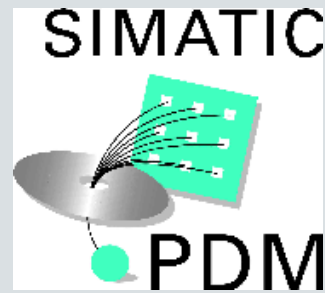


SIMATIC PDM (Process Device Manager) **SIEMENS**



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Sensors & Communication

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 **D**evice **D**escription **L**anguage

SIMATIC PDM – Installation/Commissioning.

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- 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.





- 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



DP/PA Link

Diagnostic status

DP/PA Link

Address / TAG	Device status	Device type	Manufacturer	Software rev.	Device family	GSD file	Info
0: WRC0ED9C mark.mccormick	<Address: 0 ... 126>	---	---	---	---	---	0: ▲
2: Active master	---	PG/PC	---	---	---	---	---
10:	Slave has been assigned paramet...	PROFIBUS LINK (IM157)	SIEMENS	---	---	---	---
8: B1_FOR_CT	>> Process value alarm >>	SIPAN 32	SIEMENS	D: 5.46 O: 2.09	PA: V3.00	SIEM809D.gsd	1
9: B1_RET_CT	<< Process value alarm <<	SIPAN 32	SIEMENS	D: 5.46 O: 2.09	PA: V3.00	SIEM809D.gsd	1
10: B1_CIP_PT	- FB2 - Analog Input - Current State Alarm Sum: Lower Limit Alarm	Pointek CLS200	SIEMENS	300.01.07	PA: V3.00	SIEM80A6...	1
11: B1_DET_LSH	>> Process value warning <<	SIPAN 32	SIEMENS	D: 5.46 O: 2.09	PA: V3.00	SIEM809D.gsd	1
12: B1_DET_LSL	- FB2 - Analog Input - Current State Alarm Sum: Lower Limit Warning	Pointek CLS200	SIEMENS	300.01.07	PA: V3.00	SIEM80A6.gsd	1
14: B2_FOR_CT	Watchdog active	SIPAN 32	SIEMENS	D: 5.46 O: 2.09	PA: V3.00	SIEM809D.gsd	1
15: B2_RET_CT	Watchdog active	SITRANS P DS III	SIEMENS	300.01.07	PA: V3.00	SIEM80A6.gsd	1
16: B2_CIP_PT	Watchdog active	Pointek CLS200	SIEMENS	300.01.07	PA: V3.00	SIEM80A6.gsd	1
17: B2_DET_LSH	Watchdog active	Pointek CLS200	SIEMENS	300.01.07	PA: V3.00	SIEM80A6.gsd	1
18: B2_DET_LSL	Watchdog active	Pointek CLS200	SIEMENS	300.01.07	PA: V3.00	SIEM80A6.gsd	1
20: B3_FOR_CT	Watchdog active	SIPAN 32	SIEMENS	D: 5.46 O: 2.09	PA: V3.00	SIEM809D.gsd	1
21: B3_RET_CT	Watchdog active	SIPAN 32	SIEMENS	D: 5.46 O: 2.09	PA: V3.00	SIEM809D.gsd	1
22: B3_CIP_PT	Watchdog active	SITRANS P DS III	SIEMENS	300.01.07	PA: V3.00	SIEM80A6.gsd	1
23: B3_DET_LSH	Watchdog active	Pointek CLS200	SIEMENS	300.01.07	PA: V3.00	SIEM80A6.gsd	1
24: B3_DET_LSL	Watchdog active	Pointek CLS200	SIEMENS	300.01.07	PA: V3.00	SIEM80A6.gsd	1
26: B4_FOR_CT	Watchdog active	SIPAN 32	SIEMENS	D: 5.46 O: 2.09	PA: V3.00	SIEM809D.gsd	1
27: B4_RET_CT	Watchdog active	SIPAN 32	SIEMENS	D: 5.46 O: 2.09	PA: V3.00	SIEM809D.gsd	1
28: B4_CIP_PT	Watchdog active	SITRANS P DS III	SIEMENS	300.01.07	PA: V3.00	SIEM80A6.gsd	1
29: B4_DET_LSH	Watchdog active	Pointek CLS200	SIEMENS	300.01.07	PA: V3.00	SIEM80A6.gsd	1
30: B4_DET_LSL	Watchdog active	Pointek CLS200	SIEMENS	300.01.07	PA: V3.00	SIEM80A6.gsd	1
11:	Slave has been assigned paramet...	PROFIBUS LINK (IM157)	SIEMENS	---	---	---	---
3: S8_LT	Watchdog active	SITRANS P DS III	SIEMENS	300.01.07	PA: V3.00	SIEM80A6.gsd	1
4: S8_LSH	Watchdog active	Pointek CLS200	SIEMENS	300.01.07	PA: V3.00	SIEM80A6.gsd	1
5: S8_LSL	Watchdog active	Pointek CLS200	SIEMENS	300.01.07	PA: V3.00	SIEM80A6.gsd	1
6: S8_TT2	Watchdog active	SITRANS T3K PA	SIEMENS	1.32	PA: V3.00	SIEM8090.gsd	1
7: S9_LT	Watchdog active	SITRANS P DS III	SIEMENS	300.01.07	PA: V3.00	SIEM80A6.gsd	1
8: S9_LSH	Watchdog active	Pointek CLS200	SIEMENS	300.01.07	PA: V3.00	SIEM80A6.gsd	1
9: S9_LSL	Watchdog active	Pointek CLS200	SIEMENS	300.01.07	PA: V3.00	SIEM80A6.gsd	1
10: S9_TT2	Watchdog active	SITRANS T3K PA	SIEMENS	1.32	PA: V3.00	SIEM8090.gsd	1
11: S10_LT	Watchdog active	SITRANS P DS III	SIEMENS	300.01.07	PA: V3.00	SIEM80A6.gsd	1
12: S10_LSH	Watchdog active	Pointek CLS200	SIEMENS	300.01.07	PA: V3.00	SIEM80A6.gsd	1
13: S10_LSL	Watchdog active	Pointek CLS200	SIEMENS	300.01.07	PA: V3.00	SIEM80A6.gsd	1
14: S10_TT2	Watchdog active	SITRANS T3K PA	SIEMENS	1.32	PA: V3.00	SIEM8090.gsd	1
15: S11_LT	Watchdog active	SITRANS P DS III	SIEMENS	300.01.07	PA: V3.00	SIEM80A6.gsd	1

Scan: PROFIBUS DP --> 10: --> Address 20

15 %

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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 overshoot or undershot a process interrupt limit.
	At least one process value has overshoot or undershot a process warning limit.
	At least one process value has overshoot 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.



Process Device Network View

➔ For stand alone projects

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Object name	Address	Description
027 Sit T3K	27	Descriptor
2600T	21	
3785	28	
Deltabar S V1.1	25	
Foxboro	32	
H1712	31	
Krohne	17	
P+F und Samson	3	
Pointek CLS200	30	
PROFIsafe	33	
PROFIsave	34	
SIPART PS2A PA	20	
TIC-123	23	
TZIDC 110/120	22	
WIKA	29	

Parameter	Value	Unit	Status
Identification			
Operational Unit			
TAG	Pointek CLS 2000		
Descriptor	Level switch		
Message	Simatic PDM		
Device			
Manufacturer	Siemens Mithronics		
Product designation	Pointek CLS2000		
Device Serial Num	0		
Software Revision	0000 01 02		
Hardware Revision	ES_001		
Profile Revision	3.0		
PROFIBUS Ident Number	Manufacturer specific		
Installation Date	28 08 2004		
Ordernumber	7ML55...		
Parametrization			
Date			
Executor			
Input			
Transducer Block: Discrete Input			
Measuring Limits			
Lower Value	2714	digits	
Upper Value	53333	digits	
Range of Application			
0%	9023	digits	
100%	9003	digits	
Switch Behaviour			
Switch Point 1 (On->Off)	55	%	
Switch Point 2 (On->Off)	45	%	
Delay			
Rise Time (On->On)	0	s	
Fall Time (On->Off)	0	s	

- Represents real networks
- Structure can be imported from the Lifelist



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Process Device Plant View

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→ Quick access by TAG



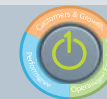
Object name	Description	Message	Device status	Communication	Last communication	Text 1	Text 2
4 bar			Good	Failed	27/11/2006 12:29:21		
FIT-333	MAG1100 FOOD ...	Milk	Good	Good	17/10/2006 10:55:58		
PIT-202			Configuration changed; Good	Good	27/11/2006 11:53:12		
S12_TT2	Descriptor	Message	Device in test mode; Configuration changed	Good	15/11/2006 11:30:54		
SITRANS PROBE LU 12m			Not validated	Not validated	---		



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



Asset Management in DCS

→ Simatic PCS 7 Maintenance station

SIEMENS



Reactor **Diagnosis** Symbolism 8/29/2005 1:22:50 PM **SIEMENS PCS7** OHIO

Cost reduction with PROFIBUS

OB Diagnostic Function
SIMATIC_400(1)(1)Y@3/MICROMASTER_4
Ident

Components
maintenance alarm

TAG: MICROMASTER 440
Description: Simatic PCS 7 MS
Message:
Device Type:
Manufacturer: SIEMENS AG
Order Number: 6SE6440-2UC11-2AAx
Serial Number:
Install date: 28.08.05

Data via Simatic PDM

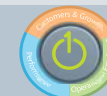
SIMATIC PDM - MICROMASTER 440 [Project: Asset63_Pr] -- D:\Projekte\Arbeitsexemplar..._1\Asset63_]
File Device View Options Help

Parameter Value

Parameter	Value
MICROMASTER 440	
» Identification	
» » Operating unit	
TAG	MICROMASTER 440
Tag location	Simatic PCS 7 MS
Installation date	28.08.05
Description	Simatic PCS 7 MS
Signature	
» » Device	
Manufacturer	SIEMENS AG
Order number (MLFB)	6SE6440-2UC11-2AAx
Input Voltage & Frequency	1/3AC200-240V +10% -10% 47-63Hz
CT Power	0,12 kW
VT Power	0,12 kW
Internal Filter	no
Signature	A
Device	MICROMASTER 440

Simatic PDM

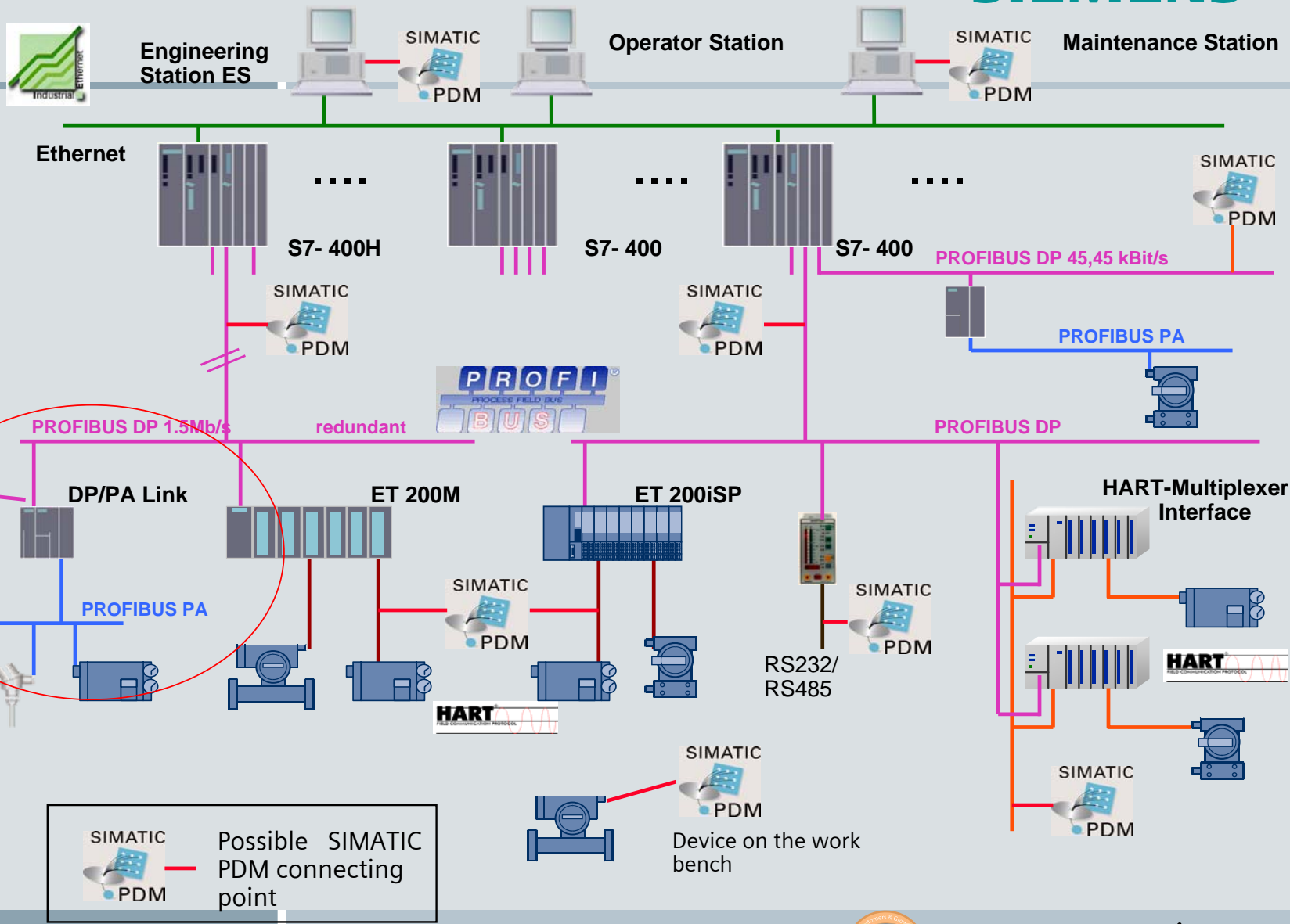
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Access points

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