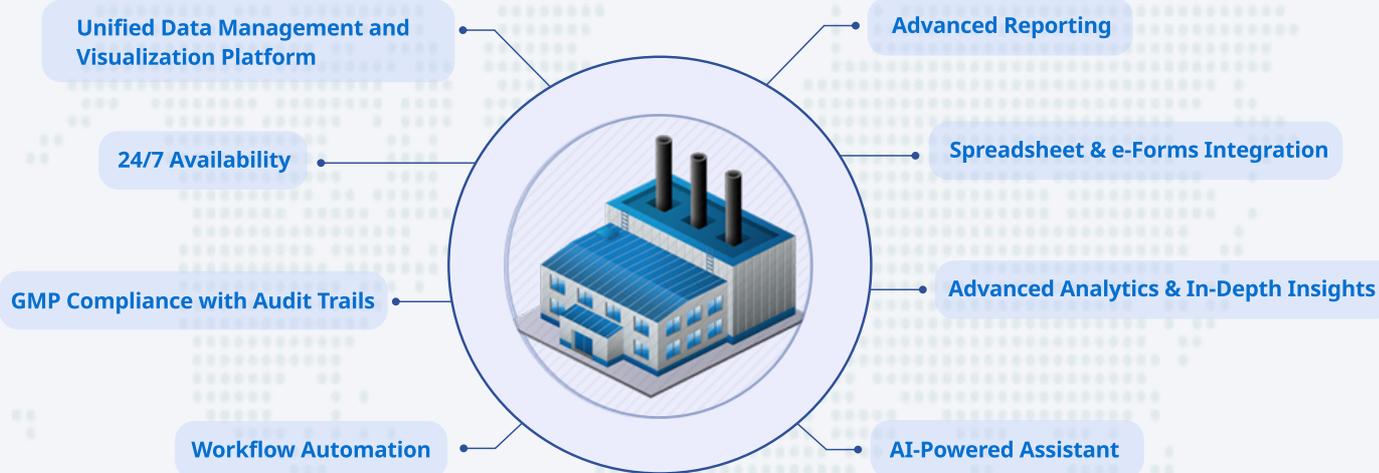# OpreX™ Intelligent Manufacturing Hub

Empower your team with real-time insights and data-driven decision making with OpreX Intelligent Manufacturing Hub

What is OpreX Intelligent Manufacturing Hub?

OpreX Intelligent Manufacturing Hub is your one-stop platform for clear and actionable insights. It combines a real-time dashboard with a powerful data integration platform, offering unparalleled scalability and a rich feature set. This empowers organizations to unlock the full potential of their data in real-time; driving growth and profitability through seamless connectivity, real-time insights, and uninterrupted performance.

OpreX Intelligent Manufacturing Hub constitutes a revolutionary data integration platform for modern manufacturers. Leveraging real-time data acquisition from disparate OT and IT sources, it provides a single source of truth for all operations in the plant. Intuitive dashboards and insightful visualizations facilitate the identification of actionable insights, enabling data-driven decision-making for process optimization and high performance. Central to this intelligence is the AI-powered IM Hub Assistant, which delivers instant, actionable KPIs directly into your conversations.

- Unified Data Management and Visualization Platform
- 24/7 Availability
- GMP Compliance with Audit Trails
- Workflow Automation
- Advanced Reporting
- Spreadsheet & e-Forms Integration
- Advanced Analytics & In-Depth Insights
- AI-Powered Assistant

OpreX Intelligent Manufacturing Hub replaces outdated, manual reporting with dynamic, flexible, and fully customizable reports; significantly boosting team collaboration through rich, easily accessible insights. Beyond immediate data access, it ensures strong governance and compliance by including essential features like Audit Trail and Role-Based Access Control (RBAC), helping organizations meet rigorous industry requirements such as GMP and FDA 21 CFR Part 11.

To maintain operational excellence, OpreX Intelligent Manufacturing Hub offers real-time health monitoring for continuous oversight of system status and data connectivity, so you always know what's running and what needs attention. Furthermore, it accelerates digital transformation through a low-code/no-code environment, allowing for seamless integration with unique business processes. This comprehensive approach facilitates superior data governance and simplifies the creation of automated workflows, making the entire operation more efficient, compliant, and data-driven.

Why OpreX Intelligent Manufacturing Hub?

Unified Data Management and Visualization Platform

Effortlessly connect to various data sources (MQTT, Modbus, OPC UA, and many more) with standardized integration for a unified view of your entire operation. The state-of-the-art middleware provides rich connectivity capabilities to create a single source of truth for your operations, which can be visualized on a centralized dashboard for clear and informed decision-making.
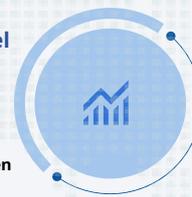
DASHBOARD KPIs
- Organize in a hierarchical manner
- Navigate the KPIs in a tree view

Logical Plant Model
- Drill down through the different plant area
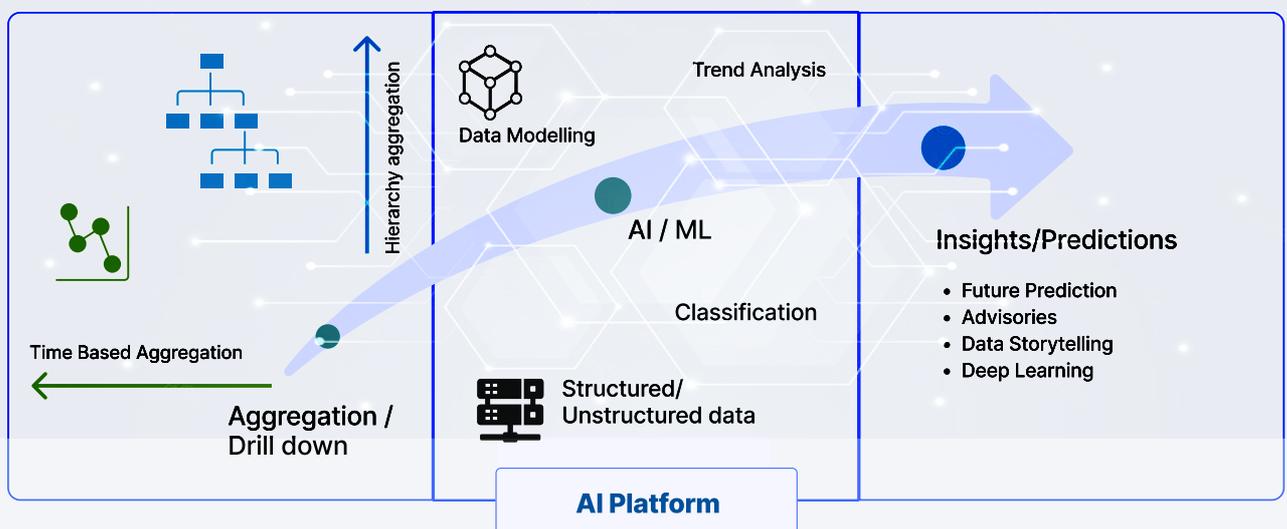- Identify the root cause and area of improvemen

Analytics
- Perform data aggregation (avg, min, max, etc.)
- KPI calculations on the fly
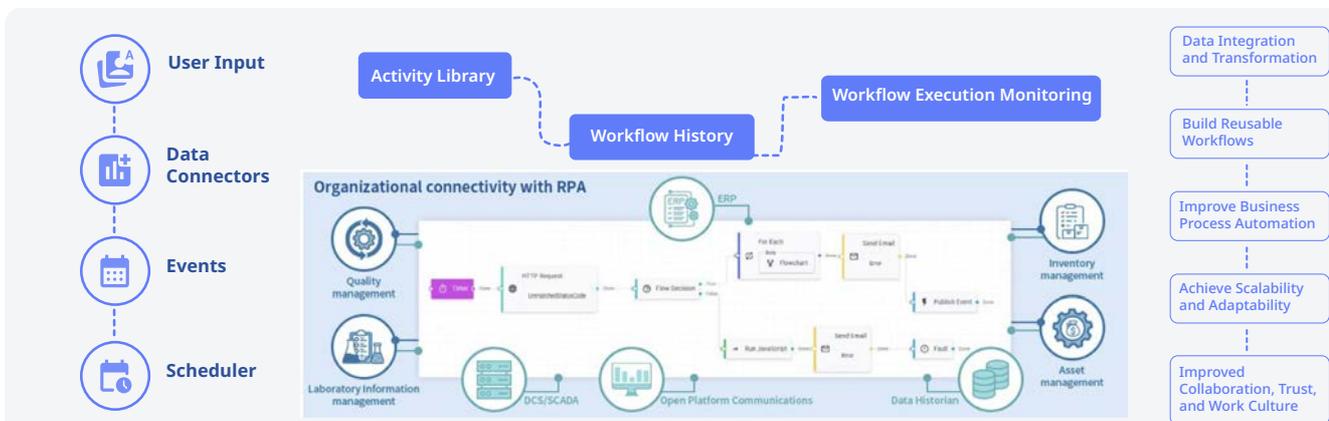
Advanced Analytics & In-Depth Insights

Understand your current production status at a glance with clear visualization and real-time data. Uncover deeper insights with powerful analytics tools. Compare performance across different sections of your plant, identify areas for improvement, and optimize overall efficiency. Get actionable alerts instantly about critical situations, allowing for timely corrective actions.

Hierarchy aggregation

Trend Analysis

Data Modelling

AI / ML

Classification

Time Based Aggregation

Aggregation / Drill down

Structured/ Unstructured data

Insights/Predictions
- Future Prediction
- Advisories
- Data Storytelling
- Deep Learning

AI Platform

Boost Efficiency with Workflow Automation & Advanced Reporting

Automate operations associated with data integration, data retrieval, storage, report generation, notifications, and so on by creating reusable workflows. A workflow consists of a series of steps called activities that are connected to each other in a logical sequence.

The activities in a workflow can be selected and sequenced according to your business requirements. Equipped with a library of activities, the Workflow Designer provides a no-code/low-code visual interface that enables you to create workflows.

User Input

Data Connectors

Events

Scheduler

Activity Library

Workflow History

Workflow Execution Monitoring

Data Integration and Transformation

Build Reusable Workflows

Improve Business Process Automation

Achieve Scalability and Adaptability

Improved Collaboration, Trust, and Work Culture

Organizational connectivity with RPA

Advanced Reporting

Generate comprehensive reports with ease, allowing you to make data-driven decisions and optimize your operations.

Manual Reports

User Data

Excel Spreadsheets

Interactive Report Designer

Integrate Multiple Sources of Data

Export to Multiple Formats (PDF, Word, Excel)

Scheduled / On-Demand Report Generation

Generate Meaningful and Actionable Insights

Promote Data Integrity and Transparency

Standardize Reporting Process and Information Sharing

Meet Data Governance and Compliance Requirements

Customization at Your Fingertips

Create multiple dashboards, reports, and forms tailored to your specific needs. Select from a rich set of layouts and leverage an intuitive drag-and-drop interface to arrange a variety of customizable widgets. Fine-tune each widget using the built-in property editor for a truly personalized experience.

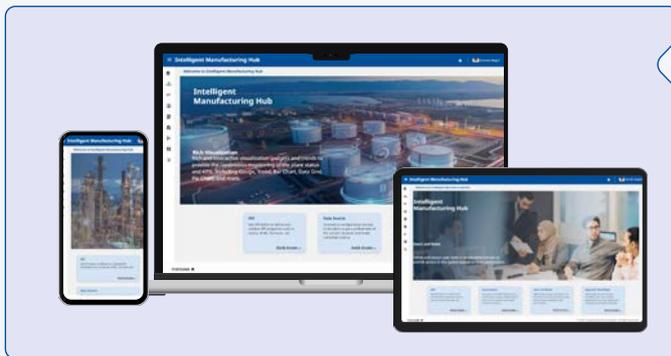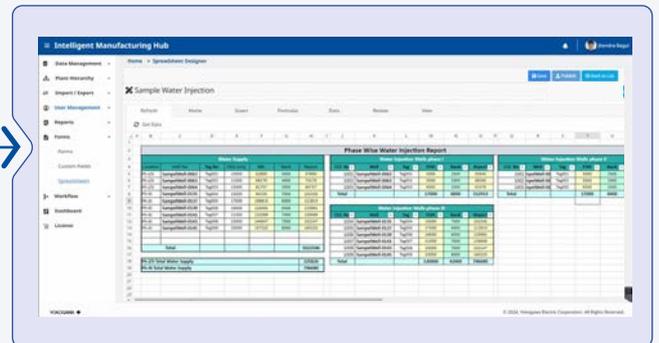| Gauge | Trend | Bar | DataGrid | Pie | Doughnut | CC TV | Heat Map | Filter | Alert | HTML Editor | Scatter | Bubble |

Enhanced Collaboration

Create standardized forms to ensure clear and organized collection of essential information. By facilitating efficient interactions, ensuring data accuracy, and providing valuable feedback channels, well-designed forms empower customers and contribute significantly to their overall satisfaction.

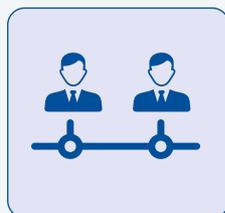This minimizes errors and fosters transparency, ensuring seamless collaboration.

Spreadsheet & e-Forms Integration

Import existing Excel spreadsheets with calculations and embed them in user forms for reporting and data exchange activities.
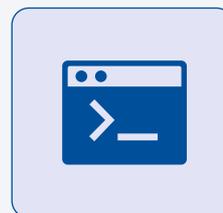

Modern, Responsive Design

OpreX Intelligent Manufacturing Hub empowers you with a next-generation, rich web-based visualization platform built on the latest HTML5 technology. This enables you to seamlessly access your data from anywhere with a user-friendly interface that adapts perfectly to desktops, tablets, and mobile devices.

Role-Based Access Control

Ensure data security with granular access permissions based on user roles.

Business Application Integration

Seamlessly integrate business applications such as SAP, inventory management, or asset management systems to create a single source of truth.

What's New?

24/7 Availability

OpreX Intelligent Manufacturing Hub can be configured to support redundancy and intelligent load balancing, maximizing uptime and performance based on your server architecture. It also ensures uninterrupted data transmission in a distributed system by using data nodes in conjunction with mini-historians. By storing and managing data via data nodes, latency is reduced and real-time transmission is guaranteed.

Effortless Search, Instant Results

With an intuitive and context-sensitive search feature that spans across all entities, OpreX Intelligent Manufacturing Hub empowers you to access KPIs, dashboards, forms, folders, or reports in one place. The search bar offers intelligent suggestions in real time, helping you find exactly what you're looking for, even if you're not sure how to spell it. Now, you can spend less time searching and more time doing high-priority tasks.

Global Reach, Local Touch

OpreX Intelligent Manufacturing Hub is designed to seamlessly provide multilingual support, ensuring that it is accessible and user-friendly across diverse linguistic and cultural landscapes. By connecting with users in their native language, OpreX Intelligent Manufacturing Hub makes the users feel right at home, no matter where they are.

Smarter Conversations with Data

Unlock smarter decision-making with our AI-powered IM Hub Assistant that delivers key performance indicators (KPIs) directly into your conversation. No more navigating complex dashboards or waiting on reports—just ask, and get real-time, actionable insights tailored to your business needs. Whether you're tracking sales, operations, or customer metrics, our IM Hub Assistant simplifies data access, boosts productivity, and keeps your team focused on what matters most.

GMP Compliance with Audit Trails

OpreX Intelligent Manufacturing Hub offers a robust audit trail feature to help users in achieving compliance with Good Manufacturing Practice (GMP) and FDA 21 CFR Part 11 (Electronic Records and Electronic Signatures regulation by the U.S. Food and Drug Administration). It automatically captures and logs all critical user actions, such as data creation, modification, and deletion, with timestamps and user IDs. These records are tamper-proof, secure, and governed by role-based access controls. It also includes data integrity verification, filtering, and export functions for efficient review. It covers functions such as Data Management, Plant Hierarchy, User Management, Reports, and Forms.

System Health Monitoring

OpreX Intelligent Manufacturing Hub provides a centralized view of system health and data source connections. With real-time insights into API performance and data source reliability, it helps you stay ahead of issues before they impact operations. Proactive monitoring means faster resolutions, improved uptime, and greater confidence in your manufacturing ecosystem.

Transform Your Business

Actionable Insights. Real-Time Awareness.

Executive

Manager, SME

Supervisor

Operator

Corporate KPIs
PAT, EBIT, Safety Environment, Ops Efficiency, etc.

Directorate KPIs
Projects, Production Plan/Actual, Cost, Sales & Marketing, Safety, Actual Vs. Target, etc.

Asset KPIs
Production, Facility Status, Quality, Facility Utilization, Maintenance, Energy, etc.

Station KPIs
Unit Details, Alarms, Samples, Tag Details, Work Orders, etc.

Senior Leadership

Empowering data-driven decision-making, senior leadership has access to a real-time, visual representation of the entire enterprise's operational status. They can readily monitor KPIs for each department under their purview. These summaries can be drilled down for deeper analysis, allowing leaders to not only monitor overall health, but also identify areas of excellence or requiring attention. This comprehensive view fosters proactive management and swift course correction when necessary.

Managers and Analysts

Equipped with real-time operational insights and forward-looking plans, managers and analysts can efficiently compare current and past performance, allowing for proactive adjustments and optimized strategies.

Supervisors

Supervisors enjoy granular visibility into the workflows within their departments, encompassing order entry, maintenance, and all operational activities.

Operators

By granting access to relevant information from various systems, frontline workers are empowered to make data-driven decisions that directly impact the company's bottom line.

Visualize Your Plant. Take Control.

The genesis of **OpreX Intelligent Manufacturing Hub** lies in creating a transformative force that unlocks the power of BI; empowering businesses to achieve a step change in their overall performance. By continuously leveraging cutting-edge technologies and adopting a customer-centric approach, we aim to be the preferred BI partner for our customers, enabling them to drive growth, optimize operations, and ensure quality and safety.

For more details, contact us at
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Co-innovating tomorrow™

Co-innovating means a strong commitment from Yokogawa to foster long-term partnerships with customers while also creating new value for problem solving. And tomorrow is an expression of Yokogawa's belief that steady incremental progress will win the future. Based on this slogan, we aim to further deepen our relationship of trust with our customers and create unprecedented value with them.

OpreX™ Through the comprehensive OpreX portfolio of products, services, and solutions, Yokogawa enables operational excellence across the enterprise.

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