to accommodate different operational environments to offer varying support options, and manage the balance between operational availability and cost. Make Rolls-Royce your single point of contact for all your service requirements.



Rolls-Royce

Rolls-Royce Marine AS
Automation - Longva
Postboks 1522, N-6025 Ålesund, Norway
Tel: +47 815 20 070
Email: service.automation@rolls-royce.com
www.rolls-royce.com

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