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How to Use PRTG for Condition Monitoring with SIMATIC S7 Controllers





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This document provides a step-by-step guide for setting up a condition monitoring solution for *SIMATIC S7* controllers. It includes a Softing Industrial gateway product as well as the Paessler *PRTG Network Monitor* product.

The overall architecture is shown in the following diagram.



Figure:

Condition Monitoring Solution Architecture

Here the data integration is performed by the Softing gateway: It accesses the production data as collected by the Siemens controllers via a proprietary and unsecure protocol and provides an OPC UA interface for a simple and secure exchange of this data. The OPC UA sensors of *PRTG* are especially targeted to industrial environments and allow to implement an IIoT (Industrial Internet of Things) condition monitoring application by reading controller data via the Softing gateway.

The presented scenarios describe the individual configuration steps necessary to set up *PRTG* condition monitoring for the Softing gateway products *uaGate SI*, *dataFEED OPC Suite* or *dataFEED edgeConnector Siemens*. The resulting application will allow to monitor the value of the data item *DB_5.Timer_10ms*, the gateway as well as the controller status and the controller certificate.

NOTE:

The described condition monitoring solution requires:

- One SIMATIC S7 controller
- Availability of Softing hardware or software gateway
- PRTG Network Monitor installation

In addition the free-of-charge **dataFEED OPC UA Demo Client** product is used to pro

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1. Setting Up SIMATIC S7 Condition Monitoring Using uaGate SI

uaGate SI is a Softing hardware gateway, providing access to Siemens *SIMATIC S7 300/400/1200/1500* controllers. It enables integration of this data via the OPC UA and MQTT standards. Physically separated Ethernet interfaces bundled with individual configuration rights for the automation and IT networks protect against unauthorized access.

1.1 Configure SIMATIC S7 Access in uaGate SI

- Ensure that the SIMATIC S7 controller is running and that **uaGate SI** is properly installed with its MACHINE and IT networks connected
- Start *uaGate SI* configuration by entering its IP address in the connected Internet browser
- Enter username and password

NOTE:

The default username is administrator, the default password is administrator.

Navigate to Machine Settings/PLC Connection

softing	001	dataFEED uaGate Si	Help
Information	-	Machine Settings PLC Connection	¢
IT Settings	Ŧ	PLC Connection	
Machine Settings	*	PLC Type Stemens S7-2 (S7-1200/1500) Add Modify Delete	
Machine Network			
PLC Connection			
Symbol View			
Service Settings	-		

- Select appropriate PLC Type
- Click Add button

o o o o o o o o o o o o o o o o o o o	ng		dataFEED uaGate SI Help
Information	Ŧ	Machine Settings Siemens Settings	¢
IT Settings	-	Machine Access	
Machine Settings	*	Connection Name	
Machine Network		Connection Manie	
PLC Connection Symbol View		IPv4 Address 10.30.239.159	
Service Settings	*	Save PLC Connection	

- Enter unique *Connection Name*
- Enter IPv4 Address of SIMATIC S7
- Click *Save* button
- Click green *Pending settings* button at bottom left to apply all settings

NOTE:

uaGate SI only supports to connect one SIMATIC S7 controller.



1.2 Configure PRTG for Accessing uaGate SI Data

• Start PRTG, select Devices menu item and select a device group

NOTE:

See Paessler website for more information regarding setting up a device tree.



Click Add Device symbol

AUG a P	lew Devi	ce								
Define a de SNMP, and	evice name a I specific ver	ind IP addres idors, if nece	ss, options f	or auto-disco	overy, and cr	edential setti	ings for Wind	dows, Linux,	VMware/XenS	lerve
PRTG Man	ual: Add a D	evice								
Device	Name ar	nd Addre	ss							
Device N	ame O									
SIMATIC	S7 (via uaga	te SI)								
IP Versio	n 0									
IPv4										
O IPv6										
IPv4 Add	ress/DNS Na	ime O								
IPv4 Add	ress/DNS Na	ime O								
IPv4 Add	ress/DNS Na	ime O								_
IPv4 Add This field	ress/DNS Na is required.	ime O								_
IPv4 Add This field Tags (1)	ress/DNS Na	ime [©]								
IPv4 Addi This field Tags () Oevice Ic	ness/DNS Na	ime ©								
IPv4 Add This field Tags Device Ic	IS REQUIRED.		O 813	0	0.0	00	0 🖃	0 🕈	08	
IPv4 Add This field Tags Device Ic () (f)	IS required		() eis	0	0.0	0	0.2	0 ≑ 0⊟	08	
IPv4 Add This field Tags () O Device Ic () () () () () () () () () () () () () () (on 0	·····● □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	·····································					○ ○ ○ ○ ○ ○ ○		
IPv4 Add This field Tags II O Device Ic O I I I I I I I I I I I I I I I I I I	IS REQUIRED									
IPv4 Add This field Tags II O Device Io O E C C C C C C C C C C C C C C C C C C	IS REQUIRED.									
IPv4 Add This field Tags Device Ic C C C C C C C C C C C C C C C C C C	Is required.									
IPv4 Add This field Tags Device Ic	IS REQUIRED									

- Enter *Device Name*
- Enter IPv4 Address of uaGate SI
- Click *OK* button



• Click on name of added device



• In *uaGate SI* configuration, navigate to *IT Settings/OPC UA Sensor*

o o o o o o o o o o o o o o o o o o o	9													dataFEED ua	iGate SI	Help
Information	*	IT Settings	OPC UA Server													¢
IT Settings	*	OPC UA Server														
IT Network Configuration																
OPC UA Server		Endpoint URI		op	opc.tcp:/	//ND-uag	gate000	CB.ia-dev	softing.	.com:4840	0					
MQTT Broker Configuration		Endpoint URI		op	opc.tcp	/10.30.2	38,117	2: 840								
Machine Settings	-			-6		-	-									
		Endpoint URI		op	opc.tcp:/	//[fd00:4	2:2001	:db8:206	5:71ff:fe	33:cb]:48	40					
Service Settings		Port		48	4840											
		Save														

- Copy IPv4 adress and port number
- In PRTG, select Settings menu item and scroll down to Credentials for OPC UA section

Credentials for OPC UA		Save
Inherit from Enserver		
Port 🖤	1840	
Server Path	\supset	
Security Mode	 None (default) Sign 	
	Sign & Encrypt	
Authentication Method ()	Anonymous (default) Username/Password	

- Make sure the *inherit from* switch is deactivated
- Enter *Port* from *uaGate SI* configuration
- Enter Server Path from uaGate SI configuration
- Click *Save* button
- Select Overview menu item for added device



• Click Add Sensor button

Search	Q opd					3 Matching Se	nsor Types
Matching Sensor 1	Types						
OPC UA Certificate (NEV	V) ?	OPC UA Custom (NEW)	?	OPC UA Server Status	(NEW) ?		
Monitors the certificate of a server	n OPC UA	Monitors up to five numeric value returned by specific OPC UA node	e IDs	Monitors the server stats diagnostic information of server	is, uptime, and f an OPC UA		
Needs valid credentials for GPG settings of the parent device or	UA in the group,	Needs valid credentials for OPC UA in settings of the parent device or group	the	Needs valid credentials for t settings of the parent device	OPC UA in the r or group.		
1111	0	1111	0	1000	0		

• Enter opc in Search field

NOTE:

PRTG supports three types of OPC UA sensors:

- OPC UA Custom for monitoring the numeric value of data items via the OPC UA protocol
- OPC UA Server Status for monitoring the status and diagnostic information of an OPC UA Server
- OPC UA Certification for monitoring the certification of an OPC UA Server

NOTE:

In following this guide describes the selection and usage of all three types of *PRTG* OPC UA sensors when working with the *uaGate SI* gateway.



1.2.1 Monitor Data Item Value in PRTG

- In PRTG, select **OPC UA Custom** sensor
- In uaGate SI configuration, navigate to Machine Settings/Symbol View

o optimizel Softing			dataFEED uaGate SI Help
Information	Machine Settings Symbol View		Q
IT Settings 👻	Address Space	Properties	
Machine Settings Machine Network PLC Connection Symbol View Service Settings	 ND-uagate00CB Server System System System System System Software Counters Memory X SoftwareRevision X SoftwareRevision X ConfigurationChangeCounter DataBlocks 	Node Id Node Class Browse Name Display Name Description Data Type Access Level	Variable 2:Timer_10ms Timer_10ms Ulint16 Read Write
	 Darbotos DB_Test DB_opt DB_0 pt DB_5 X Timer_10ms X Timer_20ms X Timer_30ms X Timer_30ms X Timer_50ms X Timer_50ms X Timer_1s X Timer_1s X Timer_s 		

- Select DB_5.Timer_10ms in Adress Space tree view
- Copy Node Id in Properties area

ad sensor to Device Stivi	The sh (the deduce sh [to:soilsoin (t)]	A MARKET REPORT
Cancel		
Basic Sensor Settings		
Sensor Name	SIMATIC S7 Data Item	
Parent Tags 0		
Tags 🕀	opcua X. opcuacustom X O	
Priority ⁽¹⁾	★★★☆☆	Creute
OPC UA Specific		
Sensor Message Node ID ⁽¹⁾		
Channel #1 Naming Method 🕕	Use automatic naming (default)	
	O Enter custom name	
Channel #1 Unit 🔍		
Channel #1 Node ID		
	This field is required.	
Channel #2 ⁽¹⁾	Disable (default)	
	OEnable	
Channel #3 🗇	Disable (default)	
	O Enable	
Channel #4 0	Disable (default)	
	O Enable	
Channel #5 ⁽¹⁾	Disable (default)	
	O Enable	

- In *PRTG*, enter *Channel #1 Node Id* from *uaGate SI* configuration in sensor definition page
- Click *Create* button
- Click added sensor

OVerview	9 Live Data	2 days 30	days 365 days	M Historic Data	I Log	© Settings	Notification Triggers	Comments	원 History
ner_10ms							We feel like there license waiting just continue parts your	is a right at for you.	in
.611	0 5	1.611					Last Scan Last Up: Last Down:	89 s 59 s	
Channel 🕶	ID =	Last Value =	Minimum 0	Maximum =			Uptime: Downtime: Coverage: Sensor Type:	100,0000% 0,0000% 100% OPC UA Custom (NE	W)
Downtime	-4				"o		Performance Impact:		
Timer_10ms	1	51.611	15.725	51.611	°,		Interval: Autonomous: ID:	60 s No #2099	
ciaultan cara	sors						si.oo Live Graph,	2 hours	Han: 11.411
Similar Sen							45.000		

• The value of the *DB_5.Timer_10ms* data item is shown in the *PRTG* dashboard.

1.2.2 Monitor SIMATIC S7 Controller Status in PRTG

NOTE:

Accessing the diagnostic information of an OPC UA Server requires the **Objects/Server/ ServerDiagnostics/EnabledFlag** node to be set to **TRUE**. This node is automatically set to **FALSE** after each start of the OPC UA Server.

- In PRTG, select OPC UA Custom sensor
- In uaGate SI configuration, navigate to IT Settings/OPC UA Sensor

o o o o o	g			dataFEED uaGate SI	Help
Information	*	IT Settings OPC UA Serv	er		¢
IT Settings		OPC UA Server			
IT Network Configuration					
OPC UA Server		Endpoint URI	opc.tcp://ND-uagate00Cwa-dev.softing.com:4840		
MQTT Broker Configuration		Endpoint URI	opc.tcp://10.30.238.117:4840		
Machine Settings		chapoint on			
		Endpoint URI	opc.tcp://[fd00:42:2001:db8:206:71ff:fe33:cb]:4840		
Service Settings	*	Port	4840		
		Save			

- Copy Endpoint URI
- Start dataFEED OPC UA Demo Client
- Create a new session by double-clicking at *Project* root

FEED[®]



Project	+ ↓ × Cor	nfiguration Browse Data Acce	255	• × Properties	* ů ×
	+ - +	〒 + @			
< Double Click to add Session	>				
S	ession Connect				×
[Local Servers		Session Properties		
	Ketwork Servers Go Remote		Session Name:	dataFEED OPC UA Client 1	
	Gi Manual Gi Recent		 Endpoint Information 	n	
			Endpoint Url: 🛸		
			Security Policy:	None	
			Message Encoding:	Binary	×
			Authentication Satti	200	
			User Identity:	Anonymous	~
			User Name:	-	
			Password:		
			 Advanced Endpoint 	Information	
			Application Name:		
			Application Type:		
			Application Uri:		
			Product Uri:		
			Transport Profile Uri:		
			Server Capabilities:		
			didate Connection	ОК	ancel

- Enter *Endpoint Url* from *uaGate SI* configuration
- Click Validate Connection button to validate that the connection to uaGate SI is working
- Click OK button
- Expand Configuration Browse tree and select Objects/Server/ServerDiagnostics/EnabledFlag node



- Set value of Objects/Server/ServerDiagnostics/EnabledFlag node to TRUE
- Click *Write* button
- In **Configuration Browse** tree, select any interesting controller diagnostics information for monitoring, e.g. **Objects/Server/ServerDiagnostics/ServerDiagnosticSummary/ServerViewCount** node



- Copy Node Id
- In PRTG, enter Channel #1 Node Id from dataFEED OPC UA Demo Client configuration in sensor definition page
- Click *Create* button

Configuration Manual

• Click added sensor

UN -										
Overview (* Live Data	2 days	30 days	365 days	im Historic Data	📼 Log	Settings	A Notification Triggers	♀ Comments	1 Histo
ServerViewCount	0							Need some help?		Joo
2	0	1 0.8						Last Scan: Last Up: Last Down:	34 s 34 s	N II
Channel 🗸	ID ©	Last Value 0	Mir	simum °	Maximum =			Downtime: Coverage: Sensor Type:	0,0000% 100% OPC UA Custom (NE	EW)
Downtime	-4					۰,		Performance impact:		
ServerViewCount	1	0		٥	0	°.		Interval: Autonomous: ID:	60 s No #2101	
Similar Sen	sors							1.00 0.00 0.00	2 hours	
Similarity		Channel			Similar Channel			0.60		
•							_	0.40 0.30 0.30		
								0.10		Max 0,000

• The SIMATIC S7 controller status is shown in the PRTG dashboard.



1.2.3 Monitor uaGate SI Status in PRTG

• In PRTG, select OPC UA Status sensor

au oction to better out		(5000 2 01 2)
Cancel		
Basic Sensor Settings		
Sensor Name	^o usGate SI Status	
Parent Tags		
Tags (0 opcua X opcuaserverstatus X serverstatus X O	
Priority (° ★★★☆☆	Creste
Scanning Interval		
inherit from NEE SEMATEC 57 P	Va uaGate 51) (Scanning Interval: 60 seconds. Set sensor to)	

- Click *Create* button
- Click added sensor



• The *uaGate SI* status is shown in the *PRTG* dashboard.



1.2.4 Monitor uaGate SI Certification Information in PRTG

• In PRTG, select OPC UA Certificate sensor

dd Sensor to Device SIM/	ATIC S7 (Via uaGate SI) [10.30.238.117]	(Step 2 of 2)
Cancel		
Basic Sensor Settings		
Sensor Name	uaGate SI Certificate	
Parent Tags O		
Tags O	opcus X opcuacertificate X certificate X O	
Priority 🔊	***	Create
Scanning Interval		
inherit from Kill SIMATIC 57 (Vi	s upExter 52) (Skanning Intervali 60 seconds. Set sensor to)	

- Click *Create* button
- Click added sensor

Certificate Common Nar	Certificate	P 会会会会会 rver - Certificate	e Thumbprint: 21be85201649a70be5	13145c883802b5b32ce565c					
O Overview (*)	Live Data	2 days	30 days 365 days	Historic Data	m Log	O Settings	A Notification Triggers	Comments	원 Histor
Days to Expiration	(ay(s)	309 day(s)	Public Key Longth	ped			Find out how to r most of your PRT experience. MASTER YOUR TRIAL Last Scan: Last Up: Last Down	53 8 53 8	J.
Channel 🕶	ID ‡	Last Value ≑	Minimum ®	Maximum +			Uptime: Downtime: Coverage: Sensor Type:	100,0000% 0,0000% 100% OPC UA Certificate (N	EW)
Days to Expiration	0	309 day	309 day(s)	309 day(s)	.º		Performance Impact.		
Days to Expiration	0	309 day	309 day(s)	309 day(s)	°, °,		Performance Impact: Dependency: Interval:	Parent 60 s	
Days to Expiration Downtime Public Key Length	-4	309 day 2.048 bit	309 day(s) 2.048 bit	309 day(s) 2.048 bit	0, 0, 0,		Performance Impact: Dependency: Interval: Autonomous:	Parent 60 s No	

• The *uaGate SI* certifation information is shown in the *PRTG* dashboard.



2. Setting Up SIMATIC S7 Condition Monitoring Using dataFEED OPC Suite

dataFEED OPC Suite is Softing's bestselling software gateway combining OPC data integration and IoT cloud connectivity in a single product. Via its integrated OPC UA Server including Store And Forward functionality it provides a secure and reliable access to PLCs of all leading manufacturers, including Siemens *SIMATIC S7* controllers. Besides an extensive OPC UA support dataFEED OPC Suite also provides the MQTT and REST standards for implementing cloud or big data applications. It allows to perform powerful data preprocessing and integrates the storage of production data in files or databases.

2.1 Configure SIMATIC S7 Access in dataFEED OPC Suite

- Ensure that the SIMATIC S7 controller is running and that dataFEED OPC Suite is properly installed
- Start dataFEED OPC Suite configurator
- Navigate to Data Source/Siemens

Configuration View Local Application	Suite - Stopped	- L ,
lew Open Save Start Stop	Пећ	Deutsch Siemens H
data FEED®	Data Source	e - Siemens
Data <u>S</u> ource	Controllers and Devices	
^	Create and modify connections to controllers and devices.	
Siemens	Name Type Address	Parameters
Modbus		24
₽₽ B&R		60 7
💯 Mitsubishi		102
OPC UA Server		2.11
OPC Server		V
🕲 Data <u>P</u> rocessing		
Data Destination		Triff
Ø Settings		, w

- Click PLC Type
- Click Add a new data source button



1111	Connection Settings
	On this wizard page the Connection Settings of the actual data source connection to a Siemens device are configured. Connection: Siemens_1.
000	Connection Name
	Specify the name of the actual connection. This name is also always the name of the root node of the name space and must therefore unique throughout the whole configuration.
// //	Connection name Siemens
	Connection Settings
//	Specify if the connection shall be active or shall be in simulation mode.
1	Connection Active:
	Simulation:
	Application Protocol
	Select the type of the protocol which shall be used at application layer.
www.www.www.www.	Siemens S7
Connection Settings	Siemens S7-2 (only for SIMATIC S7-1200 and S7-1500)
Communication Settings	○ Siemens S5 AP
standed Cattings	O Netlink
Intended Settings	○ Send/Receive
Extended Settings	Netlink Send/Receive

- Enter unique *Connection name*
- Select Application Protocol to be used for accessing SIMATIC S7
- Click *Next >* button

🏠 Controller / Device Conne	ection Wizard		×
111	Communicat	tion Settings	
000	On this wizard page t Connection: Siemens	he parameters for the current data source connection are configured. 1 - Protocol: Siemens 57-2.	
	Communication Specify the addres The address can I Use the Modify bu	Settings so of the current TCP/IP connection. e specified as an IP address V4, V6 or a hostname. itten for more advanced configuration options.	
	Destination Addres Address format: Protocol:	locahost Valid HostName detected. TCP	
Connection Settings	Port:	102	
Communication Settings Extended & Filter Settings	Connection Test	n the right side in order to test the connectivity to the corresponding external server.	
Address Space Definition			
		< Back Qancel He	elp

- Enter SIMATIC S7 IP address in Destination Address field
- Click *Execute connection test* button
- Click *Next >* button upon successful connection test



- 🗆 X

🏠 Controller / Device Conne	ction Wizard	×
444	Extended Settings & Filter	
	On this wizard page the extended and the filter settings of the actual data source can be configured.	
000	Connection: Siemens_1 - Protocol: Siemens S7-2	
	- Filter Definition	
///	Enable or disable the filter functionality for the actual data source.	
//	All items will be dynamically retrieved from the PLC and will be completely available in the namespace of the local application.	
	Disable Filter	
	Only filtered items from the PLC will be available in the namespace of the local application. You can specify the corresponding filter items on the next wizard page.	
and the second second second second	O Enable Filter	
Connection Settings	Extended Settings	
Communication Settings	Resolve arrays in addition.	
Extended & Filter Settings		
Address Space Definition		
	< Back Next > Enish Cancel Help	

- Click *Finish* button
- Navigate to Data Destination/OPC UA Client

n Configuration1 - Softing dataFEED OPC Suite* - Stopped

en Save Start Stop					Deutsch	OPC UA Client
a FEED®	D	ata Destinati	on - OPC	UA Client	P	C UA
a <u>S</u> ource OPC UA Server						
a Processing	JA Server Endpo	bint .				
a Destination Server Endpoint:	opc.tcp://	ai application by using the m	ofting_dataFEED	OPC_Suite_Configuration	on1	Configure
C OPC UA Client						
Application Certificat	es: Own: Soft	ing_dataFEED_OPC_Suite	Security polic	nfiguration1 Valid unt	il: 26.01.204	Configure
Users	becarty in		Coccarter point	, in home		ComBarc
C OPC Client	ername	User Identity	/	Valid Until	Active	18
Anonymous		AnonymousPolicy				A B
MQTT Broker						
	U <u>A</u> Store & Fon	ward Server Endpoint				
Siemens MindSpher	e & Forward Client	s can connect to the local ap	plication by using t	e following identities.		
Siemens MindSpher Activate OPC C OPC UA Stor SQL Database Hore V	e & Forward Client E1D10605	s can connect to the local ap UG0:5980/Softing_data1	plication by using the state of	e following identities. Configuration1_StoreA	ndForward	Configure

- Enable *Activate OPC UA Server Endpoint* checkbox
- Click *Save* button
- Click *Start* button



2.2 Configure PRTG for Accessing dataFEED OPC Suite Data

• Start PRTG, select Devices menu item and select a device group

NOTE:

See Paessler website for more information regarding setting up a device tree.



Click Add Device symbol

Add a N	lew Devi	Ce	e ontione f	or puto dieco	wary and en	adantial catt	inne for Win	down Linuw	White Yan Ca	-
SNMP, and	specific ver	dors, if nece	essary.		really, and are	Contraction of the	ango ren man	and the product	THINKING METHOD	
PRTG Man	wal: Add a D	evice								
Device	Name ar	nd Addre	ss							
Device Na	eme 0									
SIMATIC	S7 (Via data	FEED OPC S	iuite)							
IP Version	n 0.									
O IPv4										
O IPv6										
		1.								
IFY4 ADD	ress/DNS No	ALC: NOTE: N								
1		>								
This new	is required.									
This new Tags O	is required.	>								
This new Tags O	ts required.									
This new Tags © O Device Ice	on D									
This need Tags () O Device lot	on © 	0	⊖ s <u>i</u> a	00	0.0	05	0	0.	08	
This new Tags © O Device Ici	on ○ ○ ○			0	0.0		0	0 0 0		
This need Tags () O evice lor () () () () () () () () () () () () () () () () (
This need Tags () O Device lor () (○ ● 日 図 へ へ		
This new Tags 0 O Device lor 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1										
Trags C Device Ic: C C C C C C C C C C C C C										
Trags © O Device Ic: O Ú O Ú O O O O O O O O O O O O O										
Thus need Tags III Device for IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII										
Trags C C Device lor C C C C C C C C C C C C C										

- Enter *Device Name*
- Enter IPv4 Address of host computer running dataFEED OPC Suite
- Click OK button



- Click on name of added device
- Select Settings menu item and scroll down to Credentials for OPC UA section

		data FEED®
Credentials for OPC UA		
Port	4980	
Server Path	10.20.240.52	
Security Mode	None (default)	
	Osign	
	Sign Sign & Encrypt	
Authentication Method	Sign Sign & Encrypt	

- Make sure the *inherit from* switch is deactivated
- Enter port number assigned by *dataFEED OPC Suite* in *Port* field (see generated server endpoint at *Data Destination/OPC UA Client* page)
 - NOTE:

The default *dataFEED OPC Suite* port number is 4980.

- Enter IP address of host computer running *dataFEED OPC Suite* in *Server Path* field
- Click *Save* button
- Select *Overview* menu item for added device

Overview	2 days	30 days	365 days	A Alarms	0 System information	📼 Log	O Settings
To see	sensor gauges her	e, please change	e the priority of	one or more senso	rsto *** **		
							dd Sensor
Pos •	Sensor ‡	s	tatus Mess	age	Graph	Priority a	dd Sensor

Click Add Sensor button

Matching Sensor Types					
OPC UA Certificate (NEW)	?	OPC UA Custom (NEW)	?	OPC UA Server Status (NEW)	?
Monitors the certificate of an OPC U/ server		Monitors up to five numeric values returned by specific OPC UA node iDs	6	Monitors the server status, uptime, and diagnostic information of an OPC UA server	
Needs valid credentials for GPG UA in the settings of the parent device or group.		Needs valid credentials for OPC UA in the settings of the parent device or group.		Needs valid credentials for OPC UA in the settings of the parent device or group.	
	0	80	0		>

• Enter opc in Search field

NOTE:

PRTG supports three types of OPC UA sensors:

- OPC UA Custom for monitoring the numeric value of data items via the OPC UA protocol
- OPC UA Server Status for monitoring the status and diagnostic information of an OPC UA Server
- OPC UA Certification for monitoring the certification of an OPC UA Server

NOTE:

In following this guide describes the selection and usage of all three types of *PRTG* OPC UA sensors when working with the *dataFEED OPC Suite* gateway.

In dataFEED OPC Suite configurator, navigate to Data Destination/OPC UA Client



• Copy Server Endpoint

Project

- Start dataFEED OPC UA Demo Client
- Create a new session by double-clicking at *Project* root

<pre>ke Click to add Sensor. Ve Click to add Sensor. Secsion Concet Secsion Properties Secsion Name: dataFEED OPC UA Client 1 Second Theorem Security Mode: None Security Mode: None Security Mode: None Security Policy: Security Policy Se</pre>	+ 4 ×	Configuration Browse Data Access	✓ × Properties	+ 4 ×
<pre>de Click to add Session</pre>		U T H @		
Advanced Endpoint Information Application Name: Application Type: Application Uri: Product Uri: Transport Profile Uri: Server Capabilities: Connections OK Cancel	 ■ × ■ × ■ × ■ × ■ × ■ Session Connect ■ © Local Servers ■ © Network Servers ■ © Network Servers ■ © Manual ■ © Recent 	Configuration Browse Data Access	Properties Properties dataFEED OPC UA Client 1 Information None None None Sinary cation Settings Anonymous	
		Password:	d Endpoint Information	Cancel

- Enter Endpoint Url from dataFEED OPC Suite configurator
- Click Validate Connection button to validate that the connection to uaGate SI is working
- Click OK button

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data



2.2.1 Monitor Data Item Value in PRTG

- In PRTG, select OPC UA Custom sensor
- In *dataFEED OPC UA Demo Client*. expand *Configuration Browse* tree and select *DB_5.Timer_10ms*



• Copy Node Id in Properties area

< Cancel		
Basic Sensor Settings		
Sensor Name	SIMATIC S7 Data Item	
Parent Tags		
Tags O	opcua X opcuacustom X O	
Priority ©	***	Creat
OPC 114 Specific		
Sensor Message Node ID		
Channel #1 Naming Method [©]	Use automatic naming (default)	
	O Enter custom name	
Channel #1 Unit 🗇		
Channel #1 Node ID	This field is resumer:	
Channel #2	Disable (default)	
	O Enable	
Channel #3 O	Disable (default)	
	OEnable	
Channel #4 ⁽¹⁾	Disable (default)	
	OEnable	
Channel #5 💿	Disable (default)	
	OEnable	

- In PRTG, enter Channel #1 Node Id from dataFEED OPC UA Demo Client in sensor definition page
- Click *Create* button
- Click added sensor



• The value of the DB_5.Timer_10ms data item is shown in the PRTG dashboard.

2.2.2 Monitor SIMATIC S7 Controller Status in PRTG

NOTE:

Accessing the diagnostic information of an OPC UA Server requires the **Objects/Server/ ServerDiagnostics/EnabledFlag** node to be set to *TRUE*. This node is automatically set to *FALSE* after each start of the OPC UA Server.

- In PRTG, select OPC UA Custom sensor
- In *dataFEED OPC UA Demo Client*, select *Objects/Server/ServerDiagnostics/EnabledFlag* node in *Configuration Browse* tree



- Set value of Objects/Server/ServerDiagnostics/EnabledFlag node to TRUE
- Click *Write* button
- In Configuration Browse tree, select any interesting controller diagnostics information for monitoring, e.g. Objects/Server/ServerDiagnostics/ServerDiagnosticSummary/ServerViewCount node

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- Copy Node Id
- In *PRTG*, enter *Channel #1 Node Id* from *dataFEED OPC UA Demo Client* configuration in sensor definition page
- Click *Create* button

Configuration Manual

At device Overview page click added sensor

Overview (**)	Live Data	2 days	30 days 365 days	im Historic Data	E Log	Ø Settings	Notification Triggers	♀ Comments	1 Histor
erverViewCount	7						Need some help?		000
a		1 03					Last Scan. Last Up: Last Down.	34 s 34 s	5
							Downtime:	0,0000%	
Channel •	ID 🕀	Last	Minimum =	Maximum ©			Coverage:	100%	
Downtime	3				.0		Performance impact:	UPC DX CUSION (NE	<i>(n</i>)
Commente							Dependency:	Parent	
ServerviewCount	-1	U	0	0	e**		Interval:	60 s	
							ID:	#2101	
Similar Senso	ors						Live Graph,	2 hours	
Similarity		Channel		Similar Channel			0.70 -		
							0.50		
11221		1.1					0.30		

• The SIMATIC S7 controller status is shown in the PRTG dashboard.



2.2.3 Monitor dataFEED OPC Suite Status in PRTG

• In PRTG, select OPC UA Status sensor

Cancel		
Basic Sensor Settings		
Sensor Name	detaFEED OPC Suite Status	
Parent Tags	0	
Tags	opcua x opcuaserverstatus x serverstatus x o	
Priority	. *****	Create
Scanning Interval		
	r (Via dataFEED OPC Suite) (Scanning Intervals 60 seconds, Set sensor to)	

- Click *Create* button
- Click added sensor

Overview (**)	ive Data	2 days	30 days	365 days	🌬 Historic Data	C Log	O Settings	Notification Triggers	♀ Comments	입 Histor
Verver Status	1		Rejected Requests Coo Security Rejected Sets	int Rejected 	Session Court Securi bort Court Session bort Court Session 0.1 2.4	ny Rejected Requ an Count	ess c. Fit mu ex	nd out how to n ost of your PRT perience. MASTER YOUR TRIAL	nake the G	
tunning		03	Session Timeout Cour	Subscript	Sen Court	. (Las Las	it Scan: it Up: it Down: time:	40 s 40 s	1
Channel +	ID ¢	Last Value (volume)	Last Value (speed)	Minimum 0	Maximum 0		Do Co Ser Per	wntime: verage: nsor Type: formance impact:	0,0000% 100% OPC UA Server Statu	s (NEW)
Downtime	-4					°,	Dep	pendency: erval:	Parent 60 s	
Rejected Requests C	7					•°	Aut	tonomous;	No	
Rejected Session Co	3					°°	TEX:		#2118	
Security Rejected Re	8					۰,	10.0		2 hours	1 2.0 L 1.0
Security Rejected Se	6					.o.	8.0	00-		- 2.5 - 0.1
Server Status	0	Running		Running	Running	۰.	6.0	00-		1.5 2 0.0
Session Abort Count	5					°°,	4.0	00 -		- 1.0
Session Count	2	2#		2#	2 #	.o.	2.0	00 -		-0.5 -0.3
Session Timeout Cou.	4					۰,		04 # 8 ¥	8 8 8 9	8 0.0 - 0.0
Subscription Count	9	0#		0#	0#	۰.		8 8 8	8 8 8 8	8
and a state of the second seco								1.0.1	4.5	1 P. 10 P. 10

• The *dataFEED OPC Suite* status is shown in the *PRTG* dashboard.



2.2.4 Monitor dataFEED OPC Suite Certification Information in PRTG

• In PRTG, select OPC UA Certificate sensor

Cancel		
Basic Sensor Settings		
Sensor Name	dataFEED OPC Suite Certificate	
Parent Tags	y	
Tags () opcua X opcuacertificate X certificate X O	
Priority ⁽¹⁾	***00	Create
Scanning Interval		
inherit from SID SIMATIC S7 (V	(le dataFEED OPC Suite) (Scenning Interval 80 Seconds, Set sensor to)	

- Click *Create* button
- Click added sensor

Overview *	9 Live Data	2 days	30 days 365 days	M Historic Data	I Log	O Settings	A Notification Triggers	C Comments	13 Histo
Days to Expiration	day(s)	1.670 day(s) © ‡	Public Key Length Self Sig 2.048 bit Sol 1 Yes	ned			Find out why and buy PRTG! GET MORE INFORMA Last Scan: Last Up:	100 to	in the second
Channel 🕶	ID 🗘	Last Value =	Minimum 0	Maximum 🍦			Last Down: Uptime: Downtime: Coverage: Sensor Type:	100,0000% 0,0000% 100% OPC UA Certificate (N	EW)
Days to Expiration	0	1.670 d_	1.670 day(s)	1.670 day(s)	°.		Performance Impact:	Parast	
Downtime	-4				۰,		Interval:	60 s	
	1	2.048 bit	2.048 bit	2.048 bit	°°,		Autonomous;	No #2119	
Public Key Length							16752	1.000-0010-00	

• The *dataFEED OPC Suite* certification information is shown in the *PRTG* dashboard.



3. Setting Up SIMATIC S7 Condition Monitoring Using dataFEED edgeConnector Siemens

dataFEED edgeConnector Siemens is Softing's container technolgy software gateway for connecting SIMATIC S7 controllers to IIoT applications . It provides OPC UA and MQTT interfaces combined with flexible deployment options for higher-level applications. It supports local as well as remote configuration and includes fine-tuned security settings.

3.1 Configure SIMATIC S7 Access in dataFEED edgeConnector Siemens

- Ensure that the SIMATIC S7 controller is running and that Docker Engine is properly installed
 - Proceed as described in following for deploying and starting *dataFEED edgeConnector Siemens* at a Windows 10 system
 - Start Docker Engine
 - Pull latest dataFEED edgeConnector Siemens docker image by entering docker image pull softingindustrial/edgeconnector-siemens:latest in command-line terminal (e.g. PowerShell)
 - Start dataFEED edgeConnector Siemens by entering docker container run -p 443:443 -p 8099:8099 -p 4897:4897 -name edgeConnector softingindustrial/edgeconnector-siemens:latest in command-line terminal

NOTE:

The command shown above starts *dataFEED* edgeConnector Siemens with a 1:1 mapping of the default ports to the host machine.

• Open *Docker Desktop*

		Upprode 🗘 🕸 🖨 Syn in	D X
Containers / Apps	Q Search		Sort by 🛩
Images Dev Environments	edgeConnector sofungindustrial/edgeconnector-siemenslatest Runating Soft: 243		
*			

- Docker Desktop shows that *dataFEED edgeConnector Siemens* is running.
- Open dataFEED edgeConnector Siemens by entering localhost:8099 in the connected Internet browser
- Enter username and password

NOTE:

The default username is *admin*, the default password is *admin*.

Navigate to Connectivity/PLC



dataFEED e	edgeConnector Siem	ens		Status running [DEMO]	Welcome admin !	Logout	Help
Information	Connectivity PLC	Siemens S7 1200	/1500 Connectior	5			
Connectivity	Siemens S7 1200/:	1500 Connections					⊈⊡∄
 MQTT OPC UA PLC Siemens \$7 1200/1500 Siemens \$7 300/400 	Name	•	IP address			Status	Enabled
Address Spaces Operation							
General Settings							

Click Add Connection Menu Symbol

Information	Connectivity	> PLC	Siemens S7 1200/1500 Connection Settings	New Connection
Connectivity	Connection S	Settings	Advanced Settings	
 ▶ матт ▶ орс иа ▼ ріс 	Connection Nat	me <)
Siemens S7 1200/1500 Siemens S7 300/400 Address Spaces	PEC Address		AllConnectionsAddressSpace	Add
Operation General Settings	Address Space			
	Save	Cancel		

- Enter unique *Connection Name*
- Enter *PLC Address* of *SIMATIC S7*
- Click *Save* button

Information	Connectivity PLC Siemens S7 1200	/1500 Connections							
Connectivity	Siemens S7 1200/1500 Connections								
▶ матт	Name	IP address	Status	Enabled					
DPC UA	SIMATIC S7	10.30.239.159	ø						
 PLC Siemens \$7 1200/1500 Siemens \$7 300/400 									
Address Spaces									
Operation									
General Settings									

NOTE:

dataFEED edgeConnector Siemens allows to connect up to 20 *SIMATIC S7* controllers to one application.

- If dataFEED edgeConnector Siemens is not running (see status information at top)
 - Navigate to **Operation/Status**
 - Click *Start* button



3.2 Configure PRTG for Accessing dataFEED OPC Suite Data

• Start PRTG, select Devices menu item and select a device group

NOTE:

See Paessler website for more information regarding setting up a device tree.



Click Add Device symbol

Add a M	lew Devi	ce								
Define a de	evice name a	nd IP addres	ss, options f	or auto-disco	overy, and cre	edential sett	ings for Wind	fows, Linux,	VMware/XenSe	HVØF,
RTG Man	ual: Add a D	evice	сасна у							
Device	Name ar	nd Addre	55							
Device Na	ame 🗇									
SIMATIC	S7 (Via data	FEED edgeC	ionneas-Bi	emens)						
IP Versio	60									
@ IPv4										
O IPv6										
0.0										
IPv4 Add	ress/DNS Na	ime O								
IPv4 Addi	ress/DNS Na	ime O								
IPv4 Addi	ress/DNS Na	ime O								_
IPv4 Addi This field Tags ()	ress/DNS Na	ime 0								
This nero Tags ()	ress/DNS Na	ime 0								
This field Tags 0 O Device Ico	ness/DNS Na	ime 0								
IPv4 Addi This new Tags () O Device Ic: () ((()))	ness/DNS Na na required.		0 #3	0	0.0	00	0	0.	0.8	
IPv4 Addi This need Tags () O evice Ici () (()	ness/DNS Na			0	0		0	0.€ 0⊟	0	
IPv4 Addi This new Tags () O evice Ic () () () () () () () () () () () () () () () () (n on o		中 D G					0		
IPv4 Addi This field Tags 0 O Device lo 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	on O									
IPv4 Addi This need Tags 0 O Device Ic O C C C C C C C C C C C C C C C C C C	an O									
IPv4 Addi This free Tags O Device fc O M O M O M O M O M O M O M O M O M O										
IPv4 Addi Trils Trent Tags O O O C O C O C O C O C O C O C O C O										
This need Tags () O Device to () (

- Enter *Device Name*
- Enter IPv4 Address of host computer running dataFEED edgeConnector Siemens
- Click OK button



- Click on name of added device
- Select Settings menu item and scroll down to Credentials for OPC UA section



- Make sure the *inherit from* switch is deactivated
- Enter 4897 in Port field
- Enter IP address of host computer running dataFEED OPC Suite in Server Path field
- Click *Save* button
- Select Overview menu item for added device

Overview	2 days	30 days	365 days	A Alarms	System Information	🖾 Log	O Settings
To see se	nsor gauges her	e, please chang	e the priority of o	me or more senso	IS 10 REPAIL / REPAR	C	
To see se	nsor gauges her	e, please chang	e the priority of o	me or more senso		•	
To see se	nsor gauges her	e, please chang	e the priority of o	me or more senso	1510 ARAH/ARAA	С	Add Sensor

• Click Add Sensor button

Search Q of	q				3 Matching Sensor Types
Matching Sensor Types					
OPC UA Certificate (NEW)	?	OPC UA Custom (NEW)	?	OPC UA Server Status (NEW)	?
Monitors the certificate of an OPC U/ server	8	Monitors up to five numeric values returned by specific OPC UA node ID:	80) 1	Monitors the server status, uptime, and diagnostic information of an OPC UA server	I
Needs valid credentials for GPG UA in the settings of the parent device or group.		Needs valid credentials for OPG UA in the settings of the parent device or group.		Needs valid credentials for GPC UA in the settings of the parent device or group.	
	0	1100	0	EU C	0

• Enter opc in Search field

NOTE:

PRTG supports three types of OPC UA sensors:

- OPC UA Custom for monitoring the numeric value of data items via the OPC UA protocol
- OPC UA Server Status for monitoring the status and diagnostic information of an OPC UA Server
- OPC UA Certification for monitoring the certification of an OPC UA Server

NOTE:

In following this guide describes the selection and usage of all three types of *PRTG* OPC UA sensors when working with the *dataFEED edgeConnector Siemens* gateway.

3.2.1 Monitor Data Item Value in PRTG

- In PRTG, select OPC UA Custom sensor
- In dataFEED edgeConnector Siemens, navigate to Adress Spaces/Overview
- Click at Browse Address Space menu symbol of appropriate address space





- Select *DB_5.Timer_10ms* in *Adress Space* tree view
- Copy Node Id in Properties area

Cancel		
adireti.		
Basic Sensor Settings		
Sensor Name	SIMATIC S7 Data Item	
Parent Tags		
Tags 🖯	opcua 🗙 opcuacustom 🗙 O	
	*****	Create
Priority 0	***UU	
OPC UA Specific		
Sensor Message Node ID 🐵		
Channel #1 Naming Method 🗇	Use automatic naming (default)	
	O Enter custom name	
Channel #1 Unit 🗇		
Channel #1 Node ID		
	This field is required.	
Channel #2 0	Disable (default)	
	OEnable	
Channel #3 0	Disable (default)	
	O Enable	
Channel #4 0	Disable (default)	
	O Enable	
Channel #5 ⁽¹⁾	Disable (default)	
	O Enable	
Scanning Interval		

- In *PRTG*, enter *Channel #1 Node Id* from *uaGate SI* configuration in sensor definition page
- Click *Create* button
- Click added sensor

UK SIMATI	C S7 Data Iter	n							" La 🗠 1
Overview	(+) Live Data	2 days	30 days 365 da	ys im Historic Data	📼 Log	O Settings	A Notification Triggers	Comments	1 Histo
Timer_10ms							Find out how to m most of your PRT experience.	ake the G	000
43.097	o	43.897					Last Scan: Last Up: Last Down:	38 s 38 s	
Channel -	ID =	Last Value =	Minimum =	Maximum =			Uptime: Downtime: Coverage: Sensor Type:	100,0000% 0,0000% 100% OPC UA Custom (NE	EW)
Downtime	-4				.º		Performance Impact:		
Timer_10ms	1	43.897	26.203	43.897	°,		Dependency: Interval: Autonomous: ID:	Parent 60 s No #2123	
Similar S	ensors						44.000 42.000 40.000	2 hours	Nac 41.88
Similarity		Chann	el	Similar Channel			28.000 - 36.000 -		
+C		(30)					34.000 -		

• The value of the *DB_5.Timer_10ms* data item is shown in the *PRTG* dashboard.

3.2.2 Monitor SIMATIC S7 Controller Status in PRTG

NOTE:

Accessing the diagnostic information of an OPC UA Server requires the **Objects/Server/ ServerDiagnostics/EnabledFlag** node to be set to **TRUE**. This node is automatically set to **FALSE** after each start of the OPC UA Server.

- In PRTG, select OPC UA Custom sensor
- In uaGate SI configuration, navigate to IT Settings/OPC UA Sensor Start dataFEED OPC UA Demo Client
- Create a new session by double-clicking at *Project* root

Project 👻 🕂 🗙	Configuration Browse Data Access	* ↓ ×
< Double Click to add Session >		_
Session Connect	x	1
Local Servers	Session Properties	
 ▶ ■ Local Servers ▶ ■ Remote ▶ ■ Remote ▶ ■ Manual ▶ ■ Recent 	Session Properties Session Name: dataFEED OPC UA Client 1 Endpoint Information Endpoint Uf: Security Mode: None Security Policy: None Security Policy: None Message Encoding: Binary Authentication Settings User Identity: Anonymous User Identity: Anonymous Application Name: Application Vame: Application Viri: Product Uri: Transport Profile Uri: Server Capabilities: 	

- Enter opc.tcp://<IP Address>:4897 in Endpoint Url field
- Click Validate Connection button to validate that the connection to uaGate SI is working
- Click OK button
- Expand Configuration Browse tree and select Objects/Server/ServerDiagnostics/EnabledFlag node

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- Set value of *Objects/Server/ServerDiagnostics/EnabledFlag* node to *TRUE*
- Click Write button
- In **Configuration Browse** tree, select any interesting controller diagnostics information for monitoring, e.g. **Objects/Server/ServerDiagnostics/ServerDiagnosticSummary/ServerViewCount** node



- Copy Node Id
- In *PRTG*, enter *Channel #1 Node Id* from *dataFEED OPC UA Demo Client* configuration in sensor definition page
- Click *Create* button
- Click added sensor

OK	a Data 2 daur	20 days 365 days	Ma Mistoria Data	E Los Ó Satinas		O Commente	The states	
rverViewCount					Need some help?		20	
9 5	1 03				Last Scan: Last Up: Last Down: Uptime: Downtime:	34 s 34 s 100,0000% 0,0000%		
Channel •	ID E Last Value	Minimum -	Maximum =		Sensor Type:	OPC UA Custom (NI	EW)	
				.o	Performance Impact:	Parant		
Downtime	-4				Dependency.	1 10110111		
Downtime ServerViewCount	-4 1 0	0	ŏ	<u>,0</u>	Interval: Autonomous: ID:	60 s No #2101		
Downtime ServerViewCount Similar Sensor	-4 3 0	0	0		1.00 1.00	60 s No #2101		

• The SIMATIC S7 controller status is shown in the PRTG dashboard.



3.2.3 Monitor dataFEED edgeConnector Siemens Status in PRTG

• In PRTG, select OPC UA Status sensor

Cancel		
Basic Sensor Settings		
Sensor Name	dataFEED edgeConnector Siemens Status	
Parent Tags		
Tags	opcua 🗙 opcuaserverstatus 🗙 serverstatus 🗙 O	
Priority (*****	Create
Scanning Interval		
inherit from IIII SUMATIC 57 (Va dataFEED edgeConnector Sement) (Scanning Internal: 60 seconds. Set sensor to	

- Click *Create* button
- Click added sensor



• The dataFEED edgeConnector Siemens status is shown in the PRTG dashboard.



3.2.4 Monitor dataFEED edgeConnector Siemens Certification Information in PRTG

• In PRTG, select OPC UA Certificate sensor

Cancel		
Basic Sensor Settings		
Sensor Name 0	dataFEED edgeConnector Siemens Certificate	
Parent Tags 0		
Tags O	opcua X opcuacertificate X certificate X O	
Priority ©	***00	Create
Scanning Interval		

- Click *Create* button
- Click added sensor

Overview P	•9 Live Data	2 days	30 days 365 days	🛤 Historic Data	III Log	O Settings	Notification Triggers	C Comments	1 Histor
ays to Expiration			rublic Key Length Self 5 2.548 bit 2.548 bit 2.548	gred			Find out why and buy PRTG! GET MORE INFORMA		in
	*	~							
64 day(s) 0	day(s)	364 day(s) ⊜ ≞					Last Scan: Last Up: Last Down:	8 s 8 s	1
64 day(s) 0 Channel +	day(s) ID 0	364 day(s) © ≞ Last Value ≑	Minimum 9	Maximum 9			Last Scan: Last Up: Last Down: Uptime: Downtime: Coverage: Sensor Type:	8 s 8 s 100,0000% 0,0000% 100% OPC UA Certificate (N	(EW)
64 day(s) 0 Channel + Days to Expiration	day(s) 10 ÷	364 day(s)	Minimum ® 364 day(s)	Maximum $+$ 364 day(s)	<u>_0</u>		Last Scan: Last Up: Last Down: Uptime: Downtime: Coverage: Sensor Type: Performance impact: Descafeace:	8 s 8 s 100,0000% 0,000% 100% OPC UA Certificate (N	vew)
64 day(s) 0 Channel - Days to Expiration Downtime	day(s) ID = 0 -4	364 day(s) Last Value ≏ 364 day	Minimum [⊕] 364 day(s)	Maximum $^{\oplus}$ 364 day(s)	°.		Last Scan: Last Up: Last Dowm: Uptime: Downtime: Coverage: Sensor Type: Performance impact: Dependency: Interval:	8 s 8 s 100,000% 0,000% 100% OPC UA Certificate (N Parent 60 s	ew)
Channel - Days to Expiration Downtime Public Key Length	day(s) 10 0 .4 1	364 day(s) ⊙ ≞ Last Value ≏ 364 day 2.048 bit	Minimum = 964.day(s) 2.048.bit	Maximum ÷ 364 døy(s) 2.040 bit	0, 0, 0,		Last Scan: Last Dp: Last Dpm: Uptime: Downtime: Coverage: Sensor Type: Performance impact: Dependency: Interval: Interval: Interval:	8 s 8 s 100,0000% 100% OPC UA Certificate (N 100% OPC UA Certificate (N 100% Parent 60 s No 42127	vew)

• The *dataFEED edgeConnector Siemens* certification information is shown in the *PRTG* dashboard.



4. Monitor Individual SIMATIC S7 Values in PRTG

• By marking the different created *SIMATIC S7* sensors as *Favorite* sensors, an *PRTG* overview screen can be created showing the individual *SIMATIC S7* values as read via the Softing gateways.

Sensors									Show Filters ~
Sensor ®	Probe Group Device	Status ©	Last Value	Message	Graph	Priority +	Fav. 0	Perf. Impact	
dataFEED edgeConn	Local Prohe (Local Prohe) * Sarver * EDSIMATIC S7 (Via data	Up	364 day(s)	Certificate Common Name	Days to Expin 364 day(s)	*****	-		
dataFEED edgeConn	Local Probe (Local Probe) * Server * GD SIMATIC S7 (Via data	Ųp	Running	OK	Server Status Running	******	2		
dataFEED OPC Suite	Local Probe (Local Probe) * Server *	Up	1.669 day(s)	Certificate Common Name	Days to Expire 1.669 day(s)	******	-		
dataFEED OPC Suite	Local Probe (Local Probe) > Server > Initial SIMATIC S7 (Via data	Up	Running	ок	Server Status Rulping	***00	-		
SIMATIC S7 Data Ite	Local Probe (Local Probe) * Server # IDSIMATIC S7 (Via data	Up	5.614	ок	Timer,10ms 5.618	******	-		
SIMATIC S7 Data Ite	Local Probe (Local Probe) = Server = SIMATIC S7 (Via data	Up	2.677	ок	Timet_10ms 2003	******	-		
SIMATIC S7 Data ite	Local Probe (Local Probe) > Server > MDSIMATIC S7 (Via uaG	Up	1.200	ок	fimer,10ms pullabes	******	-		
SIMATIC S7 Status	Local Probe (Local Probe) = Server # IND SIMATIC S7 (Via data	Up	0	OK	ServerViewCr 0	***00	-		
SIMATIC S7 Status	Local Probe (Local Probe) > Server > IND SIMATIC S7 (Via data	Up	a	ок	ServerViewCo 0	******	-	B IR	
SIMATIC S7 Status	Local Probe (Local Probe) = Server * SESIMATIC S7 (Via uaG	Up	o	ок	ServerViewCr 0	***00	-	HIII	
uaGate SI Certificate	Local Probe (Local Probe) = Siever # IND SIMATIC S7 (Via uaG	Up	307 day(s)	Certificate Common Name	Bays to Expire - 307 day(s)	******	-	L III	
🗸 uaGate SI Status 🏲	Local Probe (Local Probe) # Server # IIII) SIMATIC S7 (Via uaG	Up	Running	ок	ferverStatus Rutning	***00	-	E III	

NOTE:

All showcased Softing products (as well as further OPC UA compatible Softing products) can be integrated in the *PRTG* monitoring application. *PRTG* allows managing entire factory floors or sites with a higher number of OPC UA Servers (whether hardware gateway, software or container application).



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Niel?

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