

# CENTUM VP

## Engineering and Maintenance

### Course Code

VPEM

### Course Overview

This 5-day course is designed to enable participants to perform database generation of Centum VP regulatory control functions, sequence control functions and human interface station configuration as well as to perform maintenance on Centum VP system.

### Who Can Take This Course

For engineers who are involved in software modification and maintenance on Centum VP system.

### Course Methodology

Lectures, demonstrations, discussions and practical exercises.

### Course Outline

You will learn

#### Lesson 1: System Architecture

- Identify the overall layout concept of CENTUM VP
- Define the terminology of the CENTUM VP system
- Display how to setup unit addressing
- Identify the Field Control Station hardware
- Discuss how safety systems and asset management integrate with CENTUM VP
- Identify the I/O modules and how software addresses each point
- Explain how to open the online manual documentation

#### Lesson 2: System Configuration

- Open the "System View" builder files
- Create a new Centum VP project
- Define the initial setup items of a project
- Create an FCS
- Create an HIS

#### Lesson 3: HIS Builders

- Open HIS Configuration builder files
- Assign Function Keys
- Define Trend Properties
- Assign Trend Acquisition Pens
- Create an Overview Graphic Window
- Create a Control Group Graphic Window

#### **Lesson 4: FCS Configuration Builders**

- Define I/O modules
- Understand Operator Guide Messages
- Understand Annunciator Messages
- Identify Common Switches

#### **Lesson 5: Regulatory and Calculation Functions**

- Understand the basic structure of a function block
- Identify the four processing functions of a function block
- Familiarize the different data item, block modes and alarm status of a function block
- Identify the different types of Regulatory Control
- Define the different parts of the input signal processing function
- Define the different parts of the output signal processing function
- Identify the different types of signal wiring

#### **Lesson 6: Sequence Control Programs**

- Create sequence elements for use in process control
- Define sequence elements in a Sequence Table
- Define "Condition and Action" entries in a Sequence Table
- Identify the difference between table executed as "Steps" and as "Rules"
- Use a "Logic Chart" as an alternative for Sequence Table

#### **Lesson 7: Graphics**

- Open the Graphic Builder
- Use the Graphic Builder to create graphic items such as vessels, pumps, valves and piping

#### **Lesson 8: Downloading and Project Backup**

- Understand the different types of downloading
- Perform Tuning Parameter Save
- Perform project backup and restore

#### **Lesson 9: Replacement of Common Modules**

- Understand the functions of the major components of the FCS
- Replace common modules such as Power Supply, Processor, Bus Couplers, Bus Interface, and I/O modules.
- Perform FCS Crash Dump
- Generate IOM report
- Perform IOM download

#### **Duration**

5 days.

#### **Certification**

Participant who attains at least 75% attendance will be awarded Certificate of Attendance.

#### **Venue**

Yokogawa Engineering Asia Pte. Ltd.  
5 Bedok South Road  
Singapore 469270

#### **Enquiries**

Training Administrator  
DID: (65) 6249 3608  
Main: (65) 6241 9933  
Email: YEA-SG-TSC@yokogawa.com

## Refund Policy Statement

Request for withdrawal must be made in writing to Yokogawa Engineering Asia Pte Ltd. Candidate under sponsorship of company must submit withdrawal request written by authorized representative of company. Refund will only be given on advanced notice from course commencement date.

## Refund Scheme

Written Notice of Withdrawal is received	Percentage of Refund
Two weeks or more prior to course commencement date	100%
Less than two weeks prior to course commencement date	50%
On or after the course commencement	0%

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Yokogawa Engineering Asia Pte. Ltd.  
5 Bedok South Road  
Singapore 469270

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