

A man in a light blue shirt is shown from the side, looking at a tablet. The background is a factory floor with various pieces of machinery and a clock. Overlaid on the scene are several futuristic digital elements: a 'NEWS' section with a person icon, a '24/7' icon with a circular arrow, a 'Home' button, and a 'Industry Online Support' text. There are also icons for a folder, a network of people, and a magnifying glass. The overall aesthetic is high-tech and industrial.

**SIEMENS**

**SIMATIC PCS  
myExpert  
Data Collector +  
SMMC-Installation**

SIMATIC PCS myExpert



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<https://support.industry.siemens.com/cs/ww/de/view/>

# Legal Notices

## Warning

This manual contains instructions that you must follow for your personal safety as well as to avoid property damage. The information on your personal safety is highlighted by a warning triangle, information about property damage alone is without a warning triangle. Depending on the risk level, the warnings are displayed in decreasing order as follows.



DANGER

**means that death or serious bodily injury will occur if the appropriate precautions are not taken.**



WARNING

**means that death or serious bodily injury may occur if the appropriate precautions are not taken.**



CAUTION

**means that minor bodily injury may occur if the appropriate precautions are not taken.**

ATTENTION

**means that property damage may occur if the appropriate precautions are not taken.**

If more than one hazard level occurs, the warning for the highest level is always used. If a warning with the warning triangle warns of personal injury, then a warning of property damage may also be attached to the same warning.

## Qualified staff

The product/system associated with this documentation may only be handled by personnel qualified for the respective task in compliance with the documentation associated with the respective task, in particular the safety and warning instructions contained therein. Due to their training and experience, qualified personnel are qualified to identify risks and avoid possible hazards when handling these products/systems.

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## Disclaimer

We have checked the content of the pamphlet for compliance with the hardware and software described. Nevertheless, deviations cannot be ruled out, so that we do not assume any liability for complete conformity. The information in this brochure will be checked regularly, and any necessary corrections will be included in the following editions.

## Security Notices

Siemens offers products and solutions with industrial security functions that support the secure operation of plants, systems, machines and networks.

In order to secure plants, systems, machines and networks against cyber threats, it is necessary to implement (and continuously maintain) a holistic industrial security concept that corresponds to the current state of the art. Siemens' products and solutions are just one component of such a concept.

Customer is responsible for preventing unauthorized access to its facilities, systems, machinery, and networks. Systems, machines and components should only be connected to the corporate network or the Internet if and to the extent necessary and appropriate protective measures (e.g., use of firewalls and network segmentation) have been taken.

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Siemens products and solutions are constantly being developed to make them even safer. Siemens strongly recommends that updates be carried out as soon as the corresponding updates are available and that only the latest product versions are used. Using outdated or unsupported versions can increase the risk of cyber threats.

To stay informed about product updates, subscribe to the Siemens Industrial Security RSS feed at <https://www.siemens.com/industrialsecurity>.

In accordance with international standards and best practices in risk management, Siemens upgraded the threat level to our SIMATIC PCS myExpert and its Health Agents on a scale of 4 (green, yellow, orange, red) to the "yellow" level (the German BSI nomenclature is "Limited"): All measures present in PCS myExpert are designed to protect against at least this level of threat.

For more information, please refer to:

[BSI Standard 200-3: Risk analysis based on IT baseline protection](#),  
(Date: 07.05.2018)

Download [.PDF](#), (page 21-22)

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# 1 Foreword

## Purpose

In this document, you will learn how to install the SIMATIC PCS myExpert Data Collector and its Data Agents on a Windows-based operating system. Furthermore, the document describes the installation and configuration of the Simatic Management Console, which is responsible for the operation of SIMATIC PCS myExpert is required. The review and configuration of network devices for inventory is also discussed in this manual.

## Content

The following key points are covered in this document:

- Installation and configuration of the SIMATIC Management Console
- Installation of Data Collector Components
- Configuration of Data Collector Components

## Required basic knowledge.

No special knowledge is required beyond basic knowledge of Windows-based operating systems.

## **2 General information**

### **2.1 Disclaimer**

The contents of this manual have been checked for compliance with the hardware and software described. Since deviations cannot be completely ruled out, complete compliance cannot be guaranteed. However, the data in this manual will be reviewed regularly and any necessary corrections will be taken into account in later editions. Suggestions for improvement are welcome. This manual does not replace the well-known manuals for the SIMATIC Management Console, but only serves as a supplement. See Chapter 3 – Prerequisites.

### **2.2 Target group**

This manual is intended for SIMATIC PCS myExpert users who:

Install and prepare the SIMATIC Management Console for operation in myExpert. Furthermore, the installation of the myExpert Data Collector components is described.

### 3 Prerequisite

The following information is assumed to be known:

SID has been created and entered into the object properties of PCS 7 Multiproject.

(<https://support.industry.siemens.com/cs/de/de/view/109807363> )

Handbuch SIMATIC Management Console V9.1


<https://support.industry.siemens.com/cs/de/de/view/109805386>

Liesmich SIMATIC Management Console V9.1 SP1

<https://support.industry.siemens.com/cs/de/de/view/109801046>

Given network setup: secured according to PCS 7 Compendium - Security

### 3.1 Maintenance Station (MS Server) Check

A PCS 7 Maintenance Station of the PCS 7 version available in the system (basic or standard) is required to read out the inventory data (online) of the projected switches  ♦ For details and instructions see e.g. [Handbuch PCS7 Maintenance Station V9.1 SP1](#) or <https://support.industry.siemens.com/cs/de/de/view/27833758>

Switch configuration within the SIMATIC Net OPC Server of the MS Server:  
SNMP device profile set to match the hardware.

Accessible SCALANCE SC600 can be configured via MIBII profile.  
If they are not available or not configured, they can also be imported into myExpert in the inventory view via a template file.

Note: Different SNMP profiles for SCALANCE X200 and XC200! The project planning should be adapted to the currently existing switch.

*Projektieren der Maintenance Stationen*

*5.11 Projektieren der Überwachung von Industrie-PCs und Netz-Objekten*

#### Übersicht

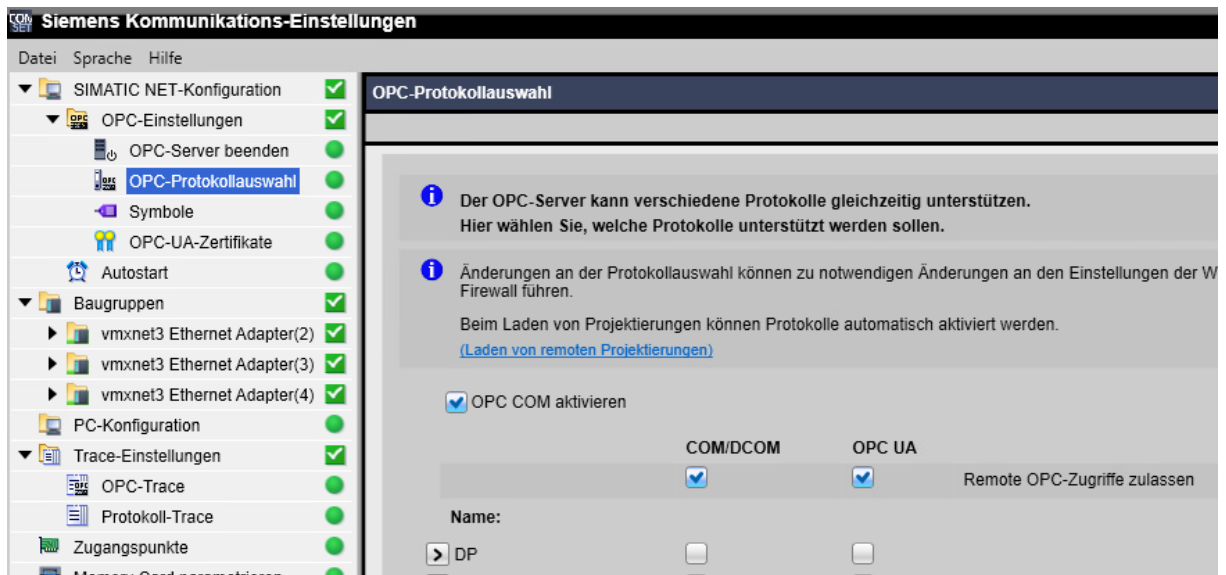
Die folgende Tabelle zeigt die Zuordnung der Community zum Geräteprofil.

Objekte	Geräteprofil	Community
SCALANCE Reihe X200	Profile_SCALANCE_X200_Vxy.txt	public
SCALANCE Reihe X200 RNA	Profile_SCALANCE_X200RNA_Vxy.txt	
SCALANCE Reihe XB200	Profil_SCALANCE_XB200_Vxy.txt	
SCALANCE Reihe XC200	Profil_SCALANCE_XB200_Vxy.txt	
SCALANCE Reihe XF200	Profil_SCALANCE_XB200_Vxy.txt	
SCALANCE Reihe XP200	Profil_SCALANCE_XB200_Vxy.txt	
SCALANCE Reihe X300	Profil_SCALANCE_X300X400_Vxy.txt	
SCALANCE Reihe X400	Profil_SCALANCE_X300X400_Vxy.txt	
SCALANCE Reihe XM400	Profil_SCALANCE_XM400_Vxy.txt	
SCALANCE Reihe X500	Profil_SCALANCE_X500_Vxy.txt	
SCALANCE Reihe W700	Profil_SCALANCE_W700_Vxy.txt (xy =13)	
SCALANCE Reihe W700 ab Firmware 6.1	Profil_SCALANCE_W700_Vxy.txt (xy >= 61)	
SCALANCE Reihe W1700	Profil_SCALANCE_W700_Vxy.txt	
ESM/OSM	Profil_OSM_Vxy.txt	
Siemens IPC (Industrie-PC)	Profil_IPC_Vxy.txt	SOL
Sonstige Geräte z. B. PCs von Drittanbietern, Premium Server for SIMATIC PCS 7, Netzwerkkarten, Switches	MIB-II_V10.txt	Ermitteln Sie die im Gerät projektierte Community.
Alle Geräte, die durch das Importieren aufgenommen wurden, aber nicht angezeigt werden sollen	Kein SNMP	-

#### Hinweis

Wenn nicht explizit genannt, steht "xy" jeweils für die neuste Version des Geräteprofils.

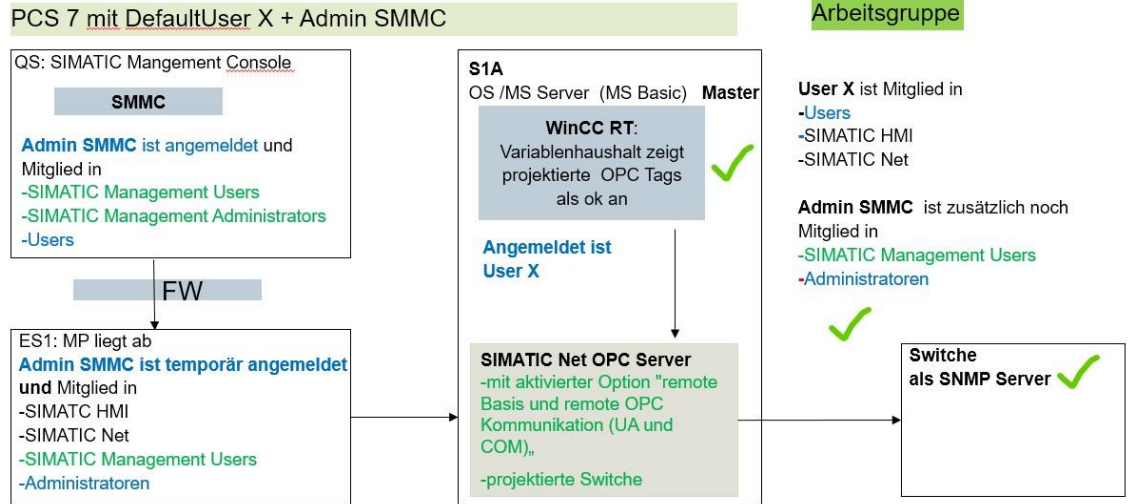
Note for the SIMATIC Net OPC Server: Allow remote OPC access within the program "Siemens Communication Settings":



The picture shows the communication settings from PCS7 V9.1 onwards. In older versions, the name for remote OPC access may differ.

### 3.2 Adjust user rights.

According to SMMC Manual Chapter 4.1, the executing user at the SMMC station - typically the quarantine station in the perimeter network - needs the following rights in the system:



Create users SMMC at the respective stations and authorize them in the specified groups. Please note the instructions in the SMMC manual chapter 4.1 regarding "Changing Windows User Management."

Station	Username	User	Administrators	Mgmt Users	Mgmt Admin	SIMATIC NET	SIMATIC HMI
IT	DefaultUser (DefaultUser)	x		x		x	x
<b>IT</b>	<b>SMMC</b>	<b>X</b>	<b>X</b>	<b>X</b>		<b>X</b>	<b>X</b>
OS-Client	DefaultUser (DefaultUser)	x		x			x
OS/MS-Server	DefaultUser (DefaultUser)	x		x		x	x
<b>OS/MS-Server</b>	<b>SMMC</b>		<b>X</b>	<b>X</b>		<b>X</b>	
Quarantine (SMMC)	SMMC		<b>X</b>	X	X		

### 3.3 SIMATIC Management Console install

Depending on the SIMATIC Management Console / SIMATIC Management Agent version to be installed, the corresponding current read description must be observed.

SIMATIC Management Console Liesmich V9.1 SP1 Update 2 (online)

<https://support.industry.siemens.com/cs/de/de/view/109815703>

SIMATIC Management Console Liesmich V9.0 SP1 Update 4 (online)

<https://support.industry.siemens.com/cs/de/de/view/109780528>

SIMATIC Management Console Liesmich V9.0 Update 2 (online)

<https://support.industry.siemens.com/cs/de/de/view/109759825>

### 3.4 Distributing Licenses

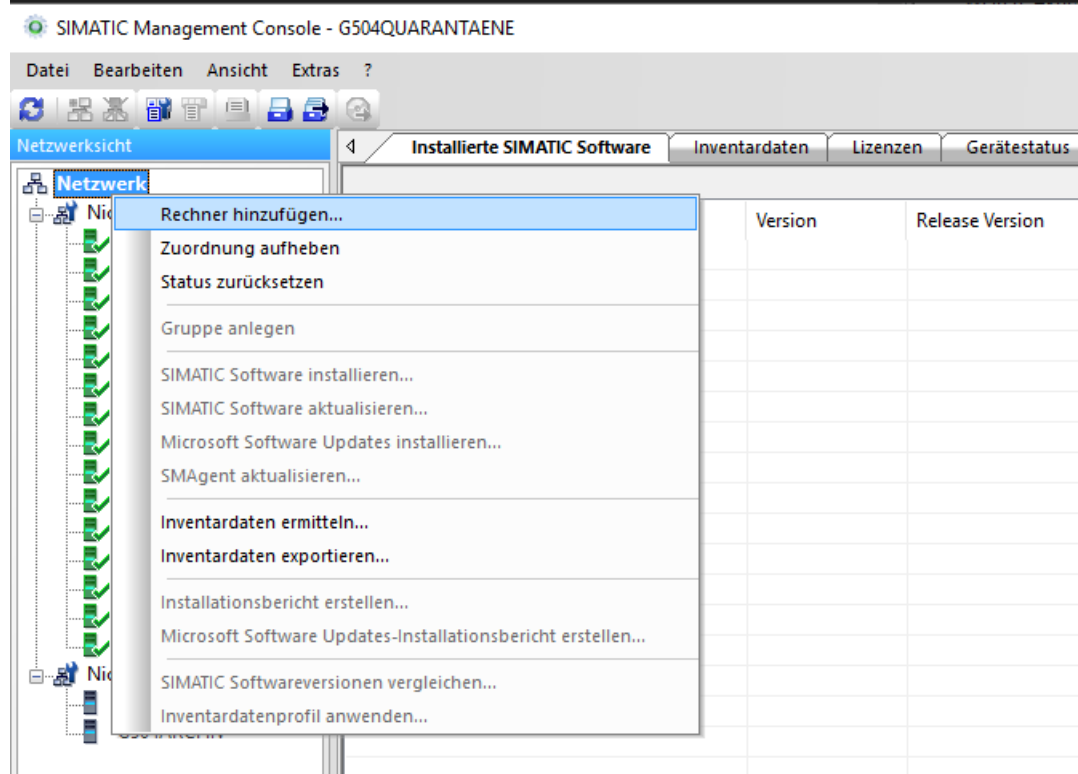
#### Hint

"A reduced scope of services of the Management Console, which enables inventory, can be used without licenses. In addition to a "SIMATIC PCS 7 Management Console" license, the use of the full range of features of the Management Console requires an additional "Management Console Agent" license for each "SIMATIC PCS 7 Management Console" license. Console managed SIMATIC PCS 7 Industrial Workstation. The Management Console Agents can be obtained in the form of cumulative licenses of 10, 50 and 100. The System Inventory function can also be used to a limited extent without licenses." Source: PCS 7 Catalog)

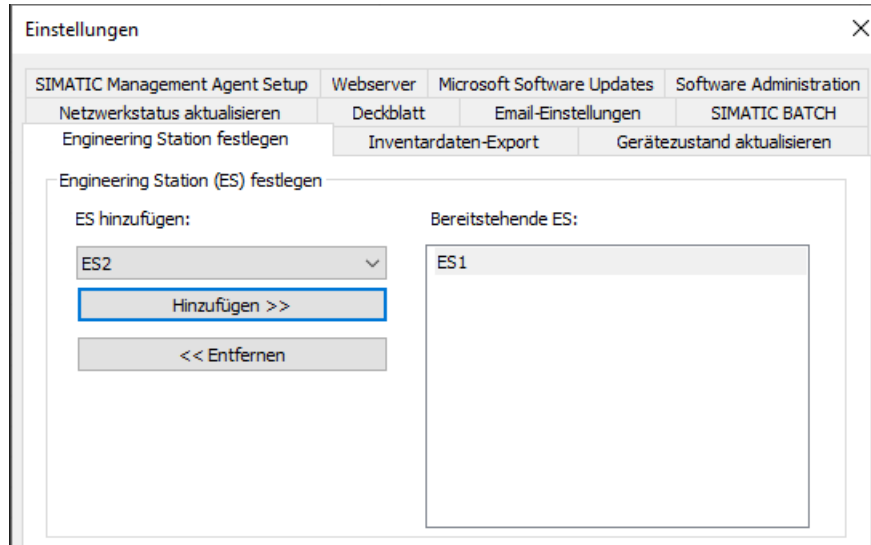
### 3.5 Starting and configuring the SIMATIC Management Console

After the Management Console has been started, the computers on which the "SIMATIC Management Agent" is activated try to log in to the Management Console.

Assign Calculator



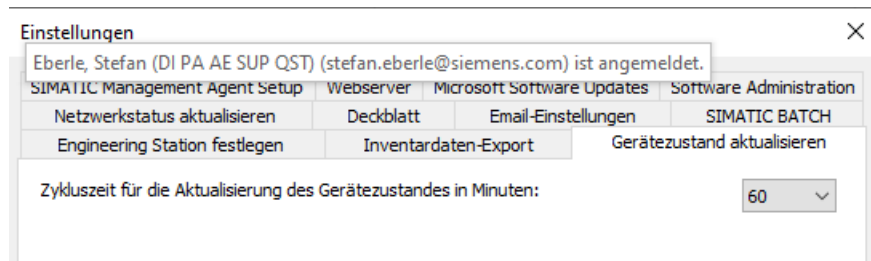
**Tools > Settings menu:**  
"Set Engineering Station" tab).



Register "SIMATIC Management Agent Setup"

🔗◆Reference to Local Folder with SM Agent Setup

Update Device Health tab

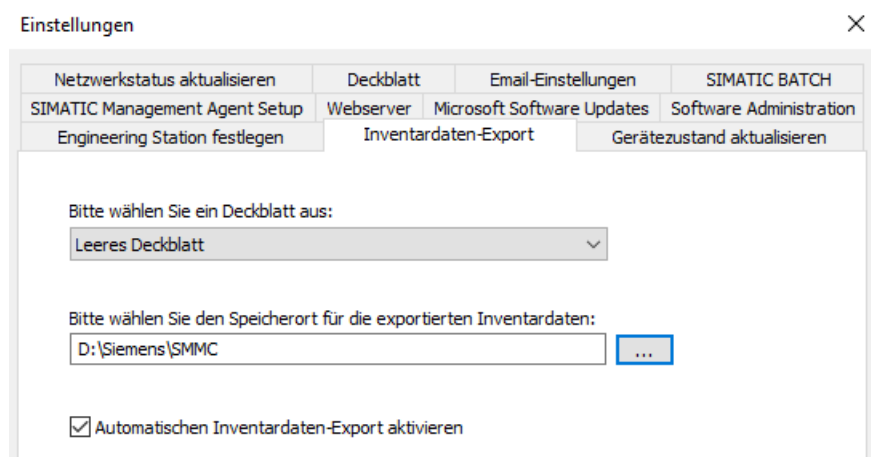


🔗◆Set from the default value of 1 minute to 60 minutes.

Update Network Status tab

Default value 5 minutes

Register "Inventar daten export"



🔗◆Set Location of Custom Folder to D Partition

🔗◆"Enable Automatic Inventory Data Export" option.

Communication: PreSharedKey: Assign and document password

### 3.6 Installation of the SIMATIC Management Agent:

This step must be performed for each PC station that is to be inventoried.

If a version is already installed on the target computer, the function "Update SM Agent..." can be used.

If McAfee ApplicationControl software is enabled, temporary steps are required.

Type of installation: local (SMMC Chapter 4.3 manual) or via remote desktop connection (only when OS Runtime is disabled. Manual SMMC Chapter 4.4)

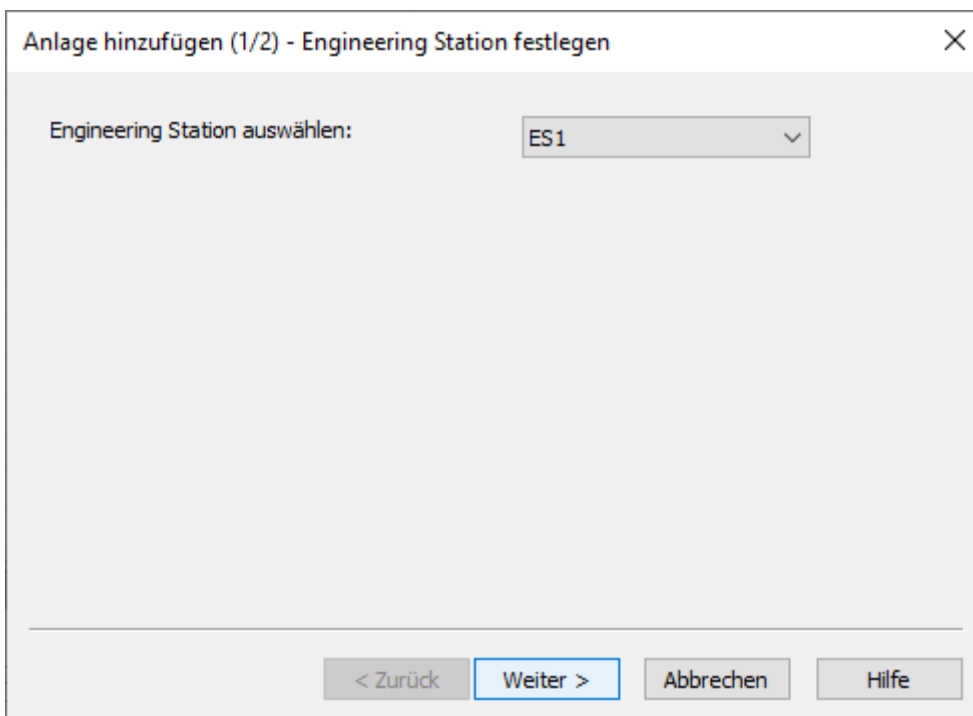
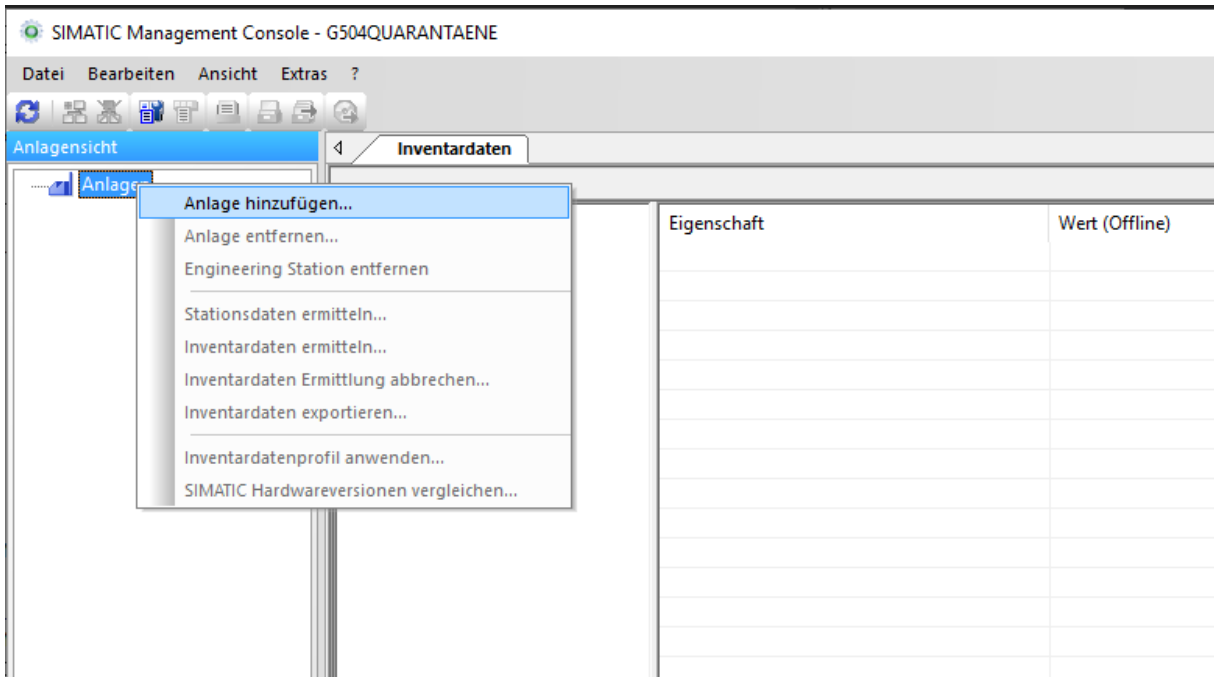
When communicating over different subnets: SMMC Manual Chapter 4.5

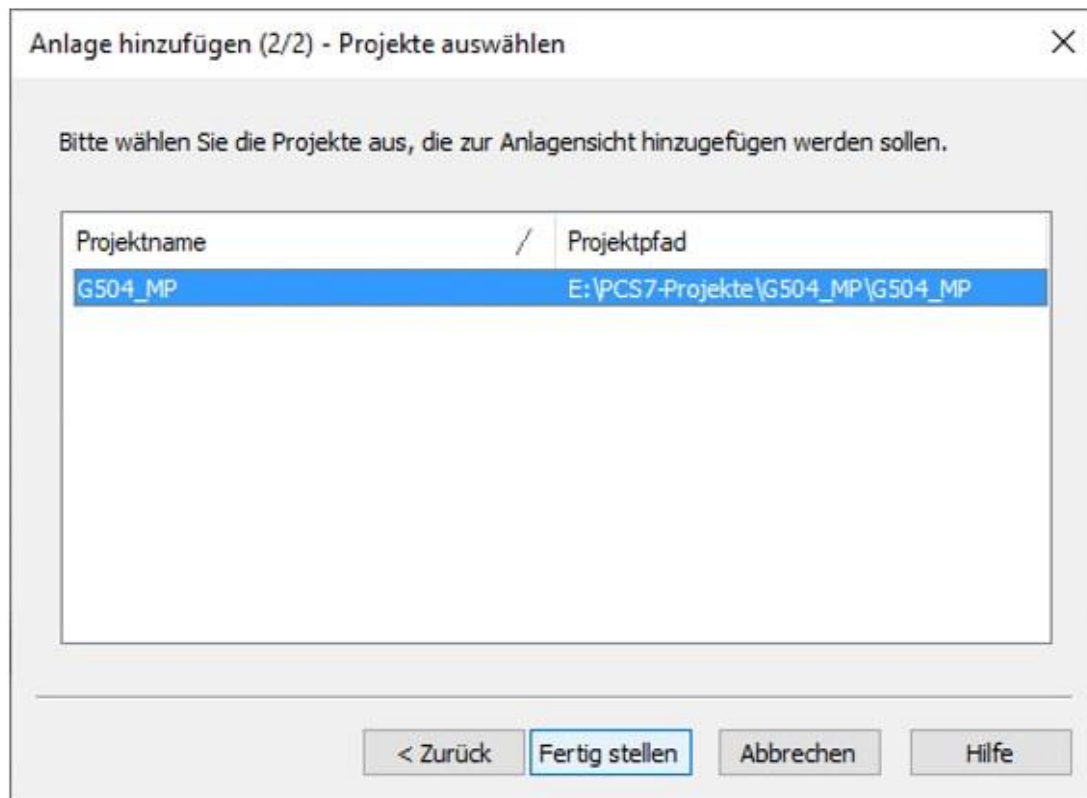
🔒♦Set local Windows FW + External FW (**Observe port sharing**)

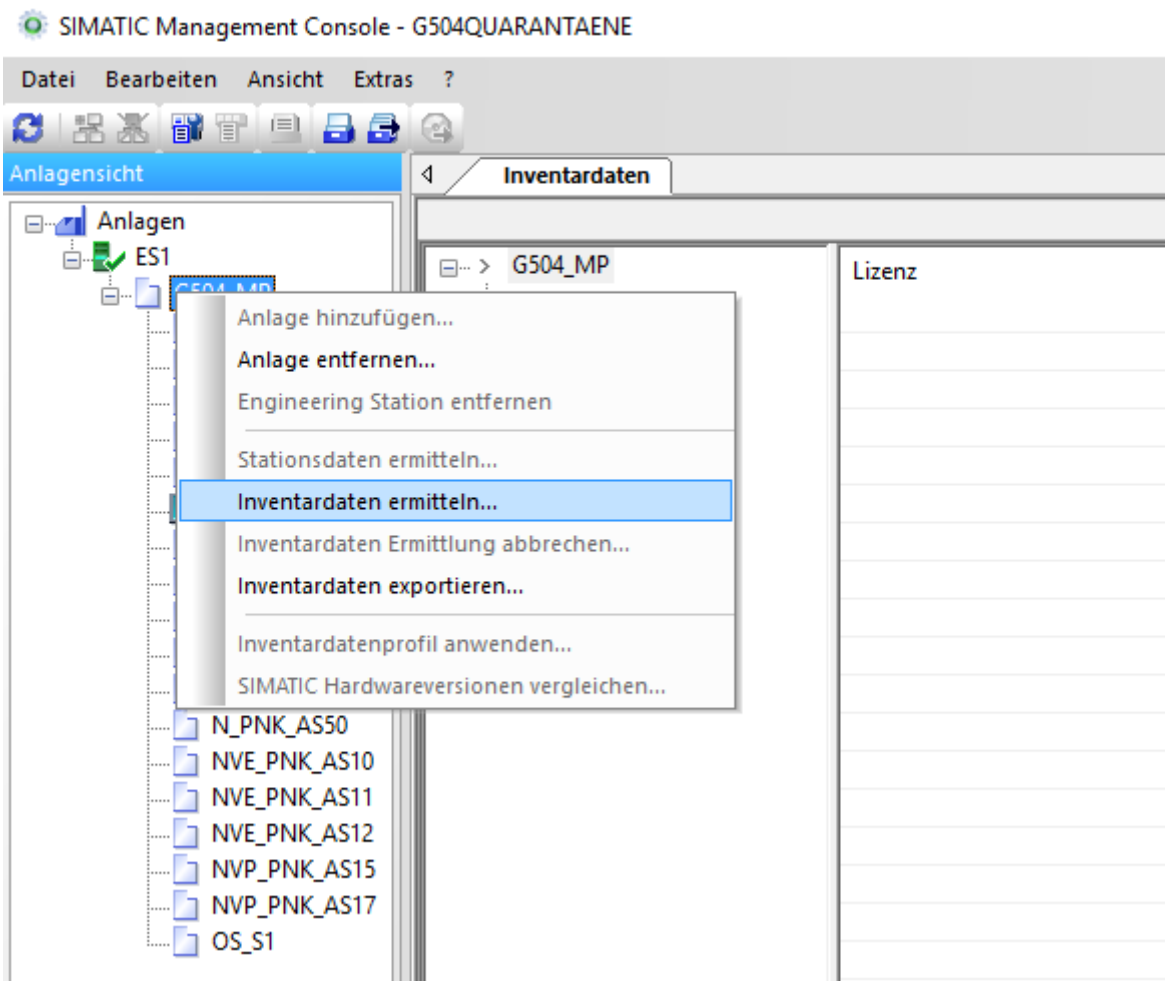
**Hint:** Temporary stop of the OS Runtime necessary

### 3.7 Determine and export inventory data in the asset view.

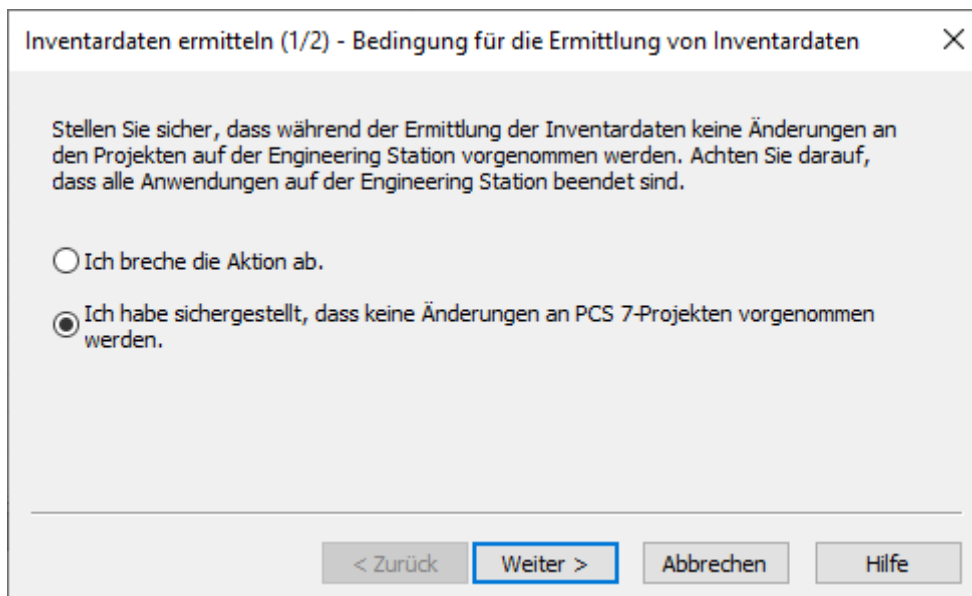
- Determine inventory data in the system view once over the entire MP.
- After changes in the asset: If necessary, determine inventory data in the asset view via a subproject for updating
- Export inventory data in the asset view over the entire MP (**Necessary data for myExpert**)
  - According to Manual Chapter 5.6.3 ff

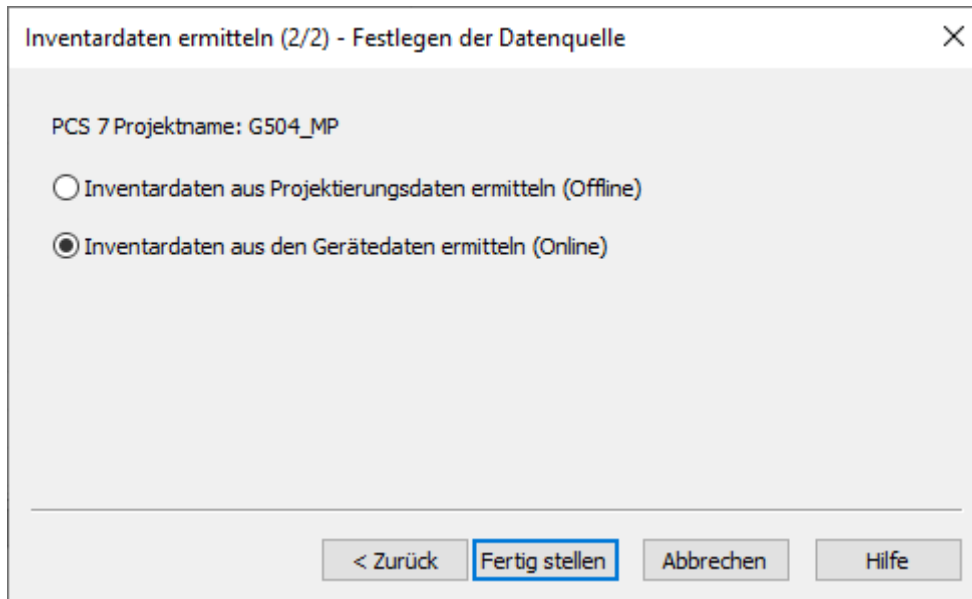






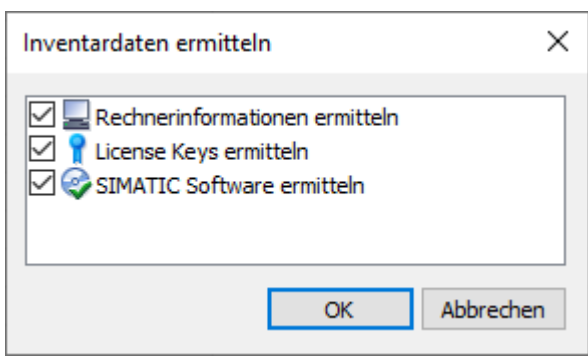
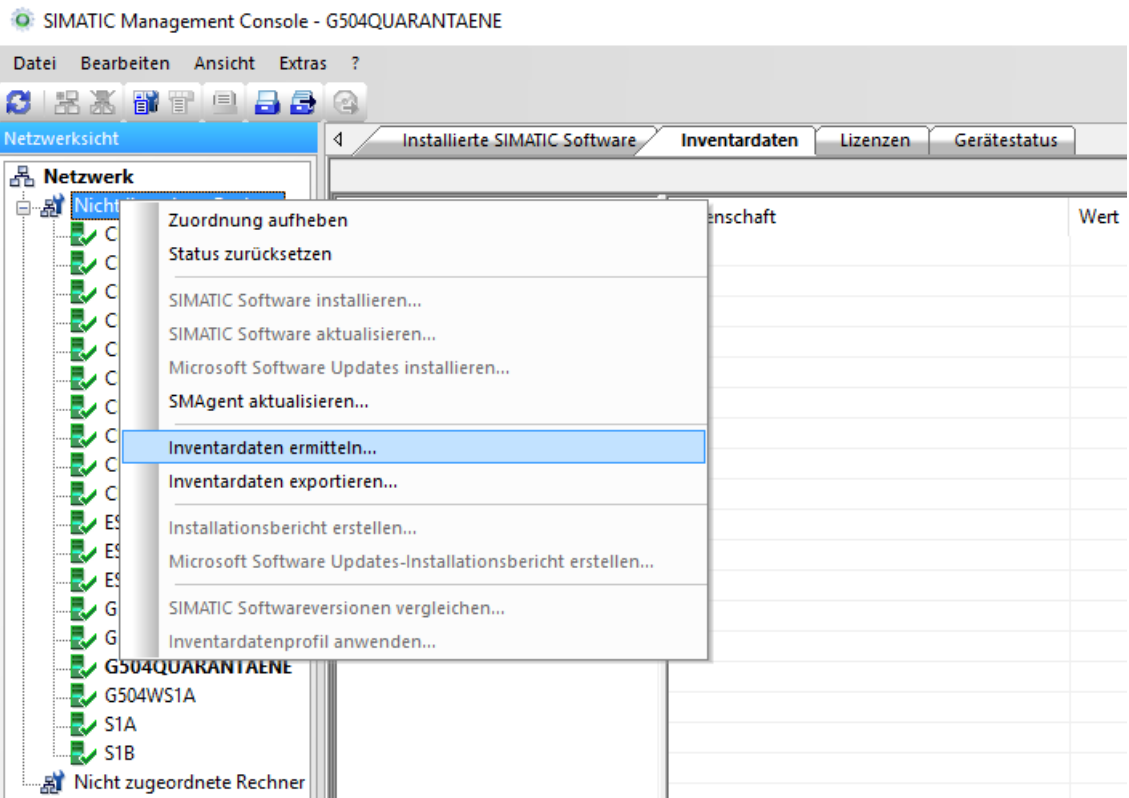
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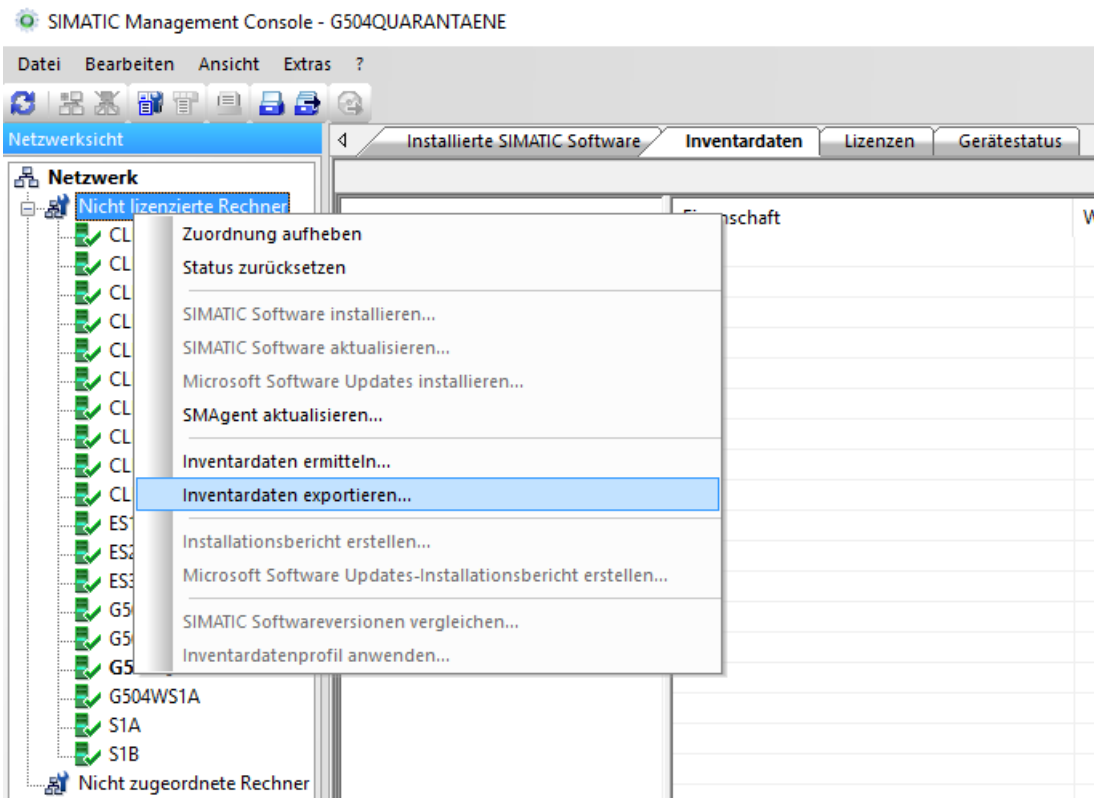


### 3.8 Determine and export inventory data in the network view.

- Creating a group and assigning computers
- Add machine manually when SMMC is on quarantine.  
*"The automatic detection of computers is limited to the respective subnet in order to network load. Therefore, the machines that are not part of the subnet must be assigned manually to the SIMATIC Management Console by using the right. Click on "Network" and select the "Add Computer" option."*
- Determine and export inventory data in the network view (**Necessary data for myExpert**)
  - According to Manual Chapter 5.6.2 ff
  - Important: myExpert needs a complete export (see note next page)

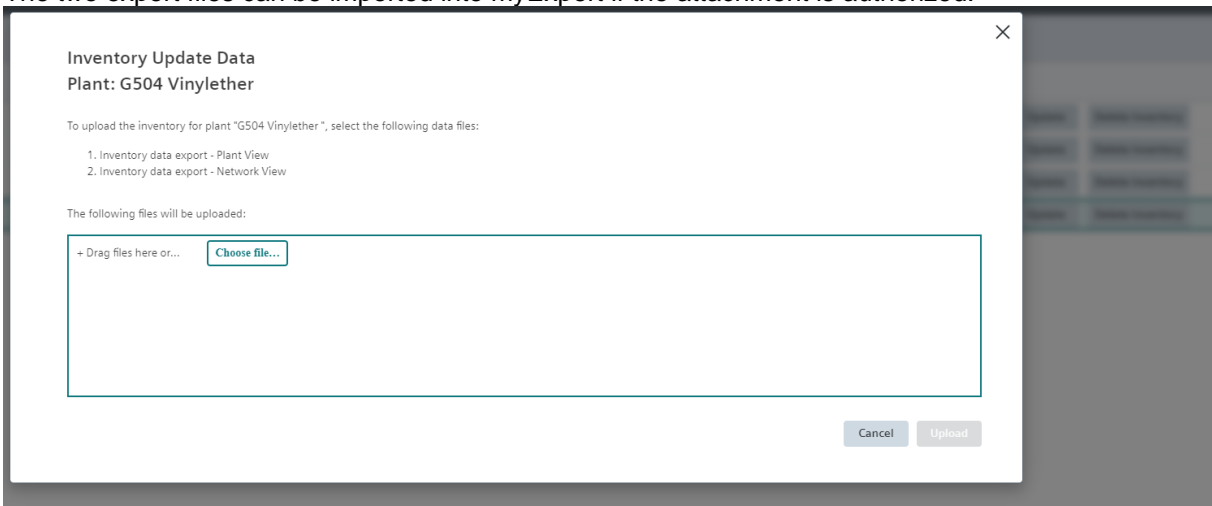


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### 3.9 myExpert: Import inventory data

The two export files can be imported into myExpert if the attachment is authorized:



**Hint:**

myExpert can merge multiple Plant View files, **but** an attachment can only manage one Network View as a whole at a time.

- **SMMC Plant View Export:**  
This file contains a list of the projected HW components (controller, CP's, IM's, network components incl. serial number and FW version)

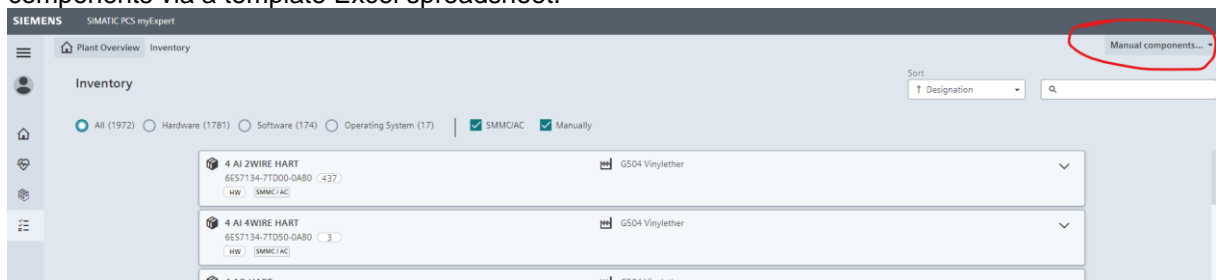
- SMMC NetworkView:  
This file contains the inventory data of the computers with the SM Agent installed.

### 3.10 Additional features in SMMC

- Backup File > Data Menu
- Optional: Run Inventory Data Profile Wizard (for later comparison via SMMC) – Chapter 5.6.5
- Optional: Comparison of SIMATIC SW versions via version reference file – chapter 5.6.6
- Optional: Install and update SW – chapter 5.5

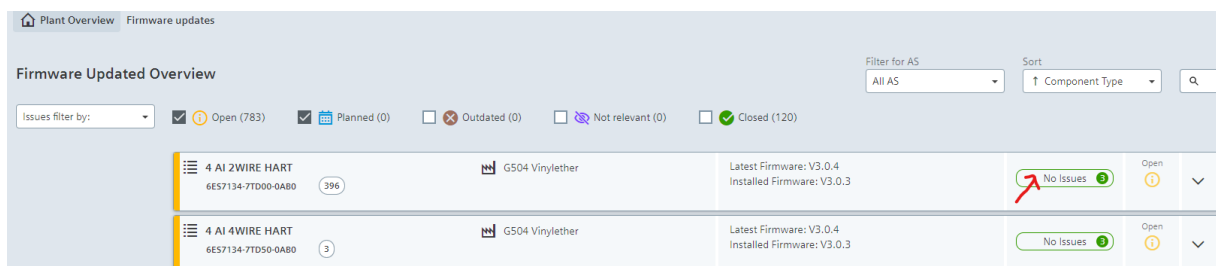
### 3.11 Check your database in myExpert for completeness.

Click on the button "Manual components..." It is possible to add unreachable, non-configured components via a template Excel spreadsheet.



### 3.12 Annotate and evaluate data in myExpert (2h)

- Example Support Request: Check Open SRs
- Example FW Updates



## Change priority group: 4 AI 2WIRE HART



Immediate **1**   Suggested **2**    No Issues **3**   N.A. **4**

Legend: **1** Action required, as soon as possible   **2** Action required at the next opportunity   **3** No action required   **4** Not rated

Advised Recommendation\* (21/1000 Characters)

kein FW-Update nötig.

Cancel   Apply

## 4 PCS myExpert Data Collector

The SIMATIC PCS myExpert Data Collector consists of two parts.

- Logstash - The central part of the myExpert Data Collector that transfers the data to the cloud.
- Metric beats – on-premises data agents that transmit PC metrics or Windows Defender events to Logstash.

### 4.1 Installing and configuring Logstash

#### 4.1.1 Prerequisites for running Logstash.

Java is required to run Logstash.

Java 11 or Java 17 is supported. Both official Oracle versions and open-source versions such as OpenJDK are compatible.

Please check if Java is already installed.

To do so, please open a command line and issue the following command:

```
java -version
```

The output may look different depending on the version you have installed.

```
PS C:\> Java -version
java version "11.0.3" 2019-04-16 LTS
Java(TM) SE Runtime Environment 18.9 (build 11.0.3+12-LTS)
Java HotSpot(TM) 64-Bit Server VM 18.9 (build 11.0.3+12-LTS, mixed mode)
```

If no Java installation can be found, please install Java.

After successful installation, check again if Java is installed correctly with the above command.

#### 4.1.2 Installing Logstash

Logstash is delivered as a zip file.

Unzip the zip file to `C:\temp\myExpert_Health\`

*Note: Due to the deep folder structure of the Logstash zip file, it can happen that the unzip fails. If this is the case, unzip the file to `C:/` and then copy it to the destination folder.*

Copy the unzipped zip file to `C:\Program\Siemens\myExpert_Health\`

### 4.1.3 Logstash Configuration

1. Copying the certificates:

- Quarantine Host: Copy *lumberjack.cert* after  
C:\Programme\Siemens\myExpert\_Health\logstash-8.2.3\cert\
- Lvl 3 Server: Copy *lumberjack.cert* and *lumberjack.key* after  
C:\Programme\Siemens\myExpert\_Health\logstash-8.2.3\cert\

Note: The certificates are available from the myExpert Operations Team  
[simatic\\_pcs\\_myexpert.support.industry@siemens.com](mailto:simatic_pcs_myexpert.support.industry@siemens.com)


2. Copying the Logstash configuration:

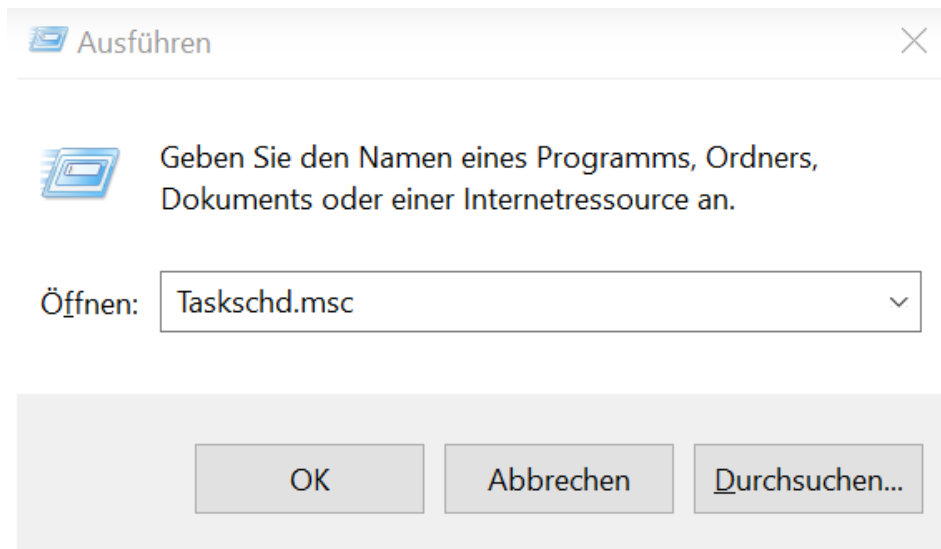
Copy *pipelines.yml* after


C:\Program\Siemens\myExpert\_Health\logstash-8.2.3\config\

### 4.1.4 Configuring Logstash as a Scheduled Task

To ensure that Logstash runs too persistently, it must be registered in the MS Windows Task Scheduler. To do this, proceed as follows:

1. Windows + R  The Run dialog box will open.
2. Type in Taskschd.msc and click OK to confirm.



3. In the new dialog window *task scheduler* Menu item *Action*  *Create Task* choose
4. Fill in the fields in the *General* as follows.

**Aufgabe erstellen**

Allgemein | Trigger | Aktionen | Bedingungen | Einstellungen

Name: Logstash

Speicherort: \

Autor: [REDACTED]

Beschreibung: myExpert Data Collector | Logstash

**Sicherheitsoptionen**

Beim Ausführen der Aufgaben folgendes Benutzerkonto verwenden:  
 [REDACTED] Benutzer oder Gruppe ändern...

Nur ausführen, wenn der Benutzer angemeldet ist

Unabhängig von der Benutzeranmeldung ausführen

Kennwort nicht speichern. Die Aufgabe greift nur auf lokale Computerressourcen zu.

Mit höchsten Privilegien ausführen

Ausgeblendet Konfigurieren für: Windows Vista™, Windows Server™ 2008

OK Abbrechen

5. Go to the Tab *Actions* and click *New*.

6. In the new dialog box, fill in the fields as follows

Neue Aktion

Geben Sie die Aktion an, die von der Aufgabe ausgeführt werden soll.

Aktion: Programm starten

Einstellungen

Programm/Skript:  
C:\Program Files\Siemens\myExpert\_Health\logstash-8.2.3\bin\logstash.bat

Argumente hinzufügen (optional):  
2.3\config\pipelines.yml

Starten in (optional):  
ealth\logstash-8.2.3\bin\

OK Abbrechen

Program/Script: *C:\Program Files\Siemens\myExpert\_Health\logstash-8.2.3\bin\logstash.bat*

Add arguments: *-f C:\Programme\Siemens\myExpert\_Health\logstash-8.2.3\config\pipelines.yml*

Start in: *C:\Program Files\Siemens\myExpert\_Health\logstash-8.2.3\bin\*

7. Confirm with *Okay*
8. Go to the Tab *Trigger*

9. Fill in the fields as follows:

To start a task: *At startup*

Delay for: *5 minutes*

Neuer Trigger ✕

Aufgabe starten: Beim Start ▾

**Einstellungen**

Es sind keine weiteren Einstellungen erforderlich.

**Erweiterte Einstellungen**

Verzögern für: 5 Minuten ▾

Wiederholen jede: 1 Stunde ▾ für die Dauer von: 1 Tag ▾

Alle ausgeführten Aufgaben am Ende der Wiederholungsdauer beenden

Aufgabe beenden nach: 3 Tage ▾

Aktivieren: 27.06.2022 09:26:21  Zeitzonenübergreifende Synch.

Ablaufen: 27.06.2023 09:26:21  Zeitzonenübergreifende Synch.

Aktiviert

OK Abbrechen

## 4.2 Installing Metric Beats via msi Installer – Health Agents

Install the Metricbeats using the included installer on any PC station for which PC metrics are to be collected.

After installation via the installer, the Metricbeat Data Folder will open automatically  
*C:\ProgramData\Elastic\Beats\metricbeat*

Copy the included *metricbeat.yml* to the C folder:  
*\ProgramData\Elastic\Beats\metricbeat*

Copy the supplied *system.yml* into the folder  
*C:\ProgramData\Elastic\Beats\metricbeat\modules.d*

Launch Metricbeat from Windows Service *Elastic Metricbeat 8.2.3*

## 4.3 Installing Winlogbeats via msi Installer (optional) – Health Agents

The Winlogbeats are required if you want to use the Windows Defender features of myExpert.

Install the Winlogbeats with the included installer on any PC station for which Windows Defender metrics are to be collected.

After installation via the installer, the Winlogbeat Data Folder opens automatically  
*C:\ProgramData\Elastic\Beats\winlogbeat*

Copy the included *winlogbeat.yml* to the C folder:  
*\ProgramData\Elastic\Beats\metricbeat*

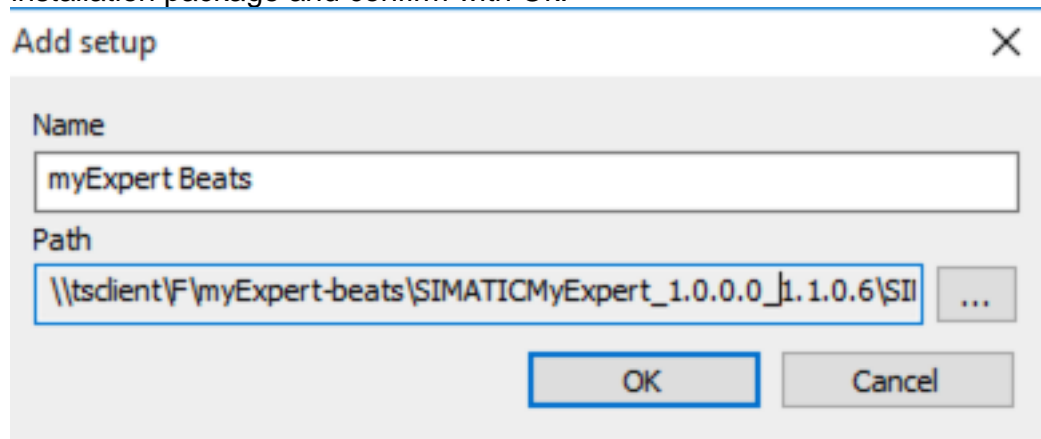
Start Winlogbeat from Windows Service *Elastic Winlogbeat 8.2.3*

## 4.4 Installation of Health Agents with the help of SMMC

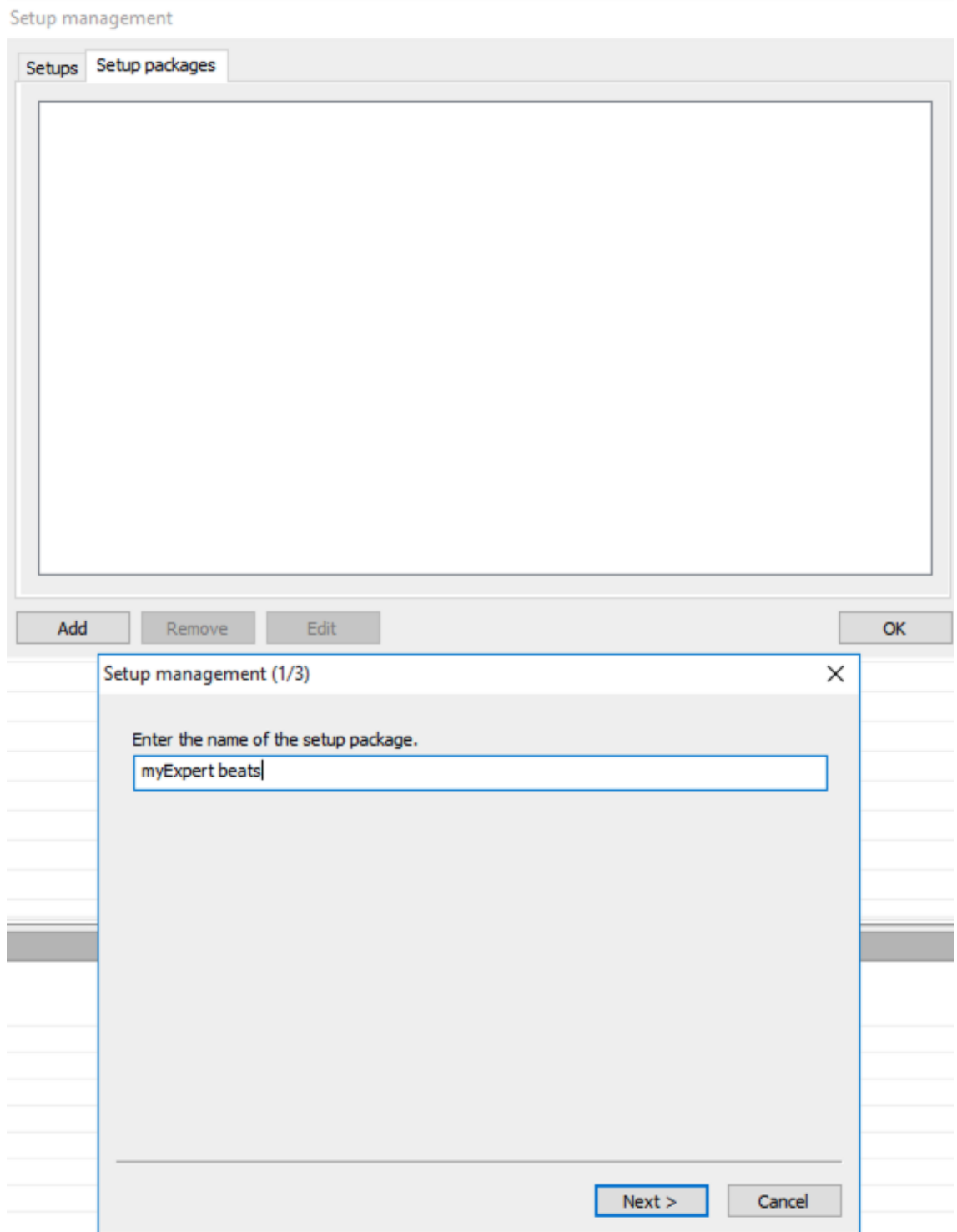
### Important Notes:



3. In the new window, assign a name and the path to the setup .exe of the installation package and confirm with Ok:

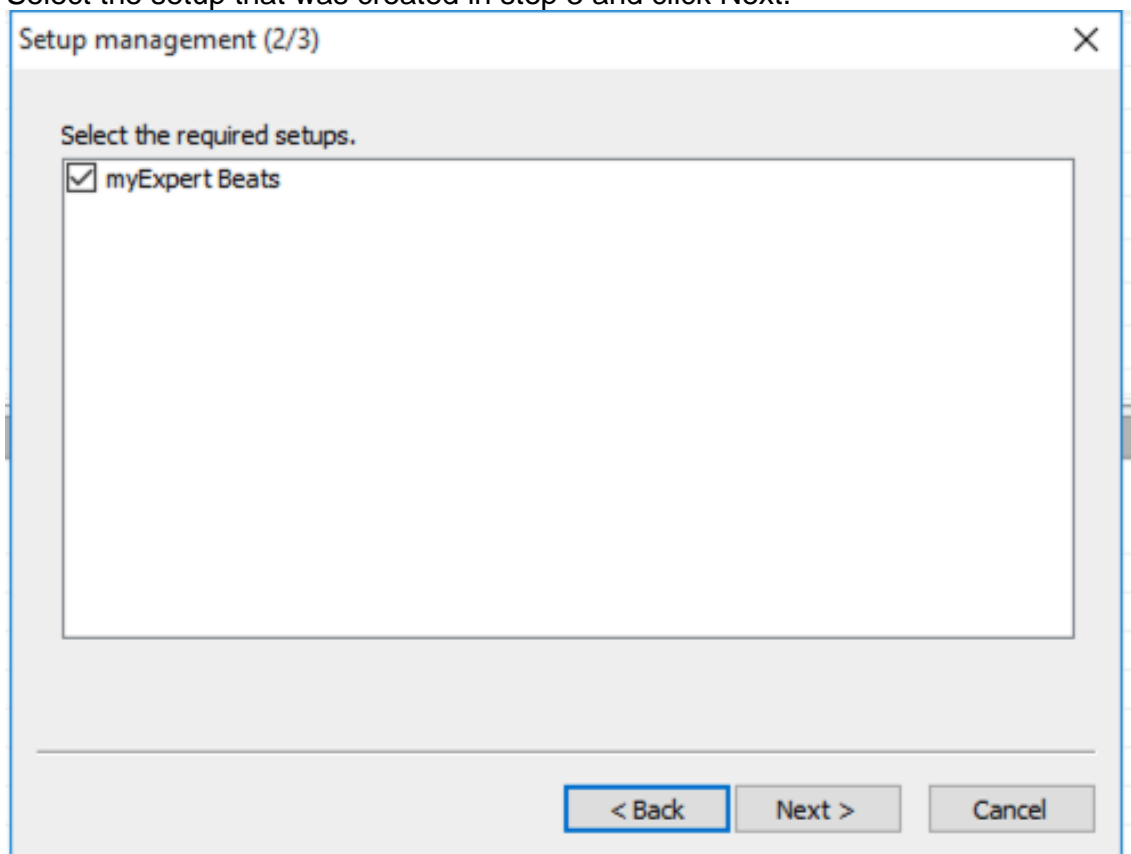


4. Go to the Setup Packages tab and click Add



Give the setup package a name and click Next.

5. Select the setup that was created in step 3 and click Next.



6. The setup routine starts once.  
Complete all the required steps of the installation routine.
7. The setup can now be carried out using the SMMC function "Install SIMATIC Software".