
KUNBUS-COM Profinet Commissioning

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INHALT

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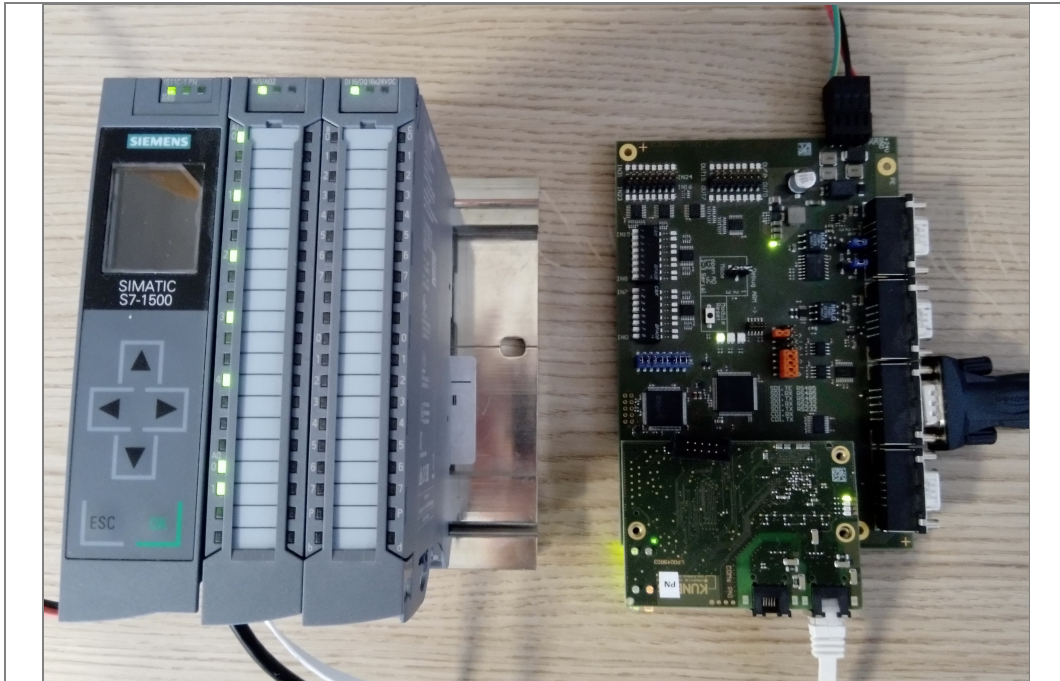
[Loading](#)

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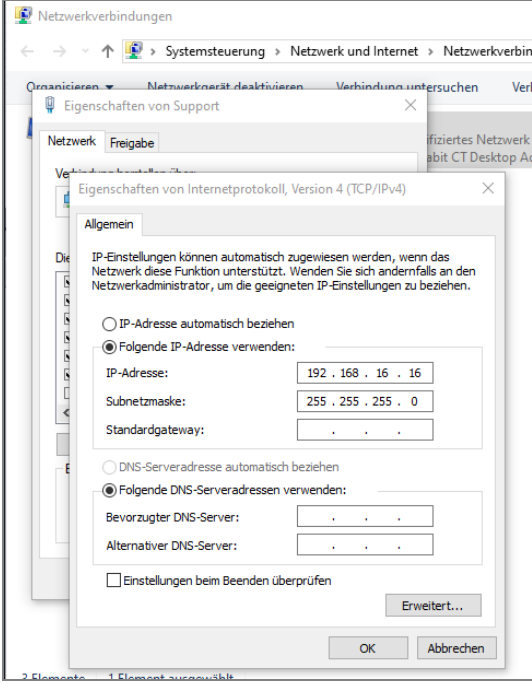
Overview



1.

This is a howto for quick commissioning of KUNBUS-COM Profinet with a Siemens S7-1500 PLC.

Configure PC network

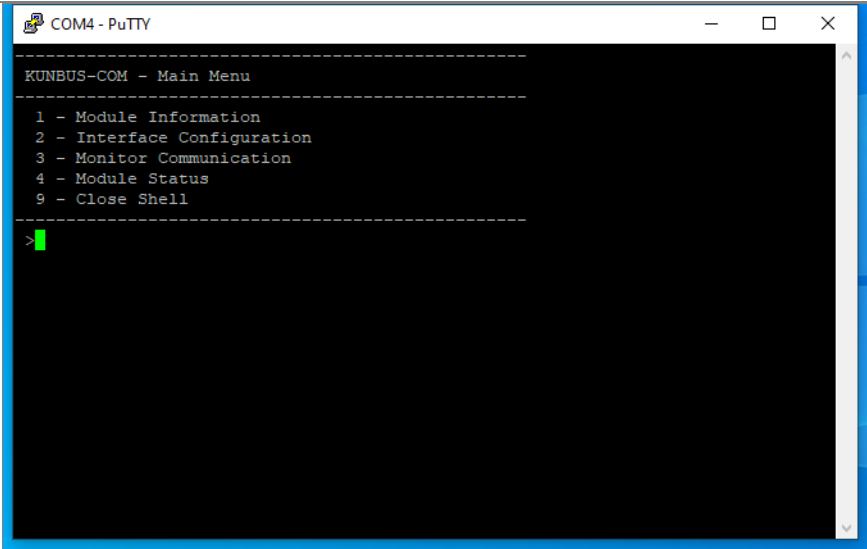


The screenshot shows the Windows 'Netzwerkverbindungen' (Network Connections) window. The 'Freigabe' network is selected. The 'Eigenschaften von Internetprotokoll, Version 4 (TCP/IPv4)' dialog box is open, showing the 'Allgemein' (General) tab. The 'Folgende IP-Adresse verwenden' (Use the following IP address) option is selected, with the IP address set to 192.168.16.16 and the subnet mask set to 255.255.255.0. The 'Folgende DNS-Serveradressen verwenden' (Use the following DNS server addresses) option is also selected, with the preferred and alternative DNS servers set to

2.

Set the network of your host PC.

CDI interface



The screenshot shows a PuTTY terminal window titled 'COM4 - PuTTY'. The terminal displays the 'KUNBUS-COM - Main Menu' with the following options:

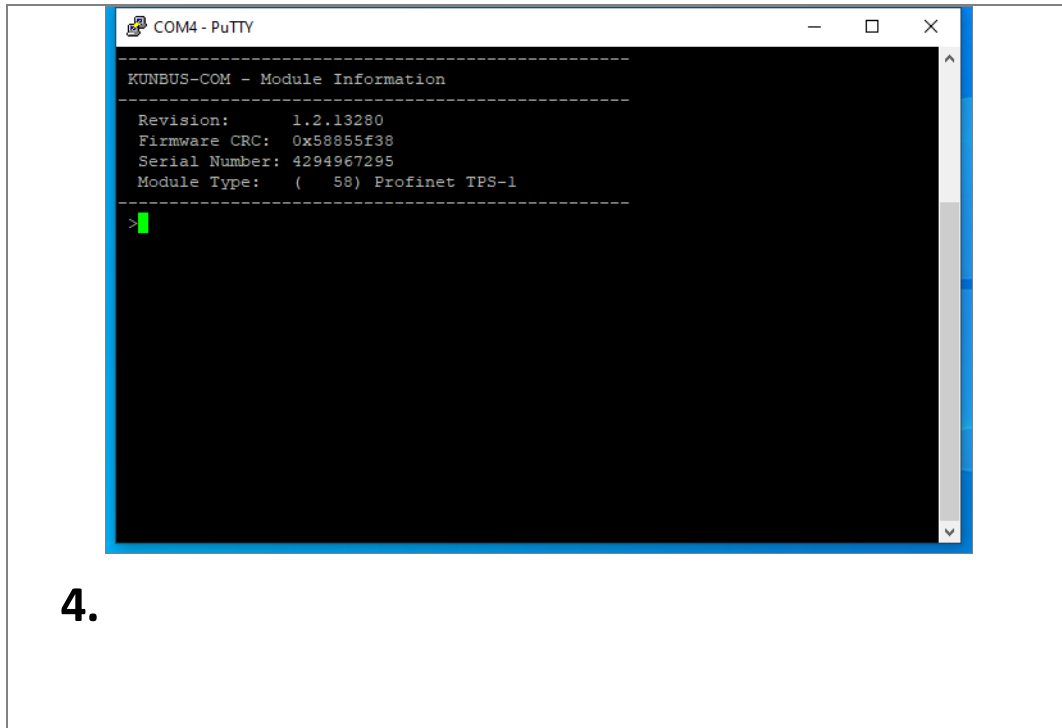
```

-----
1 - Module Information
2 - Interface Configuration
3 - Monitor Communication
4 - Module Status
9 - Close Shell
-----
>
  
```

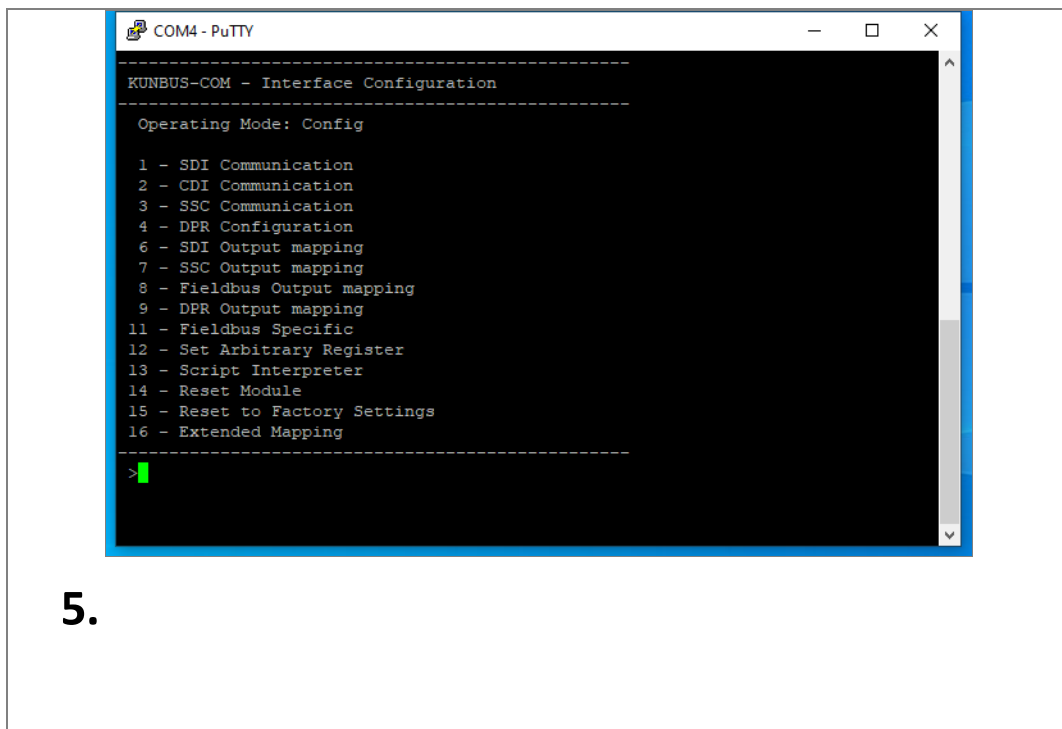
3.

Connect the CDI interface. Baudrate: 115200, 8 data bits, 1 stop bit, Even parity

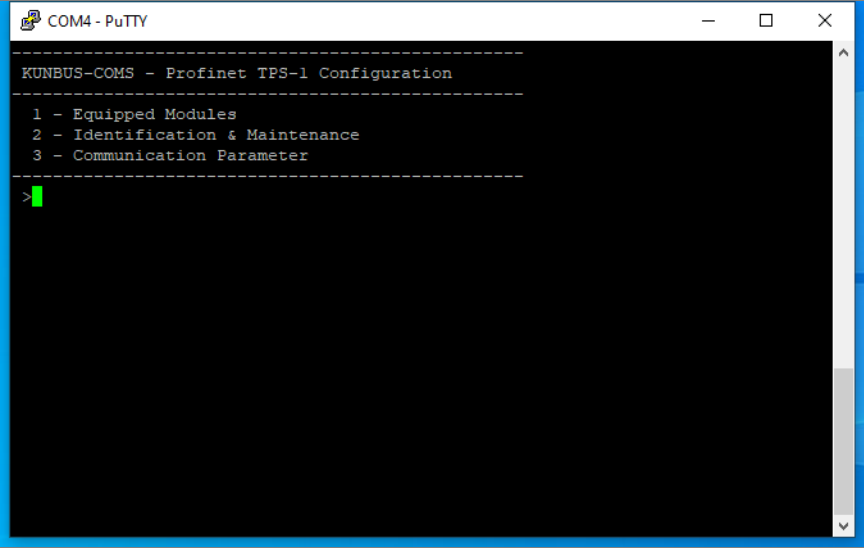
CDI - Module Information



CDI - Interface Configuration



CDI - Profinet TPS-1 Configuration

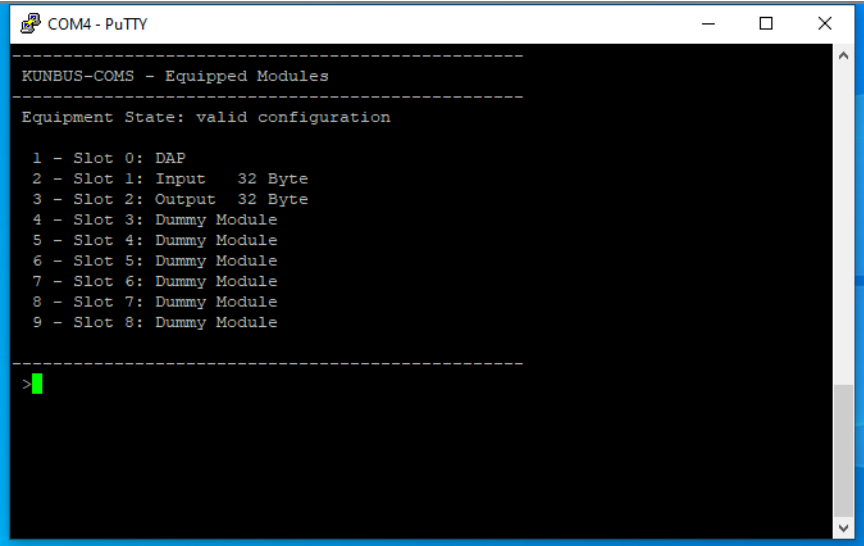


The screenshot shows a PuTTY terminal window titled "COM4 - PuTTY". The terminal content is as follows:

```
-----  
KUNBUS-COMS - Profinet TPS-1 Configuration  
-----  
1 - Equipped Modules  
2 - Identification & Maintenance  
3 - Communication Parameter  
-----  
>
```

6.

CDI - Equipped Modules



The screenshot shows a PuTTY terminal window titled "COM4 - PuTTY". The terminal content is as follows:

```
-----  
KUNBUS-COMS - Equipped Modules  
-----  
Equipment State: valid configuration  
  
1 - Slot 0: DAP  
2 - Slot 1: Input 32 Byte  
3 - Slot 2: Output 32 Byte  
4 - Slot 3: Dummy Module  
5 - Slot 4: Dummy Module  
6 - Slot 5: Dummy Module  
7 - Slot 6: Dummy Module  
8 - Slot 7: Dummy Module  
9 - Slot 8: Dummy Module  
-----  
>
```

7.

We are using 32 byte input and 32 byte output.

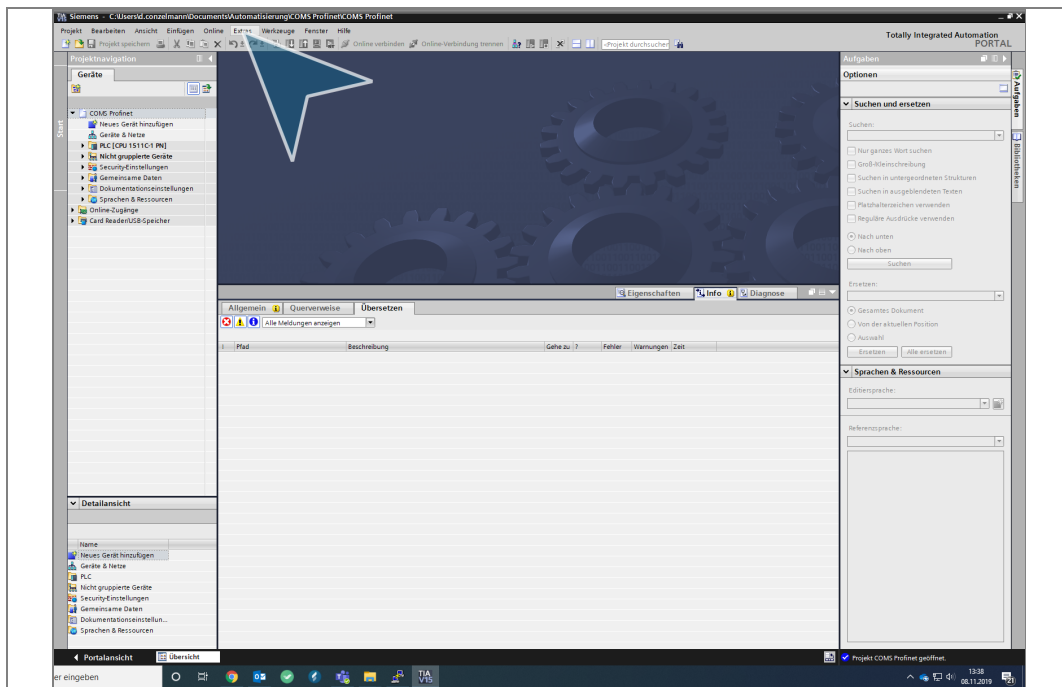
CDI - Config Identification & Maintenance

```

-----
KUNBUS-COMS - Config Identification & Maintenance
-----
1 - Vendor ID:          0x01e1
2 - Order ID:          100049
3 - Serial number:     4294967295
   Hardware Revision:  0x0001
   Software Revision:  V1.0.0
   Revision Counter:   0
   Profile ID:         0
   Profile specific type: 3
   Version              : 1.1
-----
>
  
```

8.

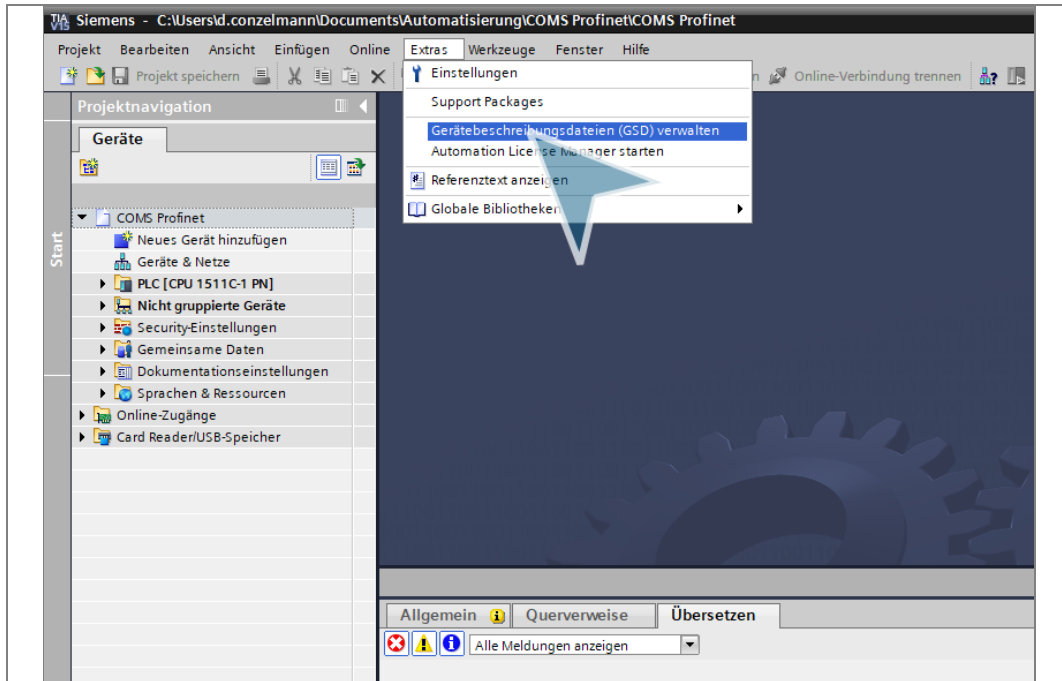
Here are useful informations like the Vendor-ID.



9.

Klick

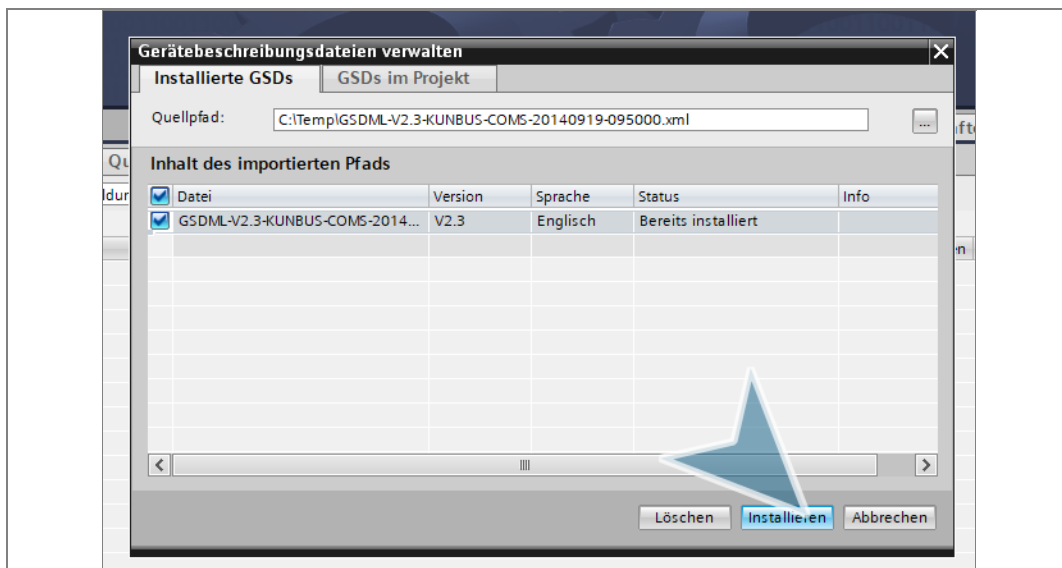
TIA Portal import GSDML



10.

Start the TIA Portal, import the GSDML file as follows.

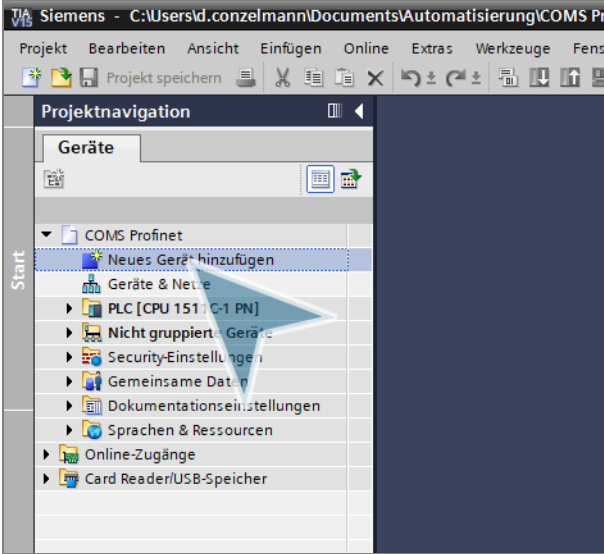
Install GSDML file



11.

Click the install button

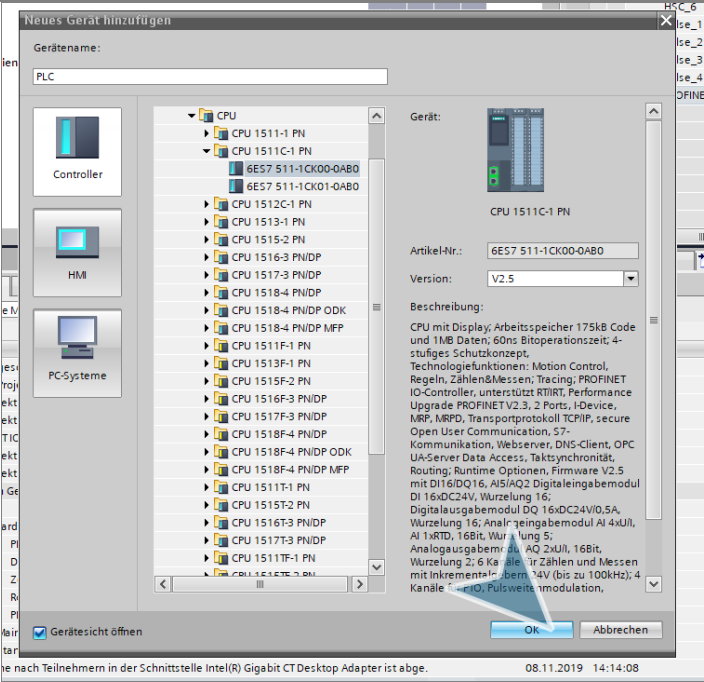
Configure PLC



12.

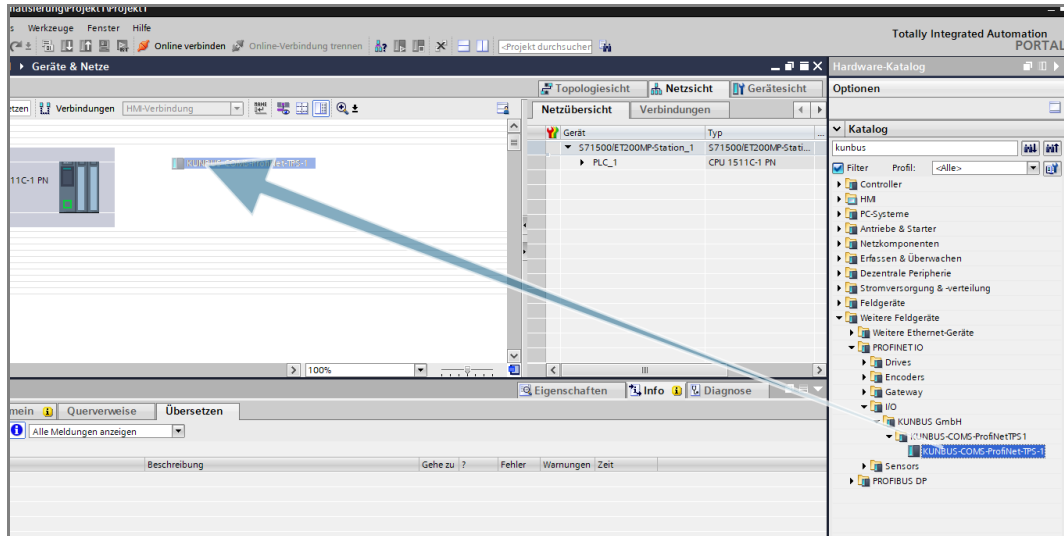
Click Add Device

Add PLC



13.

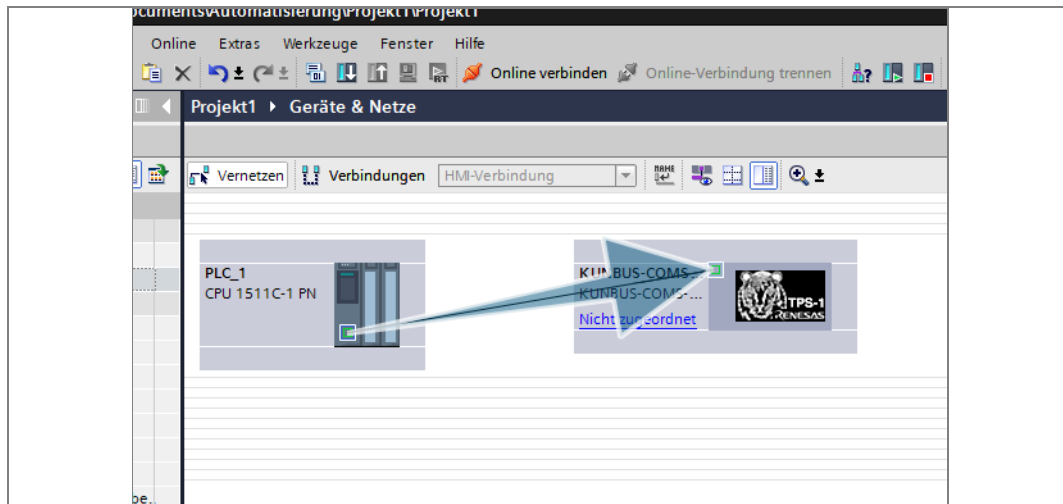
Add KUNBUS-COMS module



14.

You may search for "kunbus" in the catalogue. Then drag and drop the device.

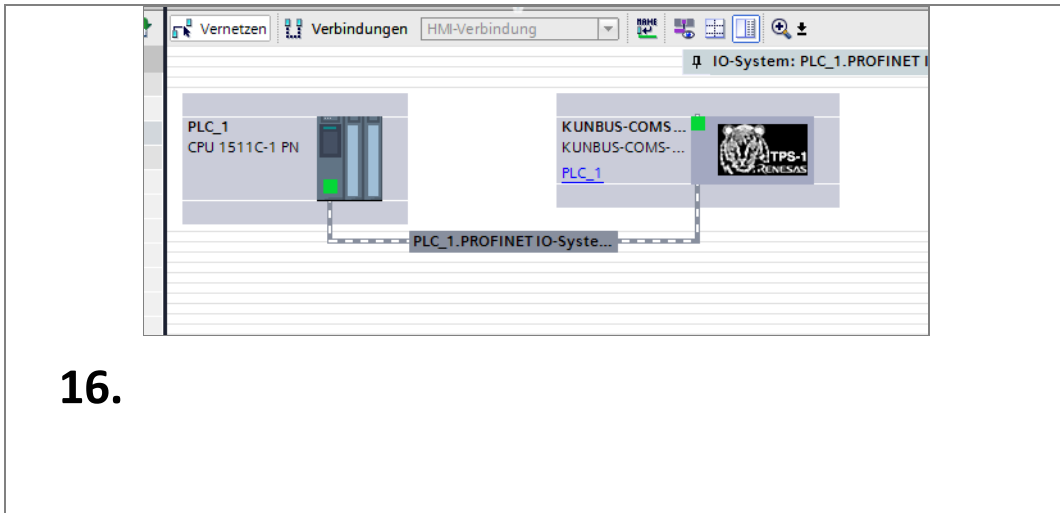
Connect PLC and Device



15.

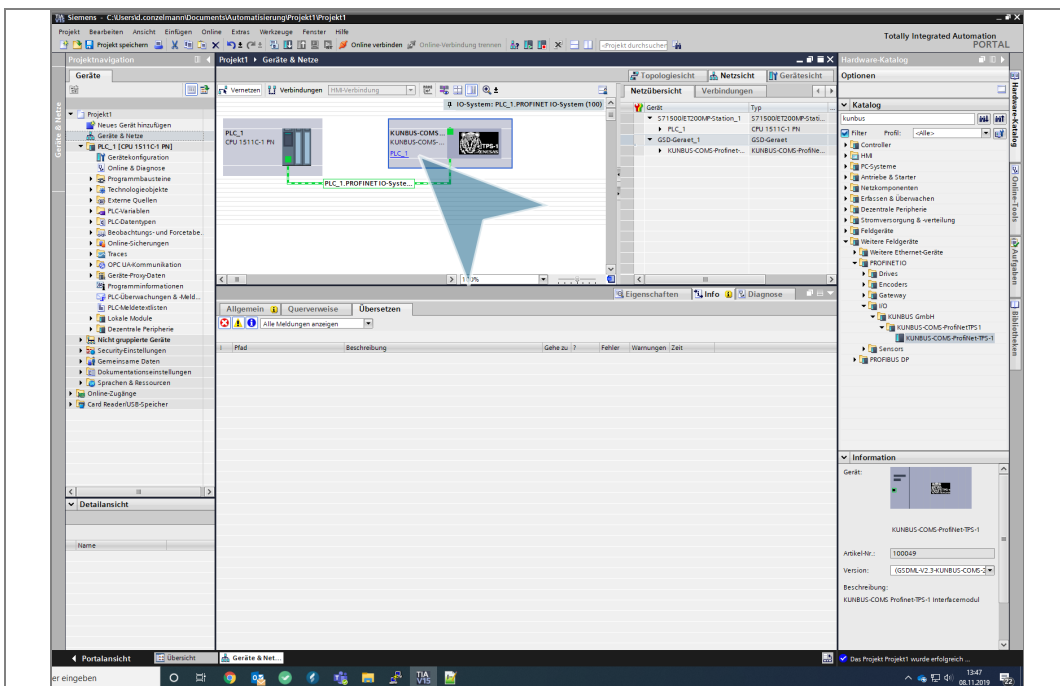
Connect the Profinet network devices

Connected devices



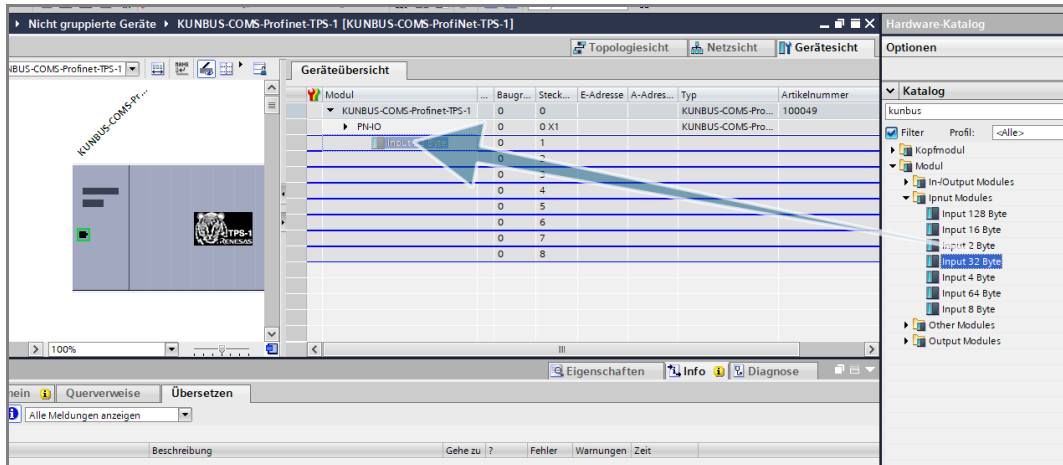
16.

Klick on KUNBUS-COM



17.

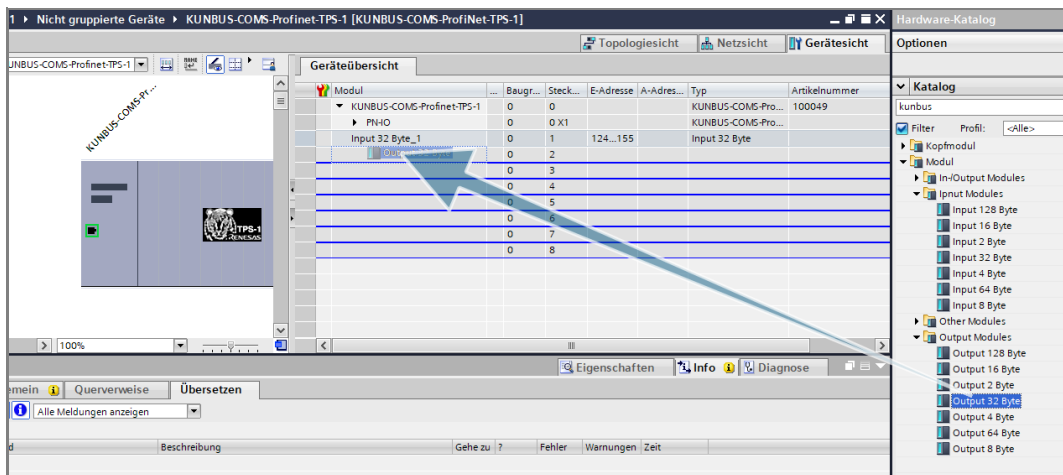
Configure the Input Module



18.

Drag the module "Input 32 Byte" to slot 1.

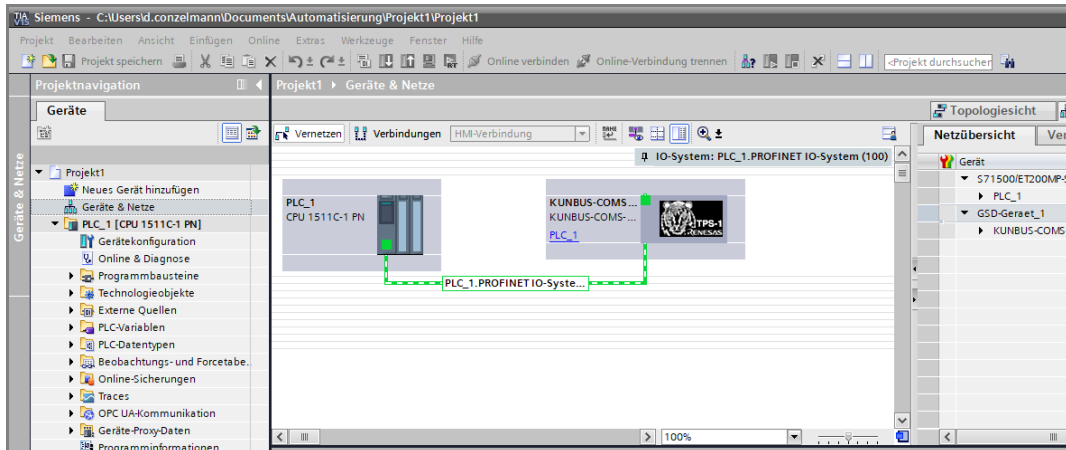
Configure the Output Module



19.

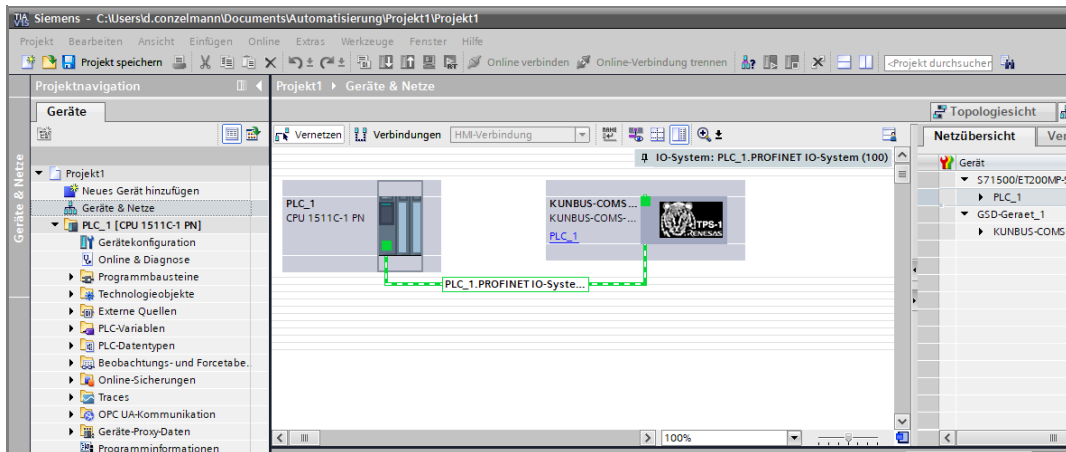
Drag the module "Output 32 Byte" to slot 2.

Overview of Profinet Network devices



20.

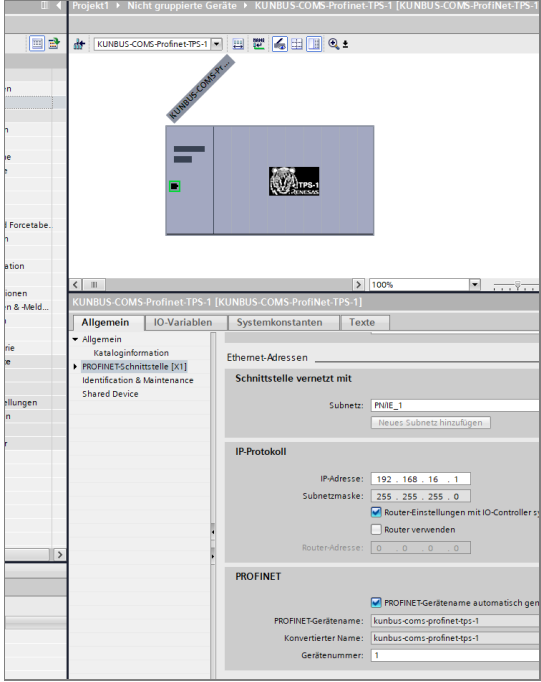
This is the Profinet Network with the two devices.



21.

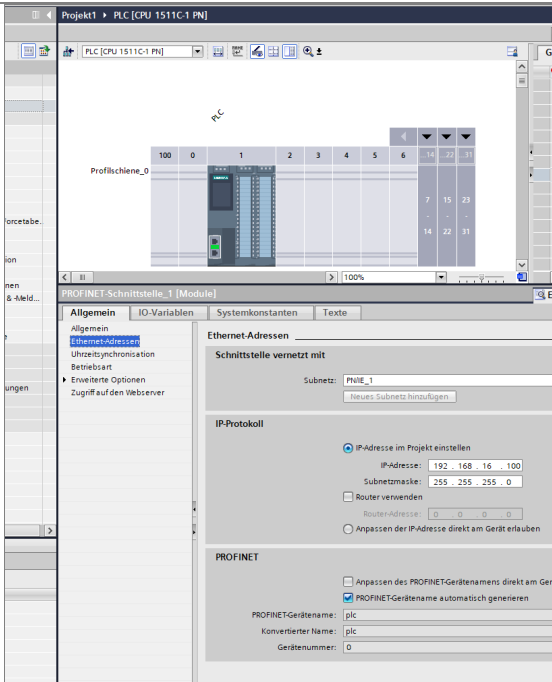
Klick „Grid-Control“

Profinet Configuration KUNBUS-COM



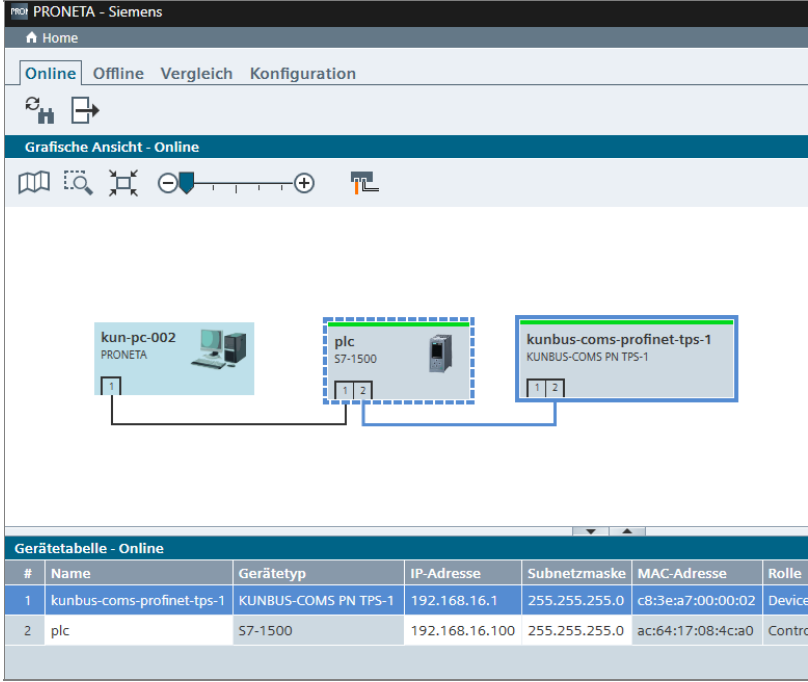
22.

Profinet Configuration PLC



23.

Verify the configuration

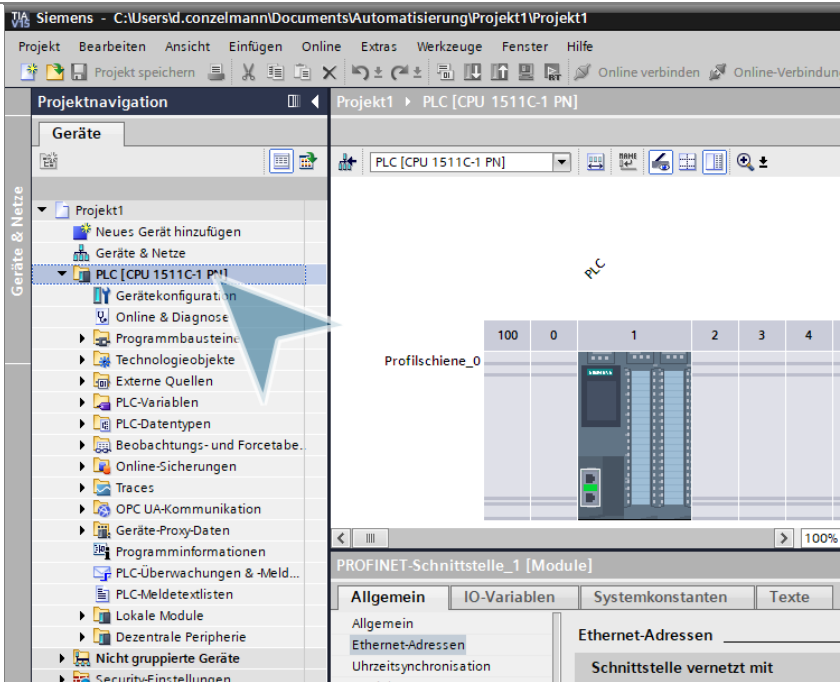


The screenshot shows the PRONETA - Siemens software interface. At the top, there are tabs for 'Online', 'Offline', 'Vergleich', and 'Konfiguration'. Below this is a 'Grafische Ansicht - Online' section with a network diagram showing three devices: 'kun-pc-002 PRONETA', 'plc S7-1500', and 'kunbus-coms-profinet-tps-1 KUNBUS-COMS PN TPS-1'. The 'plc S7-1500' device is highlighted with a dashed blue border. Below the diagram is a 'Gerätetabelle - Online' table with the following data:

#	Name	Gerätetyp	IP-Adresse	Subnetzmaske	MAC-Adresse	Rolle
1	kunbus-coms-profinet-tps-1	KUNBUS-COMS PN TPS-1	192.168.16.1	255.255.255.0	c8:3e:a7:00:00:02	Device
2	plc	S7-1500	192.168.16.100	255.255.255.0	ac:64:17:08:4c:a0	Contro

24.
Verify the configuration via the tool Proneta.

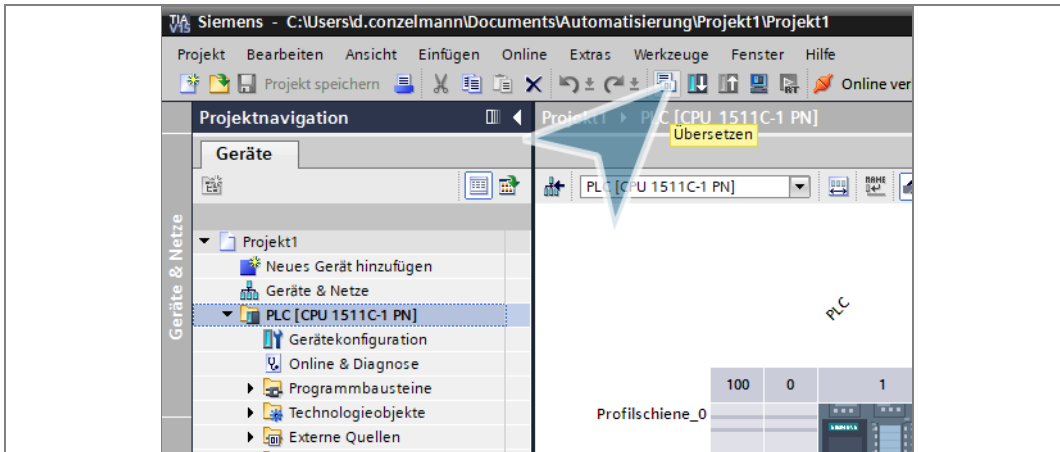
Select the PLC



The screenshot shows the Siemens TIA Portal software interface. The 'Projektnavigation' pane on the left is open, showing a tree view of the project structure. The 'Geräte & Netze' folder is expanded, and the 'PLC [CPU 1511C-1 PN]' device is selected. A blue arrow points to this device. The main workspace shows a 3D model of the PLC hardware. Below the model, the 'PROFINET-Schnittstelle_1 [Module]' configuration window is open, showing the 'Allgemein' tab with the 'Ethernet-Adressen' section. The 'Schnittstelle vernetzt mit' field is visible.

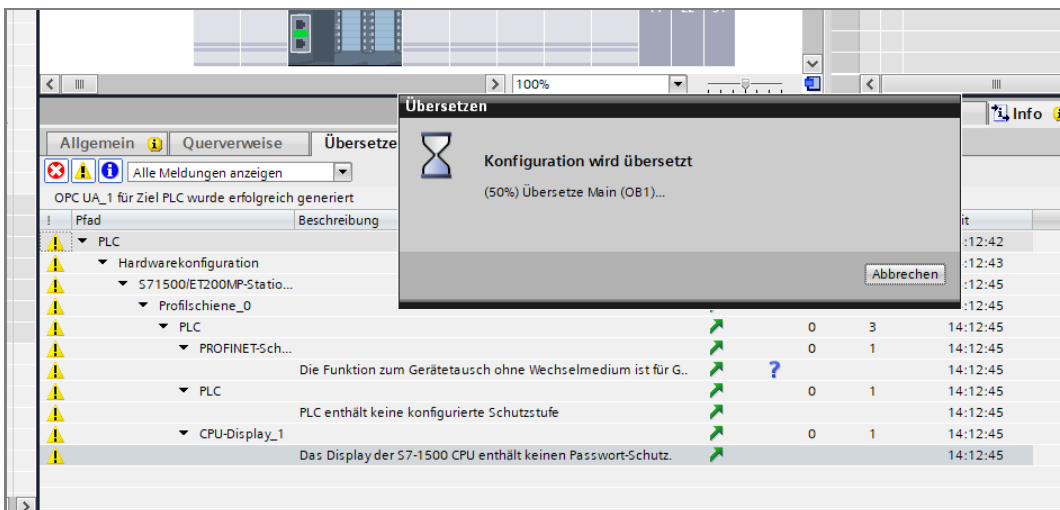
25.

Compile



26.

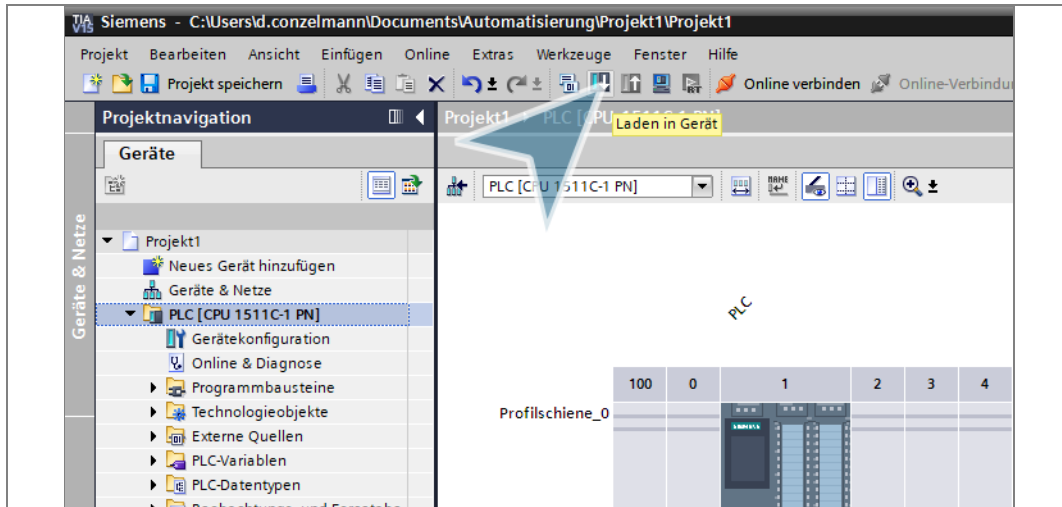
Click on "Compile"



27.

Klick auf „Application.Compile_ICO_PE_gTbCompile“ Button

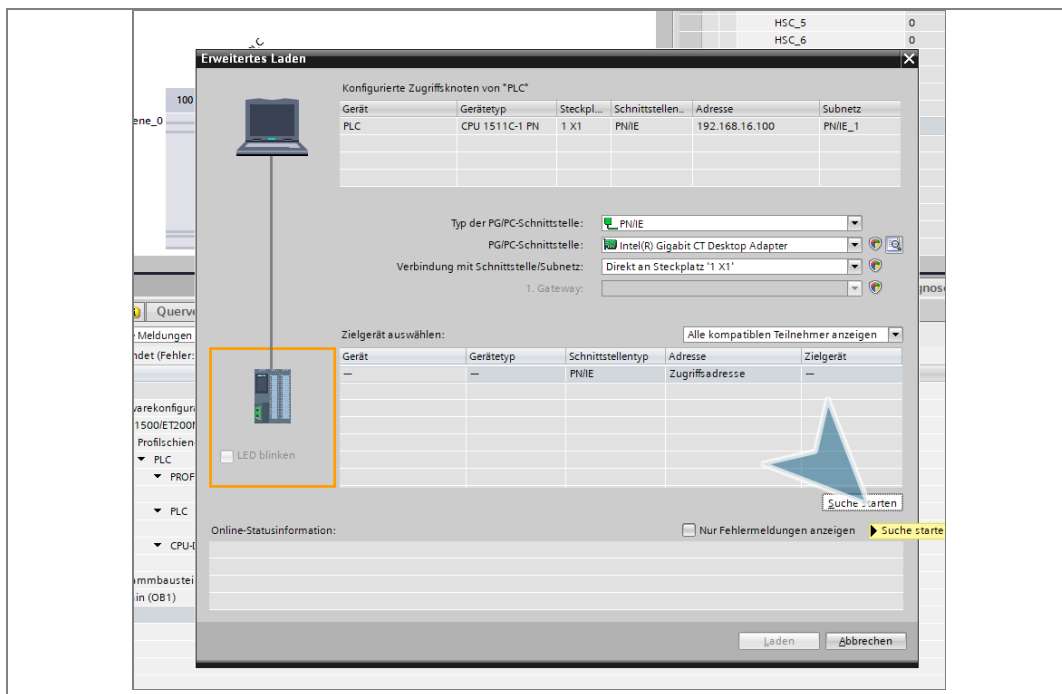
Download



The screenshot shows the Siemens SIMATIC Manager interface. The 'Projektnavigation' pane on the left shows a tree view with 'Geräte & Netze' expanded to 'PLC [CPU 1511C-1 PN]'. The main workspace shows a PLC rack with 'Profilschiene_0' and slots 100, 0, 1, 2, 3, 4. A blue arrow points to the 'Laden in Gerät' button in the top right corner of the workspace.

28.
Klick on download to device

Search PLC



The screenshot shows the 'Erweitertes Laden' dialog box. It contains a table of configured access nodes for the PLC:

Gerät	Gerätetyp	Steckpl...	Schnittstellen...	Adresse	Subnetz
PLC	CPU 1511C-1 PN	1 X1	PNIE	192.168.16.100	PNIE_1

Below the table, the 'Typ der PG/PC-Schnittstelle' is set to 'PNIE' and the 'PG/PC-Schnittstelle' is 'Intel(R) Gigabit CT Desktop Adapter'. The 'Verbindung mit Schnittstelle/Subnetz' is 'Direkt an Steckplatz '1 X1''. The 'Zielgerät auswählen:' section shows a table with a highlighted row:

Gerät	Gerätetyp	Schnittstellentyp	Adresse	Zielgerät
---	---	PNIE	Zugriffsadresse	---

A blue arrow points to the 'Suche starten' button at the bottom right of the dialog box.

29.
Klick start search

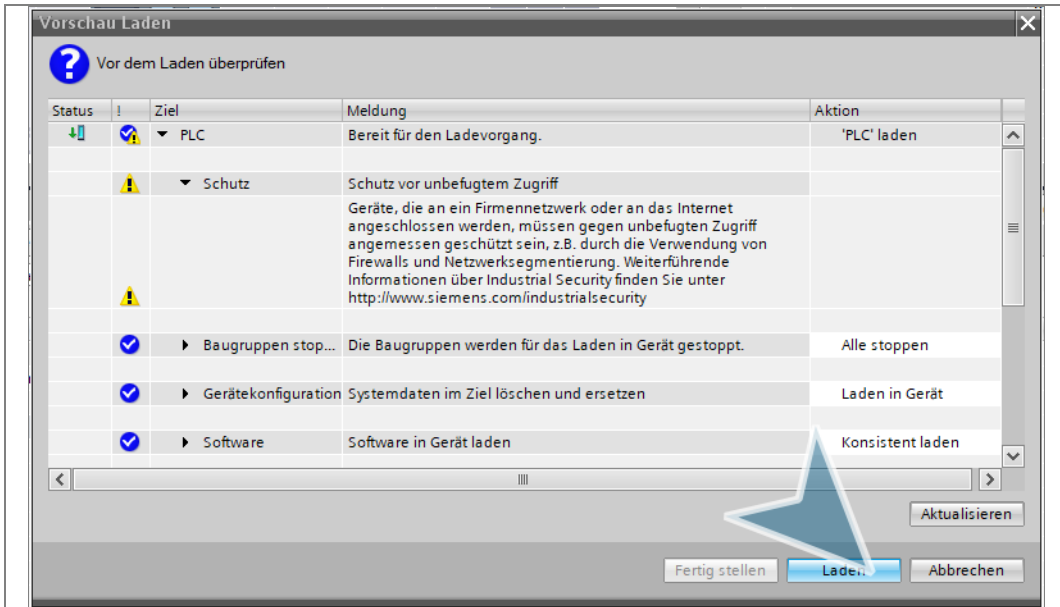
Load Software on the PLC

30.

Synchronize Software

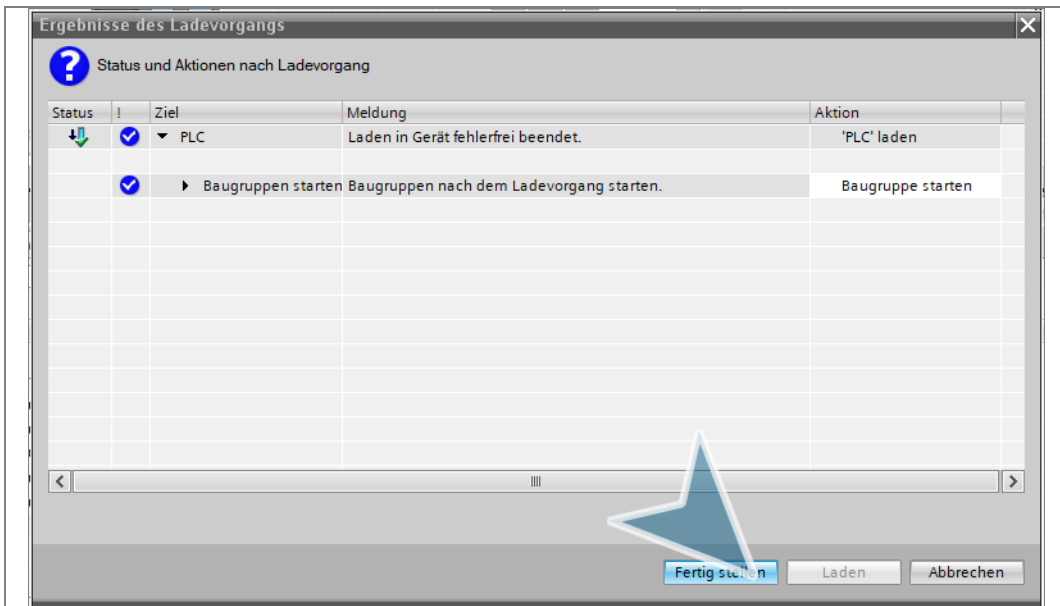
31.

Loading



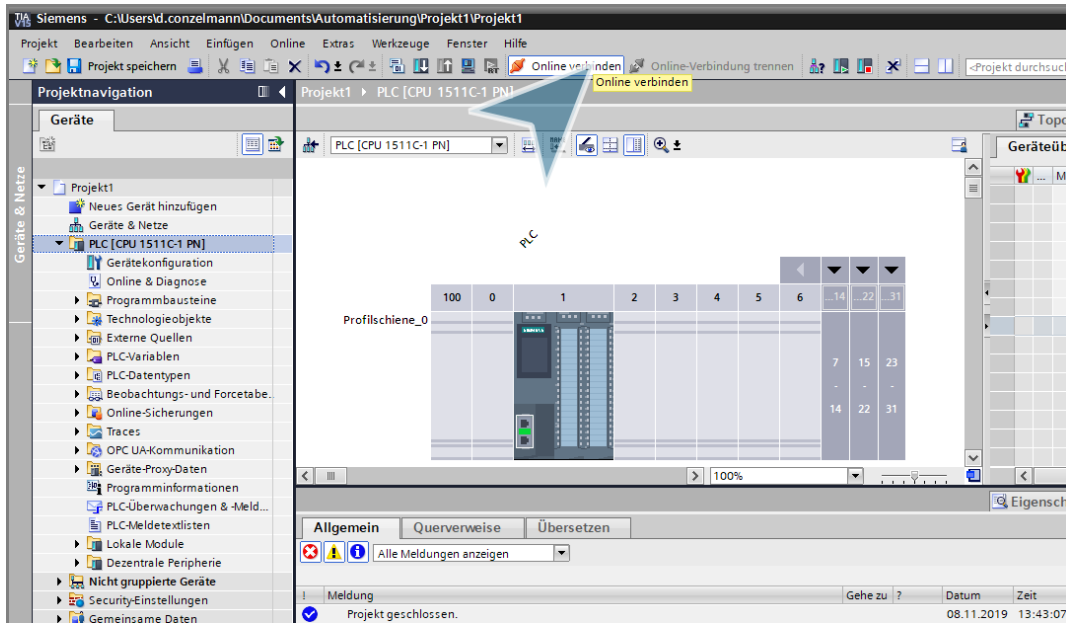
32.

Finish loading



33.

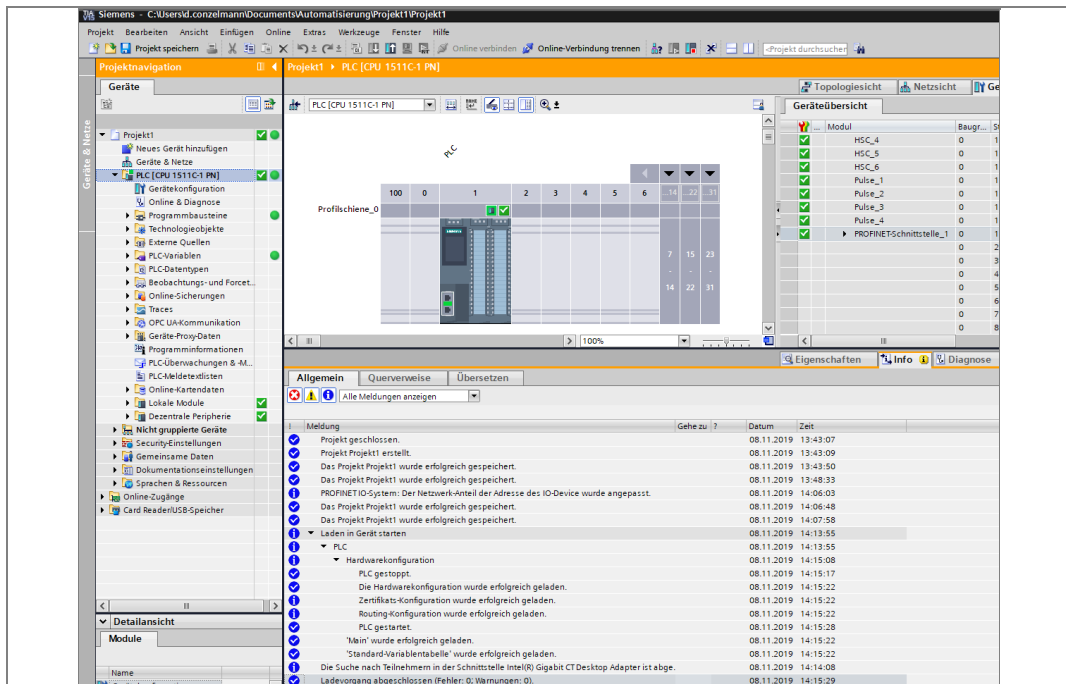
Online Connection



34.

Klick on online connection

Finish



35.

You have configured the Profinet Network. The green checkmarks indicate that the connections are successful.