Communication and Software

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Communication and Software
Communication

HART protocol

■ Overview

HART is a widely used communication standard for field devices. Specification of HART devices takes place through the HCF (HART Communication Foundation).

The HART standard expands the analog 4 to 20 mA signal for modulated, industry-proven, digital signal transmission.

■ Benefits

- Service-proven analog measured value transmission
- Simultaneous digital communication with bidirectional data transmission
- Possibility of transmitting several measured variables from one field device (e.g. diagnosis, maintenance and process data)
- Connection to higher-level systems such as PROFIBUS DP
- Easy installation and startup

Use in conjunction with SIMATIC PDM

- Cross-vendor operation of all HART devices by means of standardized parameter records
- HART field devices that are described by HART DD are integrated in SIMATIC PDM through the HCF catalog. HART DD (Device Description) is standardized in SIMATIC PDM, multi-vendor and very widely used. Other HART field devices are integrated in SIMATIC PDM through EDD (Electronic Device Description)
- Easy operation and startup of field devices, also in hard-to-reach locations
- Expanded diagnosis, evaluation and logging functions

■ Application

These devices can be connected in different ways:
- Using the distributed I/O system
  - SIMATIC ET 200M with the HART modules
  - SIMATIC ET 200iSP with the HART modules
  or with analog modules 4 to 20 mA and a HART handheld communicator
- Using a HART modem, with which a point-to-point connection is established between the PC or engineering station and the HART device
- Using HART multiplexers, which are contained in the HART server of the HCF

■ Integration

Siemens field devices for process automation which are listed in this catalog and can be controlled using HART:

Measuring instruments for pressure
SITRANS P300
SITRANS P310
SITRANS P320
SITRANS P DS III
SITRANS P410
SITRANS P420
SITRANS P500

Measuring instruments for temperature
SITRANS TF
SITRANS TH300
SITRANS TH320
SITRANS TH420
SITRANS TR320
SITRANS TR420
SITRANS TR300
SITRANS TW

Flowmeters
SITRANS F M MAG 5000
SITRANS F M MAG 6000 19" / IP67
SITRANS F M MAG 6000 I / I Ex
SITRANS F M Transmag 2
SITRANS F C MASS 6000 19" / IP67 / Ex d
SITRANS F C FCT030
SITRANS F S FST030
SITRANS FUS060
SITRANS FX300
SITRANS FX330

Measuring instruments for level
SITRANS Probe LR
SITRANS Probe LU
SITRANS LUT400
SITRANS LR200
SITRANS LR250
SITRANS LR260
SITRANS LR460
SITRANS LR560
SITRANS LG240 / LG 250 / LG 260 / LG 270

Positioners
SIPART PS2

Power supply units and isolation amplifiers
SITRANS I

■ Selection and Ordering data   Article No.

HART modem	
With USB connection	**7MF4997-1DB**

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Overview

Today, distributed automation solutions based on open field buses are state-of-the-art in large areas of the manufacturing industry and process engineering. It is only with field buses that the functional benefits of digital communication can be put to full use, e.g. better resolution of measured values, diagnosis options and remote parameterization.

PROFIBUS is today's most successful open field bus with a large installed base for a wide range of application. Standardization to IEC 61158 / EN 50170 provides you with future protection for your investment.

Benefits

- A uniform modular system from the sensor into the control level enables new plant concepts
- Problem-free exchangeability of field devices, including from different manufacturers, that comply with the standard profile
- Networking of transmitters, valves, actuators etc.
- Implementation of intrinsically safe applications through use of the field bus in hazardous areas
- Easy installation of 2-wire lines for joint energy supply and data transmission
- Reduced cabling costs through savings of material and installation time
- Reduced configuration costs through central, simple engineering of the field devices (PROFIBUS PA and HART with SIMATIC PDM, also cross-vendor)
- Fast and error-free installation
- Lower service costs thanks to simpler wiring and plant structure plus extensive diagnosis options
- Greatly reduced commissioning costs through simplified loop check
- Scaling/digitizing of the measured values in the field device already, hence no rescaling necessary in SIMATIC PCS 7

Application

PROFIBUS is suitable for fast communication with distributed I/Os (PROFIBUS DP) in production automation as well as for communication tasks in process automation (PROFIBUS PA). It is the first field bus system that meets the demands of both areas with identical communication services.

The transmission technique of the PROFIBUS PA is tailored to the needs of the process industry. Interoperability between field 10/11devices from different manufacturers and remote parameterization of the field devices during operation are guaranteed by the standardized communication services.

Using SIMATIC PDM (Process Device Manager), a uniform and cross-vendor tool for configuring, parameterizing, commissioning and diagnosis of intelligent process devices on the PROFIBUS, it is possible to configure a wide variety of process devices from different manufacturers using one uniform graphical user interface.

PROFIBUS PA can just as readily used in standard environments as well as hazardous areas. For use in hazardous areas, PROFIBUS PA and all connected devices have to be designed with type of explosion protection Ex [i].

The uniform protocol of PROFIBUS DP and PROFIBUS PA enables the two networks to be interlinked, thus combining time-based performance with intrinsically safe transmission.

Function

PROFIBUS PA expands PROFIBUS DP with near-process components for the direct connection of actuators and sensors.

For PROFIBUS PA the RS 485 transmission technique was replaced by a different technique optimized for intrinsically safe application. Both techniques are internationally standardized in IEC 61158.

PROFIBUS PA uses the same communication protocol as PROFIBUS DP; the communication services and telegrams are identical.

For PROFIBUS PA the data and energy supply for the field devices can be directed through a 2-wire line.

Integration

Siemens field devices for process automation which are listed in this catalog and can be controlled using PROFIBUS:

PROFIBUS PA

Measuring instruments for pressure

SITRANS P300

SITRANS P DS III

SITRANS P410

Measuring instruments for temperature

SITRANS TH400

Flowmeters

SITRANS F M MAG 6000 19" / IP67

SITRANS F M MAG 6000 I / I Ex

SITRANS F M Transmag 2

SITRANS F C MASS 6000 19" / IP67 / Ex d

SITRANS FUS060

Measuring instruments for level

Pointek CLS200 and CLS300

SITRANS Probe LU

SITRANS LR200

SITRANS LR250

SITRANS LR260

SITRANS LR460

SITRANS LR560

Electropneumatic positioners

SIPART PS2

Acoustic sensor for pump monitoring

SITRANS DA400

PROFIBUS DP

Measuring instruments for temperature

SITRANS TO500

Flowmeters

SITRANS F M MAG 6000 19" / IP67

SITRANS F M MAG 6000 I

SITRANS F C MASS 6000 19" / IP67

SIFLOW FC070 (via ET200M)

Measuring instruments for level

HydroRanger 200

MultiRanger 100/200

Acoustic sensor for pump monitoring

SITRANS DA400

Communication and Software
Communication

FOUNDATION Fieldbus

Overview

Today, distributed automation solutions based on open field buses are state-of-the-art in large areas of the process engineering industry. It is only with field buses that the functional benefits of digital communication can be put to full use, e.g. better resolution of measured values, diagnosis options and remote parameterization.

Like PROFIBUS PA, the FF bus (FOUNDATION Fieldbus) is an open field bus with a large installed base for a wide range of application. Standardization to IEC 61158 / EN 50170 provides you with future protection for your investment.

Benefits

- A uniform modular system from the sensor to the connection to the control level enables new plant concepts
- Networking of transmitters, valves, actuators etc.
- Implementation of intrinsically safe applications through use of the field bus in hazardous areas
- Easy installation of 2-wire cables for joint energy supply and data transfer
- Reduced cabling costs through savings of material and installation time.
- Reduced configuration costs through central, simple engineering of the field devices, also cross-vendor
- Fast and error-free installation
- Lower service costs thanks to simpler wiring and plant structure plus extensive diagnosis options
- Greatly reduced commissioning costs through simplified loop check
- Scaling/digitizing of the measured values in the field device already, hence no rescaling necessary in SIMATIC PCS 7

Application

The transfer technology of the FOUNDATION Fieldbus is tailored to the needs of the process industry. Interoperability between field devices from different manufacturers and remote parameterization of the field devices during operation are guaranteed by the standardized communication services.

FOUNDATION Fieldbus can just as readily be used in standard environments as in hazardous areas. For use in hazardous areas, FOUNDATION Fieldbus and all connected devices have to be designed with type of explosion protection Ex [i].

Function

FOUNDATION Fieldbus enables the direct connection of actuators and sensors.

FOUNDATION Fieldbus is based on a transfer optimized for intrinsically safe application. The transfer technology is internationally standardized in IEC 61158.

For FOUNDATION Fieldbus the data and energy supply for the field devices can be directed through a 2-wire cable.

FOUNDATION Fieldbus enables device-to-device communication ("control in the field").

Integration

Siemens field devices for process automation which are listed in this catalog and can be controlled using Foundation Fieldbus:

Measuring instruments for pressure

SITRANS P300

SITRANS P DS III

SITRANS P410

Measuring instruments for temperature

SITRANS TH400

Electropneumatic positioners

SIPART PS2

Flowmeters
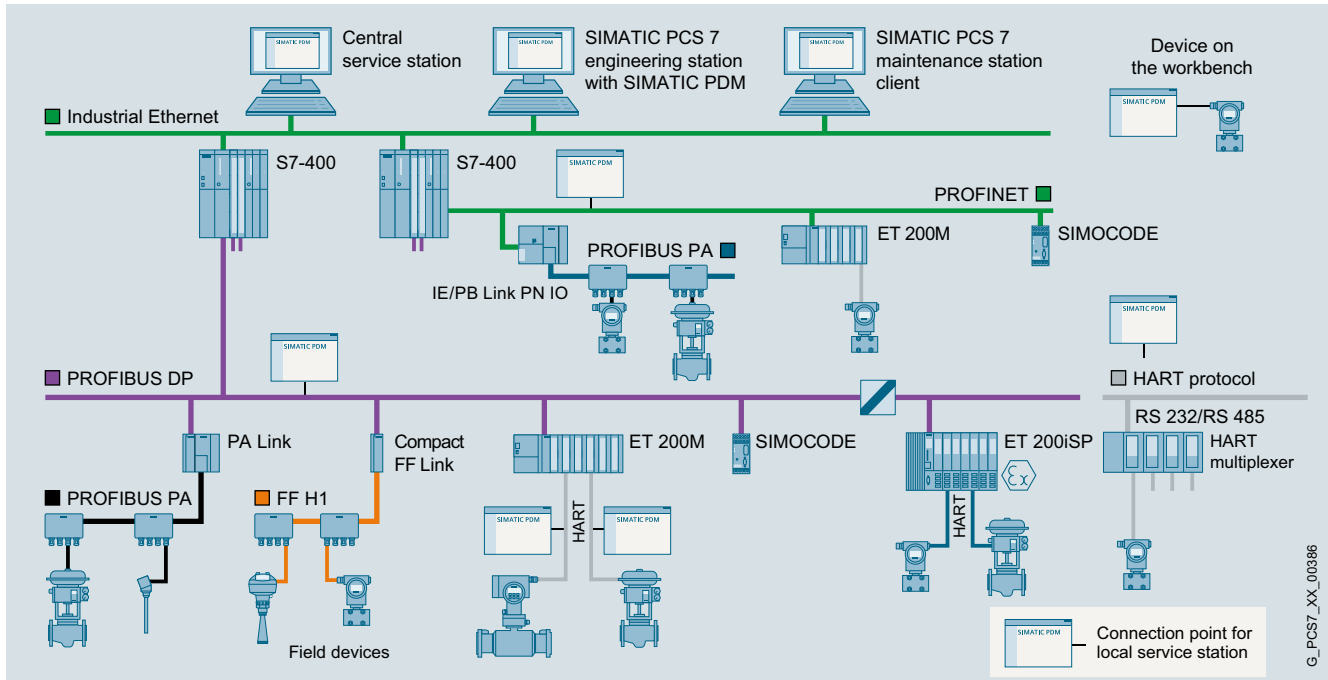
SITRANS F M MAG 6000

SITRANS F M MAG 6000 I / I Ex

SITRANS F C MASS 6000

Level meters

SITRANS LR250

SITRANS LR560

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Overview

Configuration options with SIMATIC PDM

SIMATIC PDM (Process Device Manager) is a universal, vendor-independent tool for the configuration, parameter assignment, commissioning, diagnostics and servicing of intelligent field devices (sensors and actuators) and field components (remote I/Os, multiplexers, control-room devices, compact controllers), which in the following sections will be referred to simply as devices.

With *one* software product, SIMATIC PDM enables users to work with over 3 500 devices and device variants of Siemens and over 200 other manufacturers worldwide on a *single* homogeneous user interface.

The user interface satisfies the requirements of the VDI/VDE GMA 2187 and IEC 65/349/CD directives. Parameters and functions for all supported devices are displayed in a consistent and uniform fashion independent of their communications interface. Even complex devices with several hundred parameters can be represented clearly and processed quickly. Using SIMATIC PDM it is very easy to navigate in highly complex stations such as remote I/Os and even connected field devices.

From the viewpoint of device integration, SIMATIC PDM is the most powerful open process device manager on the global market. Devices not previously supported can be integrated in SIMATIC PDM by importing their device description packages (either EDD or FDI). This provides security for your investment and saves you investment costs, training expenses and follow-up costs.

SIMATIC PDM supports the operative system management in particular through:

• Uniform presentation and operation of devices
• Uniform representation of diagnostics information
• Indicators for preventive maintenance and servicing
• Detection of changes in the project and device
• Increasing the operational reliability
• Reducing the investment, operating and maintenance costs
• Quantity options for
  - Transfer of parameters between devices
  - Transfer of parameter sets to the devices
  - Export and import functions
  - Diagnostics update

Communication and Software
Software

Process Device Manager SIMATIC PDM

SIMATIC PDM can be used extremely flexiblly and tailored to a specific task for field device service:

- Single-point station for point-to-point connection to field devices
- Local service and parameter assignment station with connection to fieldbus segments
- Central service and parameter assignment station with connection to plant bus
- Central HART service and parameter assignment station for HART multiplexers and WirelessHART field devices
- Integrated into the SIMATIC PDM stand-alone maintenance station
- Integrated into the SIMATIC PCS 7 process control system

Maintenance personnel can assign field device parameters at mobile and stationary workstations with SIMATIC PDM. Practically every workstation integrated in the production plant can be used for configuration. Service personnel are thus able to work directly at the location of the field device, while data is stored centrally in the engineering station or maintenance station. This leads to a significant shortening of maintenance and travel times. Additional device-independent system functions support higher-level maintenance stations for creating progress lists for work and servicing.

When a maintenance station is configured in the SIMATIC PCS 7 process control system, SIMATIC PDM is integrated into it and transmits parameter data, diagnostic information and processing information. You can switch directly to the SIMATIC PDM views from the diagnostics faceplates in the maintenance station to perform diagnostics and work on the device in more detail.

A SIMATIC PDM user administration system based on SIMATIC Logon is used to assign various roles with defined function privileges to users. These function privileges refer to SIMATIC PDM system functions, e.g. writing to the device.

For all devices integrated with device description packages, SIMATIC PDM provides a range of information for display and further processing on the maintenance station, for example:

- Device type information (electronic rating plate)
- Detailed diagnostics information (manufacturer information, information on error diagnostics and troubleshooting, further documentation)
- Results of internal condition monitoring functions
- Status information (for example local configuration changes), device test completed
- Information on changes (audit trail report)
- Parameter information

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Design

Components	Product packages							
	SIMATIC PDM Stand alone				SIMATIC PDM system-integrated			
	Minimum configuration	Basic configuration	Service and parameter assignment station		in the configuration environment			
			local	central	SIMATIC S7	SIMATIC PCS 7		
	PDM Single Point	**PDM Basic**	**PDM Service**	**PDM Stand alone Server**	**PDM S7**	**PDM PCS 7**	**PDM PCS 7 Server**	**PDM PCS 7 FF**
SIMATIC PDM TAGs[1] in product package	1	4	4 + 50	4 + 100	4 + 100	4 + 100	4 + 100	4 + 100
SIMATIC PDM expansion options								
Count Relevant Licenses (accumulative) - 10 TAGs - 100 TAGs - 1 000 TAGs	*cannot be expanded*	o	o	o	o	o	o	o
SIMATIC PDM Basic		●	●	●	●	●	●	●
SIMATIC PDM Extended		o	o	●	●	●	●	●
SIMATIC PDM integration in STEP 7/PCS 7		o	o	o	●	●	●	●
SIMATIC PDM Routing[2]		o	o	o	o	●	●	●
SIMATIC PDM Server		o	o	●	o	o	●	o
SIMATIC PDM 1 Client[3]		o	o	● (2 ×)	o	o	o	o
SIMATIC PDM Communication FOUNDATION Fieldbus		–	–	–	o	o	o	●
SIMATIC PDM HART server		o	o	o	o	–	–	–

SIMATIC PDM product structure

● Product component is part of the product package
o Optional product component for the product package; order additive
– Product component is not relevant for the product package or not available

1) For TAG definition, see "Design" section under "SIMATIC PDM TAGs"
2) In combination with SIMATIC PDM Integration in STEP 7/PCS 7
3) In combination with SIMATIC PDM Server

Customer-oriented product structure

The customer-oriented product structure of SIMATIC PDM provides optimal support for the named main use cases and enables you to adapt the scope of functions and performance to your individual requirements. The product range is organized as follows:

SIMATIC PDM Stand alone product packages

• SIMATIC PDM Single Point, a minimum configuration for single device handling
• SIMATIC PDM Basic for local service and parameter assignment stations as well as basic configuration for individual product package with optional product components
• SIMATIC PDM Service for local service and parameter assignment stations
• SIMATIC PDM Stand alone Server for central service and parameter assignment stations, e.g. for various plant units

SIMATIC PDM system-integrated product packages

• SIMATIC PDM S7 for local SIMATIC S7 engineering and service stations
• Various configurations for central SIMATIC PCS 7 engineering and service stations:
 - SIMATIC PDM PCS 7
 - SIMATIC PDM PCS 7 Server (enables device parameter assignment and diagnostics on clients of the PCS 7 engineering station and PCS 7 Maintenance Station)
 - SIMATIC PDM PCS 7-FF (supports the FOUNDATION Fieldbus H1)

In some circumstances, the product packages can be expanded with optional product components.

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Communication and Software
Software

Process Device Manager SIMATIC PDM

Product range	SIMATIC PDM V9.1							
	Single Point	Basic	Service	Stand alone Server	S7	PCS 7	PCS 7 Server	PCS 7-FF
TAGs contained	1	4	4 + 50	4 + 100	4 + 100	4 + 100	4 + 100	4 + 100
Project: Create offline	●	●	●	●	●	●	●	●
Project: Usable TAG extensions	–	●	●	●	●	●	●	●
Project: Process device network view	●	●	●	●	●	●	●	●
Project: Process device plant view	●	●	●	●	●	●	●	●
Project: Export/import devices	–	–	●	●	–	–	–	–
Project: Export/import parameters	–	o	●	●	●	●	●	●
Project: HW Config	–	o	o	o	●	●	●	●
Project: Utilization of SIMATIC PDM options	–	●	●	●	●	●	●	●
Project: Integration in STEP 7/PCS 7	–	o	o	o	●	●	●	●
Group operations	–	o	o	●	o	●	●	●
Setting device IDs	–	o	o	●	o	●	●	●
Communication: HART modem	●	●	●	●	●	–	–	–
Communication: HART interface	●	●	●	●	●	–	–	–
Communication: PROFIBUS DP/PA	●	●	●	●	●	●	●	●
Communication: HART over PROFIBUS DP	●	●	●	●	●	●	●	●
Communication: FF H1	–	–	–	–	o	o	o	●
Communication: Modbus	●	●	●	●	●	●	●	●
Communication: Ethernet	●	●	●	●	●	●	●	●
Communication: PROFINET	●	●	●	●	●	●	●	●
Communication: HART over PROFINET	●	●	●	●	●	●	●	●
Devices: Export/import parameters	–	o	o	●	●	●	●	●
Devices: Comparison of parameter values	–	o	o	●	●	●	●	●
Devices: Saving parameters	●	●	●	●	●	●	●	●
Devices: Change log (Audit Trail)	–	o	o	●	●	●	●	●
Devices: Calibration report	–	o	o	●	●	●	●	●
Devices: Print function	●	o	o	●	●	●	●	●
Devices: Document manager	–	o	o	●	●	●	●	●
Lifelist: Basic functionality	●	●	●	●	●	●	●	●
Lifelist: Expanded functionality (scan range, diagnostics, export, addressing)	–	o	o	●	●	●	●	●
Communication: Data record routing	–	o	o	o	o	●	●	●
Communication: HART multiplexer	–	o	o	o	o	–	–	–
Communication: Wireless HART	–	o	o	o	o	–	–	–
Function: HART SHC mode (increased communication speed)	●	●	●	●	●	●	●	●
Function: Device parameterization on PCS 7 maintenance station clients	–	o	o	o	o	o	●	o
Function: Device parameter assignment on SIMATIC PDM clients	–	o	o	●(2 ×)	o	o	o	o

SIMATIC PDM overview of functions and features

● Product component is part of the product package
o Optional product component for the product package; order additive
– Product component is not relevant for the product package or not available

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SIMATIC PDM Stand alone product packages

SIMATIC PDM Single Point V9.1

This minimum configuration with handheld functionality is intended for handling exactly *one* field device via point-to-point coupling. It cannot be expanded with functions or with SIMATIC PDM TAG or SIMATIC PDM 1 Client licenses. Upgrading to a different product variant, e.g. SIMATIC PDM Basic, or a different product version is also not possible.

Supported communication types:
- PROFIBUS DP/PA
- HART communication (modem, RS 232 and via PROFIBUS/PROFINET)
- Modbus
- Ethernet
- PROFINET

The functionality is matched accordingly. The device functions are supported as defined in the device description, for example:
- Managing the device library and unlimited device selection
- Parameter assignment and diagnostics according to the device description
- Exporting and importing of parameter data
- Device identification
- Lifelist
- Printing the parameter list

SIMATIC PDM Basic V9.1

SIMATIC PDM Basic is for local service and parameter assignment stations on any computers (IPC/notebook) with local connection to bus segments or direct connection to the device.

Supported communication types:
- PROFIBUS DP/PA
- HART communication (modem, RS 232 and via PROFIBUS/PROFINET)
- Modbus
- Ethernet
- PROFINET

SIMATIC PDM Basic is equipped with all basic functions required for operation and parameter assignment of devices. That is, compared to SIMATIC PDM Single Point, it has the following additional functions:
- EDD-based diagnostics in the lifelist
- Memory function (only exporting and importing of parameter data)
- Report function
- Communication with HART field devices via remote I/Os

As a basic block for an individual configuration, SIMATIC PDM Basic can be expanded with all functional SIMATIC PDM options (PDM Routing only in combination with PDM Integration in STEP 7/PCS 7 required) as well as with cumulative sets of 10, 100 or 1 000 SIMATIC PDM TAGs. Without TAG expansion, SIMATIC PDM Basic is suitable for projects with up to 4 TAGs. SIMATIC PDM 1 Client licenses (sets of 1) can also be added in combination with the SIMATIC PDM Server option.

The SIMATIC PDM Extended option allows the activation of additional SIMATIC PDM system functions (for details, see SIMATIC PDM Extended V9.1 under "Optional product components").

SIMATIC PDM Service V9.1

With this product package for extended service, local service and parameter assignment stations can be realized on any type of computer (IPC/notebook) with a local connection to a bus segment or direct connection to field devices.

It comprises:
- SIMATIC PDM Basic (incl. 4 SIMATIC PDM TAGs)
- 50 SIMATIC PDM TAGs

Like SIMATIC PDM Basic, SIMATIC PDM Service can be expanded with all functional SIMATIC PDM options (PDM Routing only in combination with PDM Integration in STEP 7/PCS 7 required) as well as with cumulative SIMATIC PDM TAGs (sets of 10, 100 or 1 000) (see "Optional product components"). SIMATIC PDM 1 Client licenses (sets of 1) can also be added in combination with the SIMATIC PDM Server option. It is permitted to upgrade to another product version.

Note: For use of gateways and for PROFINET or Ethernet communication with field devices, SIMATIC PDM TAG licenses are charged for according to the objects configured in the process device plant view as follows:
- 10 SIMATIC PDM TAGs per S7 DSGW (data record gateway) with one PROFIBUS subnet
- 20 SIMATIC PDM TAGs per S7 DSGW with more than one PROFIBUS subnet
- 10 TAGs per IE/PB Link
- 1 TAG per field device (except in the case of special specifications)

SIMATIC PDM stand-alone server V9.1

With the SIMATIC PDM Stand alone Server product package, you can establish central service and parameter assignment stations that operate according to the client/server principle. Portals opened on licensed SIMATIC PDM clients (SIMATIC PDM sessions) enable handling of production plant field devices via the SIMATIC PDM server on the plant bus assigned via registration. The product package can be used multiple times within a plant, e.g. for various plant units. It comprises:
- SIMATIC PDM Basic (incl. 4 SIMATIC PDM TAGs)
- SIMATIC PDM Extended
- SIMATIC PDM Server
- 2 × SIMATIC PDM 1 Client
- 100 SIMATIC PDM TAGs

SIMATIC PDM Stand alone Server can be expanded with all functional SIMATIC PDM options (PDM Routing only in combination with PDM Integration in STEP 7/PCS 7 required) as well as with cumulative sets of 10, 100 or 1 000 SIMATIC PDM TAGs and SIMATIC PDM 1-client licenses (see "Optional product components"). The portals opened on these clients (SIMATIC PDM sessions) must also be licensed with the SIMATIC PDM 1-client licenses (besides the SIMATIC PDM clients). For details about this, refer to "SIMATIC PDM 1 Client" under "Optional product components". For user management of the SIMATIC PDM clients, the SIMATIC Logon product is also required. It is possible to upgrade to another product version.

Note: For use of gateways and for PROFINET or Ethernet communication with field devices, SIMATIC PDM TAG licenses are charged according to the objects configured in the process device plant view (for details, see corresponding note under SIMATIC PDM Service V9.1).

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Communication and Software

Software

SIMATIC PDM system-integrated product packages

SIMATIC PDM S7 V9.1

The SIMATIC PDM S7 product package designed for use in a SIMATIC S7 configuration environment is intended for setup of a local SIMATIC S7 engineering and service station. It requires the installation of STEP 7 V5.5+SP4. It includes:

- SIMATIC PDM Basic (incl. 4 SIMATIC PDM TAGs)
- SIMATIC PDM Extended
- SIMATIC PDM integration in STEP 7/PCS 7
- 100 SIMATIC PDM TAGs

SIMATIC PDM S7 can be expanded with the functional options SIMATIC PDM Routing, SIMATIC PDM Communication FOUNDATION Fieldbus, SIMATIC PDM Server, and SIMATIC PDM HART Server as well as with cumulative SIMATIC PDM TAGs (sets of 10, 100 or 1 000) (see "Optional product components"). SIMATIC PDM 1 Client licenses (sets of 1) can also be added in combination with the SIMATIC PDM Server option.

SIMATIC PDM PCS 7 V9.1

The SIMATIC PDM PCS 7 product package suitable for use in a SIMATIC PCS 7 configuration environment is intended for use in a central SIMATIC PCS 7 engineering and service station. It comprises:

- SIMATIC PDM Basic (incl. 4 SIMATIC PDM TAGs)
- SIMATIC PDM Extended
- SIMATIC PDM integration in STEP 7/PCS 7
- SIMATIC PDM Routing
- 100 SIMATIC PDM TAGs

SIMATIC PDM PCS 7 can be expanded with the functional options SIMATIC PDM Communication FOUNDATION Fieldbus and SIMATIC PDM Server as well as with cumulative SIMATIC PDM TAGs (sets of 10, 100 or 1 000) (see "Optional product components"). SIMATIC PDM 1 Client licenses (sets of 1) can also be added in combination with the SIMATIC PDM Server option.

SIMATIC PDM PCS 7 Server V9.1

Instead of SIMATIC PDM PCS 7, the SIMATIC PDM PCS 7 Server product package expanded with the SIMATIC PDM Server option can also be used for a central SIMATIC PCS 7 engineering and service station. Field devices integrated using an Electronic Device Description (EDD) can then be assigned parameters on any client of the SIMATIC PCS 7 Maintenance Station as well as on local SIMATIC PDM clients. The following are components of SIMATIC PDM PCS 7 Server:

- SIMATIC PDM Basic (incl. 4 SIMATIC PDM TAGs)
- SIMATIC PDM Extended
- SIMATIC PDM integration in STEP 7/PCS 7
- SIMATIC PDM Routing
- SIMATIC PDM Server
- 100 SIMATIC PDM TAGs

SIMATIC PDM PCS 7 Server can be expanded with the functional option SIMATIC PDM Communication FOUNDATION Fieldbus as well as with cumulative sets of 10, 100 or 1 000 SIMATIC PDM TAGs and SIMATIC PDM 1-Client licenses (see "Optional product components"). The portals opened on these clients (SIMATIC PDM sessions) must also be licensed with the SIMATIC PDM 1-client licenses (besides the SIMATIC PDM clients). For details about this, refer to "SIMATIC PDM 1 Client" under "Optional product components".

SIMATIC PDM PCS 7-FF V9.1

Instead of SIMATIC PDM PCS 7, the SIMATIC PDM PCS 7-FF product package expanded with the SIMATIC PDM Communication FOUNDATION Fieldbus option can also be used for a central SIMATIC PCS 7 engineering and service station. This additionally supports parameter assignment of field devices on FOUNDATION Fieldbus H1. Components of SIMATIC PDM PCS 7-FF are:

- SIMATIC PDM Basic (incl. 4 SIMATIC PDM TAGs)
- SIMATIC PDM Extended
- SIMATIC PDM integration in STEP 7/PCS 7
- SIMATIC PDM Routing
- SIMATIC PDM Communication FOUNDATION Fieldbus
- 100 SIMATIC PDM TAGs

SIMATIC PDM PCS 7-FF V9.1 can be expanded with the functional option SIMATIC PDM Server as well as with cumulative sets of 10, 100 or 1 000 SIMATIC PDM TAGs (see "Optional product components"). SIMATIC PDM 1 Client licenses (sets of 1) can also be added in combination with the SIMATIC PDM Server option.

Optional product components

SIMATIC PDM Extended V9.1 option

The SIMATIC PDM Extended option enables you to unlock other system functions for SIMATIC PDM Basic and SIMATIC PDM, for example:

- Change log
- Calibration report
- Extended information in the Lifelist
- Export and import functions
- Print functions
- Document manager
- Comparison function
- Group operations
- Setting device IDs

This functionality is already integrated in the following product packages: SIMATIC PDM Stand alone Server, SIMATIC PDM S7, SIMATIC PDM PCS 7, SIMATIC PDM PCS 7 Server and SIMATIC PDM PCS 7-FF.

SIMATIC PDM Integration option in STEP 7/PCS 7 V9.1

This option is used for the integration of SIMATIC PDM in a SIMATIC S7 or SIMATIC PCS 7 configuration environment. SIMATIC PDM can then be started directly from the hardware configurator (HW Config) in STEP 7/SIMATIC PCS 7.

This functionality is already integrated in the product packages of category "SIMATIC PDM system-integrated" (SIMATIC PDM S7, SIMATIC PDM PCS 7, SIMATIC PDM PCS 7 Server, and SIMATIC PDM PCS 7-FF).

8

SIMATIC PDM Routing V9.1 option

If SIMATIC PDM is used on an engineering station, the SIMATIC PDM Routing option enables handling of every device in the field that can be configured per EDD throughout the plant and across different bus systems and remote I/Os. SIMATIC PDM Routing can be used in combination with SIMATIC PDM Integration in STEP 7/SIMATIC PCS 7.

Routing is already integrated in SIMATIC PDM PCS 7, SIMATIC PDM PCS 7 Server, and SIMATIC PDM PCS 7-FF. SIMATIC PDM Routing can be additionally installed as an option on a local SIMATIC S7 engineering and service station with SIMATIC PDM S7.

SIMATIC PDM Server V9.1 option

The server functionality can be activated in a local or central service station with this option. It enables parameter assignment of selected field devices on any client of the SIMATIC PCS 7 Maintenance Station as well as on local SIMATIC PDM clients. This functionality is already integrated in the SIMATIC PDM Stand alone Server and SIMATIC PDM PCS 7 Server. The SIMATIC PDM clients as well as the portals opened on these clients (SIMATIC PDM sessions) must be licensed with SIMATIC PDM 1 client licenses. For details about this, refer to "SIMATIC PDM 1 Client" under "Optional product components".

SIMATIC PDM Communication FOUNDATION Fieldbus V9.1 option

In a SIMATIC S7/PCS 7 configuration environment, using this option SIMATIC PDM can communicate with field devices on the FOUNDATION Fieldbus H1 via the FF link.

This functionality is already integrated in the SIMATIC PDM PCS 7-FF product package.

SIMATIC PDM HART Server V9.1 option

This option permits the use of HART multiplexers from various vendors in SIMATIC PDM. Furthermore, wireless HART field devices can also be parameterized with SIMATIC PDM.

SIMATIC PDM TAGs (version-independent)

Depending on the project size, the SIMATIC PDM TAGs supplied with a product package (except SIMATIC PDM Single Point) can be cumulatively expanded with sets of 10, 100 or 1 000 SIMATIC PDM TAGs.

A SIMATIC PDM TAG corresponds to a SIMATIC PDM object that represents the individual field devices or field components within a project, e.g. measuring instruments, positioners, switching devices or remote I/Os. SIMATIC PDM TAGs are also relevant for diagnostics with the lifelist of SIMATIC PDM. In this case, TAGs are considered to be all recognized devices with diagnostics capability, whose detailed diagnostics is effected through the device description (EDD).

SIMATIC PDM 1 Client (version-independent)

SIMATIC PDM 1 Client is a cumulative single-client license for SIMATIC PDM configurations with SIMATIC PDM server, for example SIMATIC PDM stand-alone server or SIMATIC PDM PCS 7 server. The license is used to activate registered SIMATIC PDM clients and SIMATIC PDM sessions (opened portals) on these clients.

Each "SIMATIC PDM 1 Client" license activates one SIMATIC PDM client with one SIMATIC PDM session. A SIMATIC PDM session is defined as one opened portal together with the parameter views of the field devices opened from the portal. Each additional simultaneously opened SIMATIC PDM session on this client requires its own "SIMATIC PDM 1 Client" license. For larger projects, up to 30 registered SIMATIC PDM Clients are possible.

The "SIMATIC PDM 1 Client" license must be transferred to the computer with the SIMATIC PDM Server. The SIMATIC PDM Standalone Server product package comes with 2 "SIMATIC PDM 1 Client" licenses.

SIMATIC PDM Software Media Package V9.1

The current SIMATIC PDM installation software is offered without a license in the form of the SIMATIC PDM Software Media Package. Purchasing of corresponding software licenses is necessary to unlock the product-specific functionalities.

With SIMATIC PDM product packages, when supplied via physical delivery (not with optional product components), a SIMATIC PDM Software Media Package is supplied together with each ordering item. Further SIMATIC PDM Software Media Packages must be ordered separately as required.

The software of the SIMATIC PDM Media Package without a license can be used for demonstration purposes in demo mode. The SIMATIC PDM functionality is limited as follows in demo mode:

- Stand alone mode
- Storage functions disabled
- Export and import functions disabled
- Expanded functionality disabled
- Communication functions restricted

Information on ordering and delivery

SIMATIC PDM is among the products for which the installation software is provided in the form of a software media package. Software media packages and product-specific software licenses are separate packages, which are not merged into a single delivery unit for a physical delivery.
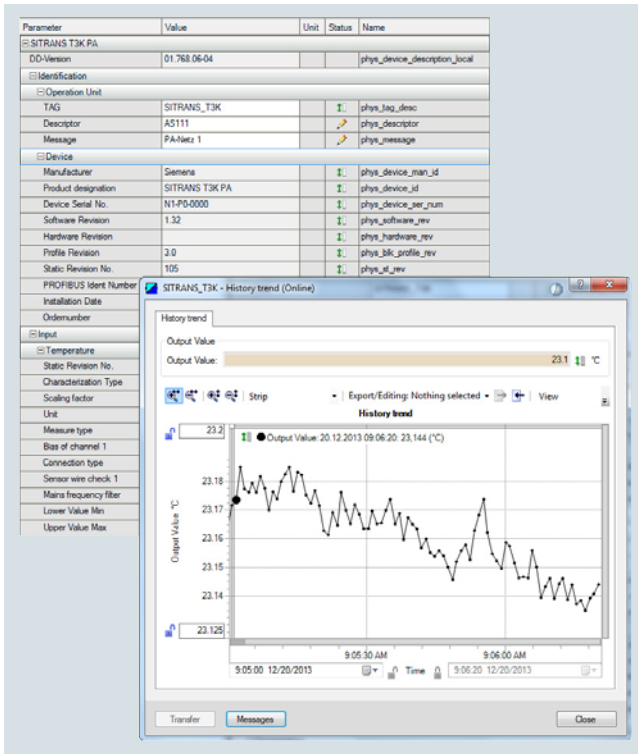
The number of delivered software media packages can be determined by the number of ordered items. You can find more information under "Delivery form package" in the "Software Media and Logistics", "PCS 7 Software Packages" section of the ST PCS 7 catalog.

8

Communication and Software
Software

Process Device Manager SIMATIC PDM

■ Function

SIMATIC PDM, parameter view and trend window

SIMATIC PDM core functions

- Creation of project-specific device libraries
- Adjustment and modification of device parameters
- Comparing (e.g. project and device data)
- Plausibility testing of data input
- Device identification and testing
- Device status indication (operating modes, interrupts, states)
- Simulation
- Diagnostics (standard, detailed)
- Export/import (parameter data, logs, documents)
- Management (e.g. networks and PCs)
- Commissioning functions, e.g. measuring circuit tests of device data
- Lifecycle management functions, e.g. for device replacement
- Global and device-specific modification logbook for user operations (audit trail)
- Device-specific calibration reports
- Graphic presentations of echo envelope curves, trend displays, valve diagnosis results etc.
- Presentation of incorporated manuals
- Document manager for integration of up to 10 multimedia files

■ Integration

Device integration

SIMATIC PDM supports all devices defined by the Electronic Device Description (EDD) and devices described by Field Device Integration Technology (FDI Technology V1.2). EDD is standardized to EN 50391 and IEC 61804. Internationally it is the most widely used standardized technology for device integration. At the same time, it is the guideline of the established organizations for

- PROFIBUS and PROFINET (PI – PROFIBUS & PROFINET International)
- HART (FCG: Field Communication Group)
- Foundation Fieldbus (FCG: Field Communication Group)

The devices are integrated directly in SIMATIC PDM through a company-specific EDD or through the libraries of the FCG. To achieve improved transparency, they can be managed in project-specific device libraries.

Field devices are described in the EDD or FDI device description packages in terms of functionality and construction using the Electronic Device Description Language (EDDL). Using this description, SIMATIC PDM automatically creates its user interfaces with the specific device data. By simply importing the manufacturer's device-specific device description packages, you can update existing devices and integrate further devices in SIMATIC PDM.

Technical support

If you wish to use devices which cannot be found in the SIMATIC PDM device description library, we would be pleased to help you integrate them.

Support Request

You can request support by service specialists at Technical Support by using a "Support Request" on the Internet:

www.siemens.com/automation/support-request

Contacts in the Region

The Technical Support responsible for your region can be found on the Internet at:

www.automation.siemens.com/partner

■ Technical specifications

SIMATIC PDM V9.1	
Hardware	• PG/PC/notebook with processor corresponding to operating system requirements
Operating system (alternatives)	• Windows 7 Professional/Ultimate/Enterprise SP1, 32-bit/64-bit • Windows 10 Enterprise 2015 LTSB 64-bit • Windows Server 2012 R2 Standard Edition, 64-bit
Integration in STEP 7/PCS 7	• SIMATIC PCS 7 V8.0+SP2/V8.1/V8.2 (without Communication FOUNDATION Fieldbus) • SIMATIC PCS 7 V9.0 • STEP 7 V5.5+SP4/V5.6
SIMATIC PDM Client	• Microsoft Internet Explorer 10 or 11 • Google Chrome

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Ordering data

	Article No.
SIMATIC PDM Stand alone product packages	
Minimum configuration	
SIMATIC PDM Single Point V9.1 including 1 TAG; product package for operation and configuration of one field device; communication via PROFIBUS DP/PA, HART (modem, RS 232, PROFIBUS/PROFINET), Modbus, Ethernet or PROFINET	
Additional functions or SIMATIC PDM TAGs are not possible	
6 languages (English, German, French, Italian, Spanish, Chinese), software class A, runs with Windows 7 Ultimate 64-bit, Windows 10 Enterprise 2015 LTSB 64-bit or Windows Server 2012 R2 Standard Edition 64-bit (see SIMATIC PDM V9.1 Readme for latest information), floating license for 1 user	
Without SIMATIC PCS 7 Software Media Package	
• Goods delivery License key on USB flash drive and certificate of license, bundled with 1 × SIMATIC PDM Software Media Package per order item	**6ES7658-3HA68-0YA5**
• Online delivery License key download and online certificate of license combined with SIMATIC PDM Software Media Package (SIMATIC PDM and device library software download) <u>Note</u>: Email address required!	**6ES7658-3HA68-0YH5**
Basic configuration for individual product package as well as local service and parameter assignment stations	
SIMATIC PDM Basic V9.1 including 4 TAGs; product package for operation and configuration of field devices and components; communication via PROFIBUS DP/PA, HART (modem, RS 232, PROFIBUS/PROFINET), Modbus, Ethernet or PROFINET	
6 languages (English, German, French, Italian, Spanish, Chinese), software class A, runs with Windows 7 Ultimate 64-bit, Windows 10 Enterprise 2015 LTSB 64-bit or Windows Server 2012 R2 Standard Edition 64-bit (see SIMATIC PDM V9.1 Readme for latest information), floating license for 1 user	
Without SIMATIC PCS 7 Software Media Package	
• Goods delivery License key on USB flash drive and certificate of license, bundled with 1 × SIMATIC PDM Software Media Package per order item	**6ES7658-3AB68-0YA5**
• Online delivery License key download and online certificate of license combined with SIMATIC PDM Software Media Package (SIMATIC PDM and device library software download) <u>Note</u>: Email address required!	**6ES7658-3AB68-0YH5**

	Article No.
Configuration for local service and parameter assignment station	
SIMATIC PDM Service V9.1 Product package for service and measuring circuit tests on a local service station, with • SIMATIC PDM Basic incl. 4 TAGs • 50 TAGs	
6 languages (English, German, French, Italian, Spanish, Chinese), software class A, runs with Windows 7 Ultimate 64-bit, Windows 10 Enterprise 2015 LTSB 64-bit or Windows Server 2012 R2 Standard Edition 64-bit (see SIMATIC PDM V9.1 Readme for latest information), floating license for 1 user	
Without SIMATIC PCS 7 Software Media Package	
• Goods delivery License key on USB flash drive and certificate of license, bundled with 1 × SIMATIC PDM Software Media Package per order item	**6ES7658-3JD68-0YA5**
• Online delivery License key download and online certificate of license combined with SIMATIC PDM Software Media Package (SIMATIC PDM and device library software download) <u>Note</u>: Email address required!	**6ES7658-3JD68-0YH5**
Configuration for central service and parameter assignment station	
SIMATIC PDM stand-alone server V9.1 Product package for service and device management in plant units, with - SIMATIC PDM Basic incl. 4 TAGs - SIMATIC PDM Extended - SIMATIC PDM Server - 2 × SIMATIC PDM 1 Client - 100 TAGs	
6 languages (English, German, French, Italian, Spanish, Chinese), software class A, runs with Windows 7 Ultimate 64-bit, Windows 10 Enterprise 2015 LTSB 64-bit or Windows Server 2012 R2 Standard Edition 64-bit (see SIMATIC PDM V9.1 Readme for latest information), single license for 1 installation	
Without SIMATIC PCS 7 Software Media Package	
• Goods delivery License key on USB flash drive and certificate of license, bundled with 1 × SIMATIC PDM Software Media Package per order item	**6ES7658-3TX68-0YA5**
• Online delivery License key download and online certificate of license combined with SIMATIC PDM Software Media Package (SIMATIC PDM and device library software download) <u>Note</u>: Email address required!	**6ES7658-3TX68-0YH5**

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Communication and Software
Software

Process Device Manager SIMATIC PDM

	Article No.		Article No.
SIMATIC PDM system-integrated product packages		**SIMATIC PDM PCS 7-FF V9.1** Product package for use in a SIMATIC PCS 7 configuration environment, including FOUNDATION Fieldbus H1 communication	
Configuration for local SIMATIC S7 engineering and service station		6 languages (English, German, French, Italian, Spanish, Chinese), software class A, runs with Windows 7 Ultimate 64-bit, Windows 10 Enterprise 2015 LTSB 64-bit or Windows Server 2012 R2 Standard Edition 64-bit (see SIMATIC PDM V9.1 Readme for latest information)	
SIMATIC PDM S7 V9.1			
Product package for use in a SIMATIC S7 configuration environment, with - SIMATIC PDM Basic incl. 4 TAGs - SIMATIC PDM Extended - SIMATIC PDM Integration in STEP 7/PCS 7 - 100 TAGs		Floating license for 1 user, with - SIMATIC PDM Basic incl. 4 TAGs - SIMATIC PDM Extended - SIMATIC PDM Integration in STEP 7/PCS 7 - SIMATIC PDM Routing - SIMATIC PDM Communication FOUNDATION Fieldbus - 100 TAGs	
6 languages (English, German, French, Italian, Spanish, Chinese), software class A, runs with Windows 7 Ultimate 64-bit, Windows 10 Enterprise 2015 LTSB 64-bit or Windows Server 2012 R2 Standard Edition 64-bit (see SIMATIC PDM V9.1 Readme for latest information), floating license for 1 user		Without SIMATIC PCS 7 Software Media Package	
Without SIMATIC PCS 7 Software Media Package		• Goods delivery License key on USB flash drive and certificate of license, bundled with 1 × SIMATIC PDM Software Media Package per order item	6ES7658-3MD68-0YA5
• Goods delivery License key on USB flash drive and certificate of license, bundled with 1 × SIMATIC PDM Software Media Package per order item	6ES7658-3KD68-0YA5	• Online delivery License key download and online certificate of license combined with SIMATIC PDM Software Media Package (SIMATIC PDM and device library software download) <u>Note</u>: Email address required!	6ES7658-3MD68-0YH5
• Online delivery License key download and online certificate of license combined with SIMATIC PDM Software Media Package (SIMATIC PDM and device library software download) <u>Note</u>: Email address required!	6ES7658-3KD68-0YH5	**SIMATIC PDM PCS 7 Server V9.1** Product package for use in a SIMATIC PCS 7 configuration environment, including server functionality	
Configuration for central SIMATIC PCS 7 engineering and service stations		6 languages (English, German, French, Italian, Spanish, Chinese), software class A, runs with Windows 7 Ultimate 64-bit, Windows 10 Enterprise 2015 LTSB 64-bit or Windows Server 2012 R2 Standard Edition 64-bit (see SIMATIC PDM V9.1 Readme for latest information)	
SIMATIC PDM PCS 7 V9.1 Product package for use in a SIMATIC PCS 7 configuration environment		Single license for 1 installation, with - SIMATIC PDM Basic incl. 4 TAGs - SIMATIC PDM Extended - SIMATIC PDM Integration in STEP 7/PCS 7 - SIMATIC PDM Routing - SIMATIC PDM Server - 100 TAGs	
6 languages (English, German, French, Italian, Spanish, Chinese), software class A, runs with Windows 7 Ultimate 64-bit, Windows 10 Enterprise 2015 LTSB 64-bit or Windows Server 2012 R2 Standard Edition 64-bit (see SIMATIC PDM V9.1 Readme for latest information)		Without SIMATIC PCS 7 Software Media Package	
Floating license for 1 user, with - SIMATIC PDM Basic incl. 4 TAGs - SIMATIC PDM Extended - SIMATIC PDM Integration in STEP 7/PCS 7 - SIMATIC PDM Routing - 100 TAGs		• Goods delivery License key on USB flash drive and certificate of license, bundled with 1 × SIMATIC PDM Software Media Package per order item	6ES7658-3TD68-0YA5
Without SIMATIC PCS 7 Software Media Package		• Online delivery License key download and online certificate of license combined with SIMATIC PDM Software Media Package (SIMATIC PDM and device library software download) <u>Note</u>: Email address required!	6ES7658-3TD68-0YH5
• Goods delivery License key on USB flash drive and certificate of license, bundled with 1 × SIMATIC PDM Software Media Package per order item	6ES7658-3LD68-0YA5		
• Online delivery License key download and online certificate of license combined with SIMATIC PDM Software Media Package (SIMATIC PDM and device library software download) <u>Note</u>: Email address required!	6ES7658-3LD68-0YH5		

	Article No.
Optional product components for SIMATIC PDM	

SIMATIC PDM Extended V9.1
For enabling additional system functions
 	
6 languages (English, German, French, Italian, Spanish, Chinese), software class A, runs with Windows 7 Ultimate 64-bit, Windows 10 Enterprise 2015 LTSB 64-bit or Windows Server 2012 R2 Standard Edition 64-bit (see SIMATIC PDM V9.1 Readme for latest information), floating license for 1 user
 	
Without SIMATIC PCS 7/SIMATIC PDM Software Media Package
• Goods delivery
  License key on USB flash drive and certificate of license
 	
• Online delivery
  (without SIMATIC PCS 7/SIMATIC PDM Software Media Package)
  License key download and online certificate of license
  Note: Email address required!
	
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	6ES7658-3NX68-2YH5

SIMATIC PDM Integration in STEP 7/SIMATIC PCS 7 V9.1
For integration in a SIMATIC S7/SIMATIC PCS 7 configuration environment
 	
6 languages (English, German, French, Italian, Spanish, Chinese), software class A, runs with Windows 7 Ultimate 64-bit, Windows 10 Enterprise 2015 LTSB 64-bit or Windows Server 2012 R2 Standard Edition 64-bit (see SIMATIC PDM V9.1 Readme for latest information), floating license for 1 user
 	
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• Online delivery
  License key download and online certificate of license
  Note: Email address required!
	
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	6ES7658-3BX68-2YH5

SIMATIC PDM Routing V9.1
For plant-wide navigation to field devices
 	
6 languages (English, German, French, Italian, Spanish, Chinese), software class A, runs with Windows 7 Ultimate 64-bit, Windows 10 Enterprise 2015 LTSB 64-bit or Windows Server 2012 R2 Standard Edition 64-bit (see SIMATIC PDM V9.1 Readme for latest information), floating license for 1 user
 	
Without SIMATIC PCS 7/SIMATIC PDM Software Media Package
• Goods delivery
  License key on USB flash drive and certificate of license
 	
• Online delivery
  License key download, online certificate of license
  Note: Email address required!
	
	6ES7658-3CX68-2YB5
	
	6ES7658-3CX68-2YH5

	Article No.

SIMATIC PDM Server V9.1
For activating the server functionality
 	
6 languages (English, German, French, Italian, Spanish, Chinese), software class A, runs with Windows 7 Ultimate 64-bit, Windows 10 Enterprise 2015 LTSB 64-bit or Windows Server 2012 R2 Standard Edition 64-bit (see SIMATIC PDM V9.1 Readme for latest information), single license for 1 installation
 	
Without SIMATIC PCS 7/SIMATIC PDM Software Media Package
• Goods delivery
  License key on USB flash drive, certificate of license
 	
• Online delivery
  License key download and online certificate of license
  Note: Email address required!
	
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	6ES7658-3TX68-2YH5

SIMATIC PDM Communication FOUNDATION Fieldbus V9.1
For communication with field devices on FOUNDATION Fieldbus H1
 	
6 languages (English, German, French, Italian, Spanish, Chinese), software class A, runs with Windows 7 Ultimate 64-bit, Windows 10 Enterprise 2015 LTSB 64-bit or Windows Server 2012 R2 Standard Edition 64-bit (see SIMATIC PDM V9.1 Readme for latest information), floating license for 1 user
 	
Without SIMATIC PCS 7/SIMATIC PDM Software Media Package
• Goods delivery
  License key on USB flash drive and certificate of license
 	
• Online delivery
  License key download and online certificate of license
  Note: Email address required!
	
	6ES7658-3QX68-2YB5
	
	6ES7658-3QX68-2YH5

SIMATIC PDM HART Server V9.1
For using HART multiplexers as well as for configuration of wireless HART field devices
 	
6 languages (English, German, French, Italian, Spanish, Chinese), software class A, runs with Windows 7 Ultimate 64-bit, Windows 10 Enterprise 2015 LTSB 64-bit or Windows Server 2012 R2 Standard Edition 64-bit (see SIMATIC PDM V9.1 Readme for latest information), floating license for 1 user
 	
Without SIMATIC PCS 7/SIMATIC PDM Software Media Package
• Goods delivery
  License key on USB flash drive and certificate of license
 	
• Online delivery
  License key download and online certificate of license
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	6ES7658-3EX68-2YH5

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Communication and Software
Software

Process Device Manager SIMATIC PDM

	Article No.
SIMATIC PDM 1 Client Cumulative client license for SIMATIC PDM configurations with SIMATIC PDM Server, software class A, single license for 1 installation	
• Goods delivery License key on USB flash drive and certificate of license	**6ES7658-3UA00-2YB5**
• Online delivery License key download and online certificate of license Note: Email address required!	**6ES7658-3UA00-2YH5**
SIMATIC PDM TAGs TAG licenses for expanding the available TAG volume, cumulative, software class A, floating license for 1 user	
• Goods delivery License key on USB flash drive and certificate of license - 10 TAGs - 100 TAGs - 1 000 TAGs	**6ES7658-3XC00-2YB5** **6ES7658-3XD00-2YB5** **6ES7658-3XE00-2YB5**
• Online delivery License key download and online certificate of license Note: Email address required! - 10 TAGs - 100 TAGs - 1 000 TAGs	**6ES7658-3XC00-2YH5** **6ES7658-3XD00-2YH5** **6ES7658-3XE00-2YH5**

	Article No.
SIMATIC PDM Software Media Package	
SIMATIC PDM Software Media Package V9.1 Installation software without license, 6 languages (English, German, French, Italian, Spanish, Chinese), software class A, runs with Windows 7 Ultimate 64-bit, Windows 10 Enterprise 2015 LTSB 64-bit or Windows Server 2012 R2 Standard Edition 64-bit (see SIMATIC PDM V9.1 Readme for latest information) Without SIMATIC PCS 7 Software Media Package Note: Can only be used in conjunction with a valid license or in demo mode!	
• Goods delivery SIMATIC PDM and device library software on DVD	**6ES7658-3GX68-0YT8**
• Online delivery SIMATIC PDM and device library software download Note: Email address required!	**6ES7658-3GX68-0YG8**

More information

Update/Upgrade

Existing installations based on SIMATIC PDM V6.x or V8.x/V9.0 (including SP in each case) can be upgraded straight to V9.1 with upgrade packages.

Projects with SIMATIC PDM V7.0 can only be upgraded to version 9.1 by first upgrading to version 8.0. Two upgrade packages are offered for SIMATIC PDM V8.x/V9.0:

• SIMATIC PDM Upgrade Package Basic[1] (with/without SIMATIC PDM HART Server in each case) for configurations based on:
- SIMATIC PDM Basic
- SIMATIC PDM Service
- SIMATIC PDM S7
- SIMATIC PDM PCS 7

• SIMATIC PDM Upgrade Package Complete[1] for configurations based on:
- SIMATIC PDM PCS 7 Server
- SIMATIC PDM PCS 7-FF

1) Optional product components for SIMATIC PDM such as PDM Extended, PDM Integration in STEP 7/PCS 7, PDM Routing, PDM Server and PDM Communication FOUNDATION Fieldbus are each included in a product package listed in the SIMATIC PDM Upgrade Package Basic or SIMATIC PDM Upgrade Package Complete and are implicitly authorized to be updated via the corresponding license. The SIMATIC PDM Upgrade Package Complete is required for use of the product components PDM Server or PDM Communication FOUNDATION Fieldbus.

For further information, see catalog ST PCS 7.

Overview

SITRANS DTM provides an easy way for Field Device Tool (FDT)/ Device Type Manager (DTM) users to parameterize Siemens Instruments using international standards.

Benefits

- Same look and feel for all Siemens field instruments
- Support for Quick start wizards and other dialog boxes
- Quick overview using table and tree views
- Online and offline configuration
- Conformity to IEC profiles for HART and PROFFIBUS

Application

Electronic Device Description (EDD) is a proven way to describe the behavior and functionality of field instruments and other automation components.

For many years, EDD-based tools such as SIMATIC PDM from Siemens or handheld communicator have been used successfully in the process industry. Some years ago, an additional technology called FDT / DTM with the same approach was introduced to the market. To support the FDT DTM Technology for Siemens devices, the software SITRANS DTM has been developed which combines both EDD and FDT technologies.

SITRANS DTM uses EDDs as the device description and provides the DTM interface to allow the integration of our field instruments into FDT-frame applications.

The following field instruments are currently available in SITRANS DTM:

- SITRANS TH300 HART
- SITRANS TH400 PA
- SITRANS P300 HART
- SITRANS P500
- SITRANS P DSIII HART
- SITRANS F M MAG 6000 DP/PA
- SITRANS F C MASS 6000 PA/PA
- SITRANS FC430
- SITRANS PROBE LU 6 m, 12 m, HART
- SITRANS LR200 HART, PA
- SITRANS LR250 HART, PA
- SITRANS LR260 HART, PA
- SITRANS LR560 HART, PA
- SITRANS LUT400 HART
- SIPART PS2 HART, PA, FF

Technical specifications

SITRANS DTM	
Version	
Current Version	3.1
• Compatible with PACTware versions	3.6, 4.0, 4.1
• Compatible with Windows	XP, 7
• Certified by FDT group	Yes

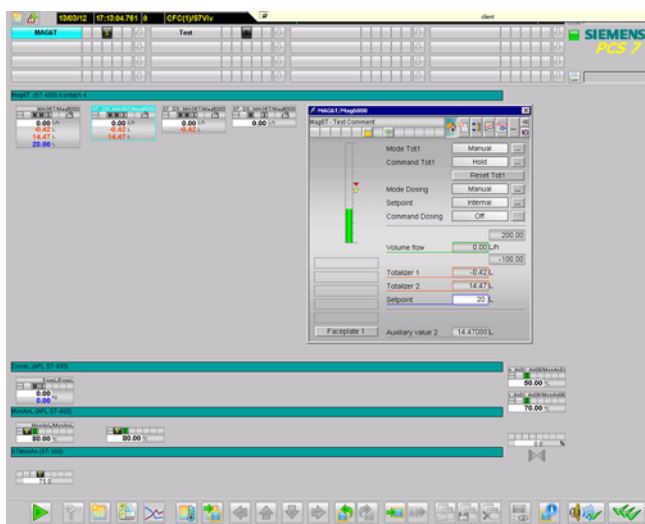Free DTM software can be downloaded from: http://www.siemens.com/sitransdtm

Click on Support in the collateral list on the right side of the web page, and choose Software downloads.

Communication and Software
Software

Overview

The SITRANS Library for SIMATIC PCS 7 V8.0 and higher extends standard functionality of the SIMATIC PCS 7 process control system concentrated in the SIMATIC PCS 7 Advanced Process Library (APL) with technological blocks and faceplates for device-specific functions of the SITRANS field devices.

Benefits

This allows you to easily operate all device functions, such as the dosing of the SITRANS FM MAG6000, in a single faceplate. In addition, it also supports operation and monitoring via Touch Panels as well as the integration in SIMATIC S7 applications. The SITRANS Library is based on the modern design of the Advanced Process Library (APL). Together with the APL, the SITRANS Library enables you to create harmonic solutions with a consistent look & feel and optimum use of the functions of the SITRANS field devices in many industries.

It helps accelerate the engineering process, reduces the time-to-market, and simplifies process control. In addition, operator functions (such as "Dosing") and process-related diagnostic information (such as empty pipe detection and flow direction) are provided.

Note:
SITRANS Library can be used in combination with SIMATIC PCS 7 version V8.0 and higher.

Application

The SITRANS Library can be used in combination with SIMATIC PCS 7 and SITRANS field devices.

You can find the current list of the SITRANS field devices and the supported SIMATIC PCS 7 versions at
http://support.automation.siemens.com/WW/view/en/85285872

The SITRANS Library can be used for all core sectors of the process industry. These are:

- Chemical industry
- Pharmaceutical industry
- Water and wastewater
- Glass and solar
- Oil & gas
- Food and beverage industry
- Minerals and mining

Design

The product structure, however, is geared toward the operational environment in the SIMATIC PCS 7 process control system. Consequently, SITRANS Library is offered in the form of an engineering component:

- SITRANS Library
  Engineering software with engineering license for one customer plant
- SITRANS Library
  Runtime license for one automation system (SIMATIC PCS 7 automation systems of all designs and S7-300 controllers)

The SITRANS Library product component enables you to perform configuration work on a SIMATIC PCS 7 engineering station.

The SITRANS Library product component allows you to run blocks from a library on an automation system.

When using function blocks from SITRANS Library in SIMATIC PCS 7 automation systems, note that SIMATIC PCS 7 AS Runtime POs are also booked.

Function

SITRANS Library for SIMATIC PCS 7

Sublibrary for the functional expansion of the SIMATIC PCS 7 Advanced Process Library with:

- Function blocks and faceplates for the SITRANS F M MAG 6000 DP with dosing function for SIMATIC S7-400, SIMATIC S7-300 and panel interface blocks
- Function blocks and faceplates for SITRANS field devices for SIMATIC S7-400 and SIMATIC S7-300 with WinCC.

The function blocks are configured in CFC.

Control and monitoring from a panel is configured with the panel interface blocks for example for the SITRANS F M MAG 6000 DP. Taking operating rights and hierarchical operating concepts (multi-control room operation) into consideration, the technological function can then be operated from both an operator station and a Touch Panel.

Detailed information for which field devices which systems and system versions are supported and about free-of-charge download see under:
http://support.automation.siemens.com/WW/view/en/85285872

Selection and Ordering Data   Article No.

SITRANS Library

Block library for SIMATIC PCS 7 V8.0 and higher and SIMATIC S7 with function blocks and face plates as well as electronic documentation

Engineering software, software class A, two languages (English, German), runs under opreation system
Windows XP Professional 32 Bit,
Windows 7 Ultimate 32/64 Bit,
Windows Server 2003 R2 Standard 32 Bit or
Windows Server 2008 R2 Standard 64 Bit,
single license for 1 installation

- Engineering license for one customer plant. Delivery form: can be downloaded, with certificate of license   **7MP2990-0AA00**