CENTUM RIO System Upgrade

Safely and reliably upgrade from your existing system to the latest environment
Highly reliable RIO (Remote I/O)* upgrade with short delivery!

"CENTUM VP" is the latest control system that provides optimum operation monitoring and engineering environment throughout the plant’s lifecycle and sustainable grows with our customers.

At the plant, the control system will be updated to reduce costs, increase production, respond to legal requirements, countermeasures against aging of the system, and so on. In that case, it is necessary to switch over in a short period and to prevent troubles in order to minimize the influence on production.

**Benefits of upgrading to CENTUM VP**
- The intuitive and easy-to-understand HIS (Human Interface Station) environment inherits the conventional operability focused on improving operational efficiency by reducing the burden of operation monitoring.
- Integration with the production management system can be easily realized with a high-speed control bus and general-purpose communication I/F (OPC standard interface).
- Designed with maintenance cost reduction and modern field device compatibility in mind. We support field devices compatible with digital communication and the expanding proven ISA100 wireless device global standard.
- Safety instrumentation system integrated interfacing provides easily deployed, safe, and secure plant operation.

**Features of RIO system upgrade**
- New devices for the RIO system upgrade are compatible with existing RIO in both function and physical form for low risk implementation compatibility. Existing cabinets and terminal blocks can be re-used as they are. It is not necessary to change the wiring between the I/O device and the sensor or valve.
- Project risk and execution time is minimized as existing database can be efficiently and reliably converted to utilize the latest engineering environment.

**Inheritance of signal connection**

![Image of system for RIO system upgrading]

*RIO (Remote I/O): It is an input/output module that Yokogawa can support I/O signals ahead of market introduction in 1993.
Stepwise upgrade by making full use of existing assets of the existing system

Realize stepwise upgrade according to Yokogawa's "Sustainable Plant" concept which is to provide long-term functional maintenance and performance improvement of the automation system. Stepwise upgrade can achieve reduction of OPEX (Operating Expense) and production loss by shortening project execution time.

RIO system upgrade example

**Step 1**
- Upgrade EWS/ICS/PICS to CENTUM VP's latest HIS/ENG

**Step 2**
- Upgrade FCS respectively
- Remove unnecessary equipment after completion of all FCS upgrade

- **Intuitive and easy-to-understand HMI environment**
- New HIS can be added without changing the control application at all.
- Reduce burden on operation monitoring and improve operation efficiency in intuitive and easy-to-understand HIS environment while inheriting conventional operability.
- Cooperate with the production management system due to a high-speed control bus and general-purpose communication I/F (OPC standard interface).

**Benefits**
- FCS Upgrade
  - It is possible to upgrade one FCS at a time.
  - Existing cabinets and field wiring can be reused so additional space is not necessary.
  - The system reconstruction time can be shortened by efficient and reliable database conversion.

- **Sustainable System**
  - Utilize modern digital communication and ISA100 wireless field devices in order to reduce maintenance cost.
  - Improve safe and secure plant operation by integrating with safety instrumentation system.
  - For RIO system upgrade

Yokogawa develops products that conform to the four concepts in order to realize the "Sustainable Plant."
● Solution for realizing Sustainable Plant

Yokogawa provides products that realize long-term functional maintenance by developing products that keep compatibility and inheritance of functions with both hardware and software.

Yokogawa provides global unified maintenance service in the following plans.

● Basic Support Plan

This support plan provides basic maintenance focusing on breakdown maintenance for trouble shooting and patrol inspection.

**Basic Maintenance**
Providing prompt solutions and reliable services with comprehensive global service network and escalation system.

● Custom Support Plan

This support plan provides a wide range of maintenance works based on our long-term maintenance plan called the lifecycle execution plan. This maintenance plan provides more than just peace of mind; it provides tangible safety benefits for your assets.

**Lifecycle Planning**
Yokogawa manages the Lifecycle Execution Plan and propose the necessary service work on systems in a timely manner.

**Safety & Security**
Services for protecting plants against virus infections, cyber attacks, and illegal invasions.

**Secured Remote Solutions**
System monitoring service via remote monitoring.

● Partner Portal

Deliver the necessary information to customer’s system in a timely manner.

Yokogawa provides information such as product specifications and technical information necessary for each product’s life cycle to customers. In addition, customers who use “Customer Support Information” based on product maintenance agreement can see software revision information of contracted products, information on improvement of maintainability, etc.

Partner Portal  https://partner.yokogawa.com/global/

---

YOYOGAWA ELECTRIC CORPORATION
World Headquarters
9-32, Nakacho 2-chome, Musashino-shi, Tokyo 180-8750, Japan
http://www.yokogawa.com/

YOYGAWA CORPORATION OF AMERICA
12530 West Airport Blvd, Sugar Land, Texas 77478, USA
http://www.yokogawa.com/us/

YOYGAWA EUROPE B.V.
Euroweg 2, 3825 HD Amersfoort, The Netherlands
http://www.yokogawa.com/eu/

YOYGAWA ENGINEERING ASIA PTE. LTD.
5 Bedok South Road, Singapore 469270, Singapore
http://www.yokogawa.com/sg/

YOYGAWA CHINA CO., LTD.
3F TowerD Cartelo Crocodile Building,
No.568 West Tianshan Road, Shanghai 200335, China
http://www.yokogawa.com/cn/

YOYGAWA MIDDLE EAST & AFRICA B.S.C.(c)
P.O. Box 10070, Manama,
Building 577, Road 2516, Busaiteen 225, Muharraq, Bahrain
http://www.yokogawa.com/bh/

Represented by:

http://www.yokogawa.com/dcs/

Printed in Japan, 701(KP) [Ed : 01/b]

Trademarks
CENTUM, Co-innovating tomorrow, and Vnet/IP are either trademarks or registered trademarks of Yokogawa Electric Corporation. All other company brand or product names in this bulletin are trademarks or registered trademarks of their respective holders.

Subject to change without notice.
All Rights Reserved. Copyright © 2017, Yokogawa Electric Corporation