# First steps with your new INSEVIS-PLC

# Thank you for choosing INSEVIS products

Now you have got a product, what offers you more than the common S7- functions and what makes you more independent.

This **short introduction** guarantees a **fast start** into the world of INSEVIS for you. Stay in your S7-world while programming the STEP7 and therefore we explain the first steps with Siemens-Simatic-Manager and our INSEVIS S7-CPUs.


Before you contact our free service please download and
- read the **technical information** and **manuals** of your product from referring ***product web site*** of INSEVIS.
- check the **sample programs** and **video tutorials** at the ***download web site*** of INSEVIS.

Normally you should find your information there already.

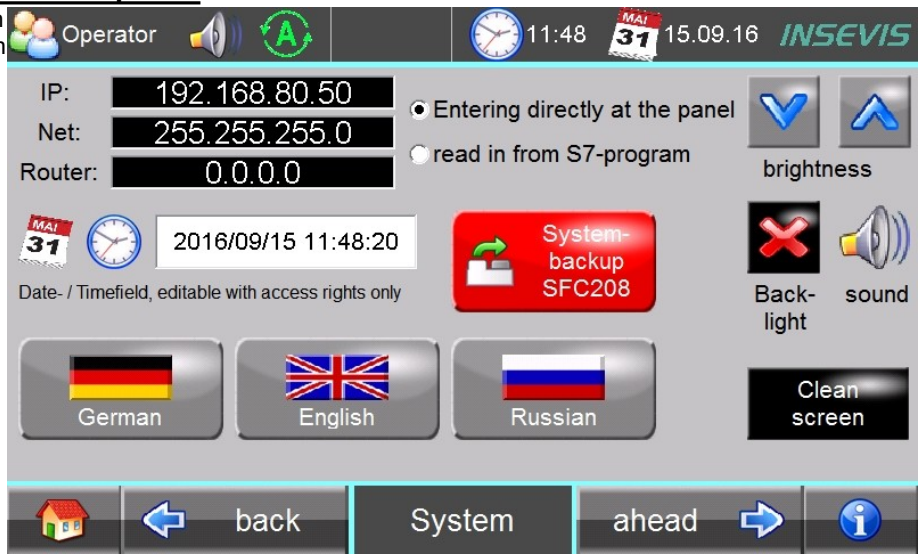
## Step 1: Set up the IP-address of your new device to your network needs

All INSEVIS- PLCs will be delivered with default **IP-address 192.168.80.50.** First thing to do is adapting this IP-address onto your own network mask. Next steps show the most popular ways to do that.

### 1.1 IP-Adress settings directly on touch panel

Your S7-Panel-PLCs will be delivered with a sample-visualization and an S7-program what contains the INSEVIS-SFB129 to edit
IP-addresses. All manuals are referred to this visualization too.

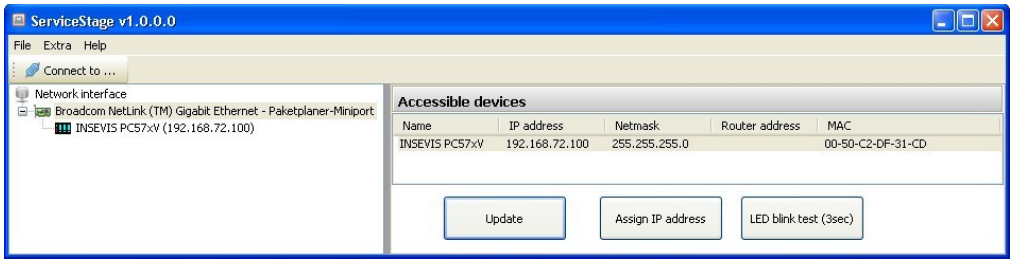
Here you can edit the IP-address in the screen "**System**" in the mode **"Entering directly at the panel"** WITHOUT any Simatic®- Manager or TIA-Portal. This is the fastest way to insert INSEVIS into your network area.




### 1.2 IP-address settings by ServiceStage

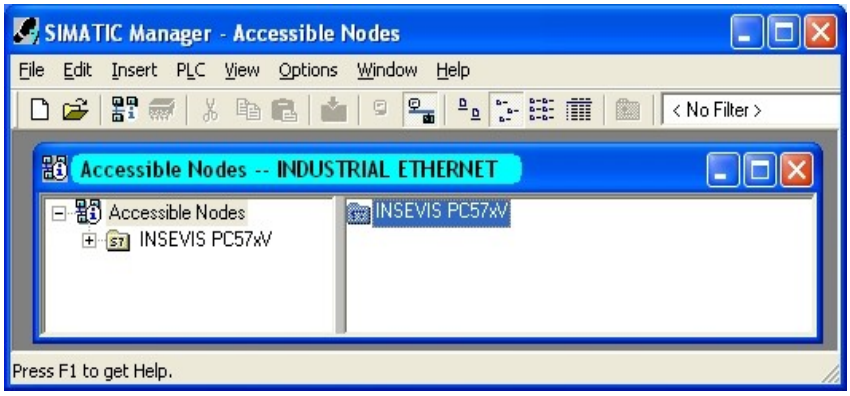
Install the free ware "ServiceStage" (get it before from download-area at www.insevis.com).

After selection of your network adapter (this one, with them you access your LAN) choose the new upcoming partner, double click and select „Assign IP-adress".



## 1.3 IP-address settings by the SIMATIC® -Manager

**Select the PLC**
→ Target system
→ Display Accessible Nodes (appears as INSEVIS „product name“, here PC57xV for PC570V and PC577V)
→ INSEVIS PC57xV select it / mark it
→ PLC
→ Edit Ethernet Node



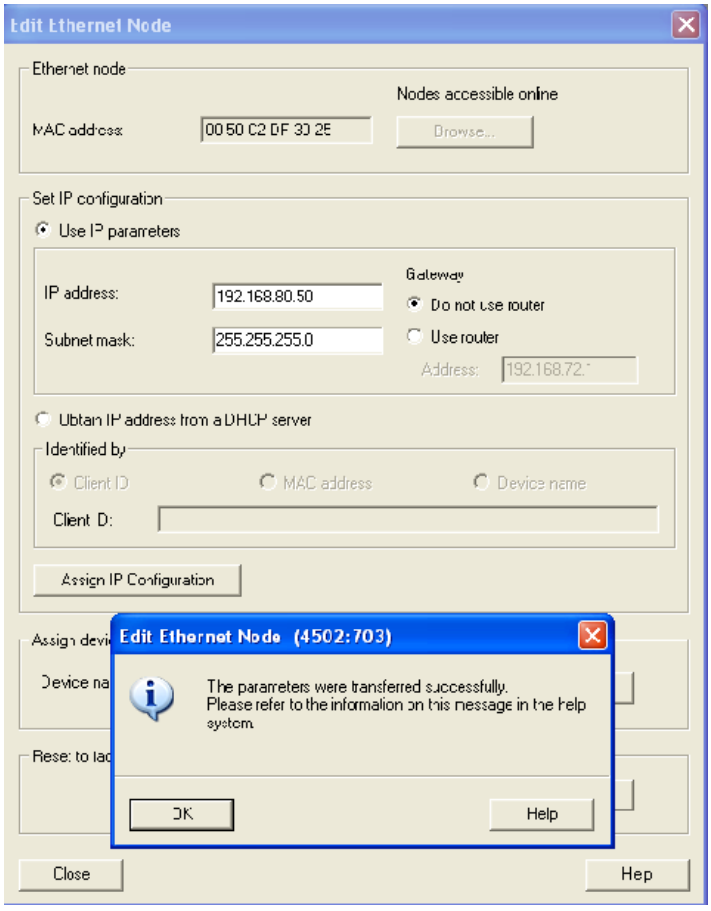

**Hint:**
- Reconfigure / deactivate (all) your firewall(s) to allow this connection **(temporary only!)**
- IP-address of your PC and of the PLC must be in a common net (in this sample: 192.168.80.xxx)
- Check the IP-address of your PC with the cmd-command "ipconfig" and verify the net with those of your PLC.

**Change IP-address**
→ enter new Box
„Set IP-configuration“
select „Use IP parameters“
→ enter IP address
→ enter Subnet mask
→ push the button:
„Assign IP Configuration“
→ acknowledge with „OK“

**refresh IP-address**
Before using the new IP-address,
it must be searched & found again:
→ PLC
→ Display Accessible Nodes
OR:
→ refresh with „F5“

**Control IP-address** (without fig.)
→ PLC
→ Display Accessible Nodes
→ right mouse button
→ Object properties

**Hint: How to set up PG/PC-interface**
→ Extra
→ Set PG/PC Interface
→ select „Access Path“
→ select TCP/IP
→ acknowledge with „OK“:




**Hint:** For this functions
**VIDEOS** are available at the download area at: www.insevis.com
Use these functions for your first steps – it makes it easier!!

## Step 2a: Create a project with CPU and Profibus in Simatic-Manager

*You will need this software:*
*- Simatic-Manager from V5.4 SP5 (better V5.5)*
*- INSEVIS ConfigStage (Freeware)*

*Please download actual manual of the referring device*

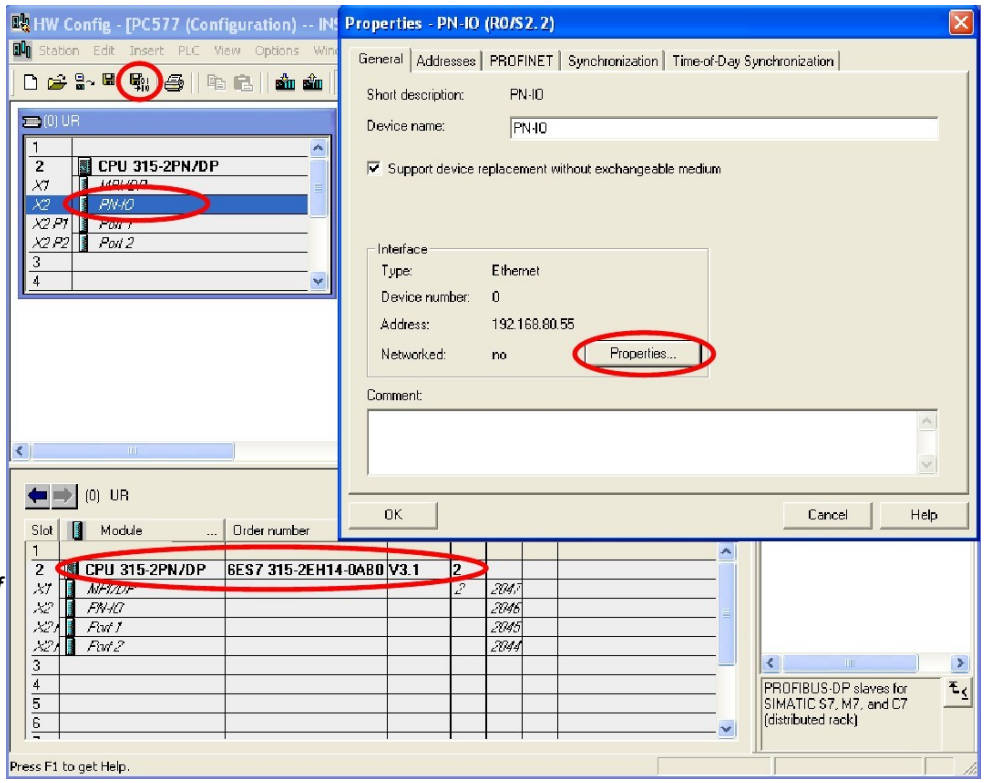
### 2a.1. Add profil rail

### 2a.2. Add 315-er CPU

**Part:**
CPU315-2PN/DP

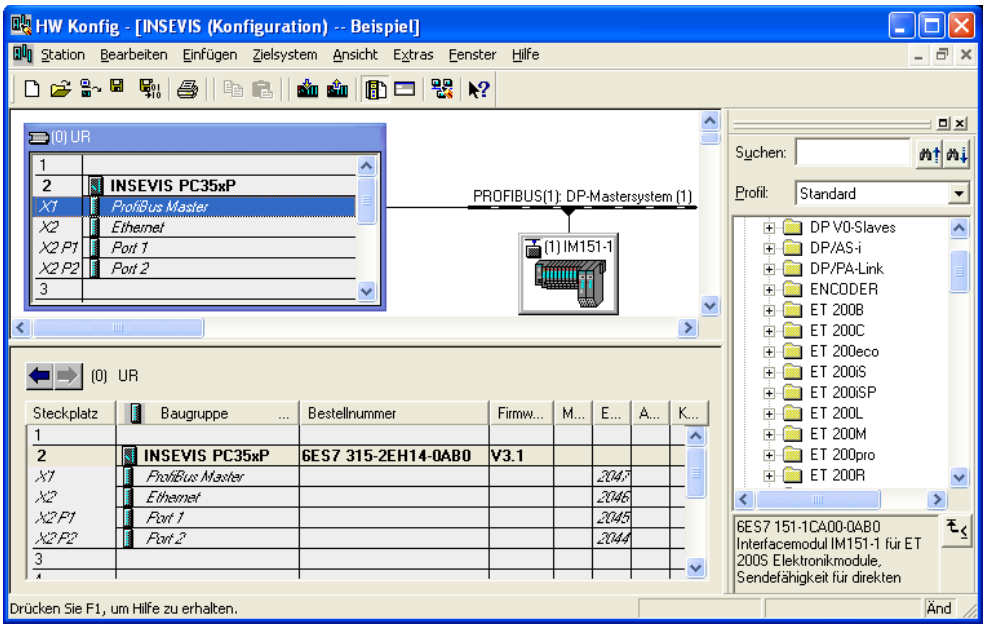
**Order no.:**
6ES7315-2EH14-0AB0

**Firmware:** from V 3.1 or higher
*(this CPU is available with V5.4 SP5 of the Simatic-Manager only. If you don´t find it, please update it.*




### 2a.3. Connect Profibus

*optional - shown here on the IM151-sample*
*→ ignore, if no Profibus is used*



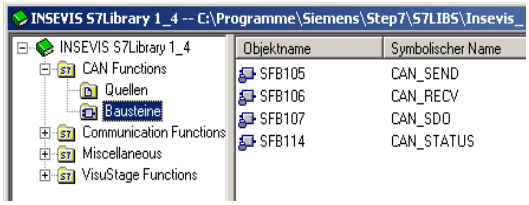
## 2a.4. Import the INSEVIS- OB, SFB and SFC into the Simatic Manager

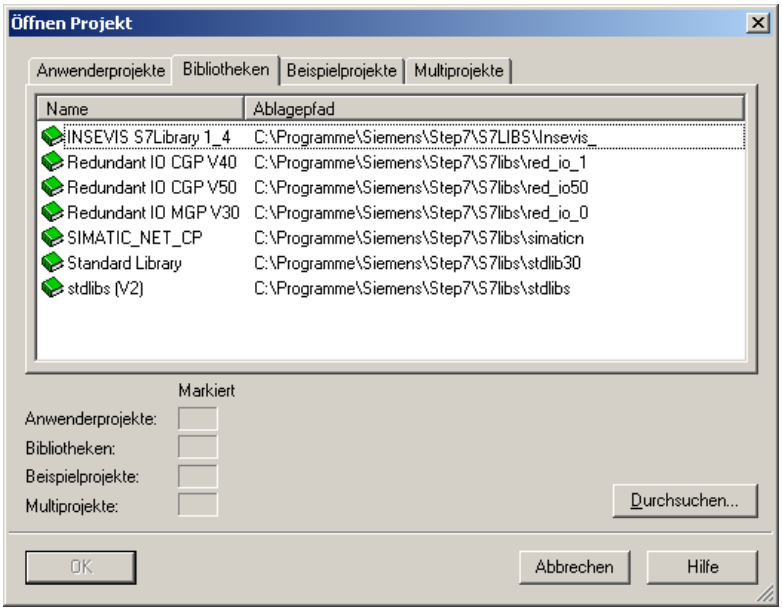
In the manuals (chapter „System functions“) all OBs, SFBs and SFCs are listed, what are compatible to STEP®7 from Siemens and are integrated in the INSEVIS- firmware as well as all additional blocks of INSEVIS. Every INSEVIS- block is described exactly in the regarding chapters of INSEVIS manuals.


All additional INSEVIS- blocks are available as **S7-Library** in th internet at www.insevis.de/de/service for free download. It will be offered always the newes library with the most functions, what needs the regarding firmware in the PLC. (e.g. Insevis_S7-library_from_2_0_19.zip - works from firmware 2.0.19 and higher).

**Installation of the INSEVIS-S7-library in the Simatic-manager**

1. File
   → dearchive
   → choose the INSEVIS S7-library.zip file
2. Store
   → (choose your folder „S7-Libs“)
   → press „OK“
3. Open the library project
   → go to „Libraries“
   → choose „INSEVIS S7-Library“
   → press „OK“
4. Copy the selected SFB´s by drag´n drop into your project



# Step 2b: Create a project with CPU and Profibus with TIA-portal from Siemens

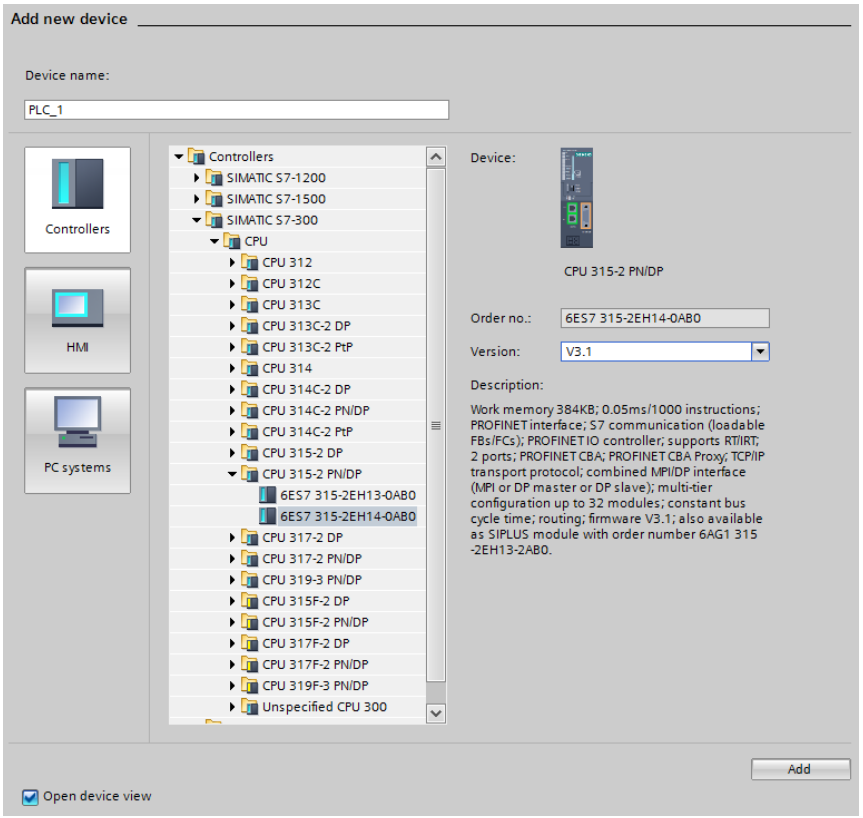
*You need this software: TIA-Portal V12 or higher + INSEVIS ConfigStage*


## 2b. 1. Create a device

- Add a new device at devices & networks

## 2b. 2. Create a CPU

- **Controller:**
  CPU315-2PN/DP
- **Order-No.:**
  6ES7315-2EH14-0AB0
- **Firmware-Version:**
  V 3.1

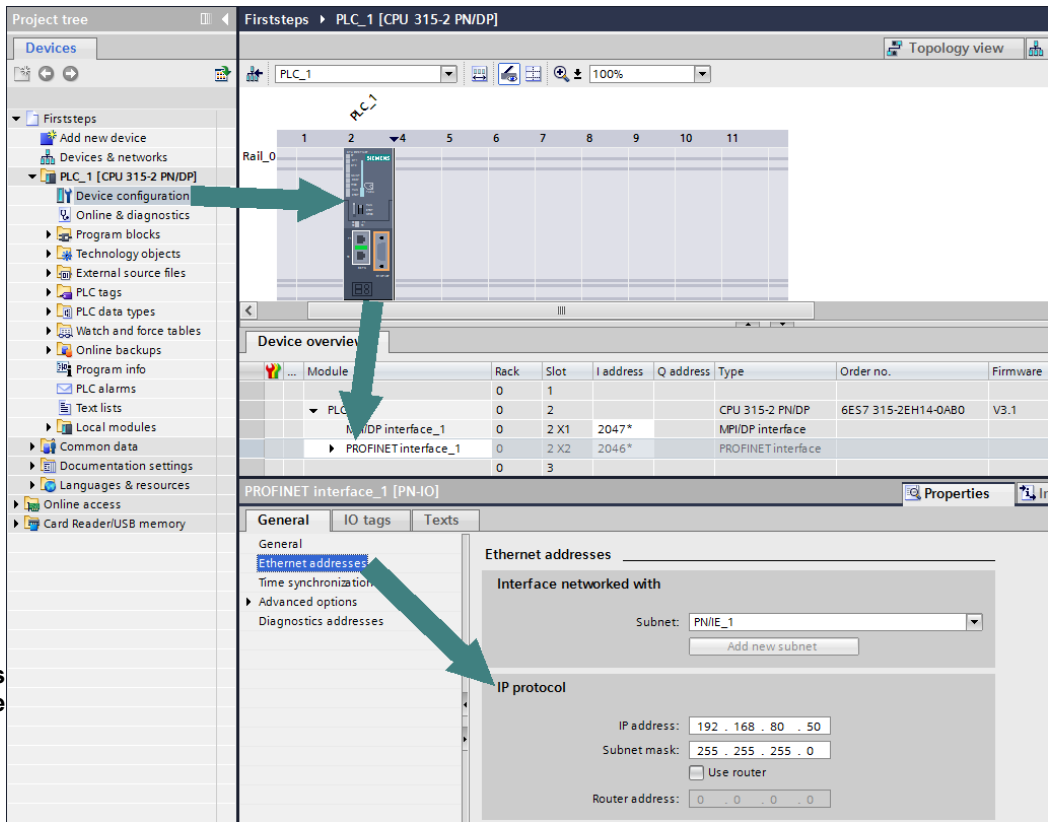



## 2b. 3. Set up Ethernet connection in hardware catalog

- Do the device configuration in the new created CPU on the DIN-rail
  → select PROFINET-interface
- At PROFINET-interface (GENEREAL / Properties - Ethernet-addresses) change the IP-address in the field „IP-protocol“

The now configured system data blocks (SDB´s) need to be transferred from the hardware manager into the PLC, what automatically makes a restart. To identify your INSEVIS CPUs beside others use the function „accessible nodes“

**Only after all the IP-address modification has been done successfully.**

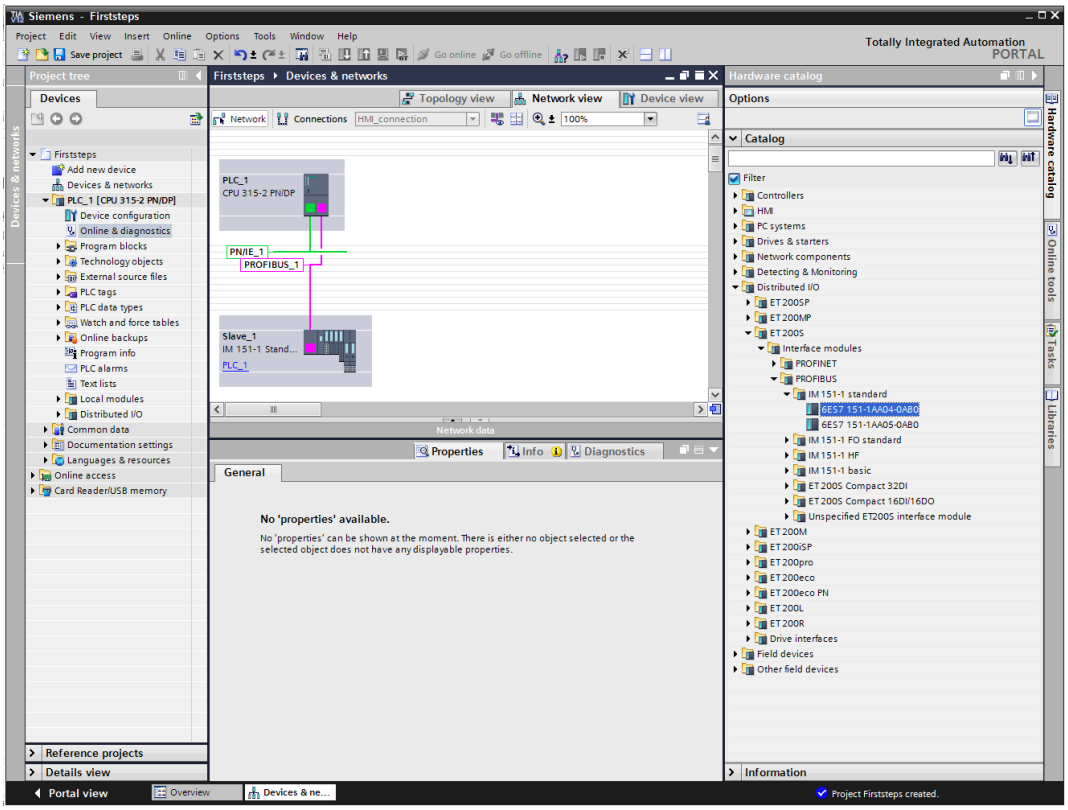


## 2b. 4. Connect Profibus

*(optional - shown here on the IM151-sample*
*→ ignore, if no Profibus is used)*

- Select Connections in „Net work view“ at PLCs „Online & diagnostics“ in the hardware-catalog
- Add a IM151 from the hardware catalog
- Connect it like in the Simatic-Manager

The now configured system data blocks (SDB´s) need to be transferred from the hardware manager into the PLC, what automatically makes a restart. To identify your INSEVIS CPUs beside others use the function „accessible nodes“
**Only after all the Profibus communication is transferred into the PLC successfully.**




## 2b. 5: Import the INSEVIS- OB, SFB and SFC into the TIA-portal

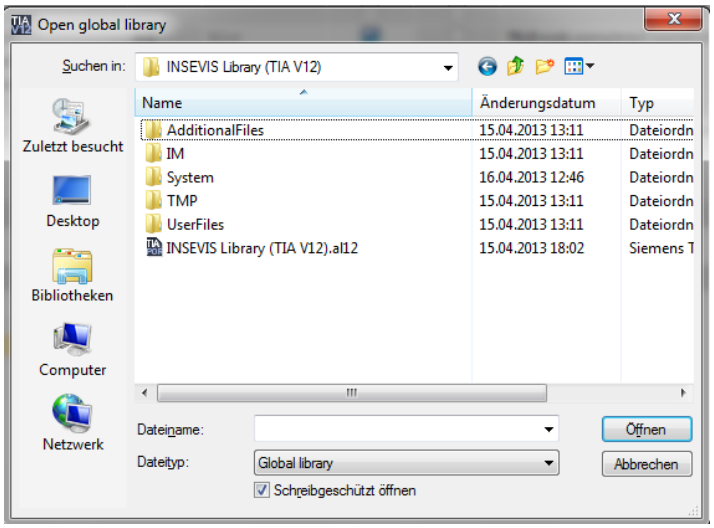
In the manuals (chapter „System functions“) all OBs, SFBs and SFCs are listed, what are compatible to STEP®7 from Siemens and are integrated in the INSEVIS- firmware as well as all additional blocks of INSEVIS. Every INSEVIS- block is described exactly in the regarding chapters of INSEVIS manuals.


All additional INSEVIS- blocks are available as **S7-Library INSEVIS Library (TIA V12).zip** in the internet at www.insevis.com for free download. It will be offered always the newest library with the most functions, what needs the regarding firmware in the PLC, at least 2.0.39).

**Install the INSEVIS-S7-library in the TIA-Portal**

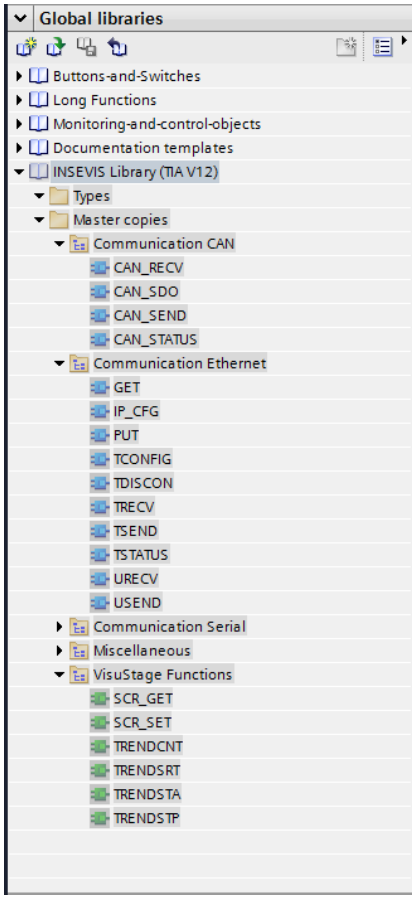
- Download latest version of INSEVIS library for TIA-portal,
- store it and extract it in any folder

- ***below:*** :
  Open library “***INSEVIS Library (TIA V2).al12***“ from the referring folder in TIA-Portal as “Global library“.→ *For more details to „open a library“ use TIA-Portal online help.*




• ***right:***
Drag´n drop the desired library elements into the program blocks of your project.

→ *For more details to „use a library element“ use TIA-Portal online help.*



## Step 3: Configure the CPU and INSEVIS-functions with „ConfigStage“ - *license free*

### 3.1. Select device

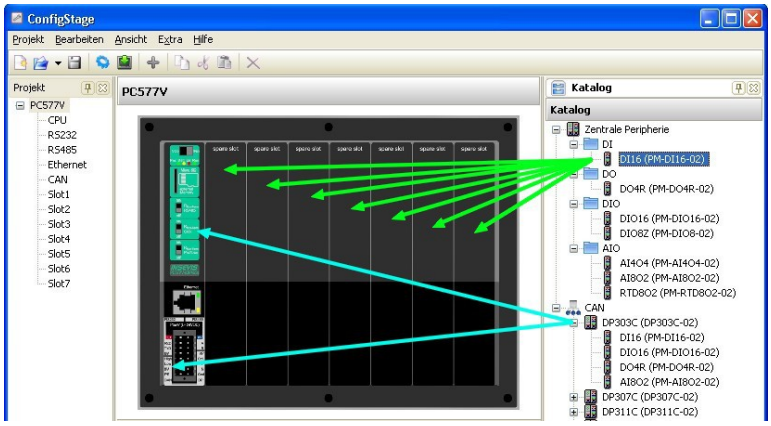
Select your device from the list shown first. A window opens up with several areas.

### 3.2. Configure periphery

Drag´drop the periphery modules to the desired slots, parameterize it and assign I/O areas.

### 3.3. Set up communication

Configure the desired interfaces (Ethernet, RS232/485-UART, Modbus, CAN) like shown in the referring manual





The configuration from Simatic-Manager must be transferred into the PLC **FIRST**. With transferring these blocks do overwrite all other system data blocks (and delete ConfigStage-configuration)
**AFTER** that you may transfer the ConfigStage-configuration into the PLC. This download overwrites the referring SDBs only and not the SDBs from Simatic-Manager and keeps the Profibus configuration..

## Additional free tools:

## Remote account with „RemoteStage“ - *license free*

Download the „RemoteStage“ from the INSEVIS- web sites and start it directly (no installing it is a portable version). Upload the visualizations binary from Panel into your PC with this icon  (requires time, because PLC is still controlling). Alternatively open the binary belonging to this visualization, created by VisuStage (*.vsbin)
Identify the remote device by entering IP-address or look for it in the network (loupe) and go online.

## Service, know-how-protection and update with „ServiceStage“ -*license free*

Download the „ServiceStage“ from the INSEVIS- web sites and:

- Have a closer look to the device information
- change IP-address,
- download new firmware (CPU-T only)
- read out diagnostic buffer,
- download new program versions,
- create backup data and
- set know-how-protection

## General hints

**Safety information**
This information contains hints for the first communication with the INSEVIS-PLC and does not substitute a manual. Inform you before you go on programming and using this hardware about all safety instructions, about operation according to regulations, qualified personnel and maintenance.


**Qualified personnel**
All devices described in this manual may only be used, built up and operated together with this documentation. Installation, initiation and operation of these devices might only be done by instructed personnel with certified skills, who can prove their ability to install and initiate electrical and mechanical devices, systems and current circuits in a generally accepted and admitted standard.

**Manuals, sample programs**
Additional documentation by manuals is available as well sample applications at the download area of www.insevis.com in English language for free download.

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