

TechTip: Creation of configuration data for the PLC data exchange

A step-by-step procedure is advisable for the creation of the configuration data for the PLC data exchange.

You are supported here by:

- PLC navigator
with filter options
- Edit in table
with suitable schemes
- Check runs
With suitable schemes (steps 1 to 3)
The "PLC data exchange" scheme is used for the entire data exchange.

The following TechTips also provide help:

- TechTip-PLC-data-exchange
- TechTip-Overview-of-the-PLC-properties
- TechTip-Recommendation-for-PLC-items-with-base-and-pluggable-logic
- TechTip-AS-i-piercing-technology
- TechTip-Preparation-of-master-data-for-PLC-data-exchange

Step 1: Rack structure

PLC navigator

View: Rack-oriented

Filter: Main functions

Selection: Per station

Editing in tables

Popup menu: **Edit in table**

Scheme: Rack

- Enter data:
 - **Configuration project**
 - **PLC station: ID**
 - **PLC station: Type**
 - **Rack**
 - **PLC card is placed on rack ID**
 - **Position (slot / module)**
 - **PLC type designation** or
 - **Device description: File name** and **Device description: Index in file**
 - **PLC card name** or
 - **Object description**
- Designation of the CPU:
 - Activate **CPU** check box
 - **CPU: Name [1]**
- Further properties:
 - **Bus coupler / head station**
 - **Start address of PLC card**

Error checking

Tab **Tools** > Command group **Review** > **Check**

In the **Settings** field, click [...].

Scheme: "PLC-Step1 (Racks)", import from the file "ISve.PLC-Step1_(Racks).xml"

| | |
|--------|--|
| 004007 | Rack '<x>' is mounted on itself |
| 004009 | Slot (module) '<x>' of a rack '<y>' assigned several times |
| 004010 | Rack '<x>' is unknown. |
| 004013 | Rack '<x>': Ring connection |
| 004016 | Rack '<x>' is not unique |
| 004025 | Slot / module is missing |
| 004080 | Missing configuration project |
| 004081 | Missing station ID |
| 004082 | Configuration project '<x>' does not contain a CPU |
| 004083 | The CPU class '<x>' entered at the PLC box does not exist in the project |
| 004086 | Missing PLC type designation or device description file |
| 004088 | The PLC card name '<x>' is already being used at a rack, at a CPU or as a station ID |
| 004089 | PLC card name '< x>' assigned several times within a rack |
| 004094 | CPU name '< x>' assigned several times |
| 004099 | PLC card with the device identification '%1!s!' is not placed on a head station |
| 004100 | The CPU is not assigned to a slot / module and / or a rack |

Step 2: PLC connection points (inputs and outputs)

PLC navigator

View: Rack-oriented

Filter: Scheme "PLC connection points" (filter for PLC connection point I/O, variable or power supply)

Selection: Per card

Editing in tables

Popup menu: **Edit in table**

Scheme: PLC connection point

- Enter data:
 - **PLC address** (can also be changed via addressing)
 - **Channel designation**
 - **Data type**
- Further properties (optional):
 - **Symbolic address**
 - **Function text**
 - **Signal range**

Error checking

Tab **Tools** > Command group **Review** > **Check**

In the **Settings** field, click [...].

Scheme: "PLC-Step2 (PLC-connection points)", import from the file "ISve.PLC-Step2_(PLC-ConnectionPoints).xml"

| | |
|--------|---|
| 004020 | More than one I/O connection point at a channel |
| 004021 | Address has been assigned more than once within a CPU |
| 004027 | Missing or incorrect channel designation |
| 004030 | Missing symbolic address (automatic) |
| 004031 | Symbolic address has been assigned more than once within a CPU |
| 004085 | Missing data type |
| 004113 | Symbolic address (automatic) contains a blank, a tabulator or a line break |
| 004118 | Missing CPU name at a PLC card in the configuration project '%1s!' with multiple CPUs |

Step 3: Bus port

PLC navigator

View: Rack-oriented

Filter: Bus port

Selection: Configuration project

Editing in tables

Popup menu: **Edit in table**

Scheme: PLC bus data

- Enter data:
 - **Configuration project (automatic, at bus ports)**
 - **Plug designation**
 - **Bus interface: Name**
 - **Physical network: Name**
 - **Logical network: Name**
 - **Logical network: Bus port is master**
 - **Bus system**
 - **Physical network: Bus ID / item number**

Error checking

Tab **Tools** > Command group **Review** > **Check**

In the **Settings** field, click [...].

Scheme: "PLC-Step3 (Bus-connection points)", import from file "ISve.PLC-Step3_(Bus-ConnectionPoints).xml"

| | |
|--------|--|
| 004035 | Bus ID '<x>' within a logical network '<y>' assigned several times (bus port in the bus system: '<z>') |
| 004036 | Unknown logical network '<x>' (bus port in the bus system: '<y>') |
| 004037 | Missing bus ID (bus port '<x>' in the bus system: '<y>') |
| 004039 | Connection between different bus systems ('<x>', '<y>') |
| 004040 | Contradictory specifications at the associated bus port were found for the bus port at '<x>' |
| 004071 | Bus interface '<x>': 'Bus interface: Main bus port' property activated more than once or not activated |
| 004072 | Bus ID '<x>' of a physical network '<y>' assigned several times |
| 004080 | Missing configuration project |



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|--------|--|
| 004084 | The MasterSystemID is faulty |
| 004091 | Missing plug designation |
| 004092 | Missing bus interface name |
| 004103 | Bus slave and bus master differ in the property 'Physical network: Name' |