

Yokogawa Marine Business

Controller

CENTUM VP



- ◆ Core platform of LNG carrier IAS operation. With its flexibility and super-reliability.

STARDOM™



- ◆ Reliable process control PLC for several ship types.
- ◆ IEC61131-3 compliant programming.
- ◆ Extensive regulatory control libraries cultivated throughout Yokogawa's DCS history

ProSafe RS



- ◆ SIL3 Safety controller.
- ◆ Using for safety system, fire & gas system, and HIPPS in the offshore industry.

VS1000™ Series



- ◆ Can be tailored for various applications by running a user program.

Measurement



- ◆ Platform of asset excellence initiative
- ◆ Aims to improve operations and maintenance and maximize the reliability and availability of plant assets by achieving greater



ISA 100 Wireless



- ◆ Wireless flexibility broadens the world of measurement and control to new fields that had been given up due to place restrictions and wiring cost problems.
- ◆ Yokogawa field wireless solution converts wired device to a wireless device.

harp
FOR THE DIGITAL WORLD

EJA



EJX

- ◆ Provides a wide range of flow, pressure and temperature measurement.
- ◆ The field-proven solution is available for various process measurements.

ROTAMASS
Total Insight



- ◆ The most robust and durable design for precise measurement in high pressure applications.
- ◆ Mass flow rate can be measured directly.

Solution / Service

Global Service

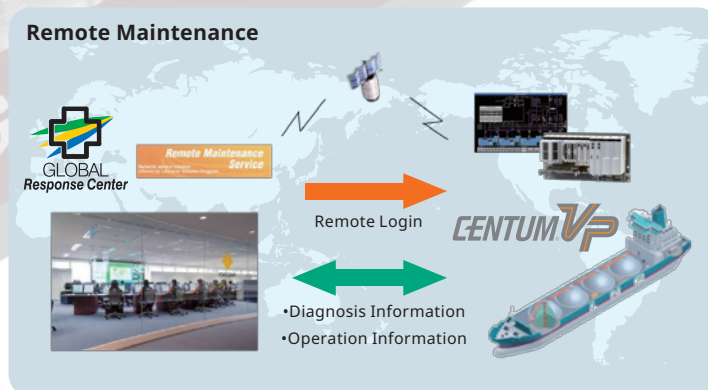
YOKOGAWA supports you in every location.

Our service offices provide the first-line of. A worldwide network of Yokogawa Response Centers, 225 service offices, and more than 2,000 service engineers provides a prompt response to all kinds of customer inquiries on an around-the-clock, 365-day-per-year basis.



Remote Maintenance

Remote maintenance is an ideal method to Identify the problem onboard. Minimizing operator's trouble shooting time.



Yokogawa service engineer can remotely log in to onboard CENTUM via VSAT. The operator can make immediate and precise action with Yokogawa consultation. Safest security measures are built-in to the onboard connection.

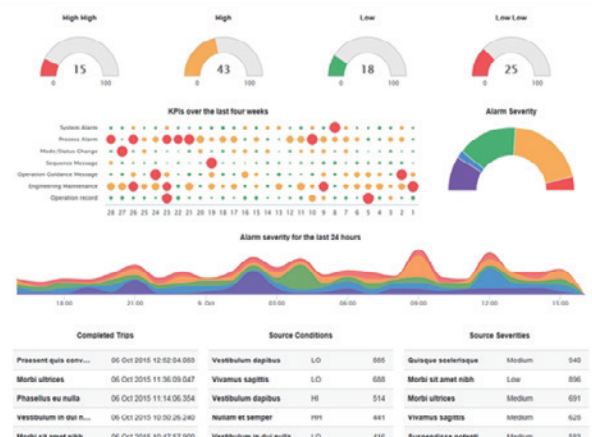
Data Analysis

YOKOGAWA provides business benefits To officers in fleet operation.

Exaquantum is one of the most comprehensive Plant Information Management Systems (PIMS) Exaquantum can acquire data from all facets of a process and transform that data into easily usable, high-value, widely distributed information.

- ◆ Onboard real-time process data in IAS can be transformed into usable.

Exaquantum



■ Security Measure

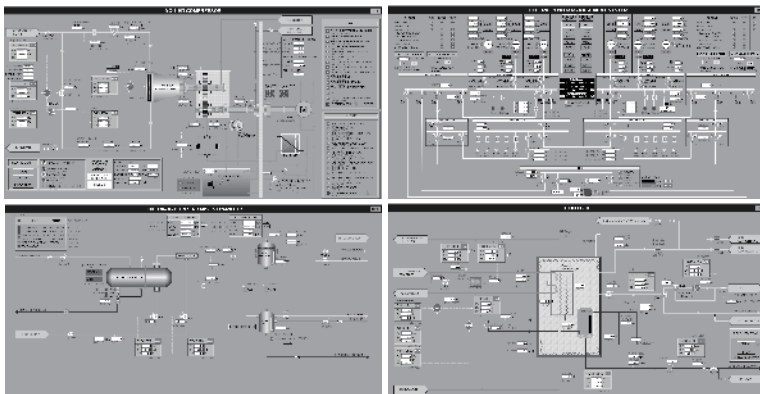
Threat to cyber security is increasing.
Yokogawa will protect you.
Like a Super HERO.

Security risks are evolving continuously.
YOKOGAWA provides a service lifecycle solution for cyber security. This is to ensure that the security measures and deployments are continuously enhanced, monitored and inspected.



■ Marine Experience

YOKOGAWA has been challenging against
The various types of LNG Carriers.



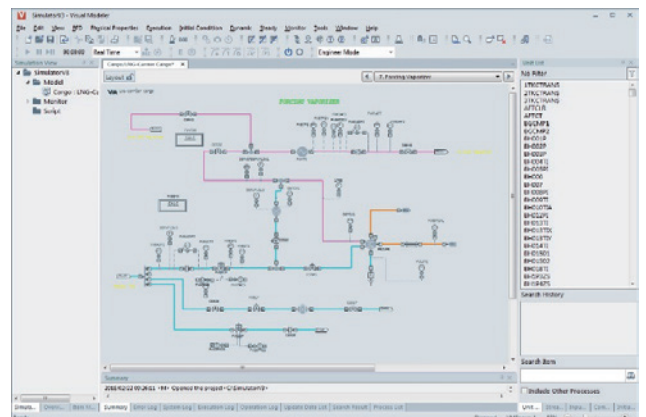
Yokogawa collaborated with various package suppliers. This is our strength.
We realized your requirements.

- ◆ Integration of Boiler control
- ◆ Gas management
- ◆ Compressor control
- ◆ Power management
- ◆ FGSS control
- ◆ Re-liquefaction control, etc..

■ Dynamic Simulator

Training simulator for Operators.

Yokogawa is driving the advanced usage of the dynamic simulator which can be used for multiple purposes throughout the lifetime of the LNG carrier. The dynamic simulator is ideal for operator training, but dynamic simulator can also be a useful tool to validate the gas system design by allowing rigorous system testing under all operating conditions



Network Solution

Real time Fleet Monitoring

**YOKOGAWA provides business benefits
To officers in fleet operation.**

FAST/TOOLS is the Supervisory Control and Data Acquisition (SCADA). FAST/TOOLS can acquire data from all facets of a process and transform that data into easily usable, high-value, widely distributed information.

- ◆ Onboard real-time process data can be transferred to onshore office via VSAT.



OpreX™

Yokogawa achieves operational excellence by providing products, services, and solutions based on the OpreX comprehensive brand that cover everything from business management to operations.

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