

● **Engineering Station (ENG)**

CENTUM VP ENG is a computer used for system configuration and maintenance. It is also possible to use a single computer for both HIS and ENG functions. The engineering functions can be realized by applying the engineering-related software as listed below.

**Engineering-related Software**

Here is a list of engineering-related software for CENTUM VP. For more details, refer to the following GS.

- LHS5100 Standard Builder Function
- LHS5110 Access Control Package
- LHS5150 Graphic Builder
- LHS5165 Batch Builder (VP Batch)
- LHS5166 Recipe Management Package (VP Batch)
- LHS5170 Access Administrator Package (FDA:21 CFR Part 11 compliant) (\*1)
- LHS5420 Test Function
- LHS5425 Expanded Test Functions
- LHS5426 FCS Simulator Package
- LHS5427 HIS Simulator Package
- LHS5450 Multiple Project Connection Package
- LHS5490 Self-documentation Package

\*1: This package includes LHS5110 Access Control Package functions.

Both HIS and ENG work on the following Microsoft® Windows OS.

- Windows Vista Business Edition
- Windows 7 Professional Edition
- Windows Server 2008 Standard Edition
- Windows Server 2008 R2 Standard Edition

For the combination of CENTUM VP revisions and each of the OS Service Pack, please refer to GS for Standard Operation and Monitoring Function (GS 33K05D10-50E) and Standard Builder Function (GS 33K10D10-50E). As for other the third-party software that works on the Windows OS, contact Yokogawa for limitations in use with CENTUM VP.

**Documents**

CENTUM VP instruction manuals are provided electronically in the DVD as same as other system software.

- LHS5495 Electronic Instruction Manual
- For more details, refer to GS for LHS5495 Electronic Instruction Manual (GS 33K01W10-50E).

● **Remote Operation and Monitoring Function (HIS-TSE)**

HIS-TSE enables to operate and monitor a plant, with some limitations, from a remote computer without installing CENTUM VP operation and monitoring functions. By utilizing the Windows server's terminal service (TS) it is possible to operate and monitor CENTUM VP operations simultaneously from several computers via network. Once the network is established, it is possible to display the same HIS views on a remote computer away from the control room.

- LHS1150 Server for Remote Operation and Monitoring Function

For more details, refer to GS for LHS1150 Server for Remote Operation and Monitoring Function (GS 33K05D20-50E).

● **Field Control Station (FCS)**

FCS performs control computation functions for each function block and input/output functions for process and software inputs/outputs. Field control unit (FCU) is the core of FCS and following units are available.

- AFV30S: Field Control Unit (for Vnet/IP and FIO, 19-inch Rack Mountable Type)
- AFV30D: Duplexed Field Control Unit (for Vnet/IP and FIO, 19-inch Rack Mountable Type)
- AFV40S: Field Control Unit (for Vnet/IP and FIO, with Cabinet)
- AFV40D: Duplexed Field Control Unit (for Vnet/IP and FIO, with Cabinet)
- AFV10S: Field Control Unit (for Vnet/IP and FIO, 19-inch Rack Mountable Type)
- AFV10D: Duplexed Field Control Unit (for Vnet/IP and FIO, 19-inch Rack Mountable Type)

For more details, refer to GS for AFV30S, AFV30D Field Control Unit, Duplexed Field Control Unit (for Vnet/IP and FIO, 19-inch Rack Mountable Type) (GS 33K50E10-50E), AFV40S, AFV40D Field Control Unit, Duplexed Field Control Unit (for Vnet/IP and FIO, with Cabinet) (GS 33K50E20-50E) and AFV10S, AFV10D Field Control Unit, Duplexed Field Control Unit (for Vnet/IP and FIO, 19-inch Rack Mountable Type) (GS 33K50E30-50E).

**Basic Software**

- LFS1700 Control Function for Field Control Station (for AFV30□/AFV40□, Vnet/IP and FIO)
- LFS1750 Node Expansion Package (for AFV30□/AFV40□)
- LFS1500 Control Function for Field Control Station (for AFV10□, Vnet/IP and FIO)
- LFS1550 Node Expansion Package (for AFV10□)

For more details, refer to LFS1700 Control Function for Field Control Station (for AFV30□/AFV40□, Vnet/IP and FIO), LFS1750 Node Expansion Package (for AFV30□/AFV40□) (GS 33K15C10-50E) and LFS1500 Control Function for Field Control Station (for AFV10□, Vnet/IP and FIO), LFS1550 Node Expansion Package (for AFV10□) (GS 33K15C20-50E).

**Subsystem Communication Function**

FCS communicates with subsystems and field devices to exchange data via network. The following subsystem communication functions are available for CENTM VP. For more details, refer to the GS for each communication hardware.

- Serial Communication:
  - ALR111, ALR121 Serial Communication Module (for FIO) (GS 33K50G10-50E)
- Ethernet Communication:
  - ALE111 Ethernet Communication Module (for FIO) (GS 33K50G11-50E)
- Foundation fieldbus Communication:
  - ALF111 Foundation fieldbus Communication Module (for FIO) (GS 33K50G20-50E)
- PROFIBUS-DP Communication:
  - ALP121 PROFIBUS-DP Communication Module (for FIO) (GS 33K50G85-50E)
  - ALP111 PROFIBUS-DP Communication Module (for FIO) (GS 33K50G80-50E)