SIMATIC PDM (Process Device Manager)

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PDM is an EDD Interpreter (EDD = Electronic Device Description)

Each instrument has an EDD file that allows it to be configured using PDM

Device files are written in

Electronic Device Description Language

SIMATIC PDM – Installation/Commissioning.

- Setting PA node addresses.

- Scanning DP/PA bus for node status, and confirming bus structure.

- Configuring instruments over the bus.

- Copy & Paste of parameter sets to identical devices.

- Mapping of volume and flow characteristics.

- Simulation.

- Forcing Setpoint commands (Positioners, Actuators).

- Setting PA device to "Profile Specific".

- Saving of parameters (XML/HTML) at project hand-over phase.

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- Change-out of PA instruments (download of parameters).

- Validation of bus fault messages (drill-down).

- Calibration.

- Online functions e.g. display/trending of real-time values.

- Monitoring of "raw" measured value (not just o/p of function blocks).

- Comparison of parameter sets.

- Viewing of historical Min/Max data.

- Exporting data to Asset Management packages.

- Logging of changes, calibrations etc.

Lifelist View

➔ Ideal for commissioning, service and maintenance

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DP/PA Link

Diagnostic status

DP/PA Link

Status

Profile **GSD**

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Status indication
➔ Health monitor
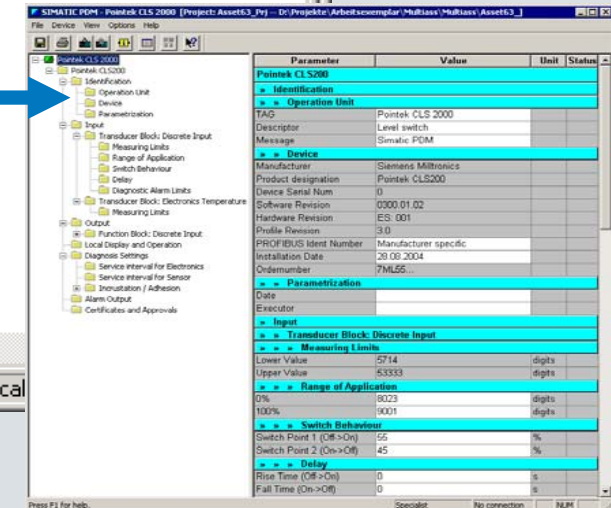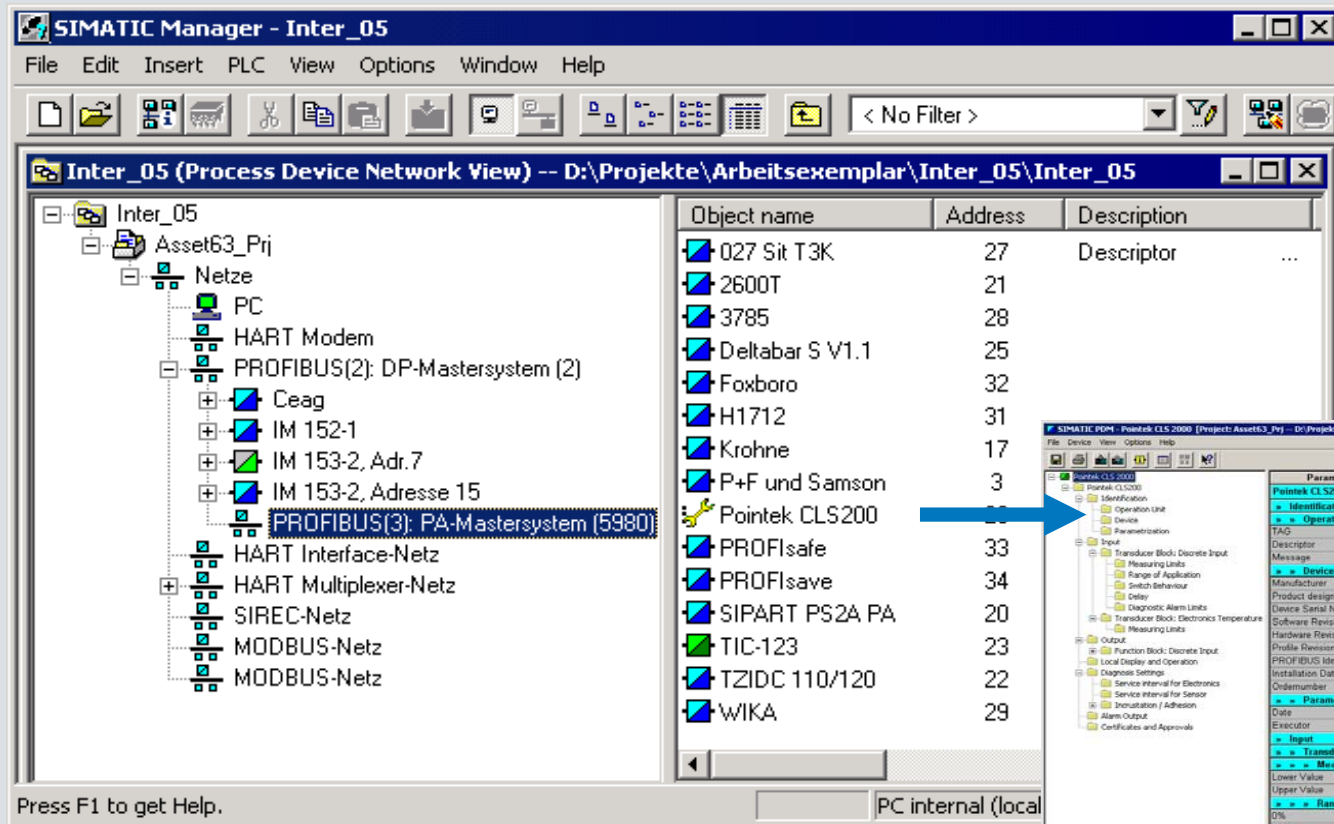
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Icon	Meaning
	No device type from the device catalog has been assigned to the device, or it is not activated.
	A device type from the device catalog could be assigned to the device, but there has not yet been any communication with the device.
	Communication could not be established, was interrupted, or no communication with the device was possible by using the configured address.
	The device contacted is not the same as the configured device, or the device configuration is incorrect (see Secure Communication).
	A fault occurred in the device (e.g. HW temperature too high).
	Immediate maintenance required to prevent a possible device fault from occurring.
	Maintenance initial warning: maintenance should be scheduled.
	Maintenance initial warning: maintenance required to prevent a possible device fault from occurring.
	The communication was good. The device is in manual operation.
	The communication was good. The device is in simulated operation or is working with substitute values.
	The communication was good. The device is not in operation.
	The device is not functioning due to a configuration error in parameters or hardware components.

Icon	Meaning
	The device is functioning, but one or more parameters are invalid. Instead of the invalid parameters substitute values are being used.
	The parameters set for the device do not match the parameters in the project. Please read and heed the message texts..
	At least one process value has overshot or undershot a process interrupt limit.
	At least one process value has overshot or undershot a process warning limit.
	At least one process value has overshot or undershot a process tolerance limit.
	The communication and the device status were good. There are no messages.
	The communication was good. The device does not support a diagnostic check.

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Process Device Network View

➜ For stand alone projects

- Represents real networks

- Structure can be imported from the Lifelist

Process Device Plant View

➔ Quick access by TAG

Diagnostic status at last communication

Overview of all configured SIMATIC PDM objects with:

- Object name (TAG)

- Communication status

- Diagnostic status

- Communication method

- When was the last processing

- Free text 1

- Free text 2

- Free text 3

Integrated in STEP7
➔ Centralised data

- Simatic PDM launched directly from hardware project view in Simatic S7 and Simatic PCS 7

Asset Management in DCS
➔ Simatic PCS 7 Maintenance station

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Data via Simatic PDM

Simatic PDM

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Access points

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Engineering Station ES

Operator Station

Maintenance Station

SIMATIC PDM

SIMATIC PDM

Ethernet

SIMATIC PDM

S7-400H

S7-400

S7-400

PROFIBUS DP 45,45 kBit/s

SIMATIC PDM

SIMATIC PDM

PROFIBUS PA

PROFIBUS DP 1.5Mb/s   redundant

PROFIBUS DP

DP/PA Link

ET 200M

ET 200iSP

HART-Multiplexer / Interface

PROFIBUS PA

SIMATIC PDM

HART

RS232/ RS485

SIMATIC PDM

HART

SIMATIC PDM

Device on the work bench

SIMATIC PDM

SIMATIC PDM — Possible SIMATIC PDM connecting point

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