



# FOUNDATION<sup>TM</sup> fieldbus

Key Technologies in Yokogawa's Plant Network Solutions

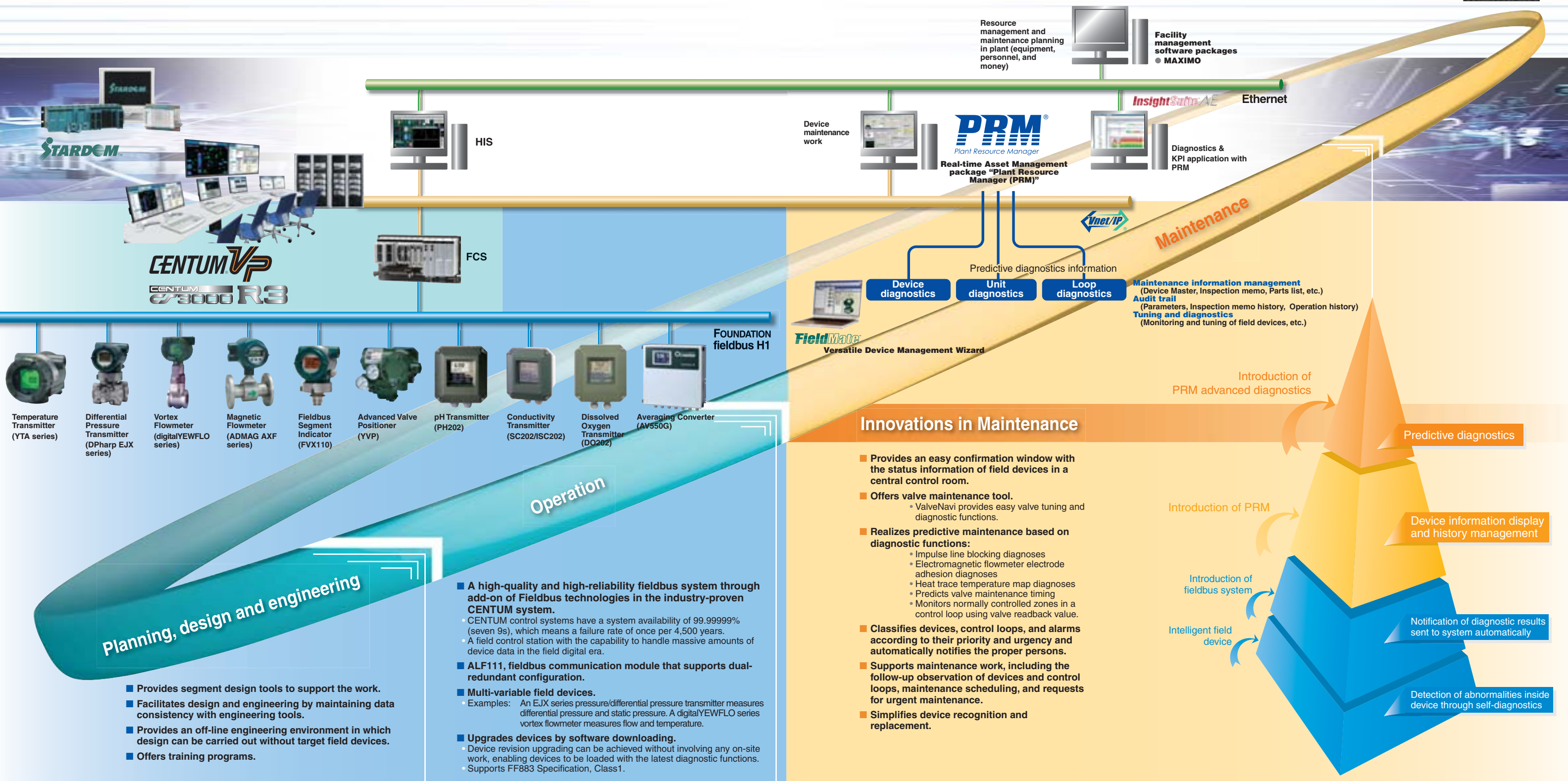
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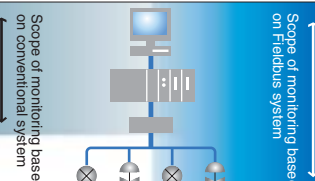
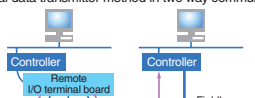
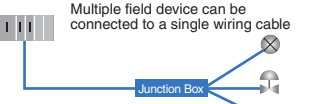
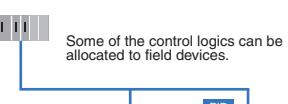
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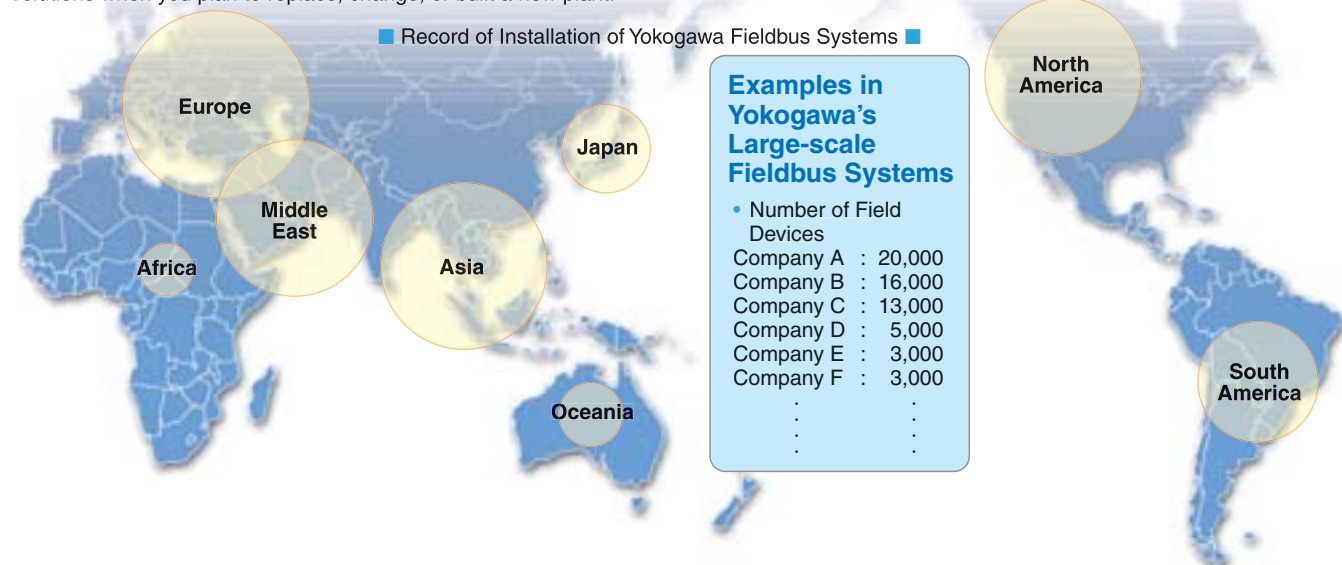
# Yokogawa's Fieldbus Solutions greatly help to reduce plant life-cycle costs.



NOTE: What is Fieldbus?		Communication Method	Quality of Information	Wiring and Installation Costs	Function Distribution	Scope of real-time monitoring	Maintenance	Interoperability	
	Conventional instrumentation	Analog data transmitter method in one-way communication	Single data value	Since one-to-one wiring is required, as many wires as the number of field devices are necessary.	Control is covered by a DCS.		Maintenance on the site/corrective and preventive maintenance	4-20 mA, 1-5V DC	
	Fieldbus instrumentation	Full digital data transmitter method in two way communication 	<ul style="list-style-type: none"><li>■ Multiple data value</li><li>■ Addition of data status at devices</li><li>■ Alarm notification from devices</li></ul>					<ul style="list-style-type: none"><li>■ Remote maintenance from central control room</li><li>■ Introduction of predictive maintenance</li></ul>	<ul style="list-style-type: none"><li>■ Vendor-independent</li></ul>
Advantages of fieldbus installation		<ul style="list-style-type: none"><li>■ Improvements in product quality by highly accurate data processing and less zero &amp; span drift in trend monitoring.</li><li>■ Availability of remote maintenance</li><li>■ Increase of field information</li></ul>	<ul style="list-style-type: none"><li>■ Increased efficiency in operation and maintenance work by the utilization of information from field devices</li></ul> <p>* For example, an information for the actual valve is utilized in operation and maintenance.</p>	<ul style="list-style-type: none"><li>■ Reduction in the number of wiring cables by multi-drop connection</li><li>■ Reduction in the cost of installation, including wiring cable and marshalling rack, etc.</li><li>■ Reduction in the size of control room</li><li>■ Easy addition of devices</li></ul>	<ul style="list-style-type: none"><li>■ Optimum allocation of control logics</li></ul>	<ul style="list-style-type: none"><li>■ Availability of field devices status monitoring and implementation of self-diagnosis</li><li>■ Prevention of unscheduled plant shutdown due to field device failure</li></ul>	<ul style="list-style-type: none"><li>■ Reduced trip to the site and fieldwork</li><li>■ Automation and standardization of maintenance work utilizing tools</li><li>■ Improved availability of the plant through predictive maintenance</li><li>■ Reduced maintenance costs</li></ul>	<ul style="list-style-type: none"><li>■ System configuration with multi-vendor devices</li><li>■ Freedom of selection for optimum system and field devices</li></ul>	

# Record of Installation

As a total Fieldbus solution vendor, Yokogawa has excellent experience records. Yokogawa encourages you to consider introducing our fieldbus solutions when you plan to replace, change, or built a new plant.



**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.

## YOKOGAWA ELECTRIC CORPORATION

### World Headquarters

9-32, Nakacho 2-chome, Musashino-shi, Tokyo 180-8750, Japan  
<http://www.yokogawa.com/fbs/fbs-index.htm>

## YOKOGAWA CORPORATION OF AMERICA

12530 West Airport Blvd, Sugar Land, Texas 77478, USA  
<http://www.yokogawa.com/us/>

## YOKOGAWA EUROPE B.V.

Euroweg 2, 3825 HD Amersfoort, The Netherlands  
<http://www.yokogawa.com/eu/>

## YOKOGAWA ENGINEERING ASIA PTE. LTD.

5 Bedok South Road, Singapore 469270, Singapore  
<http://www.yokogawa.com/sg/>

## YOKOGAWA CHINA CO., LTD.

3F TowerD Cartelo Crocodile Building  
 No.568 West Tianshan Road, Shanghai 200335, China  
<http://www.yokogawa.com/cn/>

## YOKOGAWA MIDDLE EAST B.S.C.(c)

P.O. Box 10070, Manama  
 Building 577, Road 2516, Busaiteen 225, Muharraq, Bahrain  
<http://www.yokogawa.com/bh/>

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