

Series SX102, SX202 and SX302

Alphanumerical digital display with
PROFINET IO RT interface

QuickStart for TIA Portal (Version 2.10)

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2 Legal note

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3 QuickStart

These instructions apply to all alphanumeric displays of the SX102-...-N0, SX202-...-N0 and SX302-...-N0 series with firmware V1.0.5 or higher and device ID 0x1302. The firmware of a device can be checked in advance, for example, using the PRONETA Basic software from SIEMENS.

| Hersteller-ID | Geräte-ID | Firmwareversion | Hersteller-Name | Bestellnummer |
|---------------|-----------|-----------------|----------------------------------|---------------|
| 0x0161 | 0x1302 | V1.0.5 | Siebert Industrieelektronik GmbH | SX102-...-N0 |

The display is put into operation by following these steps. The display then shows the values sent via PROFINET.

The screenshots were created using the following hardware and software. With other engineering frameworks, the illustrations may differ.

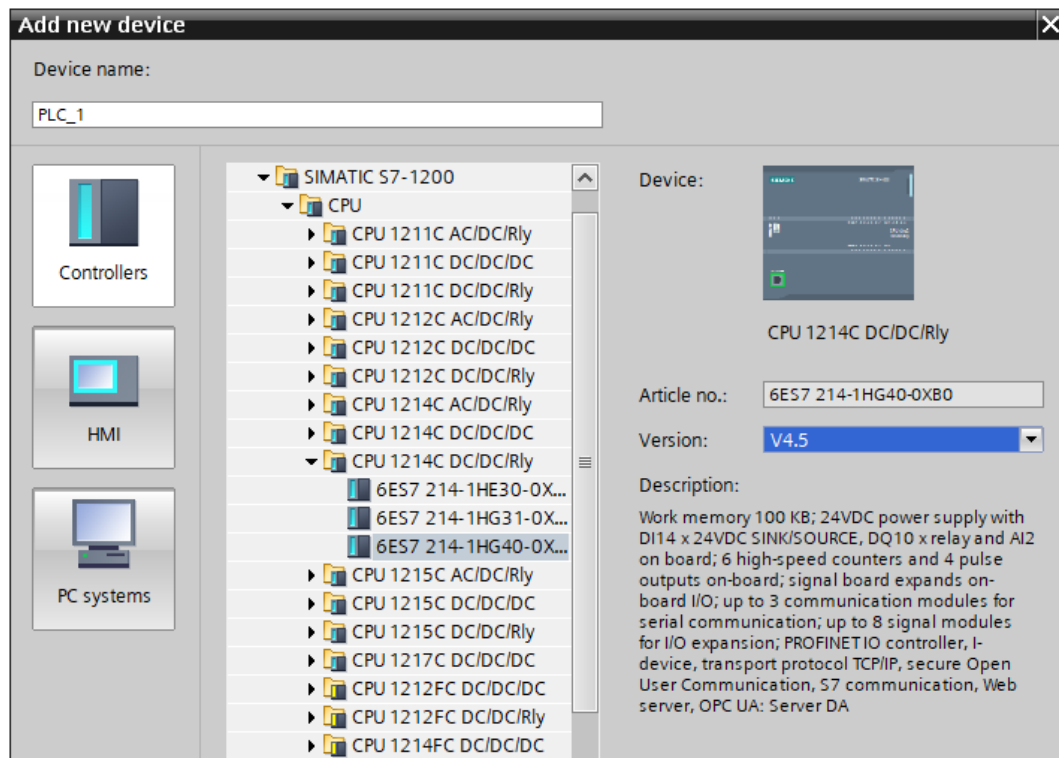
| | |
|-----------------------|---|
| Display | SX102-06/18/0R-000/0B-N0 |
| Engineering-Framework | Siemens TIA Portal V17, Update 4 |
| PLC | Siemens S7-1214C DC/DC/Rly, V4.5, 6ES7 214-1HG40-0XB0 |
| Operating system | Microsoft Windows 10 Professional, 64 Bit |

The QuickStart describes the parameterization of the display. The operation of the TIA portal is not the subject of the instructions.

The devices are delivered without PROFINET names.

Step 1: Open project

Open a new project in the engineering framework and define the CPU. When creating this QuickStart, Siemens S7-1214C DC/DC/Rly version 4.5 was used.



Define the IP address, name, protection level, etc. for your project.

Step 2: Install the GSDML file of the ad and add the display

Install the GSDML file 'GSDML-V2.43-Siebert-SX_123_02-XX-...' of the display.
The instructions and the GSDML file are available at the following links:



Series SX102

manuals.siebert-group.com/sx102-profinet



Series SX202

manuals.siebert-group.com/sx202-profinet



Series SX302

manuals.siebert-group.com/sx302-profinet

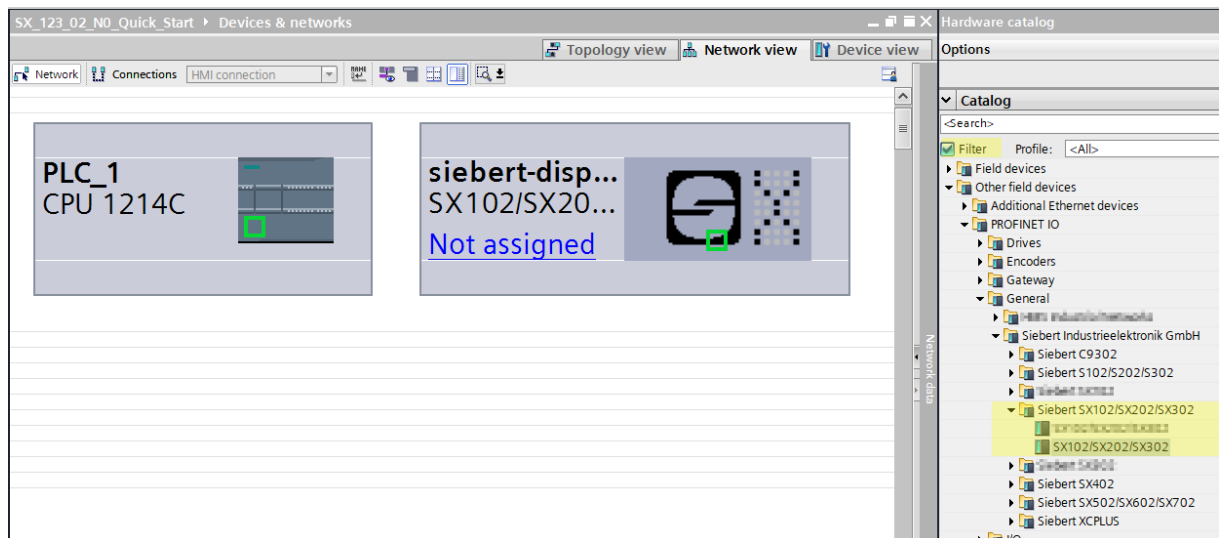
After installation, the display is listed in the hardware catalog.

In the device catalog, activate the 'Filter' checkbox and navigate to 'General / Siebert Industrieelektronik GmbH / Siebert SX102/SX202/SX302'.

Step 3: Switch to the project view and add the device

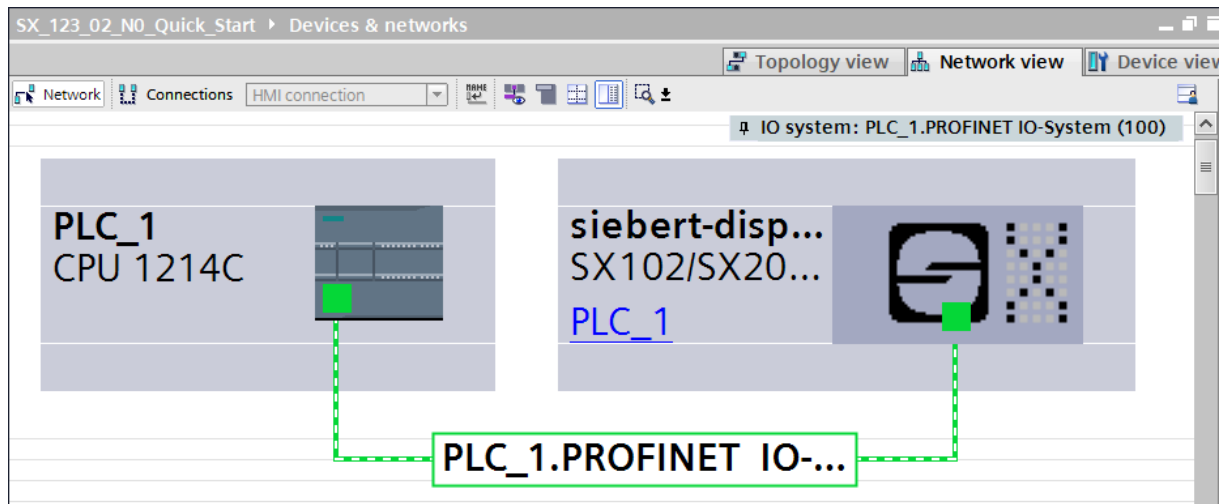
Switch to the view 'Devices & Networks / Network View'

Drag the 'SX102/SX202/SX302' head module from the catalog to the 'Devices & networks / Network view' area.



Step 4: Establish a connection to the display

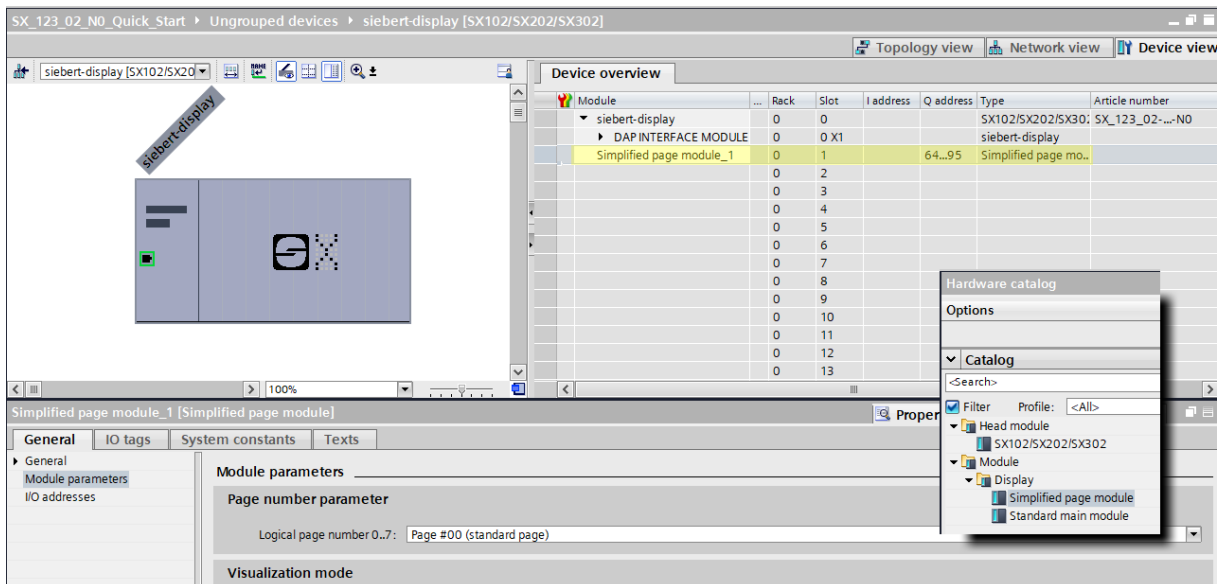
Assign the display to the desired control in the network view. After that, the PROFINET connection is displayed as a dashed green line.



Step 5: Add sub-module to the display and define address range

Add the module 'Simplified page module' from the hardware catalog to the device overview.

This defines that the display expects the values to be shown in ASCII String format. The module occupies 32 bytes (in this example the addresses 64 to 95).

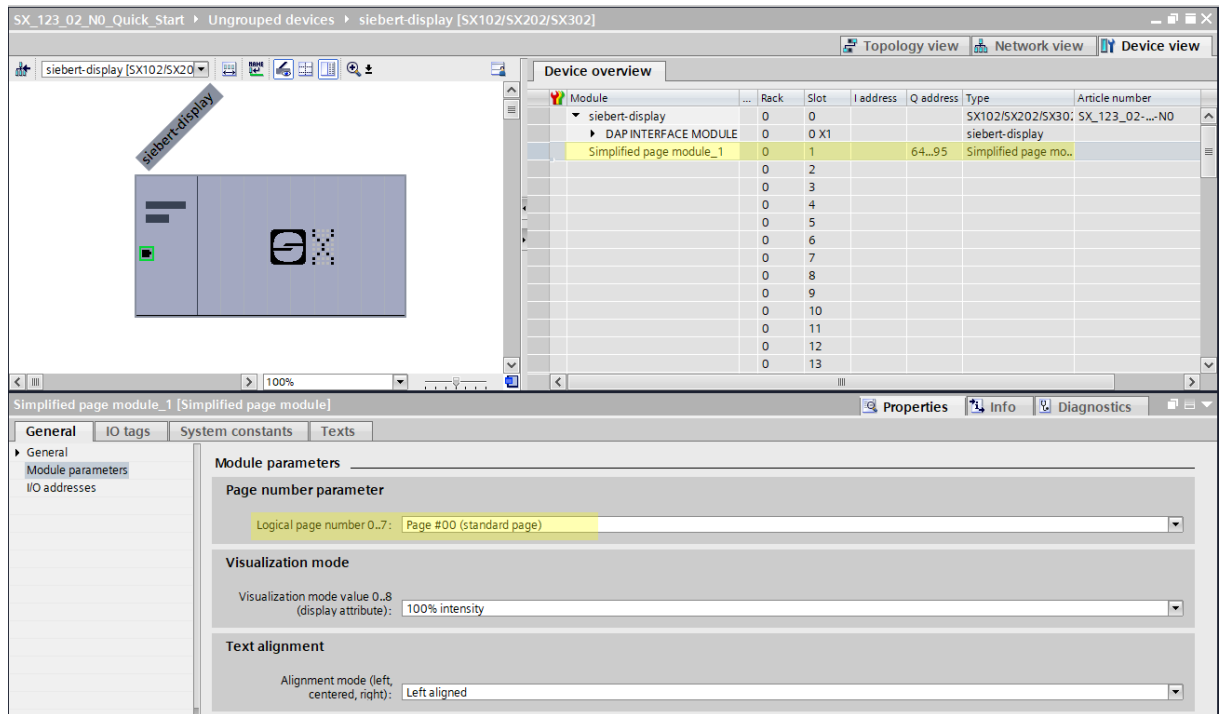


| Module | Rack | Slot | I address | Q address | Type | Article number |
|--------------------------|------|------|-----------|-----------|------------------------------------|----------------|
| siebert-display | 0 | 0 | | | SX102/SX202/SX30; SX_123_02-...-N0 | |
| ▶ DAP INTERFACE MODULE | 0 | 0 X1 | | | siebert-display | |
| Simplified page module_1 | 0 | 1 | 64...95 | | Simplified page mo... | |
| | 0 | 2 | | | | |
| | 0 | 3 | | | | |
| | 0 | 4 | | | | |
| | 0 | 5 | | | | |
| | 0 | 6 | | | | |
| | 0 | 7 | | | | |
| | 0 | 8 | | | | |
| | 0 | 9 | | | | |
| | 0 | 10 | | | | |
| | 0 | 11 | | | | |
| | 0 | 12 | | | | |
| | 0 | 13 | | | | |

You can change the name given by the TIA Portal.

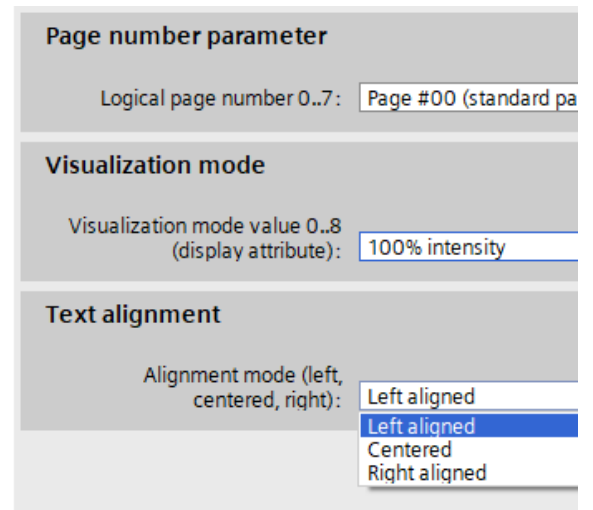
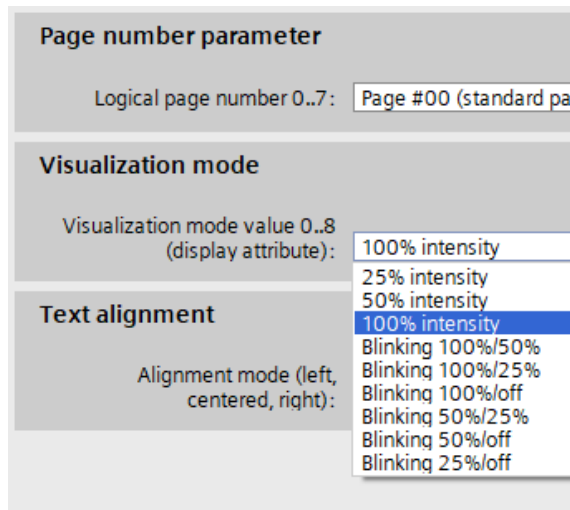
In the module parameters section you can set the initialization parameters for brightness and text alignment.

Leave the first entry 'Page number parameter' for this QuickStart unchanged at the value Page #00.



With the parameter 'Visualization mode' you can select different values for brightness and/or the flashing pattern.

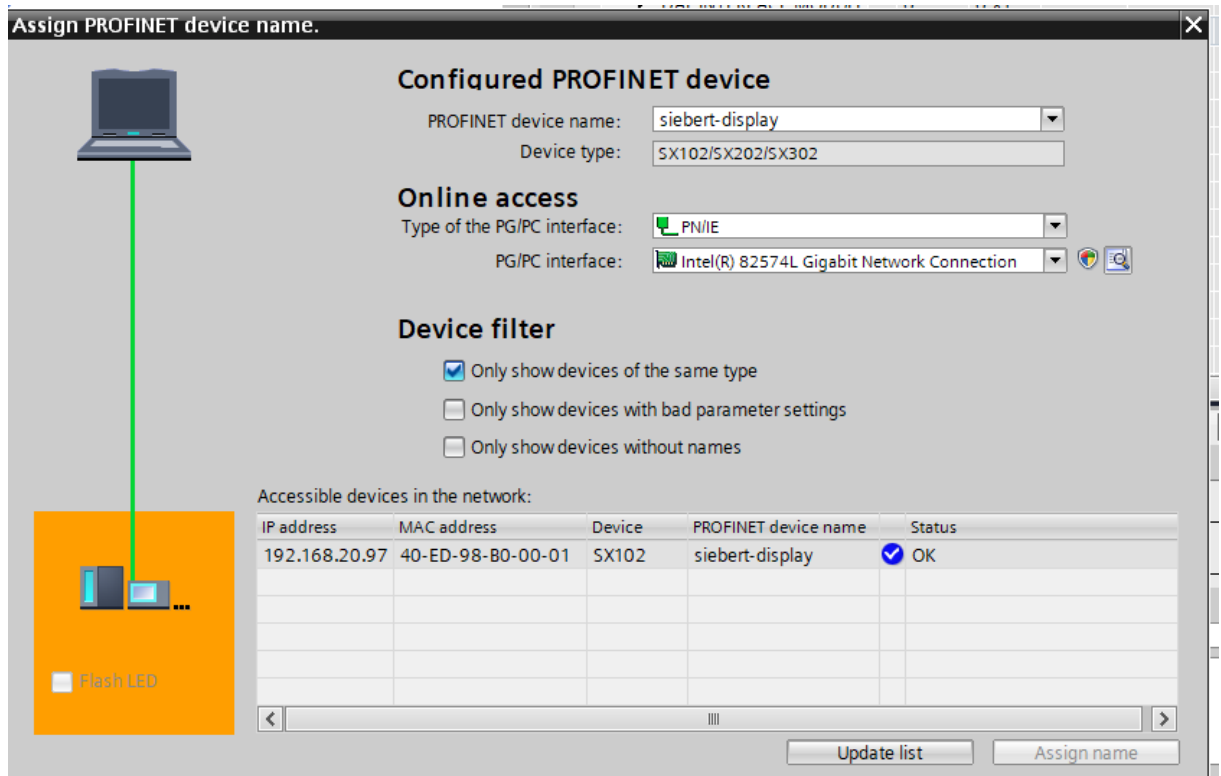
With the parameter 'Text alignment' you can select different values for the text alignment on the display. Texts that are longer than the display are truncated according to the selected alignment.



Step 6: Assign a PROFINET device name to the display

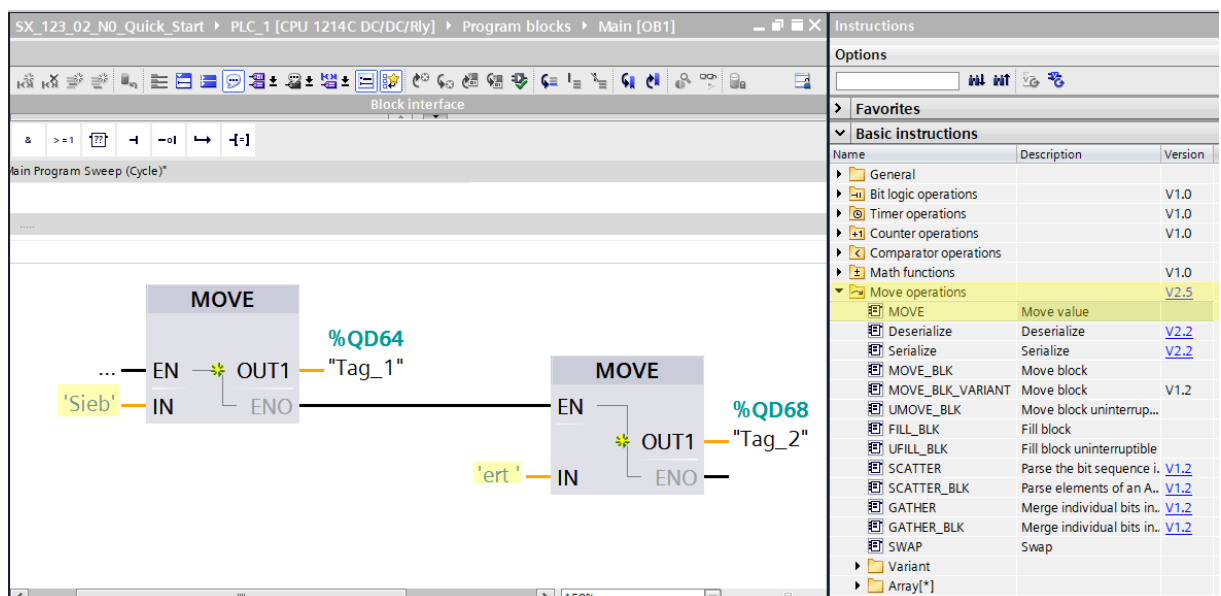
In the device view, open the context menu for the display. The IP address and the device name can be assigned under the menu item 'Assign device name'.

After the data is transferred successfully to the display, the configuration is displayed as follows in the engineering tool.



Step 7: Define text

To send a value to the display, you can for example create a function chart with 'MOVE' instructions. In the following screenshot the text 'Siebert' is sent. This requires two 'MOVE' function blocks.



Step 8: Loading hardware configuration and program into the control

After the display is switched on, depending on the size and type, the start text 'SX102' 'SX202', 'SX302' or a short form is displayed.

As soon as the configuration and the program function block are loaded into the control, the control connects to the display via PROFINET and the display shows the text 'Siebert'.