General Specifications

GS 33J10D10-01EN

VP6E5000, VP6E5100
Automation Design Suite (AD Suite)
Engineering Server Function
Standard Engineering Function

CENTUM VP

[Release 6]

■ GENERAL

Automation Design Suite (AD Suite) provides an engineering environment for configuring and maintaining overall instrumentation including plant instrumentation, safety instrumentation, and maintenance management. AD Suite provides new engineering methods in addition to the conventional ones for up to CENTUM VP R5. This General Specifications (GS) provides an overview of AD Suite for CENTUM VP and describes system generation functions of AD Suite such as Standard Engineering Function and Server Function.

■ FUNCTIONAL SPECIFICATIONS

● Overview of AD Suite

The AD Suite provides an engineering environment for configuring and maintaining overall control systems, including plant instrumentation, safety instrumentation, and maintenance management.

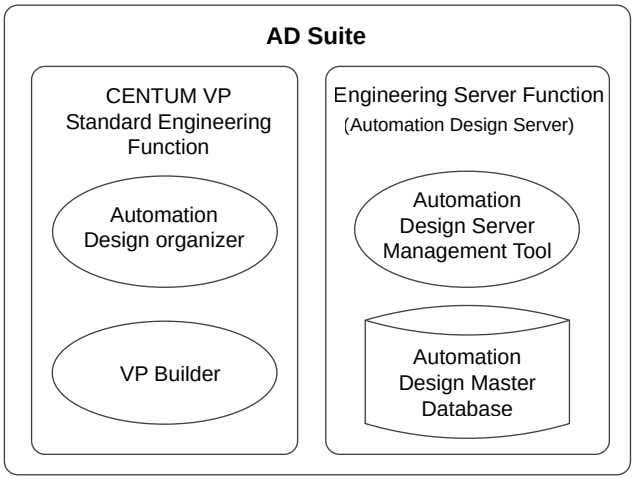

Figure Software Configuration of AD Suite

The AD Suite consists of Automation Design Server (AD Server), Automation Design Organizer (AD Organizer), and VP Builder (*1).

The AD Server manages all the engineering data of the AD Suite.

VP6E5000 Engineering Server Function is a license to use the AD Server.

The AD Organizer is the main software for engineering for module-based engineering.

VP6E5100 Standard Engineering Function is a license to use the AD Organizer and the VP Builder.

Since the AD Suite centrally manages all the CENTUM VP's engineering data on the AD Server database, the latest design information is always available when expanding, modifying or maintaining the system, which prevents unnecessary engineering work to confirm inconsistencies between the design information and the actual information stored in the system.

The Engineering Server Function and the Standard Engineering Function can run on the same computer.

Multiple Standard Engineering Functions can be used with a single Engineering Server Function.

*1: A generic name for System View, Recipe View, and builders launched from these Views.

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Project to be used on CENTUM VP
The engineering data edited by using the engineering function is stored in the following projects.

• Automation Design (AD) project
The AD project is a group of data where the engineering data is stored. In the AD Suite, the engineering data is managed by the AD project. The engineering data edited by using the AD Organizer is stored in the AD project which is created in the Automation Design Master Database (ADMDB) on the AD Server. Multiple AD projects can be created in the ADMDB. The number of AD project that can be created per AD Server is up to 16.

• VP project
The VP Project is a group of data where the engineering data edited by the VP builders is stored. The VP project which is created in a computer or a server where the Standard Engineering Function is installed. The VP project becomes available by being registered in the AD project. The number of VP projects that can be registered per AD project is up to 32.

The AD Organizer's engineering data is stored in the AD project while the VP Builder's engineering data is stored in the VP project. The change history of the VP project is stored in the AD project where the VP project is registered (*1).

*1: The Standard Engineering Function must be used in connection with the AD Server, because VP projects are connected to the AD projects on the AD Server through VP builders.

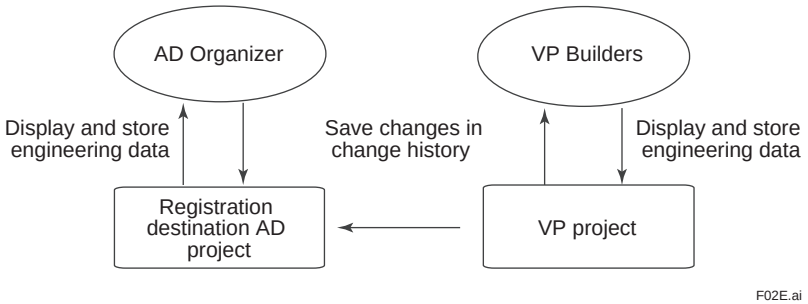
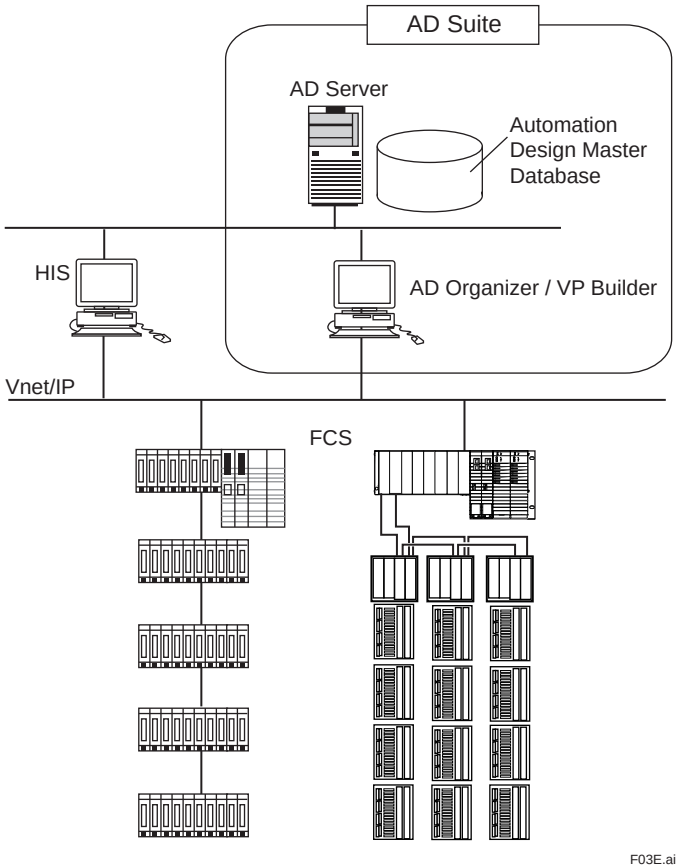


Figure The data flow of AD Organizer, VP builders, AD project, and VP project

An example of the basic system configuration of the AD Suite is as shown below.



Figue Basic System Configuration Example of AD Suite

● VP6E5000 Engineering Server Function

VP6E5000 Engineering Server Function is a license to use the AD Server.
The AD Server manages all the CENTUM VP's engineering data.
The AD Server has the following functions.

Automation Design Master Database (ADMDB)
All the CENTUM VP'S engineering data is stored in this database. A function to manage historical engineering data is available.

Automation Design Server Management Tool (ADS Management Tool)
This is the software to manage the AD Server.

● VP6E5100 Standard Engineering Function

VP6E5100 Standard Engineering Function is a license to use the AD Organizer and the VP Builder.

Engineering Functions of AD Organizer
The AD Organizer is used for the AD Suite engineering in the AD Suite. VP6E5100 Standard Engineering Function and VP6E5000 Engineering Server Function use the engineering environment provided by the VP Builder as described later in this document. Change histories of the AD Organizer and the VP Builder are stored in the AD Server, and the AD Organizer is used to browse the change history.

In addition, the AD Suite performs the new engineering tasks such as shown below by adding various optional packages exclusively provided for the AD Suite.

- Prevent inconsistency between the system and documents such as specifications
- Maximize the use of engineering knowledge gained through past experiences
- Flexibly accommodate to change specifications requests

The following optional functions are provided to implement these engineering tasks.

Module-based Engineering
Module-based engineering refers to an engineering method which transforms the control logic and design information into modules and it designs control applications and alarms by combining the modules in the AD Suite.

Modules are independent software components which represent design patterns containing integrated customer information and knowledge in the past, which also include components, such as the control logic, alarm attribute, and design information. By reusing of modules created in previous projects, engineering efficiency is improved, quality of engineering becomes consistent, and the project period is reduced.

When the document generation function of the module-based engineering package is used, the design information which is generated from a module and all kinds' engineering data can be integrated into a single document file all together.

Tuning Parameter Management
This function manages the function block tuning parameter values designed when creating control applications and the current tuning parameter values of the FCS. The designed tuning parameter values can be compared with the FCS's current tuning parameter values, and the designed tuning parameter values can be set on the FCS. Tuning Parameter Management Package (for Module-based Engineering) is required to implement this function. For details, refer to the GS "VP6E5215 Tuning Parameter Management Package (for Module-based Engineering)" (GS 33J10D24-01EN).

Bulk Editing
This function collectively edits setting items such as control logics and alarm attributes of multiple modules designed when creating control applications. Functions to help perform bulk editing and data consistency check for setting items such as defined tag names and detailed definitions of functional blocks are provided as well. Bulk Editing Package (for Module-based Engineering) is required to implement this function. For details, refer to the GS "VP6E5216 Bulk Editing Package (for Module-based Engineering)" (GS 33J10D26-01EN).

Change Management
This function manages changes occurred during the engineering work. This function enables to prevent omitting making changes to applications and allows for keeping records for changes in planning, executions, and test results. Change Management Package is required to implement this function. For details, refer to the GS "VP6E5250 Change Management Package" (GS 33J10D28-01EN).

Dependency Analysis
This function analyzes the extent of the impacts caused by changes made during the engineering work. Dependency Analysis Tool provides a function to analyze which control logic, I/O, or graphic tags are connected to which tags. Dependency Analysis Package is required to implement this function. For details, refer to the GS "VP6E5260 Dependency Analysis Package" (GS 33J10D30-01EN).

VP Builder

This is a standard function to configure CENTUM VP systems, which creates databases necessary to run the operation and monitoring function and control function in SystemView.

In the Module-based Engineering, the AD Organizer enables to efficiently perform engineering and configures FCS's application databases by using the engineering results. In cases that the Module-based Engineering Function is not used, configuring stations such as FCS and HIS for CENTUM VP project, or setting items common to the project, the VP Builder Function is run by directly accessing the VP Builder SystemView from the AD Organizer.

The table below shows items that the VP Builder defines:

Category	Builder Name	Description
Project Common	Station Configuration	Displays station addresses, models and other information in the system.
	Security	Defines security such as HIS user management and right to access function blocks.
	Buzzer Assignment Builder	Defines buzzer sounds for all HISs that are defined in a project
	Operation Mark	Defines operation marks used on HIS.
	Multiple Project Connection (*1)	Defines the connection of multiple projects.
	Plant Hierarchy	Defines plant hierarchy.
	Tag Name Hierarchy	Defines tag name hierarchy.
	Engineering Unit Symbol	Defines engineering unit symbols.
	Switch Position Label	Defines switch position labels.
	State Transition Matrix	Defines state transition matrix of unit instruments.
	Alarm Processing	Defines the action when an alarm occurs.
	Alarm Priority	Defines alarm priority.
	User-defined Status Character String	Defines block status and alarm status.
	System-fixed Status Character String	Displays system-fixed status character string.
	Status Change Command Character String	Defines status change command.
	UACS Alarm Builder (*2)	Defines alarm message behavior and attributes for each alarm source.
	UACS Alarm Group Builder (*2)	Collectively defines the behaviors and attributes of multiple alarm sources by specifying an alarm group for the alarm sources.
	UACS Filter Builder (*2)	Creates filters and defines filtering conditions.
	UACS Shelf Builder (*2)	Creates shelves and defines conditions for the shelves.
	UACS Suppression Group Builder (*2)	Creates suppression groups and defines alarm sources to suppress and start conditions for suppression.
	UACS View Layout Builder (*2)	Defines the information displayed in the UACS operation and monitoring windows.
	UACS Assignment Builder (*2)	Specifies the UACS Clients to which each UACS Station connects. When there are multiple UACS Stations, specifies two UACS Stations in the same VP project, as a pair.
	CAMS for HIS Alarm Builder	Defines alarm information (priority, attributes, operation right, etc.).
	CAMS for HIS Alarm Group Builder	Defines alarm groups.
	CAMS for HIS Shelf Builder	Defines shelf information.
	CAMS for HIS Message Monitor Definition Builder	Defines the operation right and screen layout for the CAMS for HIS message monitor.
Batch Functions (*3)	Process Management Configuration	Defines entire process and each recipe group.
	Common Block	Defines common blocks.
	Unit Common Block	Defines common block association with a unit or operation.
	Line	Defines lines.
	Product Control	Defines the Product Control View.

Category	Builder Name	Description
Control Functions (for FCS)	FCS Constant	Defines constants of FCS.
	Equipment	Defines equipment.
	IOM	Defines terminals of IOM.
	Fieldbus	Defines fieldbus devices. (*4)
	PROFIBUS-DP Configurator	Defines PROFIBUS-DP devices.
	PROFINET Configurator	Defines PROFINET devices.
	Communication I/O	Defines each point of devices connected with subsystem communication.
	Common Switch	Defines common switches.
	Global Switch	Defines global switches.
	Annunciator	Defines annunciator messages.
	Operator Guide	Defines operator guide messages.
	Print Message	Defines print messages.
	Signal Event	Defines signal events.
Control Functions (for FCS)	Function Block List	Defines the order of execution, tag name, and model of each function block in a list.
	Control Drawing	Graphically defines the order of execution, tag name, model, and connection of each function block.
	Function Block Details	Defines the detailed specifications of each function block.
	Status Display (*5)	Defines the Control Drawing and Status Display View for logic charts.
	SEBOL User Function	Defines SEBOL user functions.
	SFC Sequence	Defines SFC sequences.
	Unit Procedure	Defines unit procedures.
Operation and Monitoring Functions (for HIS)	HIS Constant	Defines constants of HIS.
	Trend Data Acquisition Pen Assignment	Assigns data items to trend acquisition pens.
	Scheduler	Defines the scheduling of Windows applications.
	Sequence Message Request Function	Defines the processing corresponding to sequence messages sent from FSC.
	Function Key Assignment	Defines function key assignment.
	Graphic View (*6)	Defines the Graphic View.
	Panel-set	Defines the window combination for a panel-set.
	Help Dialog	Defines Help for tags and windows.
Others	BCV (Property)	Defines constants of BCV.
	CGW (Property)	Defines constants of CGW.
	Tag List Generation	Defines tags and messages of previous stations that are operated and monitored from HIS.
		Generates tag lists of SCS for ProSafe-RS/ProSafe-RS Lite.

HIS: Human Interface Station FCS: Field Control Station IOM: I/O Module
BCV: Bus Converter CGW: Communication Gateway Unit

*1: Multiple Project Connection Package (VP6H4450/VP6E5450) is required to use this function.
*2: For details on UACS, refer to the GS “VP6A2500 Unified Alarms and Conditions Server (UACS), VP6A2505 UACS Simulator Package, VP6A2510 UACS Advanced Suppression Function, VP6A2580 UACS Multiple Project Connection Package, VP6A2700 UACS Client License” (GS 33J05D30-01EN).
*3: VP Batch (Batch Management Package) (VP6H6660/VP6E5165/VP6H5166) is required to use this function.
*4: HIS-OPC server is required to use the software download function.
*5: Control Drawing Package (P6H4410) or Logic Chart Status Display Package (VP6H4420) is required to use this function.
*6: Graphic Creation Package (VP6E5150) is required to create graphic views.

● FDA:21 CFR Part 11 compliant function

When the VP6E5100 engineering server function is used with VP6E5170 access administrator package (FDA:21 CFR Part 11 compliant), CENTUM VP can perform access control management and audit trail management (*1) required by the FDA:21 CFR Part 11 for “managing system engineering operation that ultimately affects the quality of the final product such as downloading data to an FCS.”

For more details about FDA:21 CFR Part 11, refer to the GS “Integrated Production Control System CENTUM VP System Overview” (GS 33J01A10-01EN) and “VP6E5170 Access Administrator Package (FDA:21 CFR Part 11 compliant)” (GS 33J10D40-01EN).

*1: The change history of the AD organizer is a function to manage details of the changes in the engineering data, of which purpose is different from that of FDA:21 CFR Part 11.

■ OPERATING ENVIRONMENT

● Hardware Operating Environment

VP6E5000 Engineering Server Function

The following shows the hardware operating environment for VP6E5000 Engineering Server Function.

The function runs on a computer that meets the following specifications.

For Windows 7 (Supported by R6.07.00 or earlier) /Windows 10

CPU	Required	Intel Core i5 equivalent or higher
Main memory	Required	8 GB (*2)
Hard disk	Required	1 GB x number of FCSs or more of free space Additional 10 GB or more to the above when using the Change Management Package.
Display (*1)	Required	Resolution of SXGA (1280 x 1024) or higher, true color (16.77 million colors or more)
	For a wide monitor	Resolution of WXGA+ (1440 x 900) or higher, true color (16.77 million colors or more)
Graphics	Required	DirectX 9 equivalent graphics processing unit. The following shall be supported. • WDDM (Windows Driver Display Model) driver • Pixel Shader 2.0 • 32-bit/pixel • 128 MB graphics memory
Optical disc drive	Required	DVD-ROM
Mouse	Required	

*1: The maximum resolution is WUXGA (1920x1200) for DVI connection.
*2: When performing bulk editing by Alarm Attribute Mass Editor in VP R6.08.00 or later, the following main memory is required depending on the number of the alarm attribute rows.

Alarm attribute row	Main memory
Up to 50,000	8 GB
Up to 400,000	16 GB
Up to 800,000	24 GB

For Windows Server 2008 R2 (Supported by R6.07.00 or earlier) / Windows Server 2016 / Windows Server 2019 / Windows Server 2022

CPU	Required	Xeon 4 Core 2.2 GHz equivalent or higher
Main memory	Required	8 GB (*2)
Hard disk	Required	1 GB x number of FCSs or more of free space Additional 10 GB or more to the above when using the Change Management Package.
Display (*1)	Required	Resolution of SXGA (1280 x 1024) or higher, true color (16.77 million colors or more)
	For a wide monitor	Resolution of WXGA+ (1440 x 900) or higher, true color (16.77 million colors or more)
Graphics	Required	DirectX 9 equivalent graphics processing unit. The following shall be supported. • WDDM (Windows Driver Display Model) driver • Pixel Shader 2.0 • 32-bit/pixel • 128 MB graphics memory
Optical disc drive	Required	DVD-ROM
Mouse	Required	

*1: The maximum resolution is WUXGA (1920x1200) for DVI connection.
*2: When performing bulk editing by Alarm Attribute Mass Editor in VP R6.08.00 or later, the following main memory is required depending on the number of the alarm attribute rows.

Alarm attribute row	Main memory
Up to 50,000	8 GB
Up to 400,000	16 GB
Up to 800,000	24 GB

VP6E5100 Standard Engineering Function

Hardware operating environment for AD Organizer included in Standard Engineering Function.

The function runs on a computer that meets the following specifications

For Windows 7 (Supported by R6.07.00 or earlier) /Windows 10

CPU	Required	Intel Core i5 equivalent or higher
Main memory	Required	8 GB (*4)
Hard disk	Required	More than 60 GB of free space
Display (*1)	Required	Resolution of SXGA (1280 x 1024) or higher, true color (16.77 million colors or more)
	For a wide monitor	Resolution of WXGA+ (1440 x 900) or higher, true color (16.77 million colors or more)
Graphics	Required	DirectX 9 equivalent graphics processing unit. The following shall be supported. • WDDM (Windows Driver Display Model) driver • Pixel Shader 2.0 • 32-bit/pixel • 128 MB graphics memory
Network	When connected via Vnet/IP	One slot is used for the control bus interface (*2) (*3)
Optical disc drive	Required	DVD-ROM
Mouse	Required	

*1: The maximum resolution is WUXGA (1920x1200) for DVI connection.
*2: VI702 is required as a control bus interface card.
*3: When VP6E5100 Standard Engineering Function and VP6H1100 Standard Operation and Monitoring Function coexist in the same computer and it is used as a UACS Client, two Ethernet ports (1 Gbps or higher), one for the information network and one for the UACS dedicated Ethernet are required.
*4: When performing bulk editing by Alarm Attribute Mass Editor in VP R6.08.00 or later, the following main memory is required depending on the number of the alarm attribute rows.

Alarm attribute row	Main memory
Up to 50,000	8 GB
Up to 400,000	16 GB
Up to 800,000	24 GB

For Windows Server 2008 R2 (Supported by R6.07.00 or earlier) / Windows Server 2016 / Windows Server 2019 / Windows Server 2022

CPU	Required	Xeon 4 Core 2.2 GHz equivalent or higher
Main memory	Required	8 GB (*4)
Hard disk	Required	More than 70 GB of free space
Display (*1)	Required	Resolution of SXGA (1280 x 1024) or higher, true color (16.77 million colors or more)
	For a wide monitor	Resolution of WXGA+ (1440 x 900) or higher, true color (16.77 million colors or more)
Graphics	Required	DirectX 9 equivalent graphics processing unit. The following shall be supported. • WDDM (Windows Driver Display Model) driver • Pixel Shader 2.0 • 32-bit/pixel • 128 MB graphics memory
Network	Required	One slot is used for the control bus interface (*2) (*3)
Optical disc drive	Required	DVD-ROM
Mouse	Required	

*1: The maximum resolution is WUXGA (1920x1200) for DVI connection.
*2: VI702 is required as a control bus interface card.
*3: When VP6E5100 Standard Engineering Function and VP6H1100 Standard Operation and Monitoring Function coexist in the same computer and it is used as a UACS Client, two Ethernet ports (1 Gbps or higher), one for the information network and one for the UACS dedicated Ethernet are required.
*4: When performing bulk editing by Alarm Attribute Mass Editor in VP R6.08.00 or later, the following main memory is required depending on the number of the alarm attribute rows.

Alarm attribute row	Main memory
Up to 50,000	8 GB
Up to 400,000	16 GB
Up to 800,000	24 GB

When the VP6E5000 Engineering Server Function and the VP6E5100 Standard Engineering Function coexist in the same computer, the hardware operating environment has to conform to the operating environment of the VP6E5100 Standard Engineering Function except for the hard disk capacity. (*1) Note that the hard disk capacity of the computer where the VP6E5000 Engineering Server Function and the VP6E5100 Standard Engineering Function of CENTUM VP coexist has to meet the sum total hard disk capacity of each function. (*2)

*1: When VP6H1100 Standard Operation and Monitoring Function and VP6E5000 and/or VP6E5100 coexist in the same computer, the operating environment of the CPU is as follows.
For Windows 7 / Windows 10
Intel Core i5 2 Core 2.4 GHz equivalent or higher
For Windows Server 2008 R2 / Windows Server 2016/Windows Server 2019 / Windows Server 2022
Xeon 4 Core 2.5 GHz equivalent or higher
*2: When VP6H1100 Standard Operation and Monitoring Function and VP6E5000 and/or VP6E5100 coexist in the same computer, the hard disk capacity of the computer has to meet the sum total hard disk capacity of each function.

● Software Operating Environment

VP6E5000 Engineering Server Function

The table below shows the software operating environment for VP6E5000 Engineering Server Function.

Windows OS (Supported by R6.07.10 or earlier)

The relations between Windows and CENTUM VP	Windows 10 Enterprise 2016 LTSB	Windows 7 Professional	Windows Server 2016 Standard	Windows Server 2008 R2 Standard
	64-bit	64-bit	64-bit	64-bit
	without SP	SP1	without SP	SP1
R6.01.00/ R6.01.10	No	Yes	No	Yes
R6.02.00	No	Yes	No	Yes
R6.03.00/ R6.03.10	No	Yes	No	Yes
R6.04.00	Yes (*1)	Yes	No	Yes
R6.05.00	Yes (*1)	Yes	No	Yes
R6.06.00	Yes (*1)	Yes	Yes	Yes
R6.07.00	Yes (*1)	Yes	Yes	Yes
R6.07.10	Yes (*1)	No	Yes	No

Yes: Supported No: Not supported
Note: SP stands for Service Pack (e.g. SP1 stands for Service Pack 1).
*1: Windows 10 IoT Enterprise 2016 LTSB is supported, too.

Windows OS (Supported by R6.08.00 or later)

The relations between Windows and CENTUM VP	Windows 10 Enterprise LTSC 2021	Windows 10 Enterprise LTSC 2019	Windows 10 Enterprise 2016 LTSB	Windows Server 2022 Standard	Windows Server 2019 Standard	Windows Server 2016 Standard
	64-bit	64-bit	64-bit	64-bit	64-bit	64-bit
	without SP	without SP	without SP	without SP	without SP	without SP
R6.08.00	No	Yes (*2)	Yes (*1)	No	No	Yes
R6.09.00	No	Yes (*2)	Yes (*1)	No	Yes (*3)	Yes
R6.10.00	No	Yes (*2)	Yes (*1)	No	Yes (*3)	Yes
R6.11.00	Yes (*4)	Yes (*2)	Yes (*1)	Yes (*5)	Yes (*3)	Yes

Yes: Supported No: Not supported
Note: SP stands for Service Pack (e.g. SP1 stands for Service Pack 1).
*1: Windows 10 IoT Enterprise 2016 LTSB is supported, too.
*2: Windows 10 IoT Enterprise LTSC 2019 is supported, too.
*3: Windows Server IoT 2019 Standard is supported, too.
*4: Windows 10 IoT Enterprise LTSC 2021 is supported, too.
*5: Windows Server IoT 2022 Standard is supported, too.

VP6E5100 Standard Engineering Function
The table below shows the software operating environment for VP6E5100 Standard Engineering Function.

Windows OS (Supported by R6.07.10 or earlier)

CENTUM VP Release number	Windows 10 Enterprise 2016 LTSB	Windows 7 Professional	Windows Server 2016 Standard	Windows Server 2008 R2 Standard
	64-bit	64-bit	64-bit	64-bit
	without SP	without SP	SP1	without SP
R6.01.00/ R6.01.10	No	Yes	No	Yes
R6.02.00	No	Yes	No	Yes
R6.03.00/ R6.03.10	No	Yes	No	Yes
R6.04.00	No	Yes	No	Yes
R6.05.00	No	Yes	No	Yes
R6.06.00	Yes (*1)	Yes	No	Yes
R6.07.00	Yes (*1)	Yes	No	Yes
R6.07.10	Yes (*1)	Yes	Yes	Yes

Yes: Supported No: Not supported
Note: SP stands for Service Pack (e.g. SP1 stands for Service Pack 1).
*1: Windows 10 IoT Enterprise 2016 LTSB is supported, too.

Windows OS (Supported by R6.08.00 or later)

CENTUM VP Release number	Windows 10 Enterprise LTSC 2021	Windows 10 Enterprise 2019 LTSB	Windows 10 Enterprise 2016 LTSB	Windows Server 2022 Standard	Windows Server 2019 Standard	Windows Server 2016 Standard
	64-bit	64-bit	64-bit	64-bit	64-bit	64-bit
	without SP	without SP	without SP	without SP	without SP	without SP
R6.08.00	No	Yes (*2)	Yes (*1)	No	No	Yes
R6.09.00	No	Yes (*2)	Yes (*1)	No	Yes (*3)	Yes
R6.10.00	No	Yes (*2)	Yes (*1)	No	Yes (*3)	Yes
R6.11.00	Yes (*4)	Yes (*2)	Yes (*1)	Yes (*5)	Yes (*3)	Yes

Yes: Supported No: Not supported
Note: SP stands for Service Pack (e.g. SP1 stands for Service Pack 1).
*1: Windows 10 IoT Enterprise 2016 LTSB is supported, too.
*2: Windows 10 IoT Enterprise LTSC 2019 is supported, too.
*3: Windows Server IoT 2019 Standard is supported, too.
*4: Windows 10 IoT Enterprise LTSC 2021 is supported, too.
*5: Windows Server IoT 2022 Standard is supported, too.

Automatically-installed software

.NET Framework

CENTUMVP Release number	.NET Framework					
	3.5.1 (*1)	4.5	4.5.2	4.6.2	4.7.2	4.8
	without SP	without SP	without SP	without SP	without SP	without SP
R6.01.00/ R6.01.10	Yes	Yes	No	No	No	No
R6.02.00	Yes	No	Yes	No	No	No
R6.03.00/ R6.03.10	Yes	No	Yes	No	No	No
R6.04.00	Yes	No	No	Yes	No	No
R6.05.00	Yes	No	No	Yes	No	No
R6.06.00	No	No	No	Yes	No	No
R6.07.00	No	No	No	Yes	No	No
R6.07.10	No	No	No	Yes	No	No
R6.08.00	No	No	No	No	Yes	No
R6.09.00	No	No	No	No	Yes	No
R6.10.00	No	No	No	No	Yes	No
R6.11.00	No	No	No	No	No	Yes

Yes: Supported No: Not supported
Note: When creating .NET components in the graphics and CENTUM data access library, specify .NET Framework 4.6.2 as the target framework in Visual Studio 2017. If a version other than .NET Framework 4.6.2 is specified, .NET components will not work.
*1: .NET Framework 3.5.1 runs on Windows 7, Windows 10, and Windows Server 2008 R2.

Software that can be run on the same computer

Microsoft Word

CENTUM VP Release number	Microsoft Word			
	2013	2016	2019	LTSC 2021
	32-bit	32-bit	32-bit	32-bit
	SP1	without SP	without SP	without SP
R6.01.00/ R6.01.10	Yes	No	No	No
R6.02.00	Yes	No	No	No
R6.03.00/ R6.03.10	Yes	No	No	No
R6.04.00	Yes	Yes	No	No
R6.05.00	Yes	Yes	No	No
R6.06.00	Yes	Yes	No	No
R6.07.00/ R6.07.10	Yes	Yes	No	No
R6.08.00	Yes	Yes	Yes (*1)	No
R6.09.00	Yes	Yes	Yes (*2)	No
R6.10.00	No	Yes	Yes (*2)	No
R6.11.00	Yes	Yes	Yes (*3)	Yes (*3)

Yes: Supported No: Not supported
Note: Microsoft Word is required when editing the design information or using document generation function on VP6E5210 Module-based Engineering Package.
Note: Ensure to use the Microsoft Volume License for MS Word 2013, 2016, 2019, and LTSC 2021.
*1: Word 2019 runs on Windows 10 (IoT) Enterprise LTSC 2019 only.
*2: Word 2019 runs on Windows 10 (IoT) Enterprise LTSC 2019 and Windows Server (IoT) 2019 Standard.
*3: Word 2019 and LTSC 2021 run on Windows 10 (IoT) Enterprise LTSC 2019, Windows 10 (IoT) Enterprise LTSC 2021, Windows Server (IoT) 2019 Standard and Windows Server (IoT) 2022 Standard.

Microsoft Excel

CENTUM VP Release number	Microsoft Excel			
	2013	2016	2019	LTSC 2021
	32-bit	32-bit	32-bit	32-bit
	SP1	without SP	without SP	without SP
R6.01.00/ R6.01.10	Yes	No	No	No
R6.02.00	Yes	No	No	No
R6.03.00/ R6.03.10	Yes	No	No	No
R6.04.00	Yes	Yes	No	No
R6.05.00	Yes	Yes	No	No
R6.06.00	Yes	Yes	No	No
R6.07.00/ R6.07.10	Yes	Yes	No	No
R6.08.00	Yes	Yes	Yes (*1)	No
R6.09.00	Yes	Yes	Yes (*2)	No
R6.10.00	No	Yes	Yes (*2)	No
R6.11.00	Yes	Yes	Yes (*3)	Yes (*3)

Yes: Supported No: Not supported
Note: Microsoft Excel is required when importing or exporting I/O information on VP6E5210 Module-based Engineering Package.
Note: Ensure to use the Microsoft Volume License for MS Word 2013, 2016, 2019, and LTSC 2021.
*1: Excel 2019 runs on Windows 10 (IoT) Enterprise LTSC 2019 only.
*2: Excel 2019 runs on Windows 10 (IoT) Enterprise LTSC 2019 and Windows Server (IoT) 2019 Standard.
*3: Excel 2019 and LTSC 2021 run on Windows 10 (IoT) Enterprise LTSC 2019, Windows 10 (IoT) Enterprise LTSC 2021, Windows Server (IoT) 2019 Standard and Windows Server (IoT) 2022 Standard.

Windows Internet Explorer / Microsoft Edge

CENTUM VP Release number	Internet Explorer			Microsoft Edge
	8.0	9.0	11.0	
R6.01.00/ R6.01.10	Yes	Yes	Yes	No
R6.02.00	No	Yes	Yes	No
R6.03.00/ R6.03.10	No	Yes	Yes	No
R6.04.00	No	No	Yes	No
R6.05.00	No	No	Yes	No
R6.06.00	No	No	Yes	No
R6.07.00/ R6.07.10	No	No	Yes	No
R6.08.00	No	No	Yes	No
R6.09.00	No	No	Yes	No
R6.10.00	No	No	Yes	No
R6.11.00	No	No	Yes	Yes

Yes: Supported No: Not supported

Adobe Acrobat

CENTUM VP Release number	Adobe Acrobat				
	X (10.1)	XI (11.0)	DC	2017	2020
R6.01.00/ R6.01.10	Yes	Yes	Yes (*1)	No	No
R6.02.00	No	Yes	Yes (*1)	No	No
R6.03.00/ R6.03.10	No	Yes	Yes (*1)	No	No
R6.04.00	No	Yes	Yes (*1)	No	No
R6.05.00	No	Yes	Yes (*1)	No	No
R6.06.00	No	No	Yes (*1)	Yes	No
R6.07.00	No	No	Yes (*1)	Yes	No
R6.07.10	No	No	Yes (*1)	Yes	Yes
R6.08.00	No	No	Yes (*1)	Yes	Yes
R6.09.00	No	No	Yes	Yes	Yes
R6.10.00	No	No	Yes	No	Yes
R6.11.00	No	No	Yes	No	Yes

Yes: Supported No: Not supported
*1: Acrobat DC runs on Windows 7 or later and Windows Server 2008 R2 or later.

Microsoft Visual Studio

CENTUM VP Release number	Microsoft Visual Studio				
	2008 SP1	2012	2013	2017	2019
R6.01.00/ R6.01.10	Yes	Yes	No	No	No
R6.02.00	Yes	Yes	Yes	No	No
R6.03.00/ R6.03.10	Yes	Yes	Yes	No	No
R6.04.00	Yes (*1)	Yes	Yes	No	No
R6.05.00	Yes (*1)	Yes	Yes	No	No
R6.06.00	No	No	No	Yes (*2) (*3) (*4)	No
R6.07.00/ R6.07.10	No	No	No	Yes (*2) (*3) (*4)	No
R6.08.00	No	No	No	Yes (*2) (*3) (*4)	No
R6.09.00	No	No	No	Yes (*2) (*3) (*4)	No
R6.10.00	No	No	No	Yes (*2) (*3) (*4)	Yes (*2) (*3) (*4)
R6.1100	No	No	No	Yes (*2) (*3) (*4)	Yes (*2) (*3) (*4)

Yes: Supported No: Not supported
*1: Visual Studio 2008 does not support Windows 10.
*2: Visual Studio 2017 does not support Windows 10 (IoT) Enterprise 2016 LTSB and Windows 10 (IoT) Enterprise LTSC 2019 LTSC.
*3: Graphic Builder (VP6E5150) cannot be activated on a computer which Microsoft Visual Studio 2017 is installed.
*4: Rebuild the user applications that had been used in the system up to CENTUM R6.05 under the development environment of Microsoft Visual Studio 2017 or 2019. If the user application is a .NET Framework application, specify .NET Framework version 4.6.2.

■ NOTE

VP6E5000 and VP6E5100 are included in Automation Design Suite Standard Engineering Function (VP6E51AD). On and after CENTUM VP R6.04 release date, place an order for VP6E51AD. For details, refer to the GS “Automation Design Suite License Pack” (33J10D21-01EN).

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