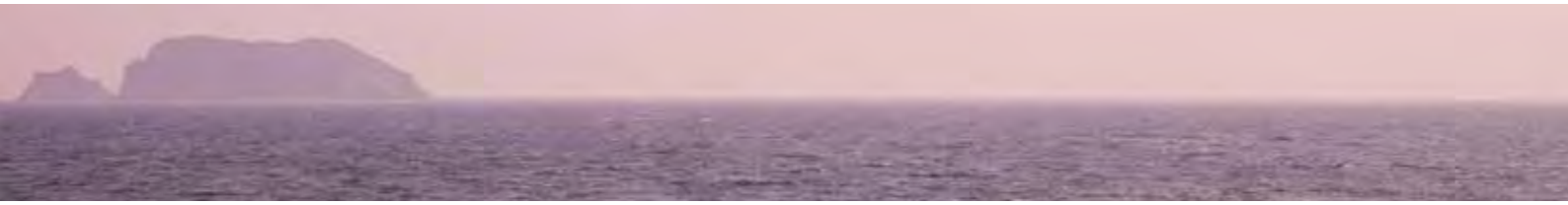
Product Catalog



www.jrcs.co.jp

Power Management Systems

Medium Voltage Switchboard

A higher quality medium voltage switchboard through experience and technology
Specific marine application to LNG ships and large-size container ships

Main Switchboard

Incorporating the latest power management system, ensuring safety and reliability
Suitable for a variety of vessels from bulk carriers to LNG ships

Power Management Systems

Starter Panel

Group Starter Panel

Incorporating high performance, compact, multi-function control units
Advanced control monitoring system by the adoption of expanded functions and an optimized network

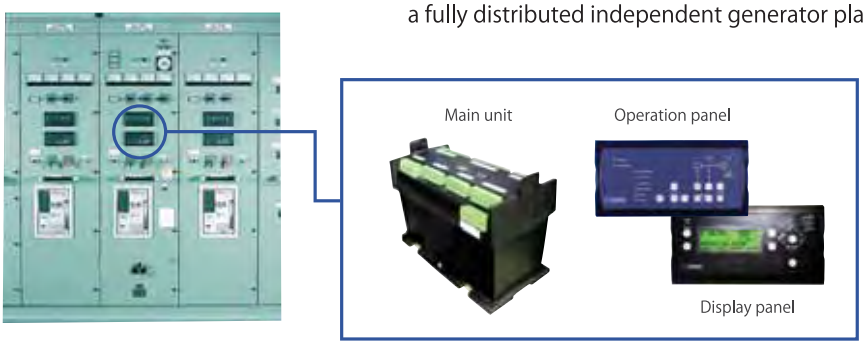
Draw-out Type Starter Panel

Achieved by the pursuit of easy maintenance utilizing JRCS original draw-out structure

Individual Starter Panel

Generator Plant Control & Power Management System

Easy maintenance in the case of failure by the adoption of
a fully distributed independent generator plant monitoring and control system



Power Management Systems

Emergency Switchboard

Battery Charging & Discharging Board

UPS (Uninterruptible Power Supply) System

Shore Connection Box

Test Panel

Distribution Board

Power Management Systems

Low Voltage Switchboard & Group Starter Panel

The world's smallest switchboard with higher reliability gained through experience

Cold Ironing System

Providing shore-side electrical power to a ship at berth while a diesel generator is not operating
Positive reduction of air pollution by eliminating environmental pollutants caused by a ship in harbor

Automation Systems

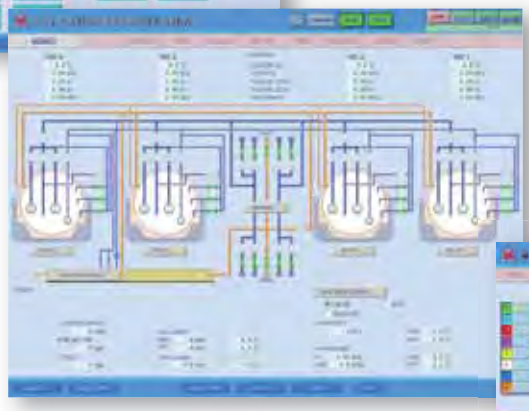
Integrated Automation System (IAS)

OASIS (Operationally Advanced Super Integrated System)

Designed for high-grade vessels such as LNG ships
User-friendly monitoring and control functions using graphic display screens
Easy and secure operation by the use of a large-size color LCD with a touch panel

A wide variety of control functions including power management, motor/valve control, PID control and sequence control
Data integration of onboard systems by communication
History function enabling long-term accumulation of events and alarms
Extensive support including message function, memo function

GENERATOR CONTROL



CARGO SYSTEM MIMIC

<Display Examples>

L/D COMPRESSOR CONTROL

Automation Systems

Alarm Monitoring & Control System

SMS-55

<Display Examples>

TREND GRAPH

ANALOG METER

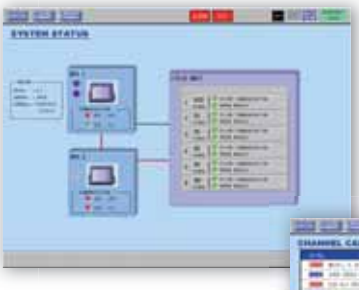
A large-size color LCD with a touch panel
Display of trend graphs and analog meters
Motor start/stop and valve on/off by touch operation
Saving of trend and history data to USB memory

Alarm & Monitoring System

JMD-P

Cost-saving engine monitoring system using a full color LCD
Simplistic instrument arrangement resulting in a compact panel
Uncomplicated system configuration applying only digital inputs

<Display Examples>



SYSTEM STATUS

CHANNEL CALL

Automation Systems

Engine Control Console

Robust structure emphasizing resistance to the harsh environment of an engine room
User-friendly engine monitoring and control

Cargo Control Console

Secure and efficient cargo monitoring and control by optimal design focusing on operability during cargo handling

Wheelhouse Group Panel

Wheelhouse Control Console

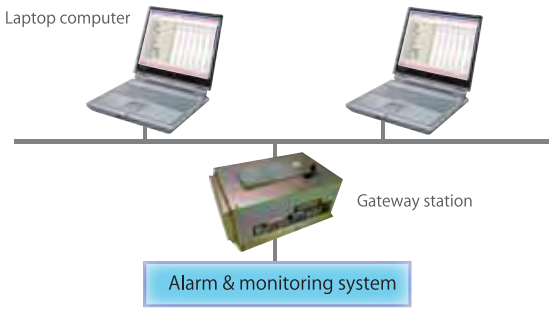
Simulator Training System

Simulation of at-sea conditions onboard
Training for emergency situations unable to be carried out onboard

Automation Systems

Engine Data Acquisition System

Using engine data collected from an alarm monitoring & control system by a personal computer in each cabin, the making of engine log books and display of regular logs and running hours is possible.



<Display Examples>

Log data list

F. O. consumption

Ships Maintenance Management System / Spare Parts Management System

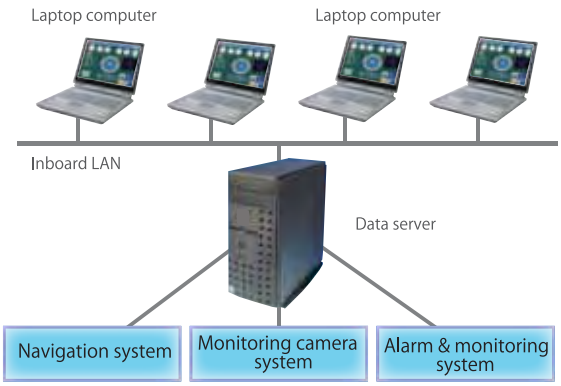
Daily and regular maintenance schedules can automatically be created.
By entering maintenance results, a maintenance report can automatically be created.
Details of parts breakdown can be entered.

<Display Examples>

Daily inspection schedule

Parts breakdown diagram

Ships Integrated Management System



Integrated data from an alarm monitoring & control system, ship's monitoring camera system and navigation system is collected in a server and displayed at terminals via the inboard LAN.

General information

Monitoring camera

Offshore

Medium Voltage Switchboard

Compact and simple panel arrangement utilizing a multi protection relay

Generator Control Panel

Compact generator control panel designed for limited onboard space

Miscellaneous

Training Program

Training for high voltage switchboards, main switchboards, starter panels and engine control consoles
Theoretical courses using textbooks and drawings, hands-on training courses, and practical courses for troubleshooting and parts replacement

<Sample of training curriculum>

High Voltage Switchboards Training Schedule

Day	Time	Description	
Day 1	09:30 ~ 9:40	Opening meeting	
	09:40 ~ 10:40	Orientation (Company Profile)	
		Factory Tour	
	10:40 ~ 10:50	Break	
	10:50 ~ 12:00	Specialized Knowledge of High voltage switchboards	Classroom Lecture
	12:00 ~ 13:00	Lunch Break	
	13:00 ~ 13:30	Dangers of High voltage switchboards	Classroom Lecture
	13:30 ~ 15:10	Structrue / Special equipment of High voltage switchboards Video viewing of the internal arc fault test	
	15:10 ~ 15:20	Break	
	15:20 ~ 16:30	Structure / Special equipment of High voltage switchboards	Simulator
	16:30 ~ 17:00	Q and A	
	~ 17:00	Closing meeting	
Day 2	09:30 ~ 10:00	Opening meeting	
	10:00 ~ 10:30	Maintenance of High voltage switchboards	Classroom Lecture
	10:30 ~ 10:40	Break	
	10:40 ~ 12:00	Multi-Function Protection Relay "VAMP" (General Information / Function / Operation)	Simulator
		Each Protection Function / Operation, Replacement Procedure of Spare Parts	
	12:00 ~ 13:00	Lunch Break	
	13:00 ~ 15:10	VCB / VMC (General Information / Function) Interlock / Draw out / Insert Procedures	Simulator
		Lifter operation, Bus Earthing Operation	
	15:10 ~ 15:20	Break	
	15:20 ~ 16:30	Vacuum Check Procedure of VCB / VMC	Simulator
	16:30 ~ 17:00	Q and A	
	~ 17:00	Closing meeting	

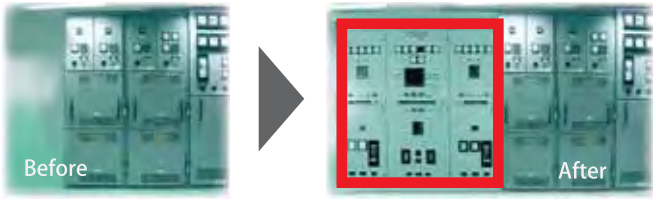
<Image of theoretical and practical courses>

System Retrofitting

Case 1 : Addition of a generator for FPSO

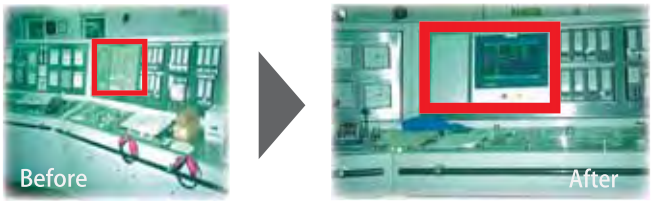
Due to an increase in the power load of FPSO, 2 sets of generator control panels and a synchronizing panel were added.
Using the existing 2 generator panels, in total 4 sets of generators are able to be controlled.

*FPSO=Floating Production, Storage and Offloading System



Case 2: Retrofitting of automation system for LNG ship

The existing 20 year-old monitoring system (other maker) was replaced with JRCS alarm monitoring system.



Regular Maintenance

Reduction of repair cost due to unexpected trouble and safer operation of vessels
Prevention of potential trouble due to defect or wear-out of parts

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