



K-IMS CONNECT

DATA INTEGRATION PLATFORM

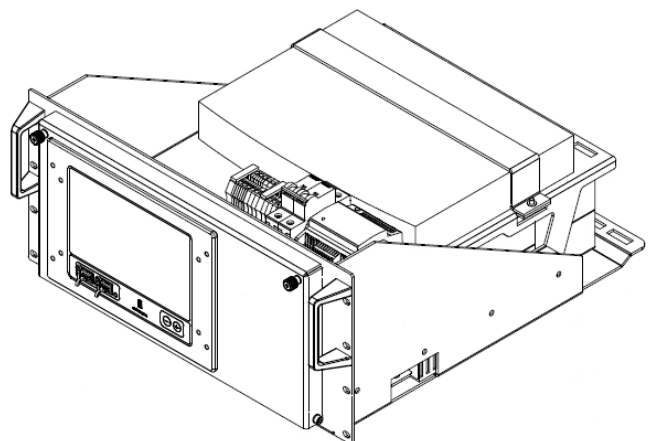
K-IMS Connect is the foundation of Kongsberg Information Systems. It is a data and event collection system, able to collect, distribute and analyze data from KONGSBERG and third party systems. Data from up to 1000 individual data points, together with events and alarms, is stored in high performance databases. The K-IMS web tools and applications provides functionality for data management and analytics of alarm & event and time series data.

Benefits

- Data logging from KONGSBERG and third party systems
- Industrial standard interfaces OPC DA and OPC AE, native KONGSBERG interfaces as well as third-party interfaces
- Logging of up to 1000 individual data points.
- Web applications for easy access to system data.
- Tools for analytics, data distribution and operational support.
- Protects control systems from malicious malware and viruses
- Extendible with KONGSBERG Services and advanced Performance.
- Performance Management, Condition Monitoring and Decision Support applications.

Technical specifications

- Power Voltage: 110/220 VAC
- Weight 18.38 kg
- 5U bracket for 19" rack
- Size 482 x 221 x 514 mm



GLOBAL SYSTEM TOOLS

K-IMS Connect comes with a set of powerful tools data analytics, distribution and operational support, enabling offshore operators to access all data collected from connected KONGSBERG and third party systems. The tools are available through an easy to access and user managed web portal, accessible through your web browser.

Trend

The tool allows users to analyse trends and alarms for selected tags / sensors from all connected systems. Historic data can easily be navigated through the intuitive timeline navigation controls in K-IMS. Alarm frequency is indicated on the timeline to enhance the troubleshooting process.

Dashboard

The dashboard tool provides a fully comprehensive and customizable visualisation of data acquired from a particular vessel. Customised dashboards can be created by the user and arranged in the desired order. The dashboard has a set of instruments used for visualisation and the user can select any instrument to represent the data required for a specific dashboard. Sharing user created dashboards with other users on the vessel, on other vessels in the fleet and onshore. Live dashboards can be viewed with near real-time data. History dashboards featuring playback of history from the past for analysing situations.

Reports

The powerful Report tool is designed to help create, display, and export reports. It provides report building with template creation and editing, and can show reports directly in any web browser.

Export Data

Export data is a specific tool for exporting historical data to a common file format for later use.

- Multiple tag selection
- Export of time-series and alarms and events
- Microsoft Excel compatible export format
- Automatic export engine, for example daily exports.

Notifications

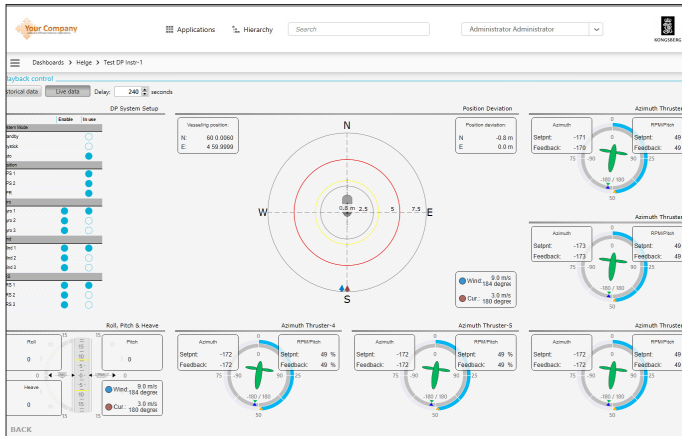
Users can subscribe and configurable notifications can be sent both internally and externally through e-mails and K-IMS notifications, generated by schedules or triggered on events in the system.

Alarm and Events

The tools provide statistical insight into the collected alarm and event data, and is a powerful search engine for alarm and events review. It offers functionality for deep diving into the alarms and events nature of the underlying KONGSBERG or third party system.

Calculation Designer

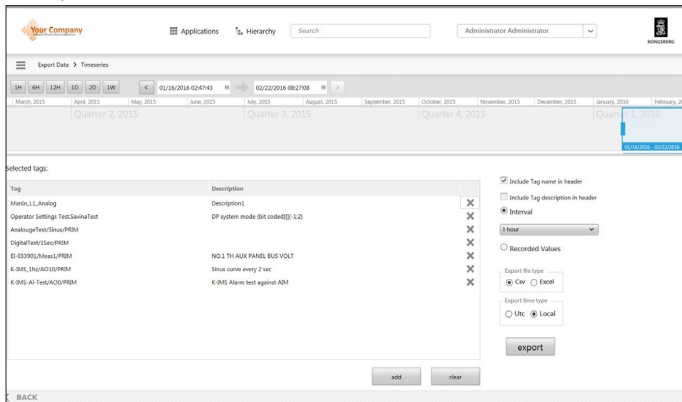
The tool displays calculations defined by the user. The result from the calculations can be presented in different dashboard instruments, trends, report tables or chart.



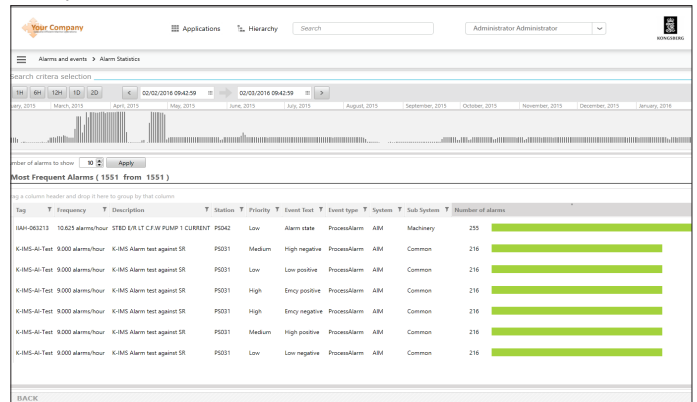
Example of Dashboard



Example of Trend



Example of Export Data



Example of Report

ADVANCED APPLICATIONS

KONGSBERG offers a wide range of advanced offshore and fleet applications for optimizing our customers' operations.

Performance management

Comparing vessels performance over time, and with other vessels, will give insight into how to increase fuel efficiency and reduce carbon footprint. By sharing best practice and energy awareness throughout the fleet, the cost can be significantly reduced.

Ship Performance Monitoring from KONGSBERG gives you the measures and the goals to reach. Ship Performance Monitoring is designed to give the same information in the office as on the vessel, for easy collaboration both onshore and offshore. Analyse and drill down to clearly optimize the ship performance by identifying the root cause of deviations.

Increase the meaning of performance figures by comparing them to accurate reference values. Benchmarking of comparable vessels operating under comparable conditions is available onshore and offshore to increase performance awareness and to guide knowledge sharing and learning between crew and regions.

Decision support

Combine all essential information from different systems offshore (Power management, Integrated automation, Riser management, Dynamic positioning) in combined views for optimal focus on position surveillance and riser operability.

Turn available operational data into increased predictability of your assets across the fleet. Comparing the operation of identical equipment on different vessels can advise proactive maintenance measures and increased predictability. With your organizations common asset structure as the backbone, users of K-IMS will have huge benefits in searching for the right operational data for their analysis.

Examples of condition based maintenance applications

- Motor monitoring covers basic maintenance related operational information such as running hours and the number of operations (start/stops) for each motor.
- Valve activity gives the overview of operational data for valves in order to list status for each valve.
- Inhibit log provides a list of all inhibits, overrides and module modes that are set or removed within a specified time span and related to work permit key data.

Examples of other available applications

Barrier test, Chemical Consumption, Controller Revision & Status, Equipment Shutdown Analyzer, SPM Onboard Benchmark, System Supervision and Unit Analyzer.



KONGSBERG INFORMATION MANAGEMENT SERVICES

Managing a fleet of vessels involves complex processes and collaboration. Fact based decision making improves transparency and process performance. Global operations require the ability to act on information regardless of where a vessel or a user is located.

KONGSBERG remote services

KONGSBERG Remote Services is a tool for certified engineers worldwide to connect to an installation upon customer request and provide remote support.

Access KONGSBERG Remote Services for

- Operational support and guidance
- Inspection of offshore systems and interfaces
- Preparation and investigation prior to service visits
- Remote update of offshore systems.
- Remote commissioning

Global secure network

The network is segregated, encrypted and private network.

The global network solution consists of two groups of devices, communication hubs and node network devices. All network traffic between network devices are encrypted. Any IP-based communication link can be utilized as a communication carrier.

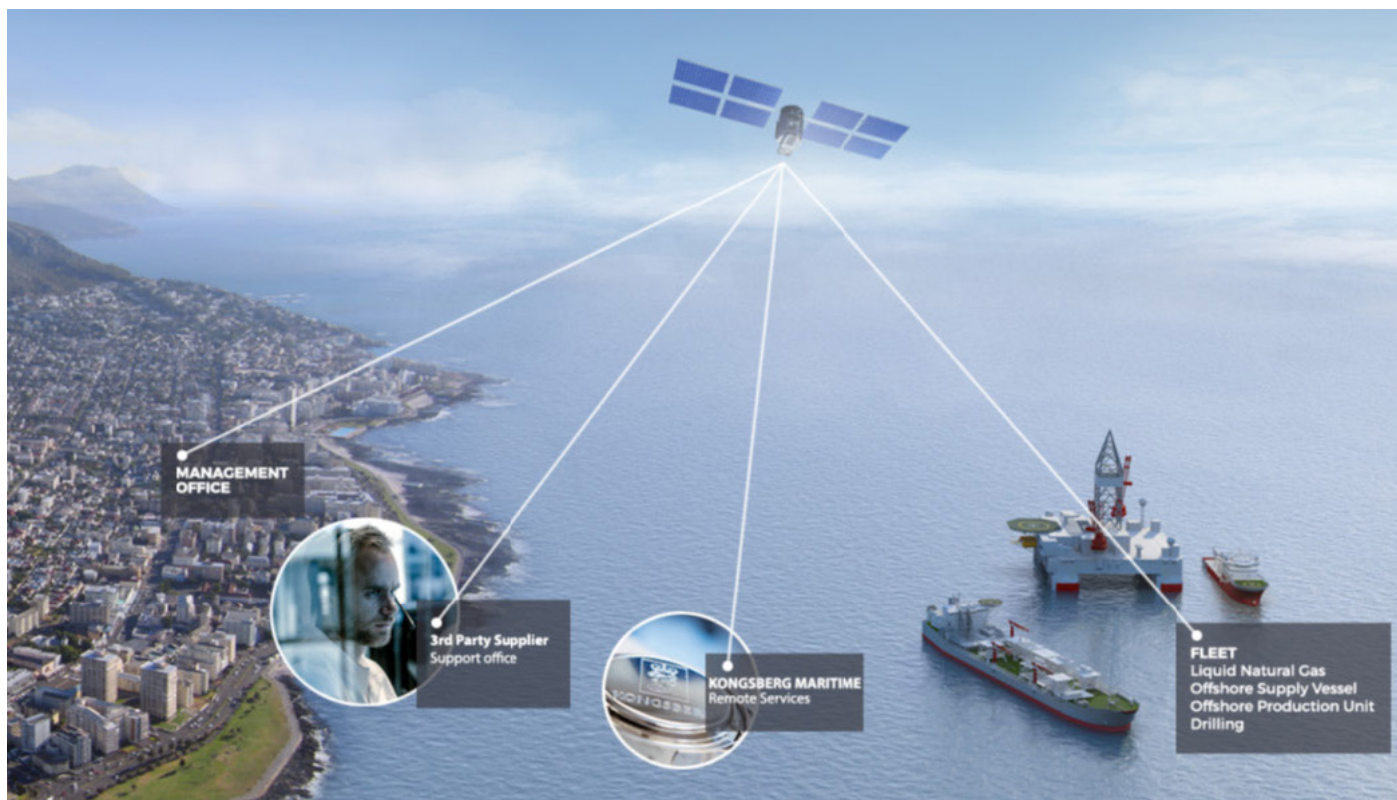
Malware protection system

Kongsberg Malware protection is designed to work in a maritime environment. Malicious software can cause serious damage and downtime for vessels. Updated Malware protection is vital to ensure a safe and efficient operation. With Malware protection, KONGSBERG has redefined control system Malware protection.

- No negative impact on critical control systems equipment.
- Always updated Malware protection.
- Network protection, securing critical networks.
- USB protection.
- Supports low bandwidth/high latency satellite connections.
- Alarms and notifications through SNMP.
- High availability.
- Portable updated scan engine.

KONGSBERG information management cloud

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Specifications subject to change without any further notice.

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