Digital Fieldnetwork Solutions

FOUNDATION

HART COMMUNICATION PROTOCOL

PROFI BUS

ISA 100 WIRELESS

FDT Connected

EDDL™

vigilantplant.®
The clear path to operational excellence

YOKOGAWA

Is your plant benefiting from the features of intelligent devices?

Intelligent field devices provide many value-added functions such as self-diagnosis and multi-variable capability.
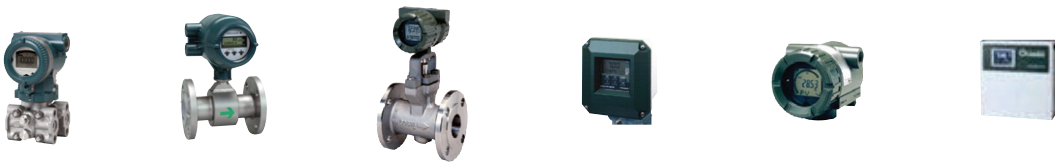
Intelligent field devices

Yokogawa's Digital Fieldnetwork solutions maximize the value of plant assets throughout the plant lifecycle.

Yokogawa offers a comprehensive range of solutions for the entire plant lifecycle: not only Digital Fieldnetwork-compatible products such as intelligent devices, control systems, and plant asset management systems, but also after-sales services.

Installation

- Reduction in installation costs, including wiring cables, marshalling racks and devices

- Reduction in man-hours

FieldMate

STARDOM

ProSafe-RS

Intelligent field device

FOUNDATION

HART COMMUNICATION PROTOCOL

PROFIBUS

ISA100 WIRELESS

PRM

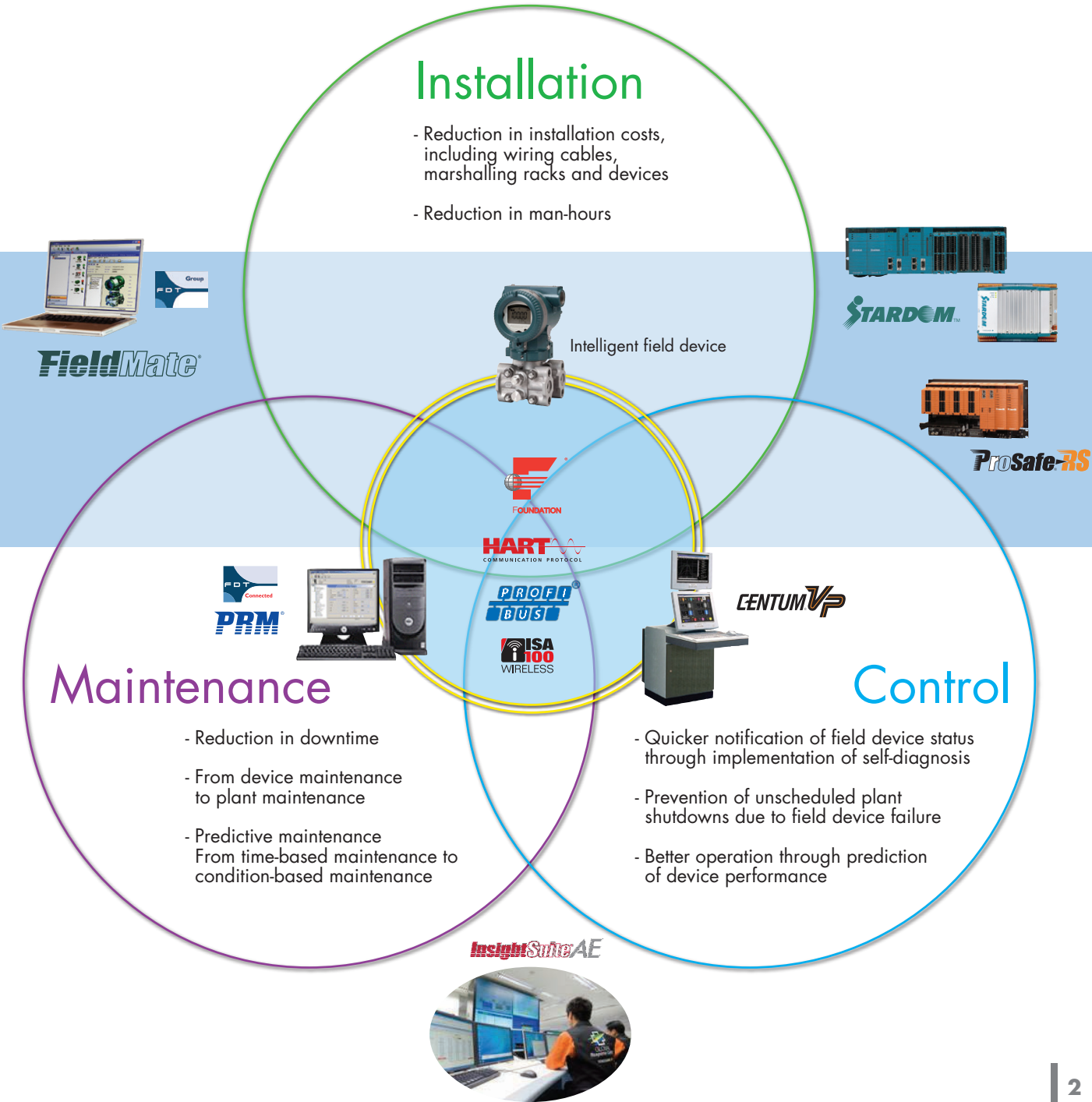**CENTUM VP**

Digital Fieldnetwork Solutions

Digital Fieldnetwork technology provides intelligent device capability that offers more value.

A Digital Fieldnetwork allows remote access to intelligent devices that are widely deployed in the field, saving considerable time in configuration and maintenance. It is capable of two-way communications with the device, accessing its self-diagnosis results to facilitate more effective scheduling and implementation of maintenance.

A Digital Fieldnetwork contributes to operational excellence.

Predictive maintenance can reduce the likelihood of an unexpected device failure, resulting in increased reliability and reduced operational and maintenance costs.

Maintenance

- Reduction in downtime

- From device maintenance to plant maintenance

- Predictive maintenance From time-based maintenance to condition-based maintenance

Control

- Quicker notification of field device status through implementation of self-diagnosis

- Prevention of unscheduled plant shutdowns due to field device failure

- Better operation through prediction of device performance

InsightSuite AE

Operational excellence =

Plant availability × Throughput × Product quality

Operational cost × Maintenance cost × Safety cost

Information obtained through a Digital Fieldnetwork helps you start up your plant quickly, reducing CAPEX*.
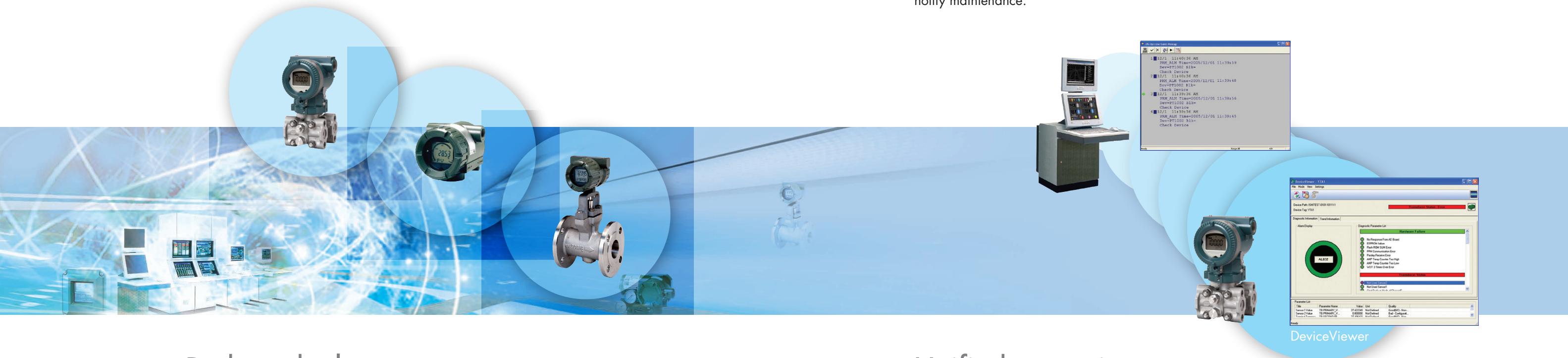
*CAPEX: capital expenditure

Communications Standards Support

Yokogawa intelligent devices support **FOUNDATION fieldbus, ISA100Wireless, HART,** and **PROFIBUS** communication protocols, which can be managed collectively.
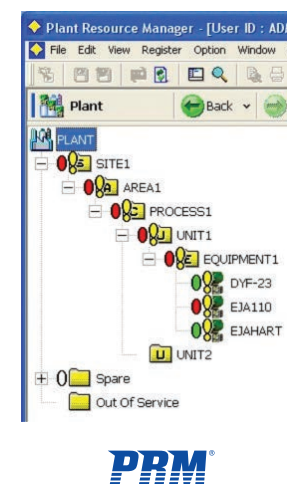
Reduce deployment costs

From a central location, the states of all connected devices can be viewed/managed hierarchically using **Plant Resource Manager (PRM)**. The ablity to visualize installation progress and identify devices that are not yet fully configured enables quicker setup and deployment.

FieldMate is an on-site device configuration tool that is vendor and Digital Fieldnetwork independent. It employs FDT/DTM* open technology and an easy-to-use graphical user interface (GUI).

*FDT/DTM : field device tool/device type manager
FDT/DTM and EDDL multi-vendor support contributes to effective maintenance throughout the device lifecycle.

PRM

FieldMate

Information obtained through a Digital Fieldnetwork helps improve plant control and safety, reducing training and operation costs.

Real-time monitoring with a wider scope

Messages generated by predictive maintenance alarms give operators time to manage their process before an asset fails.
The **DeviceViewer** tool helps operators determine whether an alarm was caused by a device or by the process, enabling the operators to perform necessary actions and to quickly notify maintenance.

DeviceViewer

Unified operations

Even if a plant utilizes more than one type of Digital Fieldnetwork, operations can be performed in a unified Look & Feel environment on the **CENTUM VP**. Integration of normal plant monitoring and failure handling leads to better control of the plant as well as to improved safety. Additional cost reduction can also be achieved in personnel training and operational expertise transfer.
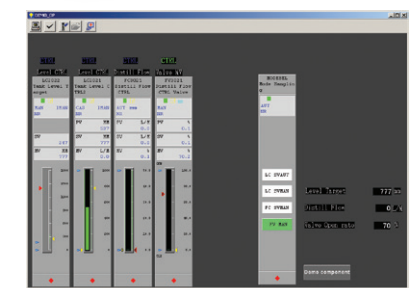
Benefits in Maintenance

Information obtained through a Digital Fieldnetwork makes it possible to manage devices and schedule maintenance more systematically, increasing plant productivity.

Proactive maintenance

PRM enables the continous monitoring of devices.

PRM Advanced Diagnostics Applications (PAA) can diagnose all the devices in a manufacturing facility and improve their performance. Maintenance costs can also be cut by handling the same maintenance workload with a reduced number of staff.

Predictive device diagnostics provides alarms along with action guidance messages. This allows the personnel to make the most efficient and effective use of their time by prioritizing and pinpointing a device problem.

All alarms, diagnostic results, operation and maintenance records, and parameter changes handled through PRM are saved in an easily searchable database for future reference.
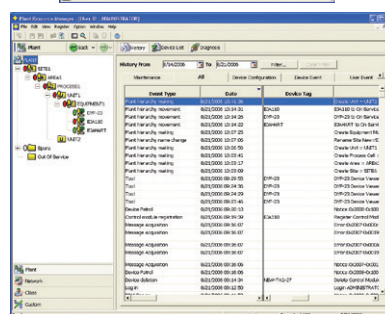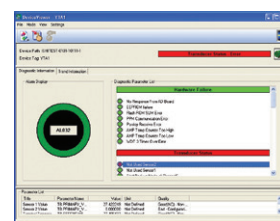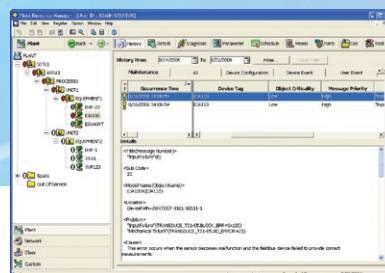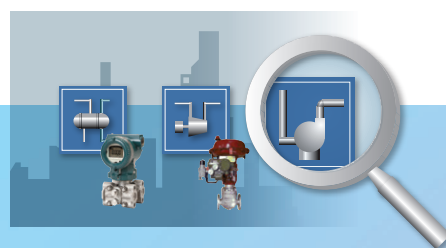
Fast and easy device configuration

FieldMate can display the current states of devices and compare the latest parameter settings with previous values to highlight at-a-glance the differences. Device information and operation records on FieldMate can be integrated into PRM. Being able to manage devices in a single database accelerates work efficiency. (Available in phases)

Easy updating of intelligent devices

Intelligent devices can be updated directly from a control system through a software download function. No hardware replacement is needed to keep devices current. As Yokogawa devices are equipped with dual-redundant memory sets, software can be downloaded online during plant operation, minimizing any risk from having to perform field work on the device.
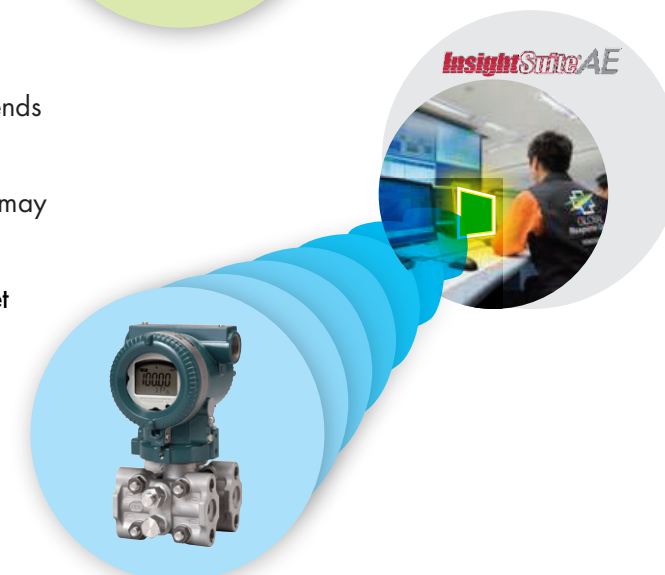
Download

InsightSuiteAE

InsightSuiteAE digitizes health and degradation trends of plant assets such as devices and fixed equipment. By comparing the digitized results with benchmarks, InsightSuiteAE identifies and lists potential assets that may affect productivity.
InsightSuiteAE assists with activities of the continuous PDCA cycle* that aim to determine the causes of asset problems and correct them. (Available in phases)

* PDCA Cycle : Plan-Do-Check-Action Cycle.
   This is an iterative four-step quality control strategy.

Related product list

CENTUM VP

CENTUM VP, Yokogawa's integrated production control system, has an open architecture and offers unmatched reliability, scalability from small to large systems, deterministic Gigabit network performance, ease of operation and engineering, high performance, and maintainability.

STARDOM

STARDOM is an open network-based control system for SCADA that is comprised of intelligent RTUs for geographically and functionally distributed applications. It can use a variety of wide and narrow bandwidth networks to link resource planning, manufacturing systems, and control throughout the enterprise.

ProSafe-RS

Achieving absolute integrity between distributed control systems (DCS) and safety instrumented systems (SIS) for plant automation has traditionally raised complex design and integration issues. ProSafe-RS, the world's first truly integrated "safety PLC" for the process industries, puts an end to DCS-SIS incompatibility.

FieldMate

FieldMate is a PC-based device configuration tool used by engineers and technicians to manage the initial setup, routine maintenance, troubleshooting, and replacement of intelligent field devices. Developed with the "one tool for all" concept, FieldMate supports multi-vendor devices and multi-communication protocols such as FOUNDATION fieldbus, ISA100Wireless, PROFIBUS, and HART as well as both FDT/DTM and EDDL technology.

PRM

Plant Resource Manager (PRM) is Yokogawa's value-added asset management solution that integrates and manages maintenance information, monitors conditions online, and records historical data for field devices and other plant assets.

Intelligent Device

Yokogawa markets a wide range of state-of-the-art, industrial-use field devices such as pressure and temperature transmitters, magnetic flowmeters, vortex flowmeters, and corriolis flowmeters. These field devices support industry standard communication protocols such as FOUNDATION fieldbus, ISA100Wireless, HART, and PROFIBUS to communicate with process automation and asset management systems.

vigilantplant.®

The clear path to operational excellence

SEE CLEARLY | **KNOW IN ADVANCE** | **ACT WITH AGILITY**

VigilantPlant is Yokogawa's automation concept for safe, reliable, and profitable plant operations. VigilantPlant aims to enable an ongoing state of Operational Excellence where plant personnel are watchful and attentive, well-informed, and ready to take actions that optimize plant and business performance.

Represented by:

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