

# Welcome to Noris Group



# Companies & Organisation

## NORIS Group

**NORIS Automation**

Nuremberg



**GRAW Radiosondes**

Nuremberg



**NORIS Automation**

Rostock



**NORIS Benelux**

Rotterdam



**NORIS Automation**

Far East  
Singapore



**NORIS-SIBO**

Automation  
Shanghai



**GRAW Met Systems**

Shanghai





# SHIPBUILDING INDUSTRY

# Product Fields

**SOLUTIONS**

## Automation Devices



## Automation Systems



**PRODUCTS**

## Measurement & Control Devices



## Automation Components



# Tailor-made Solutions – Shipbuilding Industry



Engine monitoring and control system

Alarm, monitoring and control system

Propulsion control system

Cloud-based monitoring and analysis

Alarm extension system



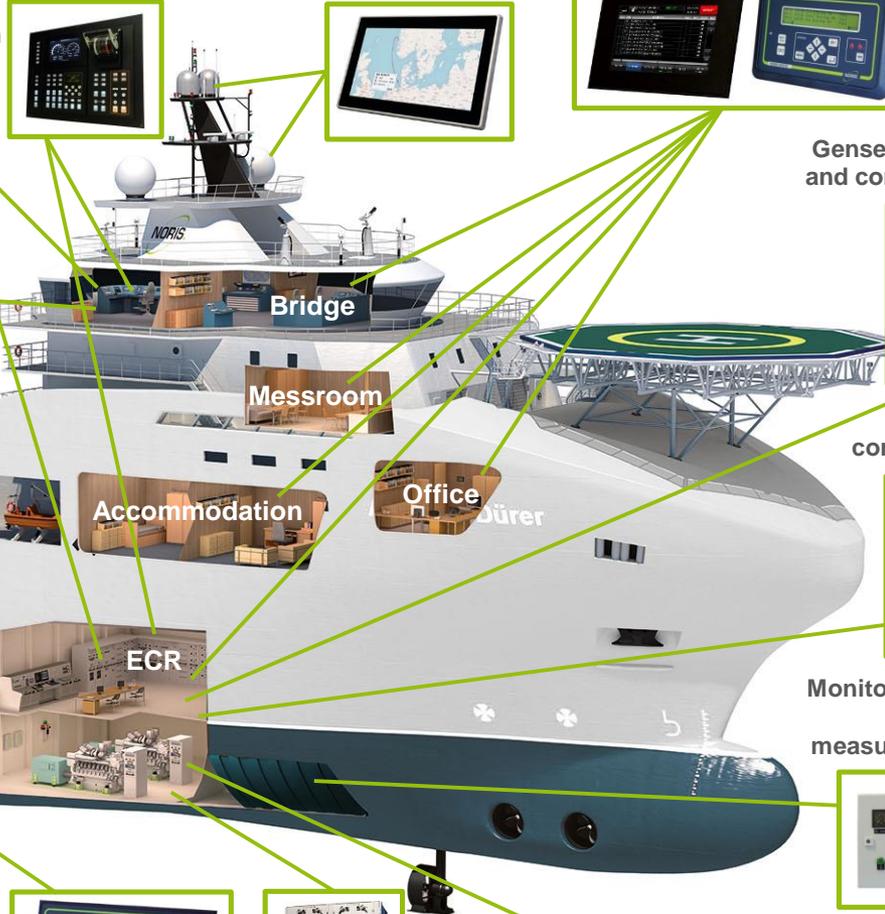
Engine order telegraph system



Pump and valve control system



Visualisation



Genset monitoring and control system



Gearbox control system



Wireless sensor



Monitoring cabinet Tank level measuring system



Sensors measuring speed, temperature, pressure



Signal processing



Dead-man system



Engine safety system



Energy storage system



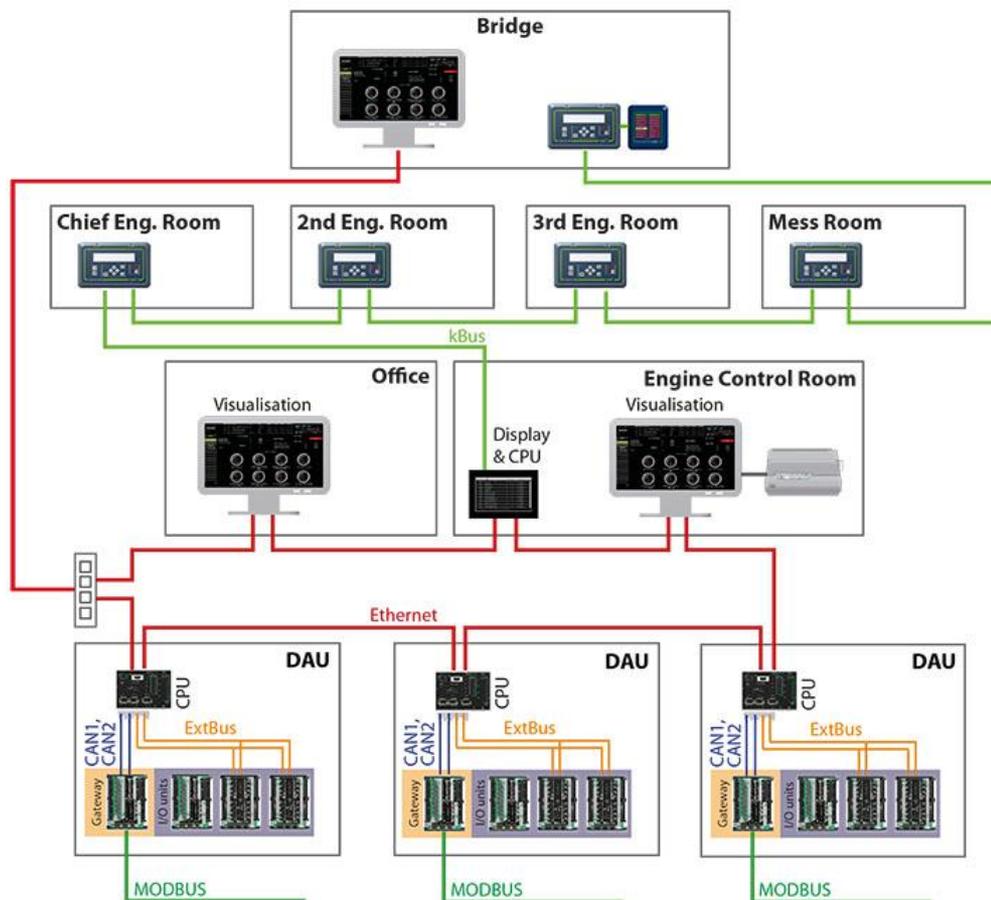
Power management system



# Alarm-, Monitoring and Control System NORIMOS 4



## Application Example



# Drive Lever Systems

## Application

Ship propulsion plant application: CPP, FPP, Azimuth and any kind of thrusters

## Features

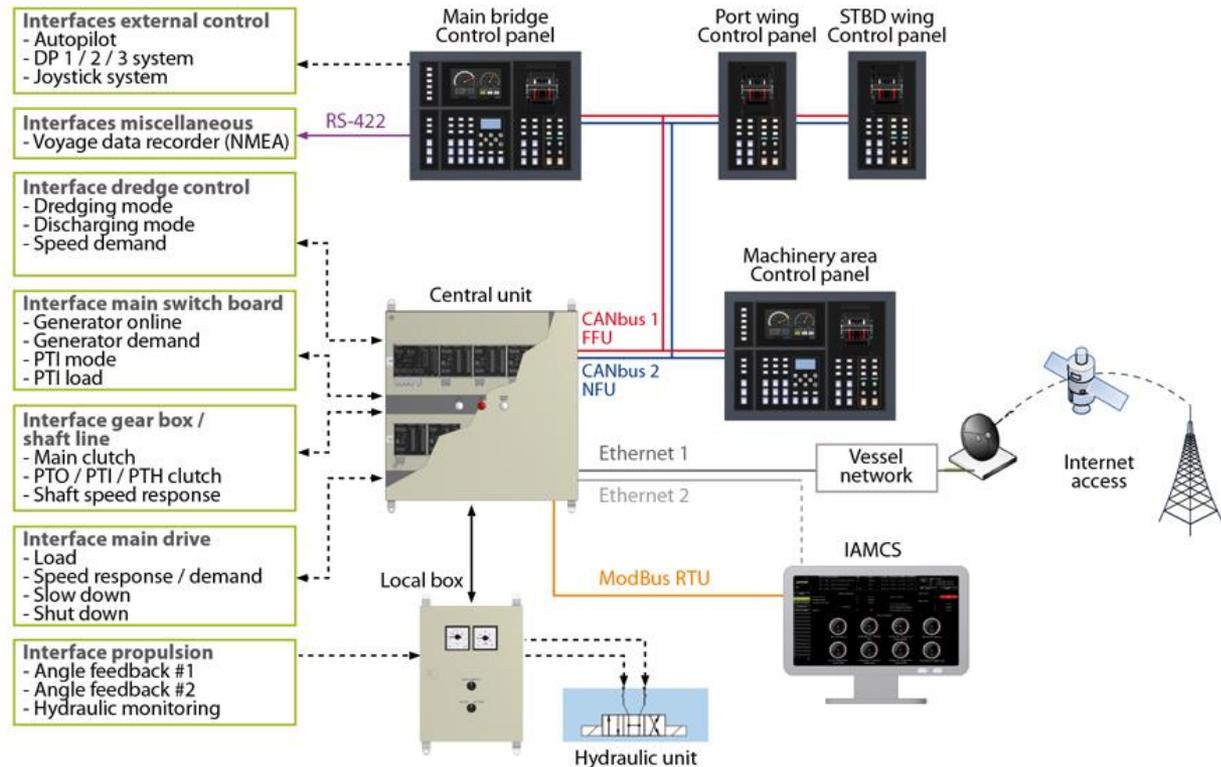
- Available as a single or double drive lever
- Individual scales available for each lever
- Position indicator for each lever
- Electrical Shaft System and configurable snap-in position
- Factory preconfigured for easy installation and commissioning by customer
- Suitable for indoor and outdoor application



# Propulsion Control System



## Application Example



# NORINET - cloud-based solution for remote monitoring and analysis

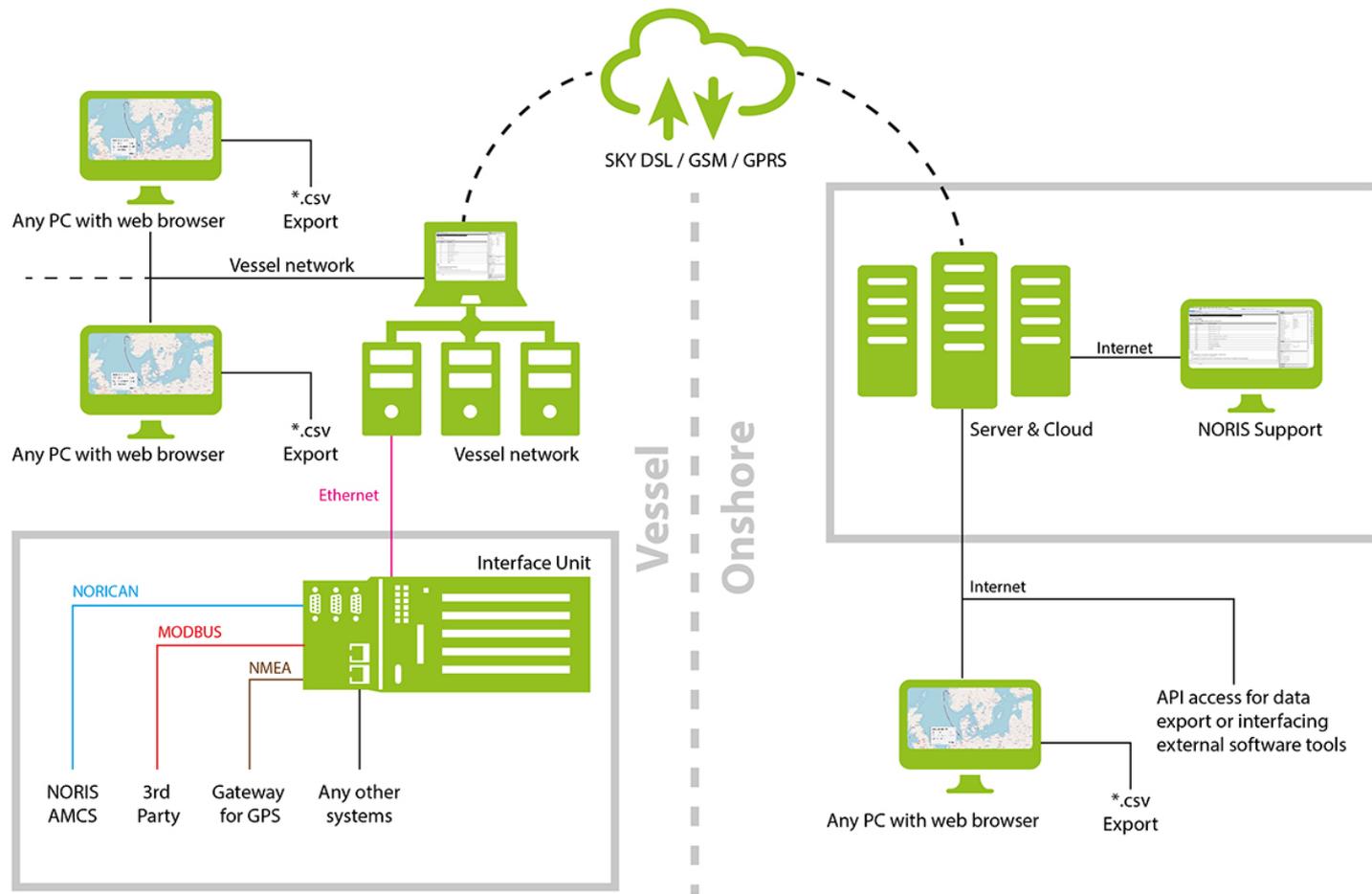


## Features

- Fast, reliable and secure data transfer via MQTT protocol
- Data caching when internet connection is interrupted
- Optimisation of vessel and fleet performance as well as maintenance processes
- App-based functionality to ease customisation and to reduce costs
- Secure real-time remote monitoring
- Performance reports and analysis based on historical data
- Easy system updates
- User management and multiple user access



# NORINET - cloud-based solution for remote monitoring and analysis



## Application

Optimises the generation and use of electricity

## Features

- CPU based multi-master system
- Safety through redundant communication
- Remote access for maintenance and service
- Different operation modes
- Automatic shore connection
- Intelligent ESS control
- Interface to higher level systems
- Usable in DC-power-bus applications
- Class approvals: BV, DNV-GL, LR (in preparation)

## Application examples

For hybrid and fully electric systems on ships

## Features

- Power Mode: Providing high energy in short time
- Energy Mode: Providing constant energy level over long time
- Peak Shaving Mode: Providing punctually energy to avoid load peaks
- Harbour Mode: Get power without running your Diesel generators or without shore connection – clean and silent!
- “Bring me to harbour” Mode: Your redundant system for propulsion – no noise, no pollution.

# References (Extract)

- more than 400 alarm-, monitoring and control systems

- over 500 engine safety systems

- more than 500 bulk carriers

- more than 750 propulsion control systems

- more than 400 specialized vessels

- Chimney lowering for Quantum class  
 - Rack-Chock control system MUHIBAH  
 - Exhaust gas purifiers control system  
 - Oil rig bases

- Tank level measuring  
 - Fire fighting control systems  
 - Measurement systems & analysis of fuel oil consumption  
 - Stabilizers control systems

- over 60 tankers

- more than 1000 new buildings

- more than 200 retrofits

... in the last 8 years



*NORIS.*



**MEGA YACHTS**

# Tailor-made Solutions – Mega Yachts



# Tailor-made Solutions – Mega Yachts



- *Classical ambience of timeless elegance*
- *State-of-the-art yacht automation and control solutions*
- *Highest quality made in Germany*



- *Individual yacht bridge design*
- *Tailor-made and unique control levers and panels*



## Application

- *Propulsion control*
- *Unique bridge solutions*
- *Alarm and monitoring*



# 208.000dwt BC Oldendorff / Hantong Shipyard



# Commissioning Noris Sibö Automation Shanghai



# Monitors for visualisation



# Expedition Cruise Ship / ASEN AV Chile



# Magellan Explorer



# 208.000dwt BC Oldendorff / Kouan SY / New Yang Zi Jiang SY / Taizhou Catic SY



# Commissioning Noris Sibos Automation Shanghai



# Coast Guard India / Goa Shipyard



# German Coast Guard / Fassmer Werft



# Visentini / AVIC Weihai SY / 2500m Lane RoRo



# Hondius / Brodosplit SY / Ocean Wide Expeditions / Polar Cruise Vessel



# Adenia Fish Trawler / Zamakona SY / Pelagic Trawler



# Pelee Islander / Asenav Chile Ministry of Transport Canada / Passenger Ferry



A close-up, low-angle shot of a steering wheel and instrument cluster. The instrument cluster is illuminated with a vibrant red and green glow. The steering wheel is black and has a textured grip. The background is dark and out of focus, showing parts of the car's interior.

**With Power  
into the Future!**

**Thank You for Your Attention!**