JUMO variTRON 500 touch

Automation system

Central Processing Unit 705004

PROFINET interface description

70500407T92Z001K000

V1.00/EN/30050738/2024-04-29

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1.1 Warning symbols

DANGER!

This symbol indicates that **personal injury from electrocution** may occur if the appropriate precautionary measures are not taken.

WARNING!

This symbol in connection with the signal word indicates that **personal injury** may occur if the respective precautionary measures are not carried out.

CAUTION!

This symbol in connection with the signal word indicates that **material damage or data loss** will occur if the respective precautionary measures are not taken.

CAUTION!

This symbol indicates that **components could be destroyed** by electrostatic discharge (ESD = Electro Static Discharge) if the respective cautionary measures are not taken.

Only use the ESD packages intended for this purpose to return device inserts, assembly groups, or assembly components.

READ THE DOCUMENTATION!

This symbol, which is attached to the device, indicates that the associated **documentation for the device** must be **observed**. This is necessary to identify the nature of the potential hazard, and to take measures to prevent it.

1.2 Note symbols

NOTE!

This symbol refers to **important information** about the product, its handling, or additional benefits.

REFERENCE!

This symbol refers to **additional information** in other sections, chapters, or other manuals.

FURTHER INFORMATION!

This symbol is used in tables and indicates that **further information** is provided after the table.

DISPOSAL!

At the end of its service life, the device and any batteries present do not belong in the trash! Please ensure that they are **disposed of** properly and in an **environmentally friendly** manner.

1.3 Trademark information

All trademarks and trade and company names used are the property of their rightful owners or authors.

1 Introduction

1.4 About this documentation

This documentation was created on the basis of the PROFINET interface description of the JUMO variTRON 500 (document 70500207T92...).

In chapters 2 and 3, the device-specific information relating to the JUMO variTRON 500 (705002) has been replaced by the corresponding information on the JUMO variTRON 500 touch (705004).

Chapters 4 and 5 were taken from the JUMO variTRON 500 documentation. The information and instructions in these chapters also apply to the JUMO variTRON 500 touch.

Chapter 6 was also taken from the JUMO variTRON 500 documentation and supplemented with device-specific information relating to the JUMO variTRON 500 touch.

2 Compatibility and system requirements

2.1 Certification

JUMO variTRON 500 touch

The JUMO variTRON 500 touch automation system (product group 705004) is certified to Conformance Class B (abbreviated to CC-B) and net load class "Netload Class I."

The certificate is available for download from the product page on the Internet.

The following QR code or web address will take you to the product page:

qr-705004-en.jumo.info

2.2 PROFINET IO and Ethernet standard services

The PROFINET IO communication occurs in a parameterizable time pattern (RT channel). This ensures that the IO data are transferred in real-time without being affected by Ethernet standard services. The remaining time between the RT phases (NRT channel) is used for the communication between the Ethernet standard services. Broadband bottlenecks impair the performance of the standard services. The real-time capability of the PROFINET IO communication is guaranteed by the reserved RT channel.

2.3 Requirements for hardware, software, and cabling

Network installation

Any switches used to network PROFINET IO devices must support the following standards and functions:

- 100 Mbit/s (transfer rate of the switchports)
- Auto negotiation (automatic setting of the switchport transfer rate)
- Cut through (direct relaying of the data between the switchports)

  Full duplex support for the switchports

  IEEE 802.1 Q (VLAN support for at least 4 priority classes)

The network installation must be carried out so that it is compliant with the requirements of a 100BASE-TX Ethernet network with cabling to CLASS D or higher. The "PROFINET Cabling and Interconnection Technology" guideline also provides information on correct cabling.

JUMO variTRON 500 touch

To use PROFINET IO with the JUMO variTRON 500 touch, the device must meet the following minimum requirements:

- Device software version 446.8.0.0.44
- Hardware compatibility index (EM = electronic module):
  EM CPU: 7050040100100001.01.01
- CODESYS® SP17.3 engineering tool
- CODESYS® Runtime SP17.3
- CODESYS® compiler version 3.5.17.30
- CODESYS® PROFINET version V4.4.0.0
- JUMO smartWARE Setup variTRON version 432.8.0.0.50 or newer

2 Compatibility and system requirements

The device-related information can be displayed and reviewed with the aid of the device menu. The CODESYS® versions must be checked accordingly in the engineering tool.

If the device menu is not available (e.g. in the case of a test version), the device-related information can be viewed with a web browser in the JUMO Web Cockpit (<IP address>:8090).

The certification applies to the following CODESYS® task settings:

Task	Priority	IEC cycle time
Profinet_IOTask	0	1
Profinet_CommunicationTask	14	10
MainTask	30	125
Visu_TASK	31	100

Versions of device software and hardware

The versions of the individual software and hardware components can be found in the device menu.

Main menu > Device info > Device information > Software versions

The following information can be read out:

- Bootloader version
- Software version
- Application building kit version
- Operating system version
- Version type

Main menu > Device info > Device information > Hardware versions

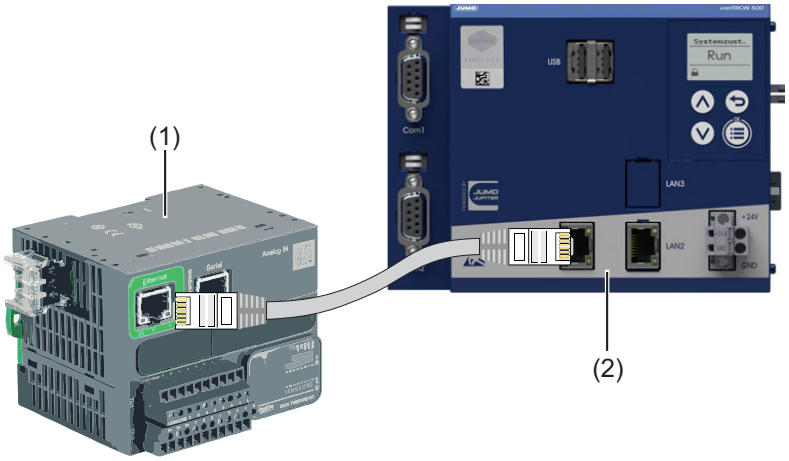
The following information can be read out for each category, as shown by way of example:

- Bus: Hardware type, hardware version, compatibility index, CB-ID (circuit board ID)
- Ethernet (option)

Cabling

The JUMO field device with PROFINET IO interface is a single-port PROFINET device. It can be connected to the end of a line or in a star design to an IO controller, an IO supervisor (programming device and/or PC for project planning), or other Ethernet components such as switches and routers.

Example with JUMO variTRON 500 (705002):



(1) PROFINET IO controller (PLC, control station PC, or similar)
(2) JUMO PROFINET IO devices (LAN1 is configurable as an IO device in CODESYS®)

NOTE!

The cyclical data exchange with JUMO PROFINET IO devices is based on the RT protocol. PROFINET RT communication cannot be routed. It is thus necessary that the PROFINET IO controller and the IO devices be in a common broadcast domain (not connected via a router). Ethernet standard services (web server, access via JUMO setup program and email function) and NRT communication (e.g. project planning on the IO supervisor, system boot, noncyclical data) also function via routers as before.

JUMO variTRON 500 touch

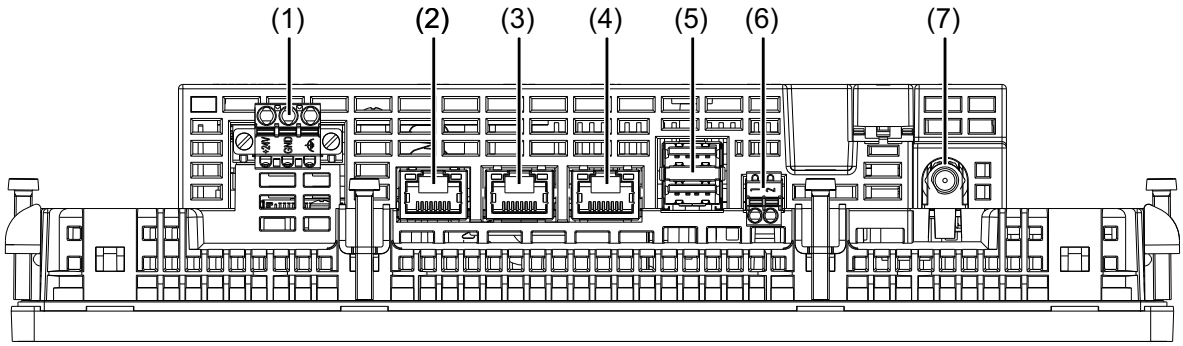


Fig. 3-1 Connection elements of JUMO variTRON 500 touch

1 Voltage supply and functional ground
2 **Interface LAN3 (Ethernet), optional**
3 **Interface LAN2 (Ethernet/PROFINET IO device)**
4 **Interface LAN1 (Ethernet/JUMO system bus)**
5 2 USB host interfaces
6 Interface COM (RS485)
7 Antenna connector for wireless interface, optional

3 Electrical connection

In principle, every LAN interface in CODESYS® can be configured as a PROFINET IO device interface (incl. Ethernet; extra code). However, if input/output modules (incl. multi-channel controller modules, router modules) of type 7050xx are to be connected to the central processing unit via the JUMO system bus, LAN1 must be used for this. LAN1 is therefore neither available as a PROFINET IO device interface nor for other Ethernet applications.

Example:

- LAN1: JUMO system bus
- LAN2: Ethernet/PROFINET IO device (if possible, do not use for setup program)
- LAN3 (optional) or eth0 via USB-Ethernet converter: Ethernet (setup program, JUMO Web Cockpit, visualization)

4.1 General information

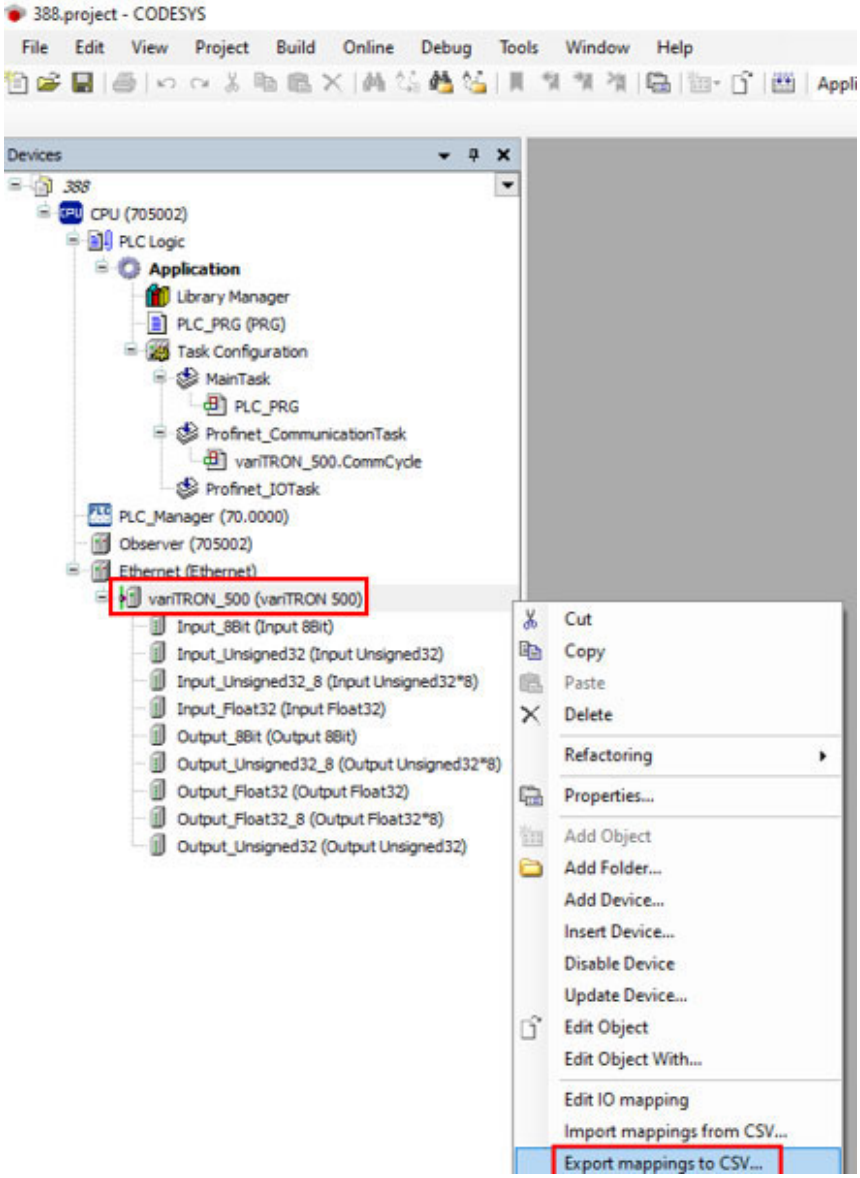
The GSDML file of the JUMO field device contains all the information required to provide your PLC engineering system with the PROFINET IO functionality. The file must be imported into the engineering system so that the field device is available here for project planning. After the import, the field device and its IO functions can be integrated into the programming of your PLC projects.

4.2 Module description

4.2.1 Module concept

The PLC programmer can choose how to put together the IO items that will be transferred via PROFINET IO. Up to 19 modules are available for this purpose, which can be placed into slots 1 to 64. In contrast to other JUMO IO devices, on the JUMO variTRON 500 no module is permanently integrated in a particular slot. All available modules are provided as optional extras and can be integrated and positioned as required. The IO items to be transferred for the individual modules should be considered placeholders that the PLC programmer needs to fill with the relevant contents (variables).

The finished module configuration can be exported as a CSV file and printed to serve as the basis for the project planning of the IO controller, as shown below.



In the project configuration of the IO controller, the modules to be transferred via the PROFINET IO have to be assigned to the free slots of the JUMO IO device in the project structure of the IO controller. The IO items of the inserted modules are then available for the programming of the IO controller. The assignment of the JUMO field device data to the IO items of the individual modules is provided for the programmer in the exported/printed module configuration list.

⇨ chapter 5 "Project planning", Page 15

4.2.2 Modules

Configurable modules of the JUMO variTRON 500

The configurable modules are intended exclusively for transferring cyclical IO items.

The JUMO variTRON 500 supports up to 64 slots in total in the device and 64 slots in the IO controller project. The possible types of configurable modules are listed in the table below.

Module designation	Module types (from the perspective of the IO controller)	Data type	Data direction IO controller
Input 8Bit	Input values	USINT8 (bit field)	Read
Output 8Bit	Output values	USINT8 (bit field)	Write
InOut 8Bit	Input values	USINT8 (bit field)	Read
	Output values	USINT8 (bit field)	Write
InOut 64 Byte	Input data field (64 bytes)	64x BYTE	Read
	Output data field (64 bytes)	64x BYTE	Read
Input Unsigned32	Input value	USINT32	Read
Output Unsigned32 DataRecord	Output value	USINT32	Write
Output Unsigned32	Output value	USINT32	Write
InOut Unsigned32	Input value	USINT32	Read
	Output value	USINT32	Write
Input Unsigned32*8	8x input value	8x USINT32	Read
Output Unsigned32*8	8x output value	8x USINT32	Write
InOut Unsigned32*8	8x input value	8x USINT32	Read
	8x output value	8x USINT32	Write
Input Float32	Input value	REAL	Read
Output Float32	Output value	REAL	Write
InOut Float32	Input value	REAL	Read
	Output value	REAL	Write
Input Float32*8	8x input value	8x REAL	Read
Output Float32*8	8x output value	8x REAL	Write
InOut Float32*8	8x input value	8x REAL	Read
	8x output value	8x REAL	Write
InOut Structured	2x input values	2x USINT8 (bit field)	Read
	Input value	USINT16	Read
	Input value	USINT32	Read
	Input value	USINT64	Read
	2x output values	2x USINT8 (bit field)	Write
	Output value	USINT16	Write
	Output value	USINT32	Write
	Output value	USINT64	Write
Module with Subslots	For each pluggable subslot: 4x input/output values	For each subslot: 4x USINT32	Read/write

Tab. 4-1 Module overview (optional modules)

NOTE!

According to the GSDML file, the "Output Unsigned32 DataRecord" module contains non-cyclical data that is not evaluated in the device. For this reason, this data must not be used.

4 The GSDML file

5.1 Project integration of JUMO IO devices in CODESYS®

This chapter provides a general description of how to integrate a JUMO IO device into an engineering system such as CODESYS®.

The two subsequent chapters contain detailed instructions for configuring and integrating a JUMO IO device using the JUMO variTRON 500 by way of example.

⇨ chapter 5.2 "Configuring the JUMO IO device", Page 17

⇨ chapter 5.3 "Project integration of JUMO IO device into IO controller", Page 26

NOTE!

The JUMO IO device uses the **little endian format** – please note this when configuring the IO controller and set it if required. Otherwise the transferred data will not be interpreted correctly!

For JUMO field devices to be integrated into the project structure of the IO controller as an IO device, the GSDML file of the respective device must be imported into the engineering system of your IO controller. The GSDML file describes all PROFINET IO features of IO devices and delivers to the engineering system all the information required for the project planning phase. This file is located on the DVD from the scope of delivery of your JUMO field device, or can alternatively be downloaded from the JUMO website. Once the GSDML file has been imported into the engineering system, the corresponding field device is available as an IO device in the engineering system (e.g. "Hardware catalog" for SIMATIC® or "Device repository" for CODESYS®), and can be incorporated into the hardware structure of your projects. With JUMO IO devices, modules can then be added as slots. In the engineering system, modules are treated as modular devices for expanding IO devices. They are selected from the engineering system catalog and assigned to the slots in the JUMO IO device. The procedure for integrating devices into project structures is described in the documentation for the engineering system of your IO controller.

Process

1. Import the GSDML file of your JUMO IO device into the engineering system of your IO controller.

NOTE!

The GSDML file for the current device version is located on the DVD from the scope of delivery of your JUMO field device. Alternatively, you can download the GSDML file from the JUMO website.

2. Configure the PROFINET modules for your JUMO field device using the setup program (JUMO smartWARE Setup variTRON).
3. Integrate the desired JUMO field device into the project structure of your IO controller. Make sure the device software version matches the version data of the JUMO field device integrated into the project structure.

NOTE!

The exact procedure for integrating PROFINET IO devices can be found in the description of your engineering system.

4. Assign a device name.

NOTE!

Engineering systems offer a function for identifying field devices. If JUMO field devices are addressed via the "Identification function" of the engineering system, this is signaled by the flashing of the front display.

5. Set the communication parameters (device name, IP address, etc.) of the JUMO field device in the project structure of the IO controller.

6. The JUMO IO device uses the little endian format – please note this when configuring the IO controller and set it if required.
7. Insert the configured modules in the project structure of the IO controller in the desired slot position on the JUMO IO device.

NOTE!

The finished module configuration can be exported as a CSV file and printed to serve as the basis for the project planning of the IO controller.

⇨ chapter 4.2.1 "Module concept", Page 11

The IO data of the JUMO IO device are now available for the programming of the IO controller.

5.2 Configuring the JUMO IO device

Using the JUMO variTRON 500 by way of example, this chapter explains how to integrate and configure a PROFINET IO device in CODESYS® using the setup program (JUMO smartWARE Setup variTRON) so that it can be found by an IO controller. This can then assign the IO device a device name and an IP address.

First, configure the network settings of the JUMO variTRON 500 using the device display:

⇨ chapter 5.2.1 "Network settings", Page 17

Then use the setup program to create and open a CODESYS® project:

⇨ chapter 5.2.2 "Configuration in CODESYS® (using the setup program)", Page 18

The configuration process for the PROFINET IO device is described in steps 1 to 8. Once the configuration work is complete, close the CODESYS® project in the setup program and apply the changes. You can then load the application into the JUMO variTRON 500.

The CODESYS® project can also be transferred directly from CODESYS® into the JUMO variTRON 500. Direct transfers from CODESYS® are described in steps 12 to 14.

NOTE!

If possible, configuration should not be carried out via the LAN interface used for PROFINET. Otherwise an error message will occur when starting up the system for the first time.

⇨ chapter 6.2 "Error message in the setup program", Page 35

Use either a free LAN port or a USB Ethernet adapter (eth0 in the device info).

5.2.1 Network settings

On the JUMO variTRON 500 touch, the network settings are configured using the device display.

In the following example, LAN2 is used as an interface for PROFINET IO device (LAN1 is intended for the JUMO system bus).

Process:

1. Unlock the configuration: **Device menu > User management > Log in**
   a) Select user (e.g. master).
   b) Enter password.
   The configuration will be unlocked.
2. Configure IP parameters for LAN2 (use IP address as in IO controller):
   Device menu > Configuration > Ethernet > LAN2
   a) Select method (manual IP/automatic IP via DHCP):
   Manual
   b) Set IP address (as in the IO controller; required for project planning):
   Example: 192.168.0.3
   c) Set subnet mask:
   Example: 255.255.255.0
   d) Check and if necessary set standard gateway:
   0.0.0.0
3. Save changes by clicking the "check mark" button.
4. Exit the configuration by pressing the "Back" button several times.

NOTE!

Check the device information to see whether the IP settings for LAN2 have been correctly applied: **Device menu > Device info > Ethernet > LAN2**

The configured IP address is displayed there if there is an active LAN connection.

5.2.2 Configuration in CODESYS® (using the setup program)

NOTE!

CODESYS® SP17.3 and the setup program (JUMO smartWARE Setup variTRON) must have been installed on the PC being used. The setup program is provided on the supplied DVD or alternatively you can download it from the JUMO website.

NOTE!

This document does not cover how to start the setup program, create a project in the setup program, or start the CODESYS PLC programming system.

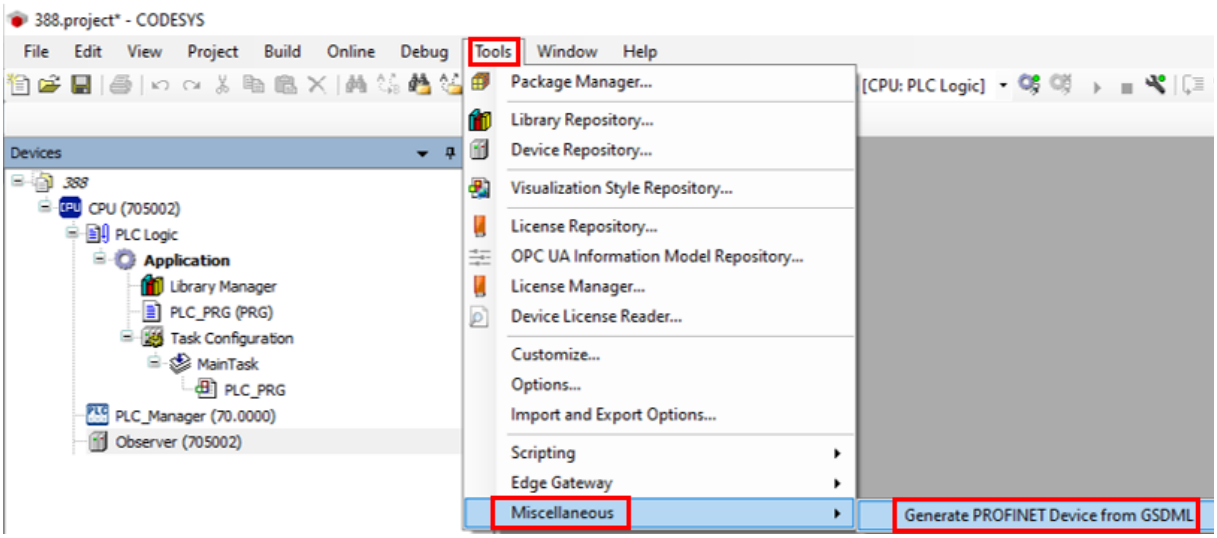
These topics are covered in the operating manual for the JUMO variTRON 500 (705002). The operating manual can be downloaded from the relevant product page (705002) on the JUMO website (see chapter 2.1).

Process:

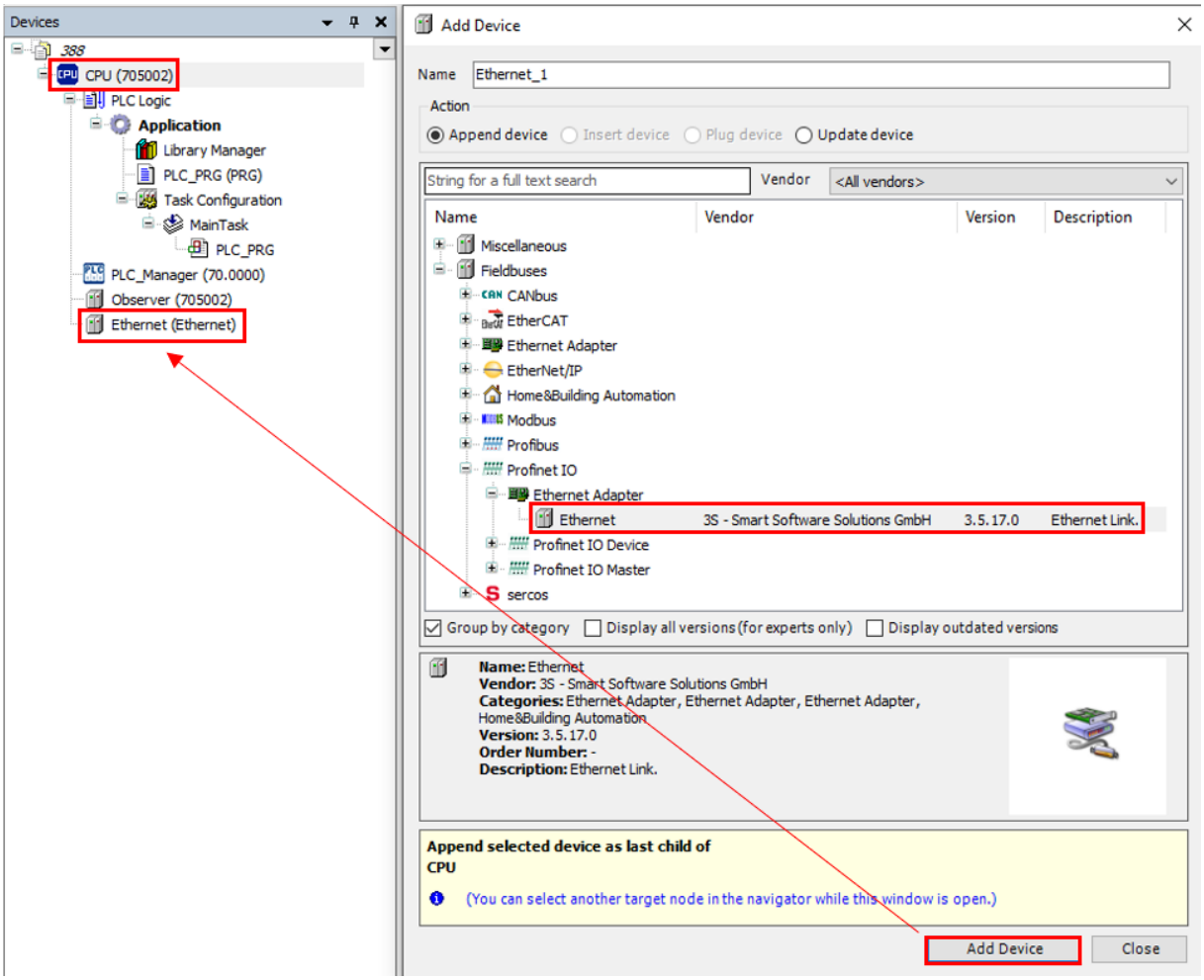
1. Install PROFINET device (JUMO variTRON 500) (install GSDML file).

NOTE!

The GSDML file for the current device version is located on the DVD from the scope of delivery of your JUMO field device. Alternatively, you can download the GSDML file from the JUMO website.

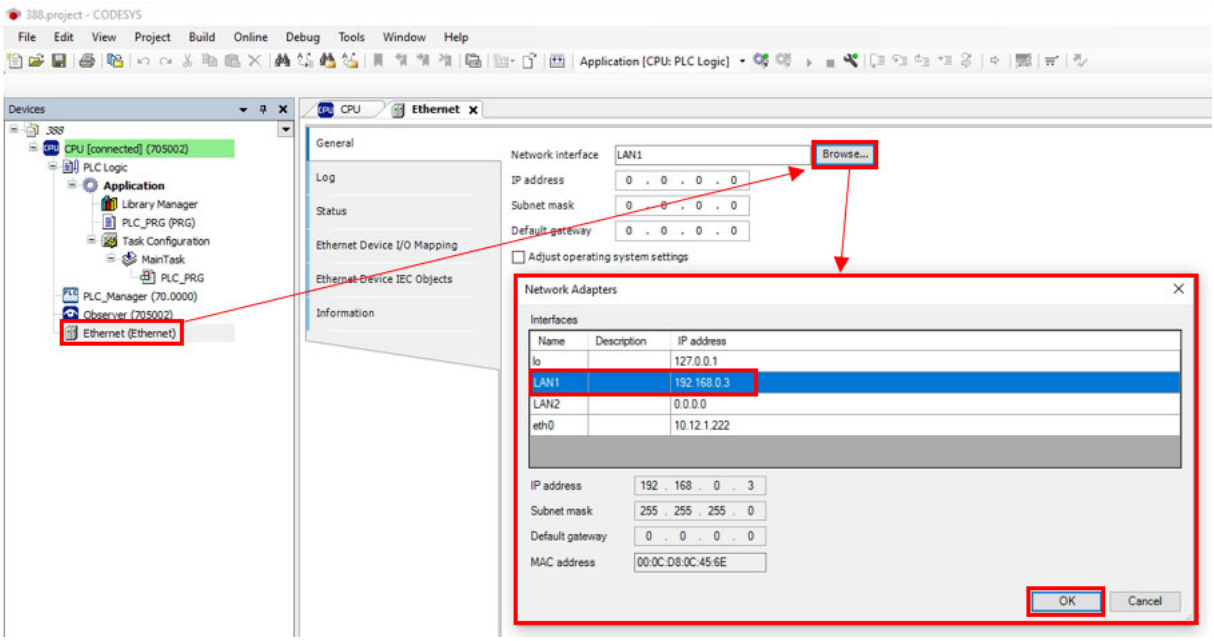


2. Create Ethernet interface.

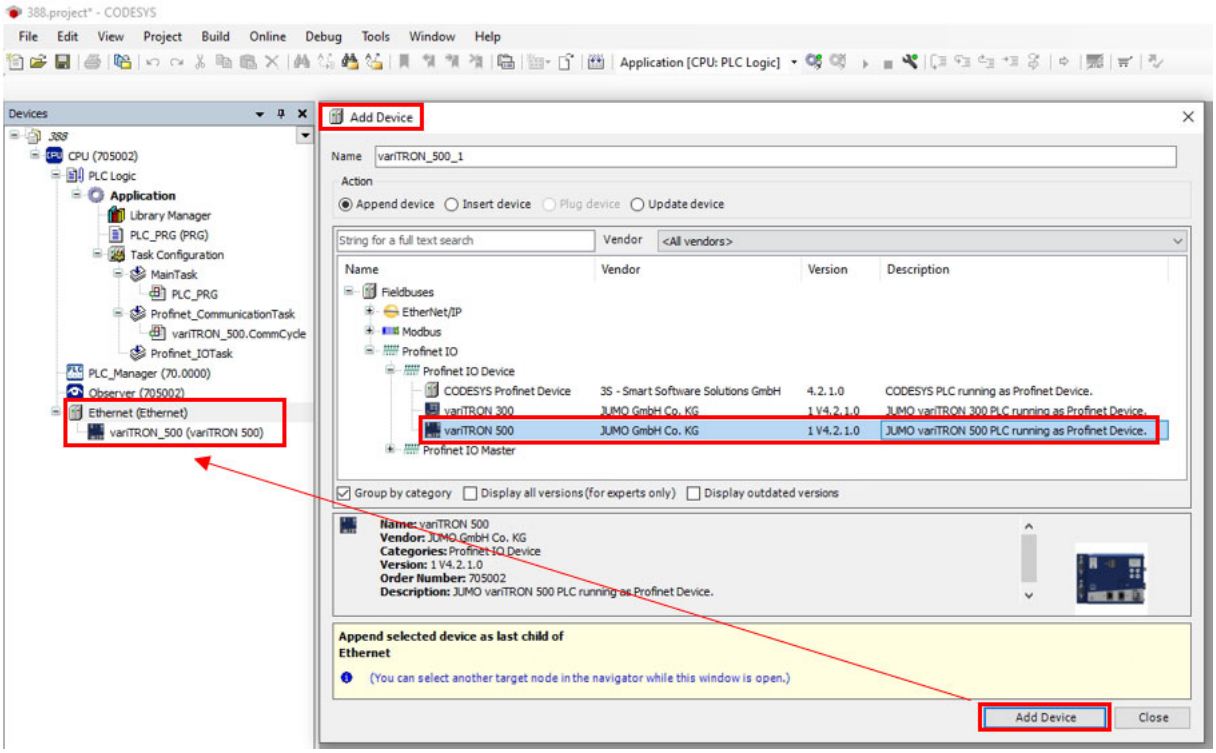


3. Configure network settings.

   The IP address must be identical to the IP address of the device created in the IO controller. Click **Browse…** to select the PROFINET interface (LAN port). Here, select the interface that you previously configured manually (with the IP address 192.168.0.3 by way of example). With the JUMO variTRON 500, this is always LAN1 (as shown in the following figure), with the JUMO variTRON 500 touch, for example, LAN2.

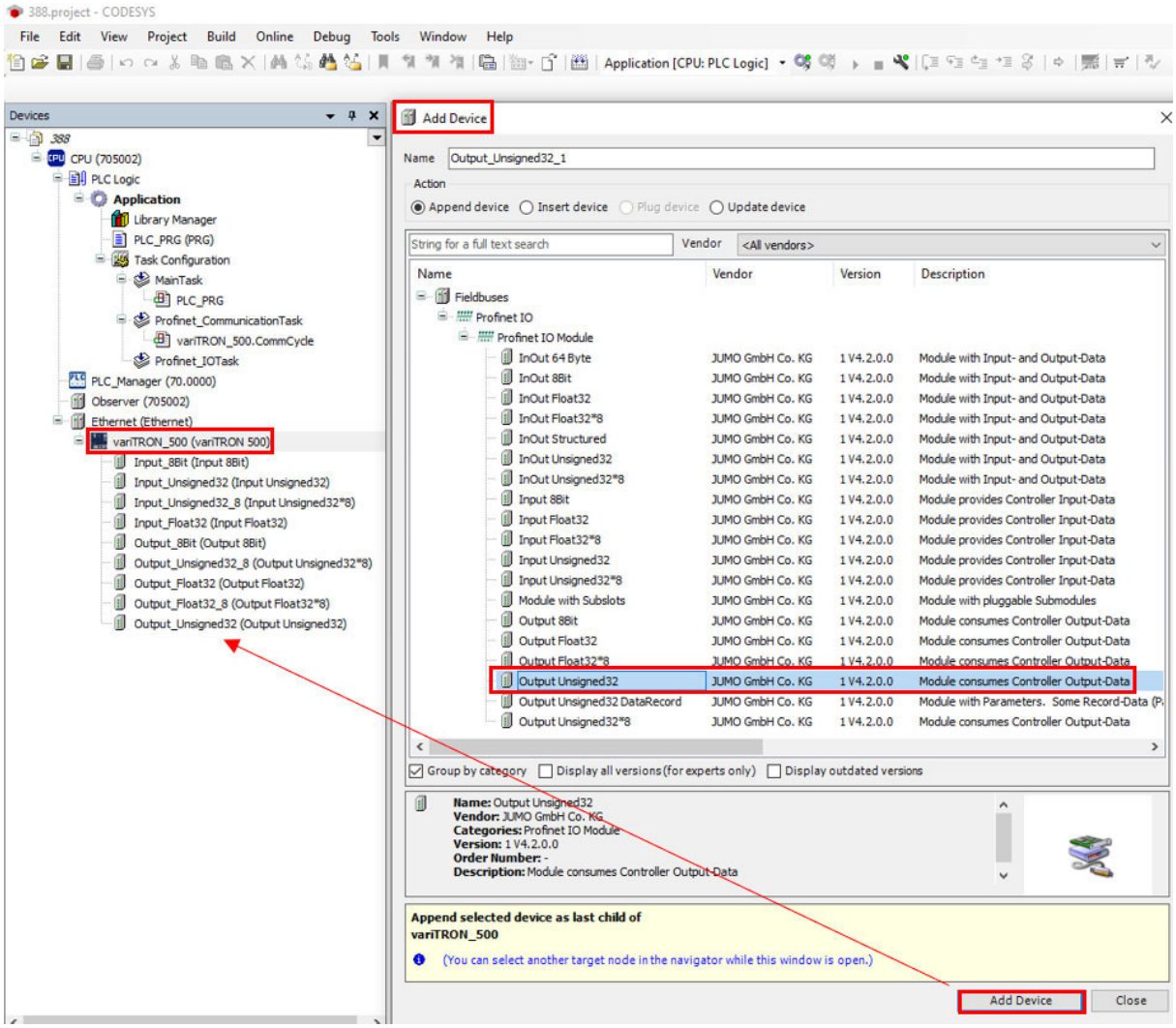


4. Click **Add Device** to add PROFINET device to Ethernet interface.

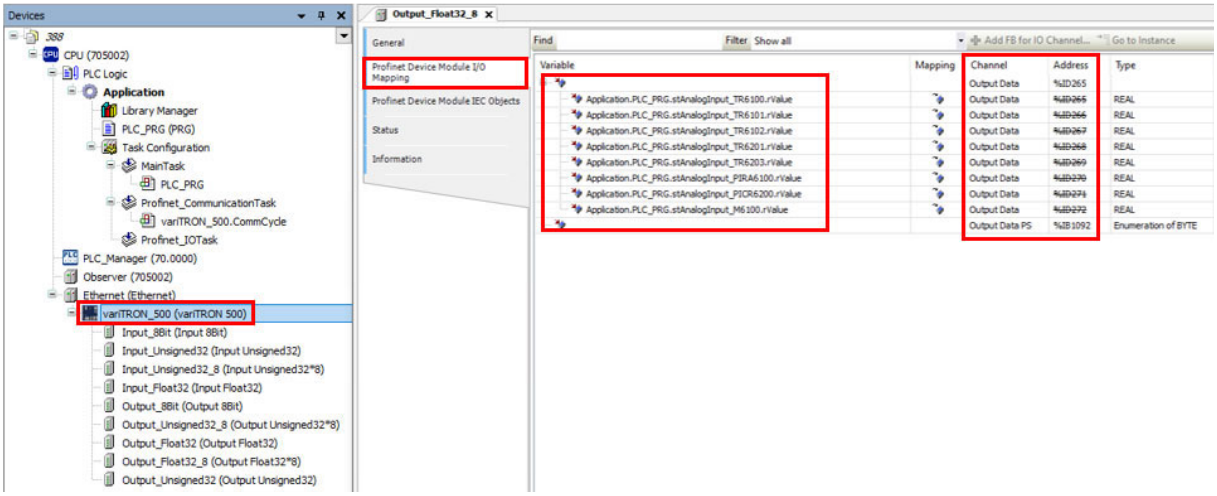


5. Click Add Device to create an IO mapping of the PROFINET device (must be identical to the device in the IO controller).

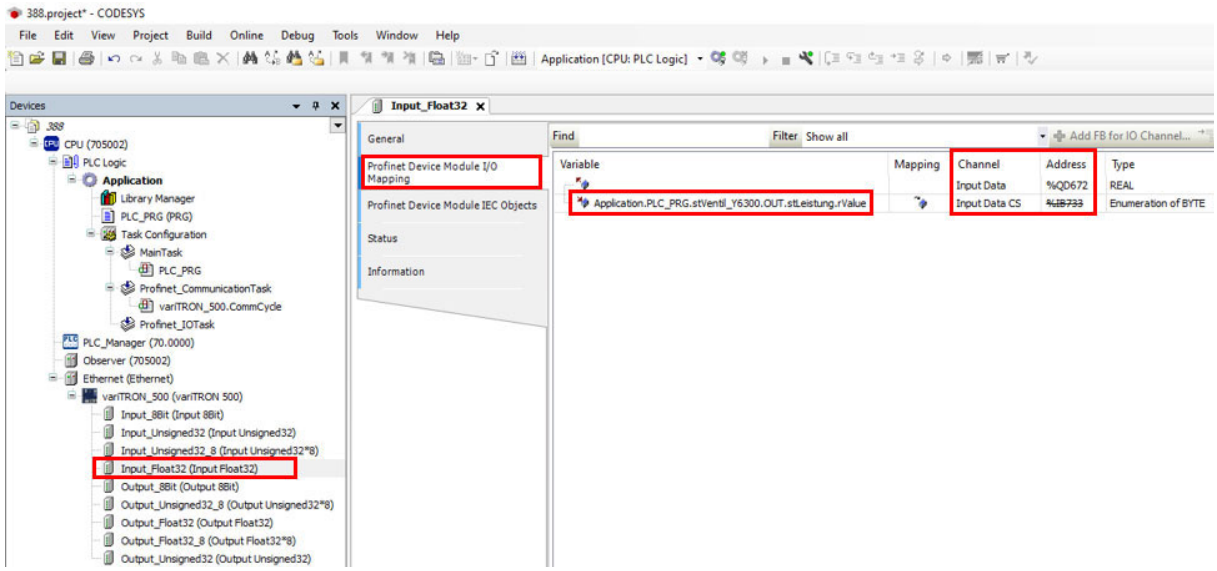
   chapter 4.2.2 "Modules", Page 12



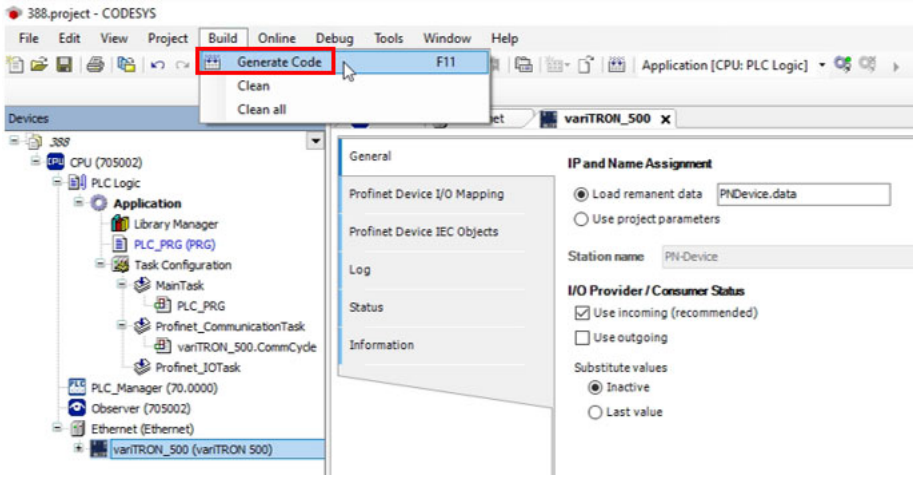
6. Map variables for IO mapping (receive 8 float values **from** controller).



7. Map variables for IO mapping (provide 1 float value **for** controller).



8. Generate the code so that the application can be loaded into the JUMO variTRON 500 afterward.



NOTE!

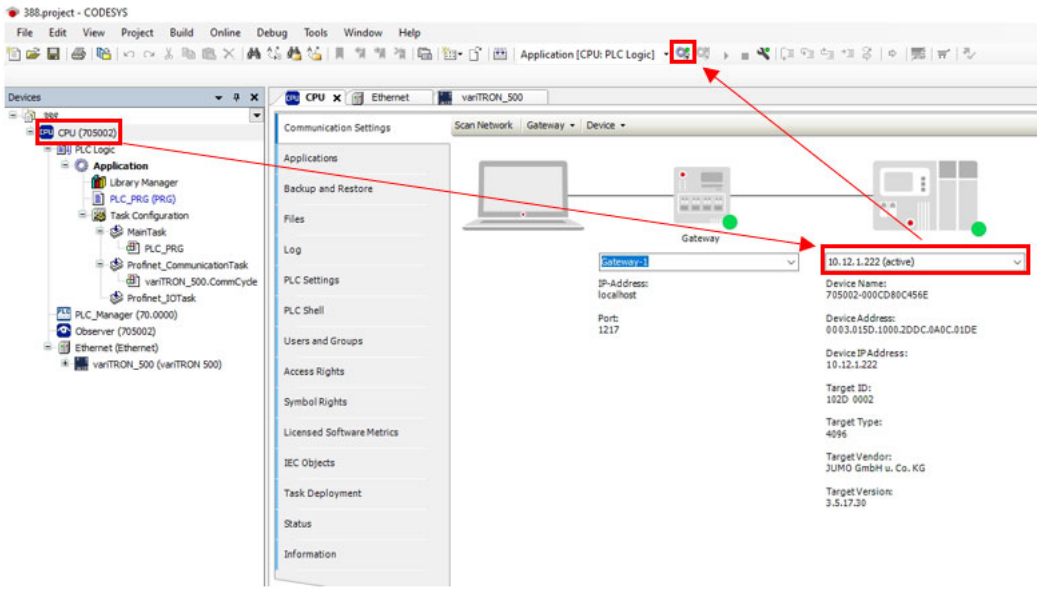
The following steps 9 to 11 explain how to load an application into a CPU using CODESYS®. These steps are not required for configuration work using the setup program, but have nevertheless been included here for the sake of completeness.

9. Connect to the PROFINET device and go online.

NOTE!

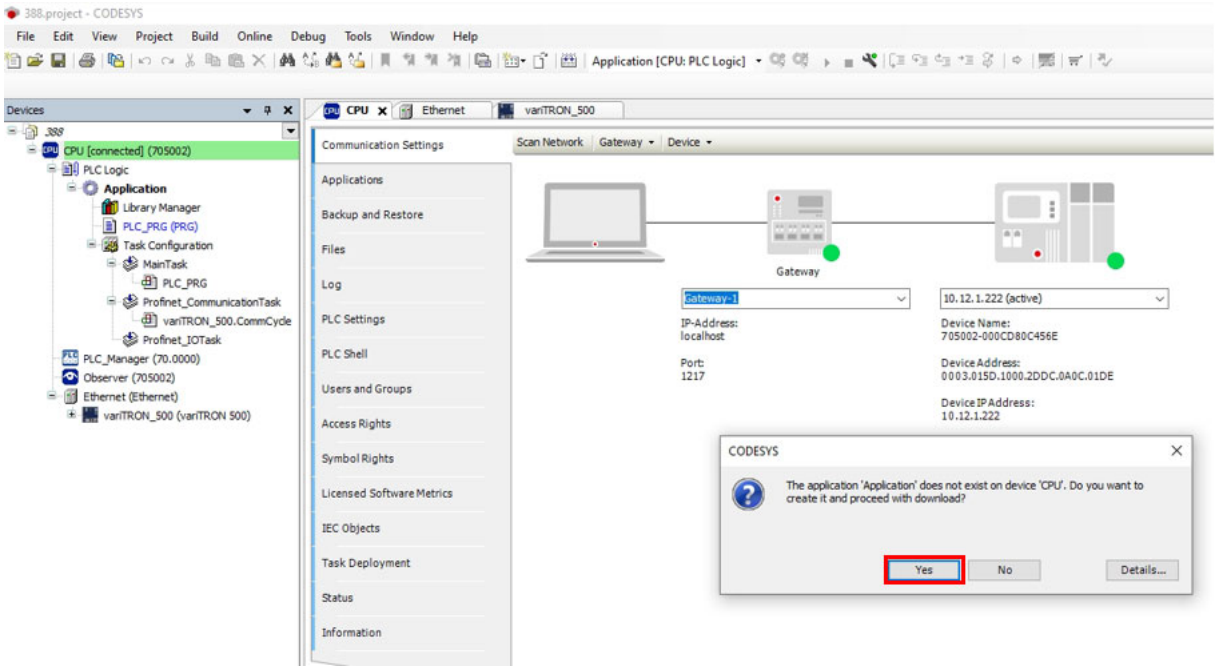
Here, enter the interface used to configure the JUMO variTRON 500. Use a free LAN interface (LAN2 or LAN3, if available) or a USB Ethernet adapter for this purpose (the IP address is provided at **Device info > Ethernet > eth0**). By default, the interface "eth0" automatically obtains the IP address (and the LAN ports) via DHCP. If this cannot be done, a manual IP address will need to be assigned for "eth0" beforehand (see the instructions at the start of the chapter).

⇨ chapter 6.2 "Error message in the setup program", Page 35

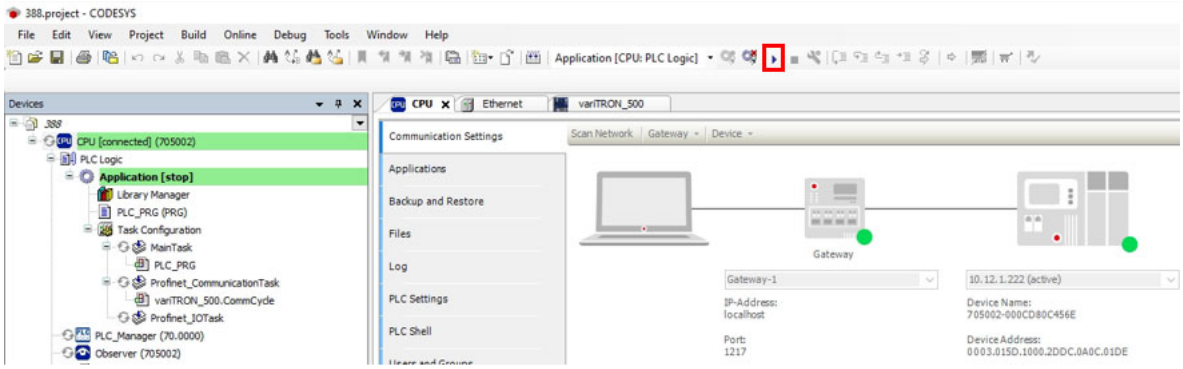


In this example, a USB Ethernet adapter (TP-Link UE300) has been used for the configuration work.

10. Load the application into the JUMO variTRON 500.



11. Click RUN to start the application.



The PROFINET device is now ready for the IO controller to assign the device name and IP address.

NOTE!

This document does not cover how the configuration that was created in CODESYS® is applied to the setup project or transferred to the device (IO device).

These topics are covered in the operating manual for the JUMO variTRON 500 (705002). The operating manual can be downloaded from the relevant product page (705002) on the JUMO website (see chapter 2.1).

5.2.3 Device information

The device info for the JUMO IO device displays, for inspection and error diagnostics, information about network configuration, hardware and software component versions, as well as counters for evaluating data traffic. For more details about the displayed data, see the operating manual for your JUMO IO device.

5 Project planning

5.3 Project integration of JUMO IO device into IO controller

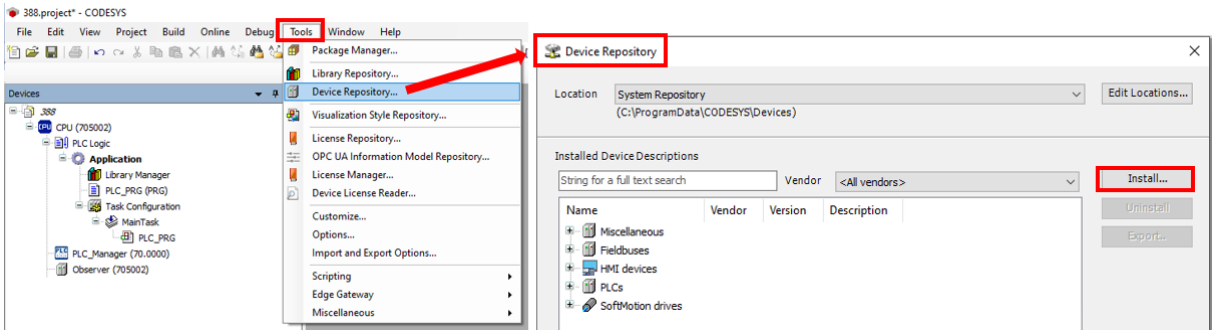
Using the JUMO variTRON 500 by way of example, this chapter explains how to add the PROFINET IO device to an IO controller in CODESYS® and configure it.

Process:

1. Import the GSDML file of the JUMO IO device into the engineering system of the IO controller. Make sure the device software version matches the version data in the GSDML file.

NOTE!

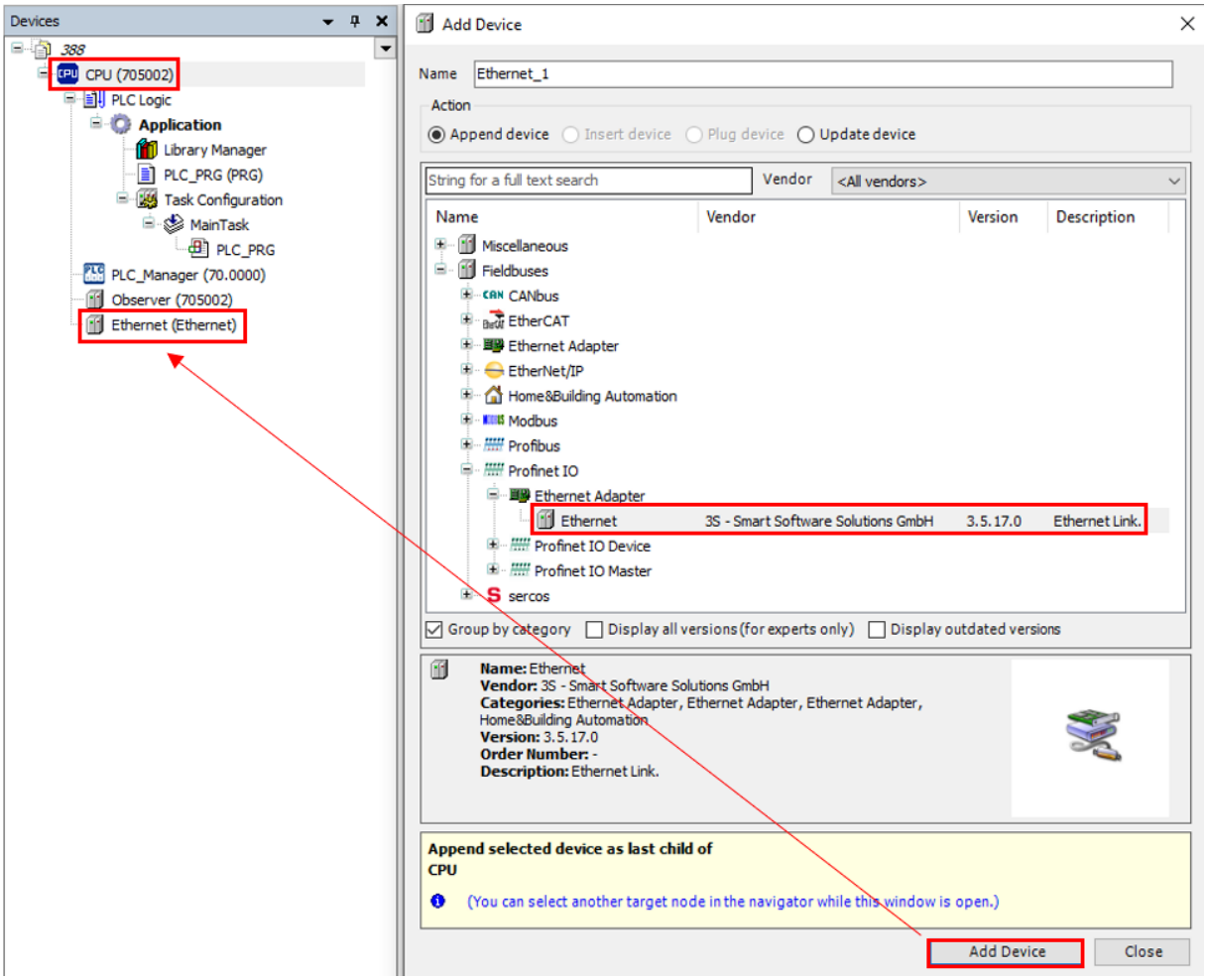
The GSDML file for the current device version is located on the DVD from the scope of delivery of your JUMO field device. Alternatively, you can download the GSDML file from the JUMO website.



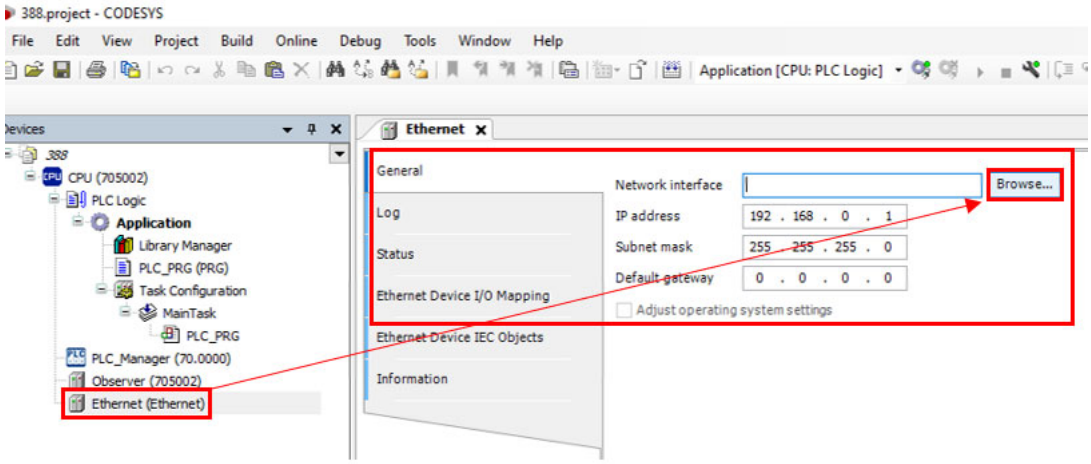
2. Create Ethernet interface.

NOTE!

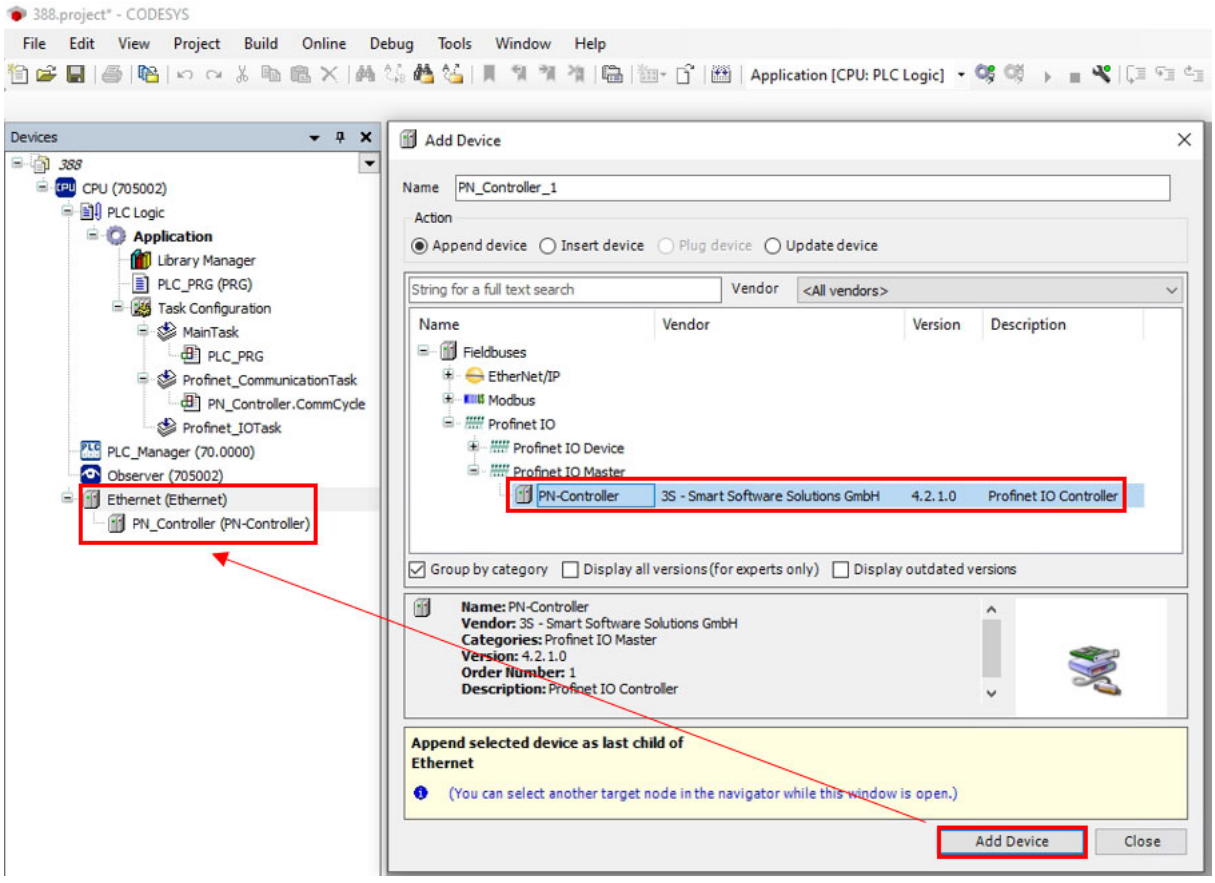
The exact procedure for integrating PROFINET IO devices can be found in the description of your engineering system.



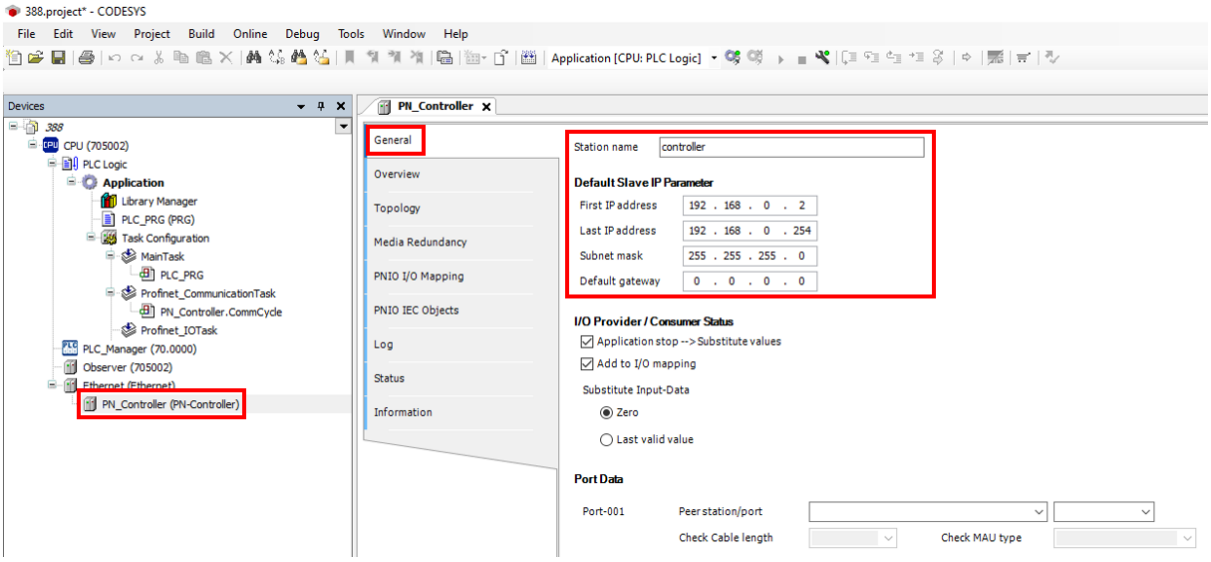
3. Configure network settings.
   Click **Browse...** to select the relevant interface.



4. Click **Add Device** to add the PROFINET controller to the Ethernet interface.



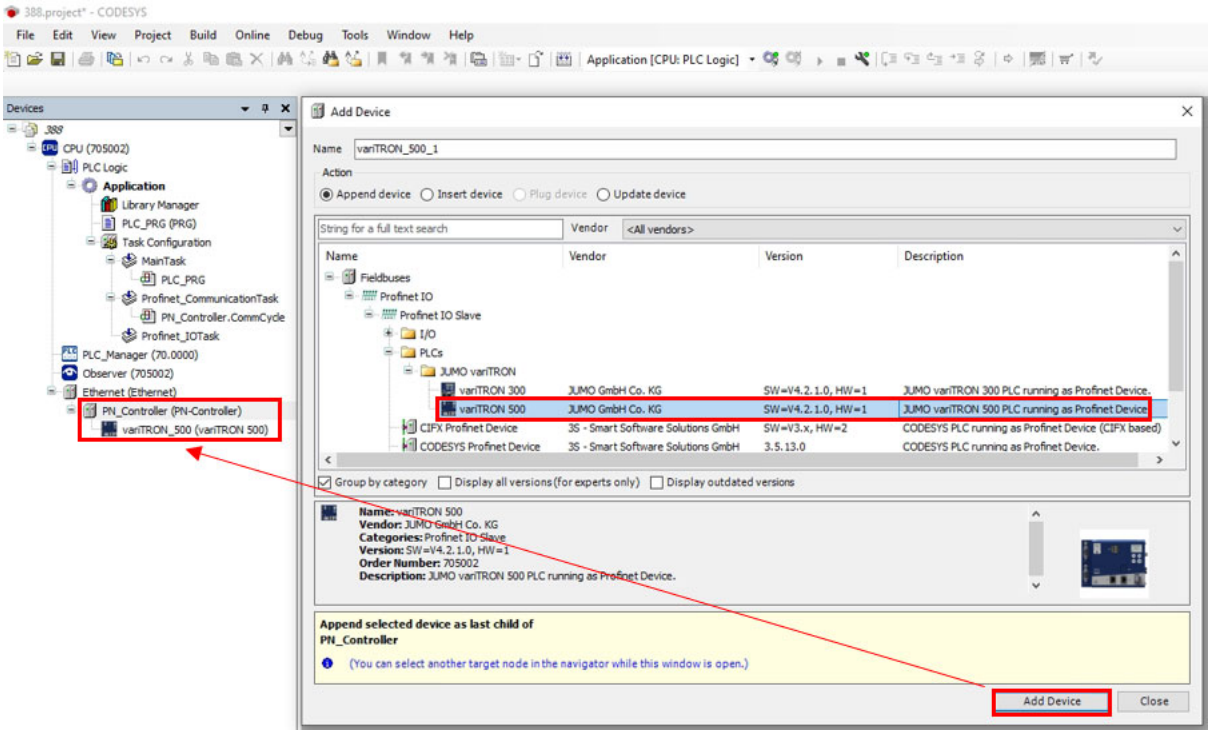
5. Configure the PROFINET controller.



6. Click "Add Device" to integrate the desired JUMO field device into the project structure of the IO controller. Make sure the device software version matches the version data of the JUMO field device integrated into the project structure.

NOTE!

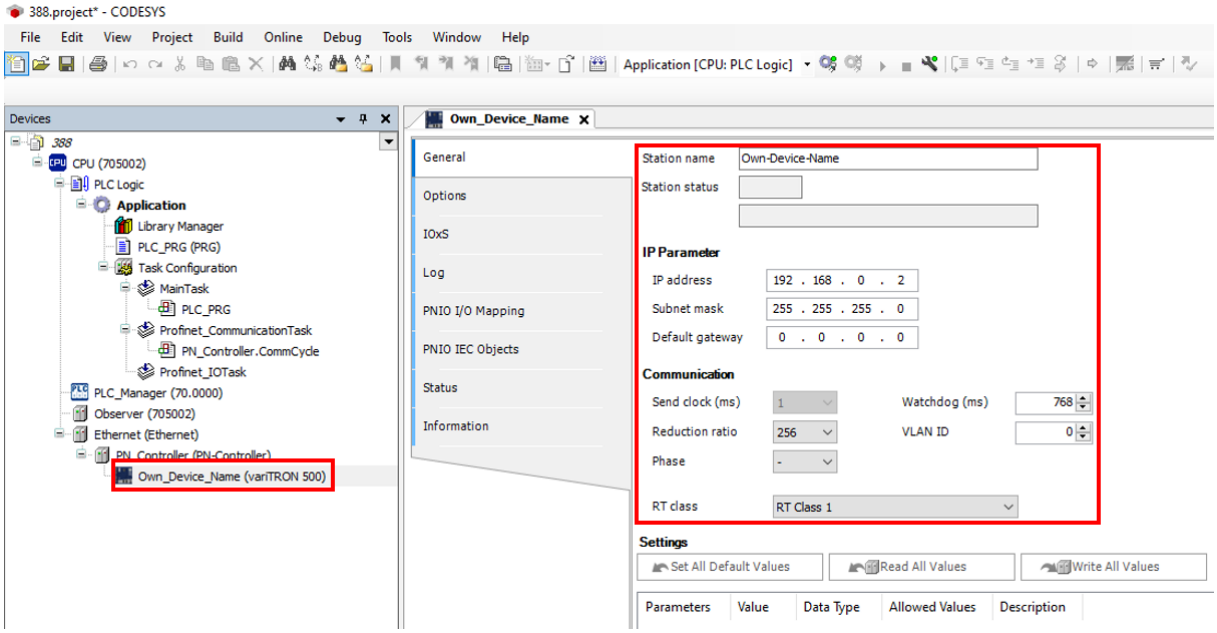
Make sure that your JUMO IO device has the software version required to use PROFINET IO (⇨ chapter 2.3 "Requirements for hardware, software, and cabling", Page 7).



7. Configure the station name/device name and IP address of the PROFINET device. Also configure the communication parameters.

NOTE!

Engineering systems offer a function for **identifying** field devices. If JUMO field devices are addressed via the "**Identification function**" of the engineering system, this is signaled by the flashing of the front display.



The communication parameters set here (Send clock, Reduction ratio, etc.) are merely examples.

Station name:

To improve the overview in the IO controller project structure, each device should be assigned a self-explanatory and unique station name. This permits a better overview for programming and project planning. The station name is entered in the engineering system of your IO controller at the PNIO identification data of the JUMO IO device.

IP configuration:

The engineering system requires a valid IP configuration for the Ethernet interface of the JUMO IO device. The device will not connect to the IO controller without a valid IP configuration for the Ethernet interface.

NOTE!

The JUMO IO device is still accessible using the JUMO setup program or a web browser via Ethernet. The IP address of the Ethernet interface must be used for communication.

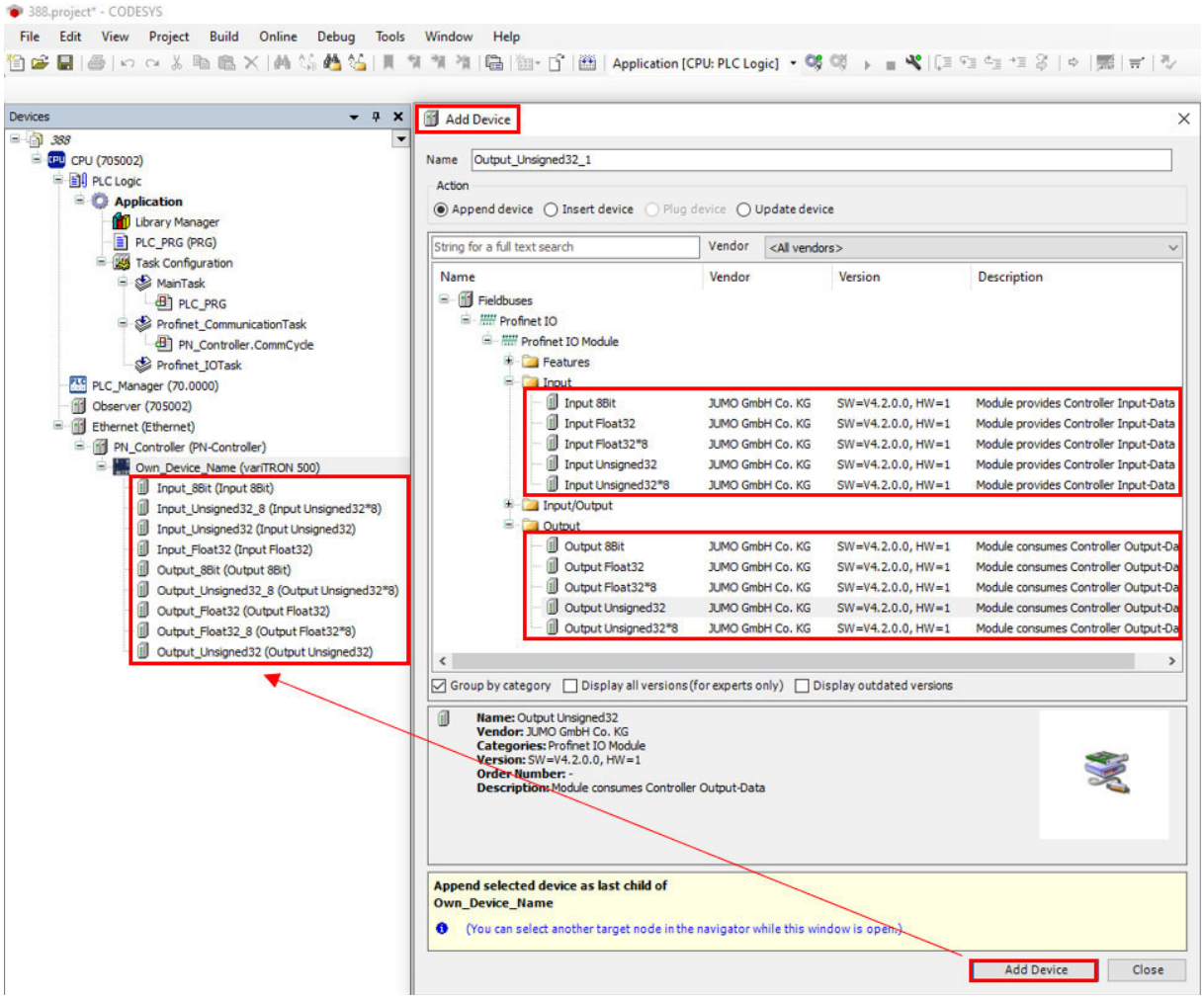
Cyclical transfer timing:

Send clock and reduction ratio determine the frequency at which an IO device transfers cyclical data in a PROFINET IO network. The transfer cycle time of the JUMO IO device is calculated by dividing the send clock by the reduction ratio. On JUMO field devices, these parameters apply globally for all slots. The setting is configured in the engineering system of your IO controller at the PNIO parameters of the JUMO IO device.

8. Insert the configured modules in the project structure of the IO controller in the desired slot position on the JUMO IO device. Click "Add Device" to integrate the input/output mapping of the PROFINET device into the IO controller.

NOTE!

The JUMO IO device uses the **little endian format** – please note this when configuring the IO controller and set it if required. Otherwise the transferred data will not be interpreted correctly!



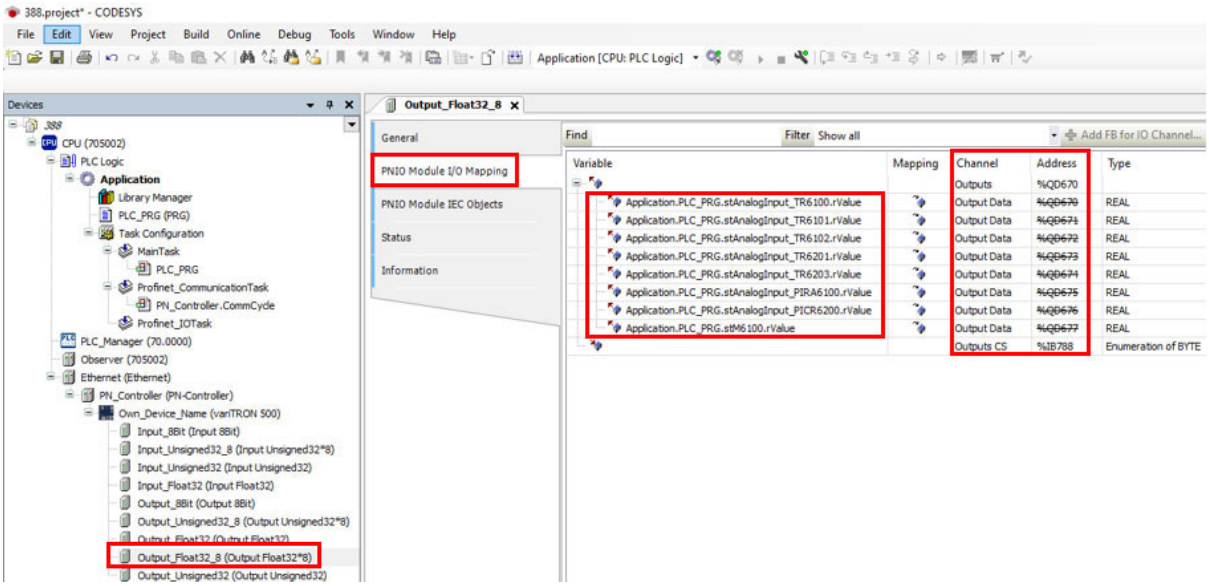
For project configuration in the engineering system of your PROFINET IO controller, you can populate all slots on your JUMO IO device with modules. You can use the engineering system to create the modules for various data types in the field device concerned and configure their contents to suit your needs. An overview of the module types can be found in the "Module description" chapter.

⇨ chapter 4.2 "Module description", Page 11

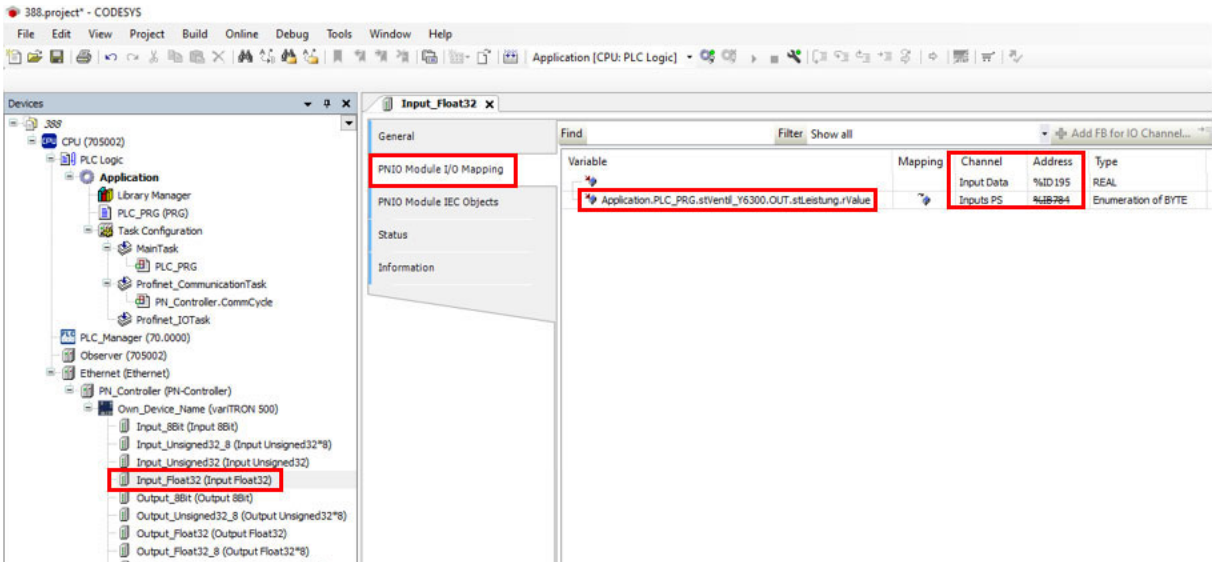
The contents of the configurable modules can be determined by the user. In the engineering system, the modules must be assigned to the free slots in the JUMO IO device, so that they can be queried by the IO controller during the cyclical communication.

In the project structure of the IO controller, the modules then have to be assigned to the free slots in line with the configuration of the JUMO IO device.

9. Map variables for IO mapping (send 8 float values to device).

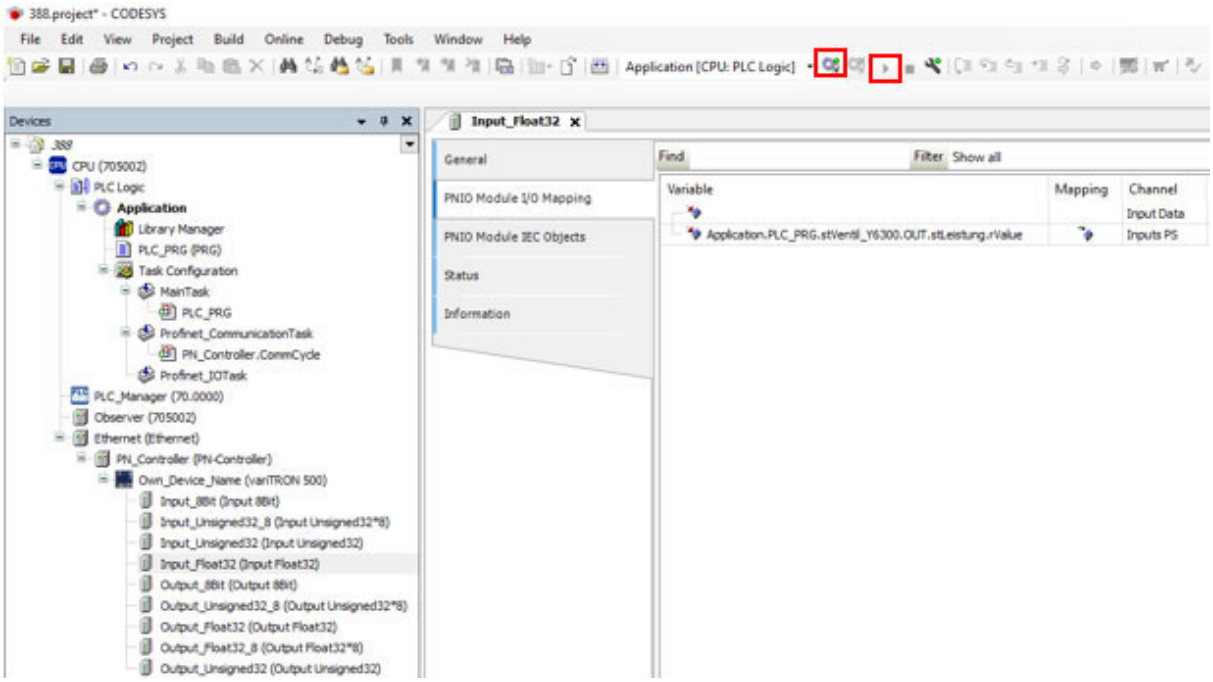


10. Map variables for IO mapping (query 1 float value from device).



The IO items of the JUMO IO device are now available for the programming of the IO controller.

11. Connect to the PROFINET controller and click RUN to start the application.



5 Project planning

6.1 Error messages

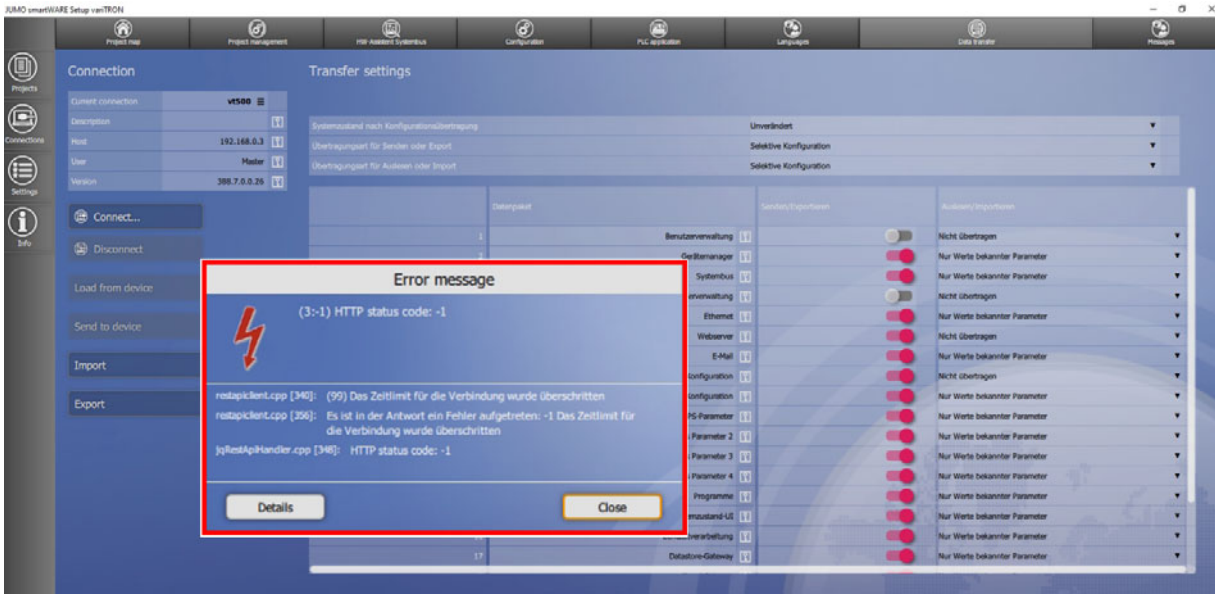
JUMO variTRON 500 (705002) and JUMO variTRON 500 touch (705004) do not generate any JUMO-specific error messages relating to PROFINET. However, it does support the error messages in CODESYS®.

Click the following link to access the CODESYS® online help pages containing information about PROFINET (diagnostics, troubleshooting).

CODESYS® online help

6.2 Error message in the setup program

If the JUMO IO device is configured via the same interface that is used for PROFINET, the following error message may appear in the setup program.



When the configuration is transferred, the Ethernet connection is interrupted because the IP parameters of the LAN interface are reset. This is required to ensure that an IO controller can assign the IO device a device name and IP address. However, the configuration is still transferred correctly. Normally the application will start and switch to the status RUN. The IO device can then be found and configured by an IO controller. If the application does not start, a reset must be carried out (power OFF/ON)

This error message only occurs when starting up the system for the first time. If the IO device has already been assigned a device name and IP address by an IO controller, the data will be transferred without errors.

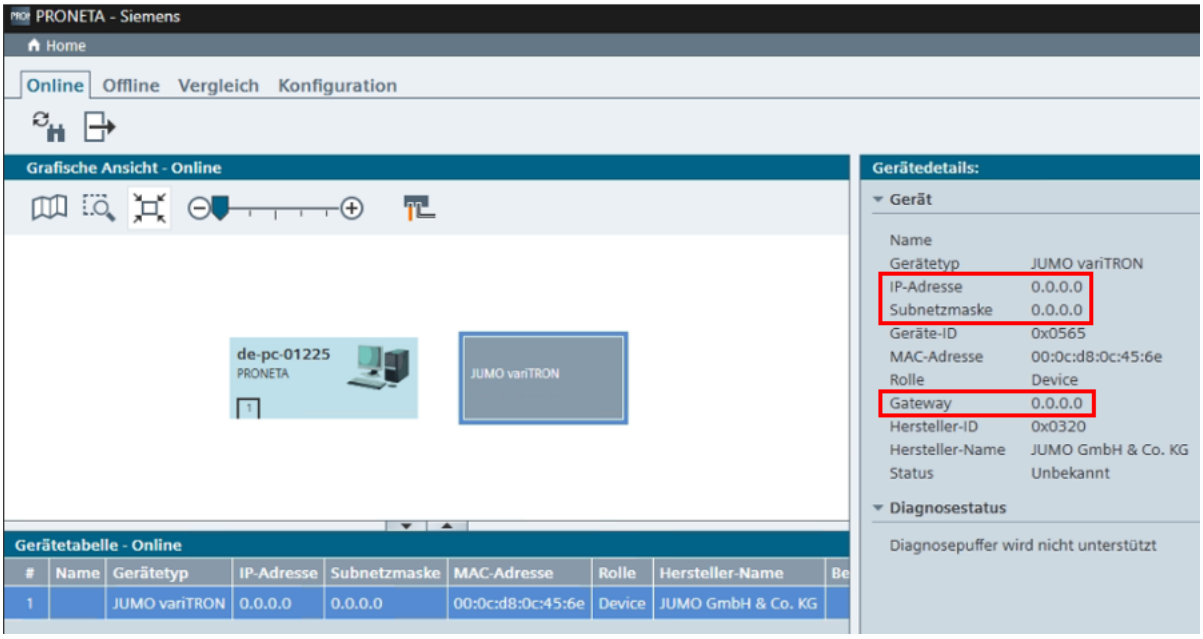
NOTE!

To configure the JUMO IO device, use a free LAN interface or a USB Ethernet adapter.

With the variTRON 500 touch, it should also be noted that LAN1 may be used as the JUMO system bus and therefore cannot be used for configuration.

As can be seen below, the configuration was successfully transferred to the device because the application has the status RUN and is ready for use. The JUMO IO device can now be found by an IO controller so that it can be assigned a device name and IP address. This is shown using the PRONETA tool from Siemens by way of example. As can be seen, the IP parameters were reset when the configuration was applied, causing the connection to be interrupted in the setup program.

6 Error messages and status information

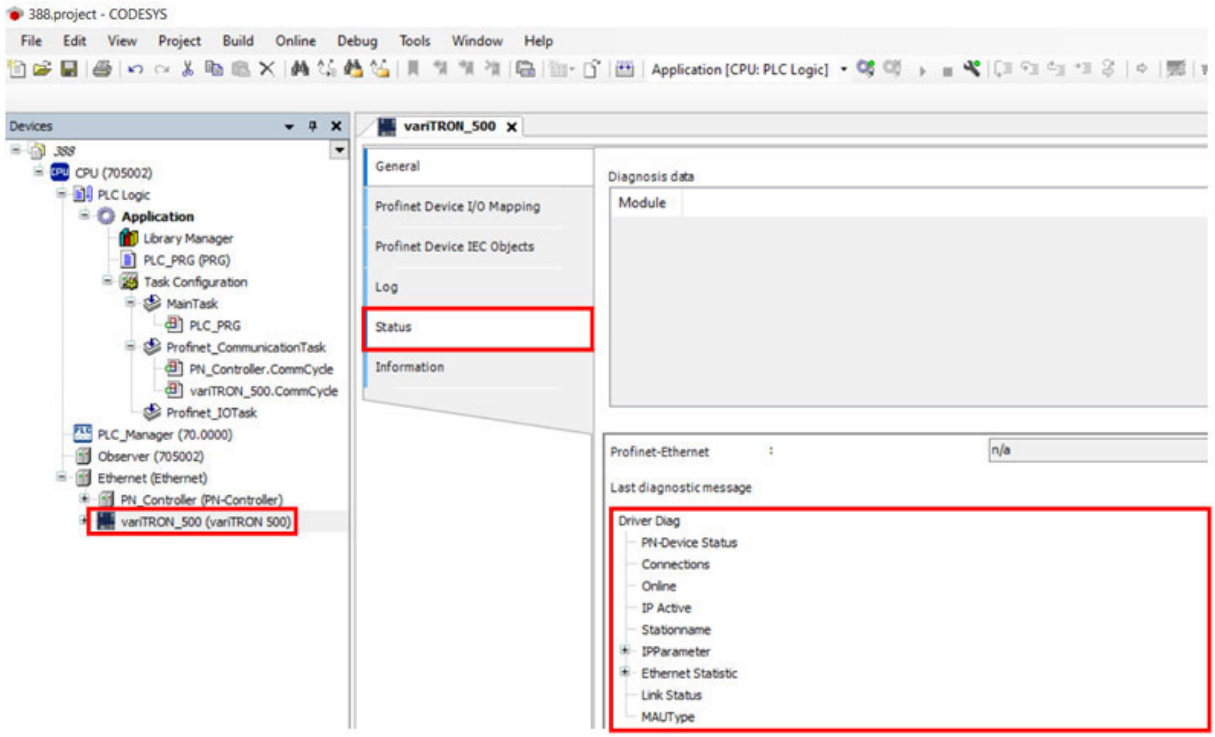


NOTE!

If the JUMO IO device is not found by the IO controller, the application in the IO device will not have the status RUN. In this case, switch the IO device off and back on. Following the restart, the application will then automatically switch to the status RUN.

6.3 Status information

The status of the PROFINET device can be viewed in CODESYS®. The figures below show how to view the status and which statuses are provided for the PROFINET device.



Overview of PROFINET device statuses

Inputs/Outputs | Documentation

ENUM **DeviceState**

Name	Type	Inherited from	Address	Initial	Comment
NotInit	UDINT			0	Initial state
Init	UDINT			1	Initialized
Open	UDINT			2	Ethernet Adapter is open
Run	UDINT			5	Devcie running and ready for connect
Error	UDINT			16#100	unspecified error
ErrorLicenceCheck	UDINT			16#101	error checking licence
ErrorGetIP	UDINT			16#105	ErrorStationname, //controller stationname already used by other device ErrorIP, //IP address already used by other device ErrorNoIP, //Ethernet Adapter's IP Address is 0.0.0.0 (not plugged ?)
ErrorInitRPC	UDINT			16#106	
ErrorFindEthernet	UDINT			16#107	specified ethernet adapter was not found
ErrorEthernet	UDINT			16#108	
ErrorNoLicence	UDINT			16#109	no licence
ErrorSetIP	UDINT			16#110	

6 Error messages and status information

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