CONNECT-Software

user manual
V1.01

English

User manual compatible with software V1.02 or higher!

Content

1 General

1.1 About the manual

This manual describes the CONNECT-Software for Windows (art. no. 9354-SW-CONNECT) to connect your PC with other devices from your personal **C O N N E C T** cloud.

This documentation can be downloaded on the web page of the product via downloads ➔ documentation.

The manual is aimed to the following user groups:
- planners
- administrators
- end users

Before you use the software, you should read the manual.

If you have questions and / or problems you can contact the technical support from your dealer.

1.2 About the software

With the CONNECT-Software (also called SW-CONNECT) you are able to access other devices on your personal CONNECT cloud through your Windows PC without the need to connect a CONNECT device to your PC. The software can be used to establish a connection to a CONNECT device to access the participants who are connected to the device as well as to view and change the configuration of a device remotely. These functions are the same as on a hardware device. The connection from a hardware device to a PC with software is also possible but disabled by default.

You can retrieve the software for free from your dealer and install it on as many PCs as you need. But you will need to buy a paid license (art. no. 9354-SW-CONNECT) to be able to use the software. One license allows exactly one connection to your CONNECT cloud. If you want to establish a connection to your CONNECT cloud on multiple PCs at the same time, you will need to buy as many licenses as you need connections.

By default the above named license only allows a connection between a PC with software and a hardware device. If you want to connect two PCs with software you will need the separately available option for software connections (art. no. 9354-O-SW-CONNECT). This option only needs to be bought once for your cloud and applies to all PCs with the software.

2 Setup of the software

2.1 System requirements

For the usage of the software you will need a PC which has access to the internet through a router or via a proxy server.

The software supports the following operating systems:
- Windows 7
- Windows Server 2008 R2
- Windows 8 / 8.1
- Windows Server 2012 / 2012 R2
- Windows 10
- Windows Server 2016 / 2019 / 2022
- Windows 11

If you want to access the website of other devices on your cloud via the remote config you will additionally need an internet browser (e. g. Microsoft Internet Explorer, Mozilla Firefox or Google Chrome).

2.2 Installation

Before you can use the CONNECT-Software you will need to install it on your PC.

Hint:

If you already have installed an older version of the software, you can simply install the new version over the old one. All settings are of course retained during an update.

Important:

To install the software administrator rights are needed. Afterwards the software can be used by any user on the PC.

As far as you have downloaded the setup from the product page and started it, you get first asked to select a language for the installation:
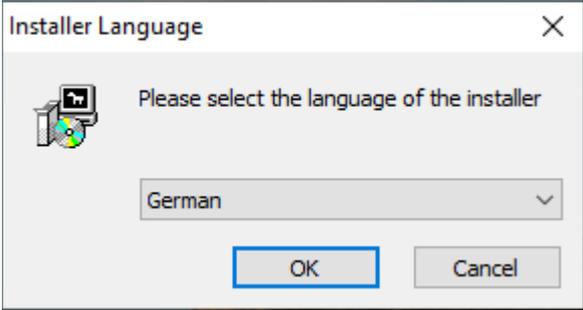
In the next step you can see the directory where the software will be installed. If needed you can of course click on "Browse ..." and select another directory.
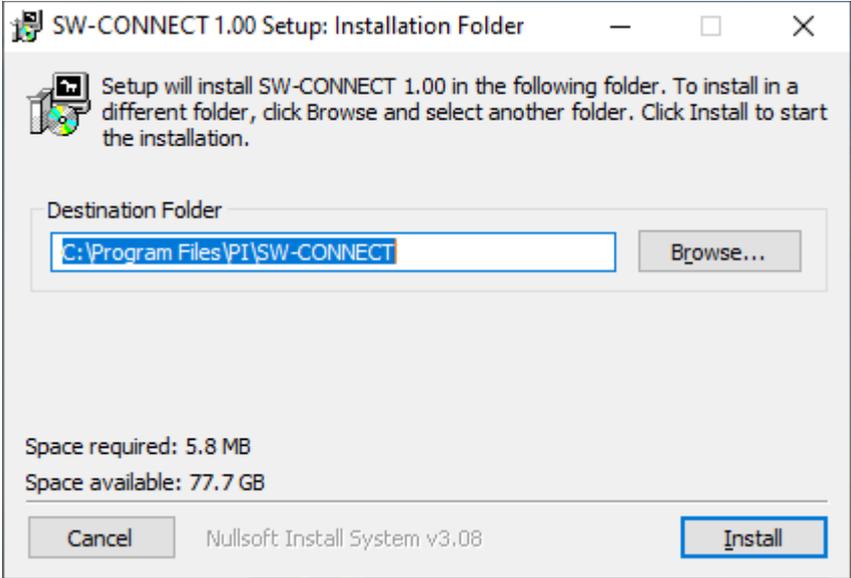
Afterwards the installation will process. Thereby some tests (e. g. for an older version) are getting executed and finally the needed components are getting extracted to your PC and configured. After a few minutes the installation should be finished and you can exit the setup:

manual CONNECT-Software V1.01
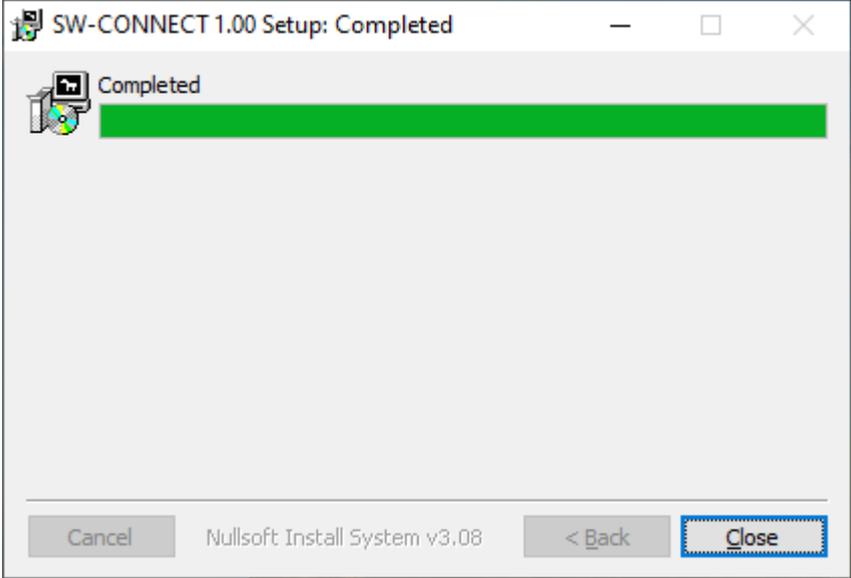
2.3   Initial configuration

When you start the CONNECT-Software for the first time you will see the dialog for the initial configuration. In this dialog you will have to set up some parameters which are need for the connection to your personal CONNECT cloud.
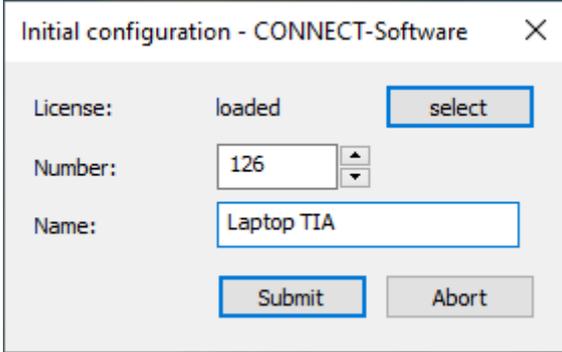
In the first step you should click on the button "select" within the line "License". Now a file dialog appears where you have to select the license file which you retrieved from your dealer. Afterwards you should specify a number and a name. The number thereby is used as an unique identifier within your CONNECT cloud and can not be used by any other device. The name is optionally and is only used for an easier identification.

Hint:

By default incoming connections to the PC are disallowed. But you can change this within the settings later.

3 Usage of the software

When you want to use the CONNECT-Software you will first have to start the program. For this you will have to click on the entry "SW-CONNECT" within the start menu. Of course you can also create a desktop shortcut for the program.

As soon as you have started the program (and successfully completed the initial configuration) you will now see a dialog, which represents the main window, as well as a symbol within the info area of your taskbar. The software automatically establishes the connection to your personal CONNECT cloud and should be ready within a few seconds. The symbol in the taskbar now should show a white cloud.

If you have enabled the automatically connection establishment, the CONNECT-Software now tries to connect to the specified partner device. If you haven't enabled the automatically connection establishment or if you want to connect to another device you can do this via the dialog "Device list".

As soon as the software is connected with another device the symbol in the taskbar changes it color from white to green. The PC and (when configured) further participants who are on the same network as your PC will now be able to communicate with the participants who are connected with the partner device like they would be on the same network.

3.1 Main window

The main window gets opened when you start the program and shows some information about your PC and its connection to your personal CONNECT cloud. Furthermore the window has a menu which allows you to access the device list as well as the settings and some further status information.

```
CONNECT-Software                                    ×

Cloud   Configuration   Help

┌─ State ──────────────────────────────────────────┐
│                                                    │
│   Connection:          connection established      │
│                                                    │
│   Error:               -                           │
│                                                    │
│   Local PC:            Laptop TIA (#126)           │
│                                                    │
│   Partner device:      Plant Cupertino (#478)      │
│                                                    │
└────────────────────────────────────────────────────┘

┌─ Remote config ──────────────────────────────────┐
│                                                    │
│   Device:              Plant Seattle (#413)        │
│                                                    │
│   State:               ready                       │
│                                                    │
└────────────────────────────────────────────────────┘

                                        [ Minimize ]
```
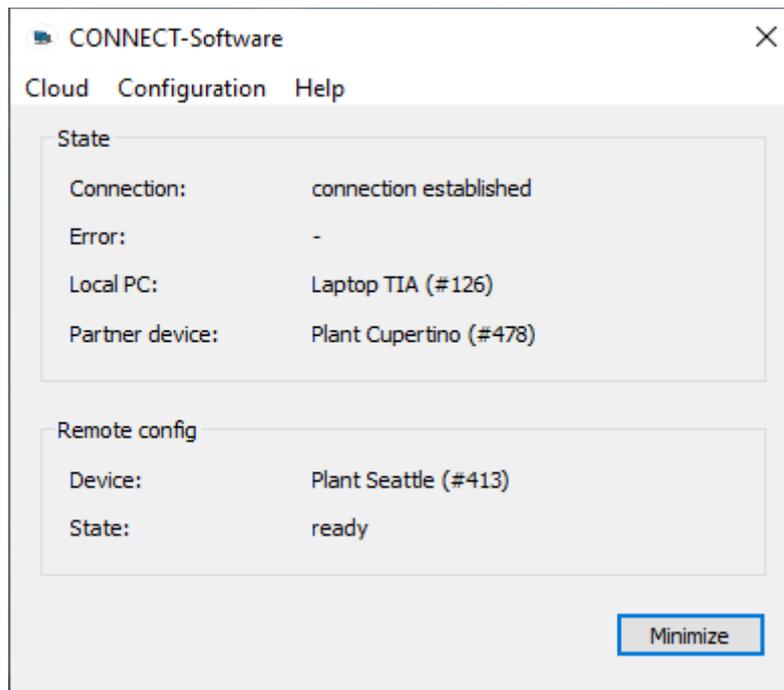
If you click on the close icon on the title bar of the window the software and the connection to the cloud will be closed. To be able to establish a connection you will just need to start the software again.

When you only want to minimize the program you can click on the button "Minimize". Thereby the window gets hidden and can be reopened with a double click on the taskbar symbol.

Within the group "State" the following general information are shown:

Connection: The current state of the PC and its connection.

Error: The last error which occurred on the PC.

Local PC: The name, if exists, and number of the PC.

Partner device: The name, if exists, and number of the device to which currently or lastly a connection is / was established.

The group "Remote config" shows some additional information about the access to the website of another device:

Device: The name, if exists, and number of the device to which currently or lastly a connection for the remote config is / was established.

State: The current state or last error for the remote config.

3.1.1   Menu

The main window has a menu bar on top with the following commands:

menu item	description
Cloud	
→ Show device list	shows a list with all devices in your CONNECT cloud
→ Show partner addresses	shows the addresses of the (last) partner device
→ Close connection	closes the connection to the partner device
→ Open remote config	opens the website of the previously selected device for the remote config
→ Stop remote config	stops the remote config for the previously selected device
→ Close program	closes the program and the connection to your CONNECT cloud
Configuration	
→ Basic settings	shows the dialog for the configuration of the basic settings
→ Proxy settings	shows the dialog for the configuration of the proxy settings
→ Interfaces	shows the dialog for the selection of the local interfaces
→ Addresses	shows the dialog for the configuration of the addresses of the local PC

→ Reset settings	resets all settings of the software to the default values; afterwards the initial configuration has to be done again
Help	
→ Language	shows the dialog for the language selection
→ Info	shows the dialog with software info

3.2 Taskbar symbol

The CONNECT-Software shows a symbol within the info area of the taskbar (commonly on the lower right). The symbol allows you a fast diagnostic about the current state of the connection as well as an access to some shortcuts.

If you execute a double click on the symbol the program will be brought to the front or the main window will be opened if it was minimized previously.

Depending on the state of the connection the symbol on the taskbar has a different color:

connection between PC and partner device is established

PC is ready and waits for a connection

connection to the cloud gets established

error while establishing the connection to the cloud

3.2.1 Context menu

If you click on the symbol with the right mouse button a context menu will be showed with the following shortcuts:

menu item	description
Show program	brings the program to the front or opens the main window (if the program was minimized)
Show device list	shows a list with all devices in your CONNECT cloud
Close connection	closes the connection to the partner device
Open remote config	opens the website of the previously selected device for the remote config
Stop remote config	stops the remote config for the previously selected device
Close program	closes the program and the connection to your CONNECT cloud

3.3 Device list

With the device list you are able to see all devices who are connected with your personal CONNECT cloud.

To open the device list you first have to click on the menu item "Show device list" (either via the menu from the main window or via the context menu from the taskbar symbol). Afterwards the list gets retrieved once and after a few seconds the found devices will be shown:
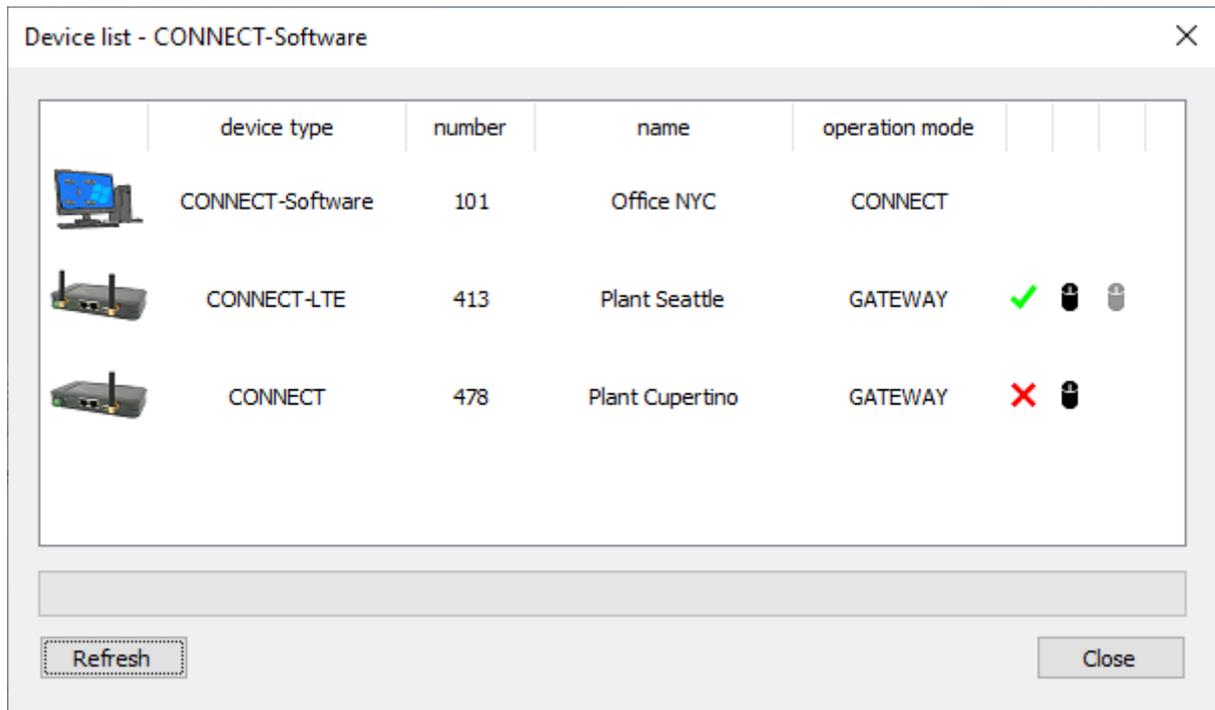
With the symbols ✔ and ✘ at the end of the rows in the table you can establish a connection to the corresponding device or close an already existing connection.

The symbols 🖱 and 🖱, who are also shown in the rows of the table, are used to start or open and stop the remote config for a device. The remote config is a function to view and control the website of another hardware device as if the device where located in your local network.

With the button "Refresh" you can reload the device list again manually.

Important:

When you manually disconnect of a device the automatically connection establishment will be disabled temporarily. After a restart of the program this automatic will be enabled again.

3.3.1 Establish connection

If you want to establish a connection to a device the following dialog will be shown after you have clicked on the ✔ symbol:
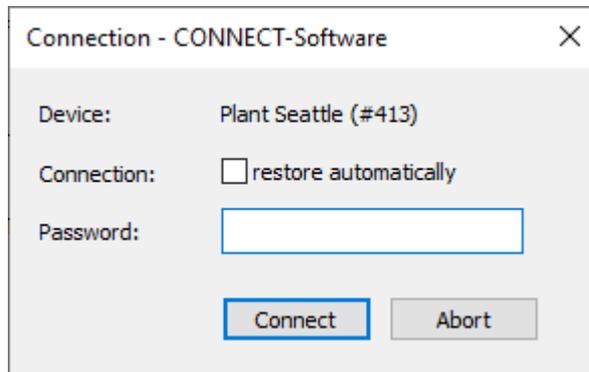
On this dialog the name, if exists, and the number of the device, to which a connection should be established to, will be shown again. Furthermore you have an input field where you have to enter the connection password for this device. Afterwards you can click on the button "Connect", to establish the connection to this device.

If needed you can also set the tick "restore automatically" on the line "Connection" before establishing the connection. Thereby the connection will be automatically restored when the connection get lost but wasn't closed explicitly by yourself (e. g. on a restart or configuration change on the partner device).

Hint:
If you previously already were connected with a partner device and now would like to connect to another device the previous connection will be disconnected automatically. The parallel connection to multiple devices isn't supported.

3.3.2 Start remote config

When you want to start the remote config for a device from the list a dialog will be shown too after you have clicked on the symbol 🖱:
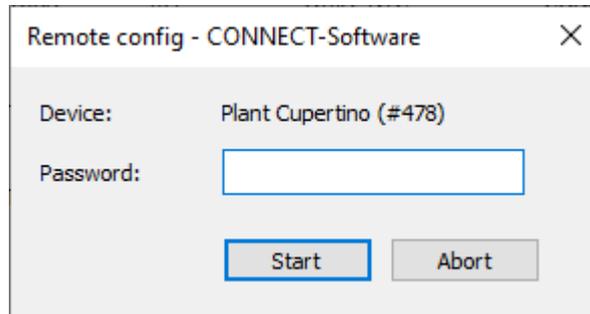
The dialog shows the selected device again and requests for entering the password for the device. Afterwards you can click on the button "Start". When the remote config was started successfully, a new window of your web browser will be opened where the website of the selected device will be shown.

Hint:

If the remote config to another device was started previously but not stopped yet, this remote config gets stopped first. The parallel access via remote config to multiple devices is not possible.

4 Configuration

4.1 Basic settings

In the basic settings you can specify how your PC should acting within your personal CONNECT cloud.

If you want to view or edit these settings you will have to click on the menu item "Configuration" → "Basic settings". Thereby a dialog with multiple settings which are separated in a few groups gets opened.

The group "Local PC" has some general settings about the networking of your PC in your CONNECT cloud:

Number: The unique number for the PC.

Name: The name for the PC, which is only used for an
                easier identification.

Connection: Specifies if an incoming / unattended connection to this
                PC is allowed.

Password: The password for the PC, which is needed to establish a connection to this PC.

Important:

Every device needs an own unique number. The usage of the same number on multiple devices is not possible.

In the group "Partner device" you can configure the automatic connection to one of your devices from your CONNECT cloud:

Connection: Specifies if the PC should establish a connection to a device from your CONNECT cloud automatically.

Number: The number of the device, where the connection should be established to.

Password: The password of the device, where the connection should be established to.

With the setting in the group "Remote config" you specify how the web access to another device from your CONNECT cloud should occur:

Port: The local TCP port, which is used for the web access for the remote config.

Important:

The port for the remote config may not be used by any other program on your PC.

4.2 Proxy settings

With the proxy settings you can specify if and which proxy server should be used from the software to establish a connection to the internet. By default the software uses the settings of your PC. But you can also set these settings manually within the software.

To be able to view or change these settings you have to click on the menu item "Configuration" → "Proxy settings". Afterwards a dialog with a few settings will be shown.
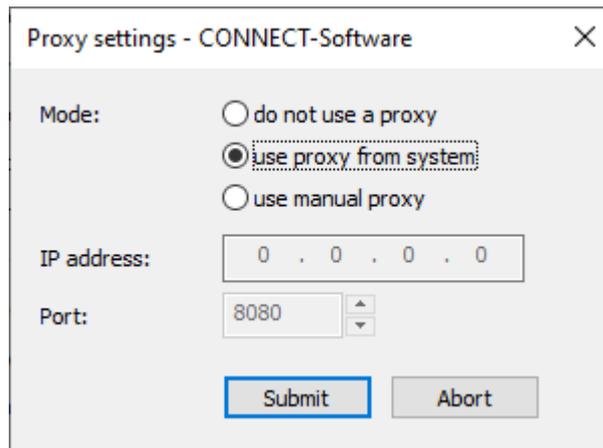
Within the dialog the following settings are shown:

Mode: Specifies if the internet connection should be established via a proxy server.

IP address: The IP address of the proxy server.

Port: The TCP port of the proxy server.
(8080 → often used port for proxy servers)

Hint:

When no proxy server is used, the connection is established directly via your router or configured gateway.

4.3   Interfaces and addresses

To be able to communicate with the participants who are connected with another device through the CONNECT-Software your PC needs one or maybe even multiple IP addresses. The software by default uses all IP addresses from the available network interfaces of your PC. This allows the usage of the software regardless which interface you would normally use to connect the participant (e. g. when you would be directly on site of the machine) and which interface is used for the internet connection, without the need to change any setting within the software. But if needed you can specify the network interfaces which should be used manually. Additionally you can also specify further IP addresses for participants that are on the same network as your PC and should also be able to communicate with the participants on the partner device.

To adjust the selection of interfaces you have to click on the menu item "Configuration" → "Interfaces". Now a dialog with the list of network interfaces gets shown:
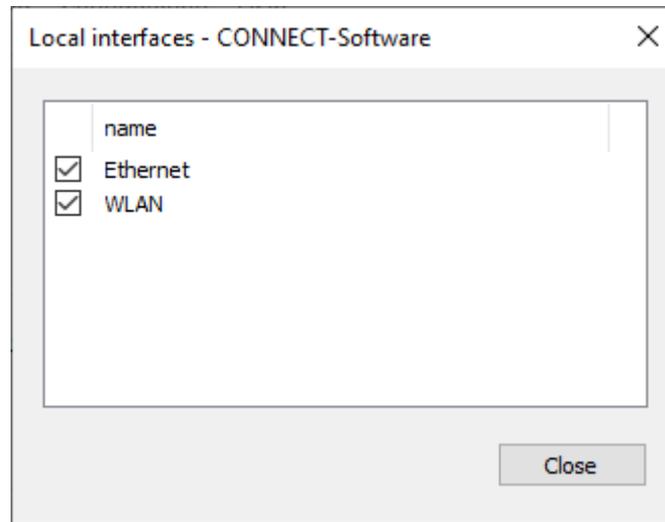
Hint:
Within the list of interfaces also interfaces which aren't connected currently or even be disabled are shown.

To enable or disable the usage of a interface by the software you simply have to click on the check box in front of the name of the corresponding interface. This change is submitted directly.

Important:
Because the usage of the interface is a global setting which affects all users on the PC admin rights are required to change this.

After you have specified the interfaces you can display the detected IP addresses from the used interfaces as well as configuring the manual IP addresses for participants that are on the same network. Through this you have a complete overview which addresses or participants are allowed to communicate with the participants connected to the partner device.

If you want to see the overview of addresses you have to click on the menu item "Configuration" → "Addresses". Now you should get a dialog where you can on the top of the window select the interface and below see the lists with all addresses:
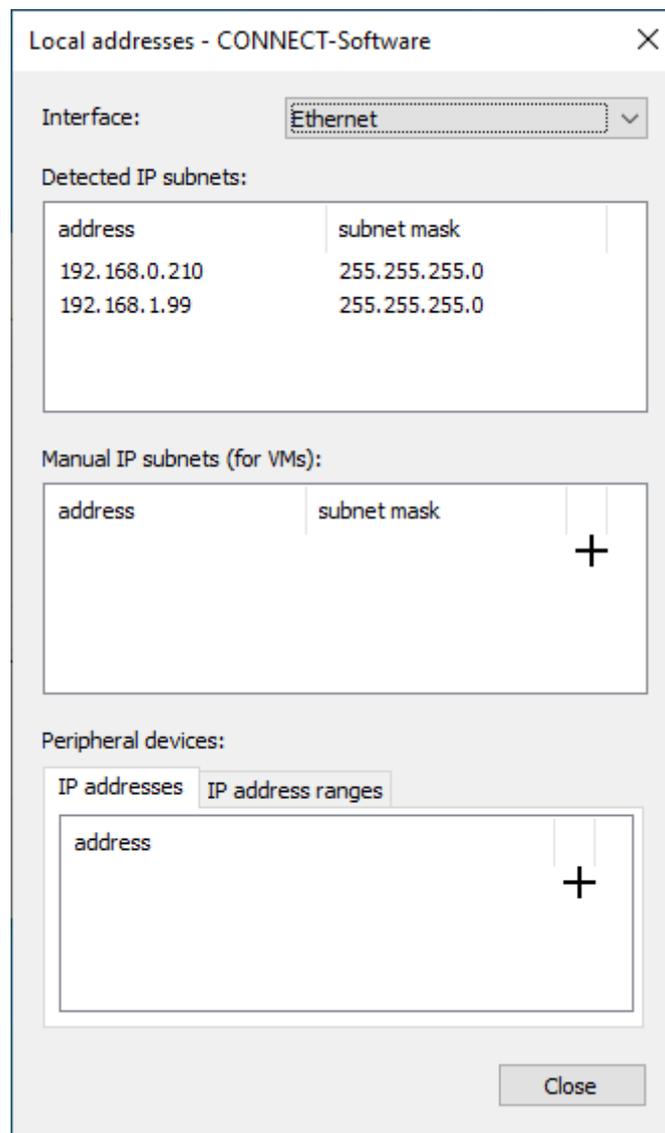
Hint:

All addresses shown in the lists only belong to the selected interface.

Within the list "Detected IP subnets" you can see all IP addresses as well as the corresponding subnet masks automatically detected from the software. This are the IP addresses that were configured manually in the properties of the interface within Windows or automatically (via DHCP) assigned to the interface.

If you have set up virtual machines with bridge mode on your PC who should also be able to communicate with the participants on the partner device you have to enter the IP address and subnet mask of this virtual machines into the list "Manual IP subnets".

When you want to allow other participants that are on the same network as your PC access to the partner device you have to enter them into one of the lists within the section "Peripheral devices". There you can either enter single addresses or even complete address ranges.

To add an address to one of the lists you have to click on the ＋ symbol. Thereby the first cell enters the input mode. If you want to change an existing cell you have to execute a double click on the cell. Afterwards you can submit the input by pressing the ENTER key. Alternatively (for lists with multiple columns) you can also press the TAB key to jump to the next cell. By pressing the ESC key the input mode will be aborted without submitting the input. To remove an existing address you have to click on the ー symbol.

As soon as you have done a change within one of the lists the dialog changes from the view mode to the edit mode. To submit the done changes you finally have to click on "Submit". If you want to discard all changes you can click on "Abort". Afterwards the dialog goes back to the view mode.


Hint:
Only one interface can be in the edit mode on the same time. Thus the selection of the interface is disabled in this mode.

4.4 Language

The software supports the languages German and English. By default the software tries to detect the language of your PC and uses this. But you can also specify the language manually.

To be able to view or change the configured language you have to click on the menu item "Help" → "Language". Now a dialog with the language selection should appear:
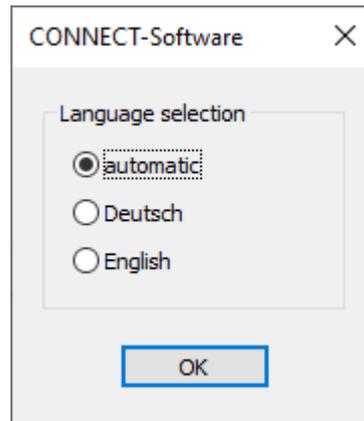
If you have changed the language and clicked on "OK", the program needs to be restarted to submit it. The software therefore asks you if the program should be restarted now. Acknowledge this message with "Yes" or execute the restart later manually.

Hint:
Through the restart of the program all established connections to other devices will be closed.

5 Diagnostic

5.1 Partner addresses

Within the dialog "Partner addresses" you can see the addresses and address ranges of all (configured) participants from the current or last connected partner device. This can be useful to simply check with which participants a communication can be possible.

If you want to want to view these addresses, you have to click on the menu item "Cloud" → "Show partner addresses". For a better view the addresses are grouped in multiple tabs.
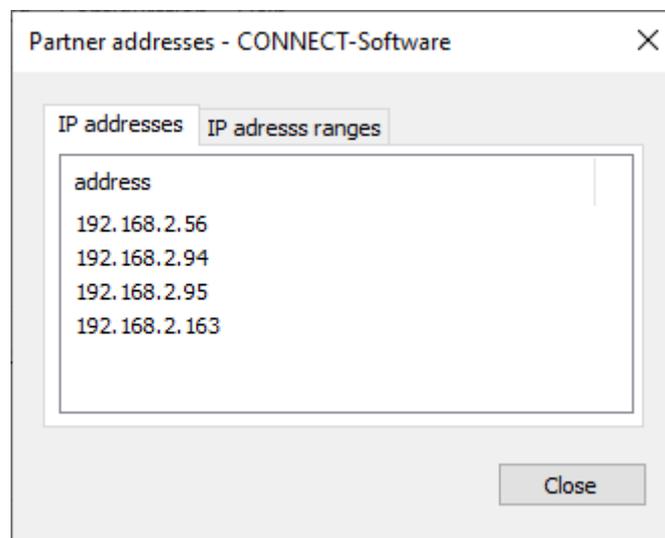
Hint:

The dialog only shows the addresses of participants which are allowed to communicate via the device. But this does not mean that the participants can actually be reached (e. g. when the participant on the partner device is not connected or powered off).

5.2 Software info

The dialog "Info about CONNECT-Software" shows the installed version of the CONNECT-Software, your customer number for the CONNECT cloud as well as the Windows version of your PC. Please keep these information ready when you need to contact the technical support.

To open the dialog with the software info you have to click on the menu item "Help" → "Info".

Info about CONNECT-Software   ×

CONNECT-Software
Version 1.00

Customer number: 24930

Windows version: 10.0 Build 19045

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OK
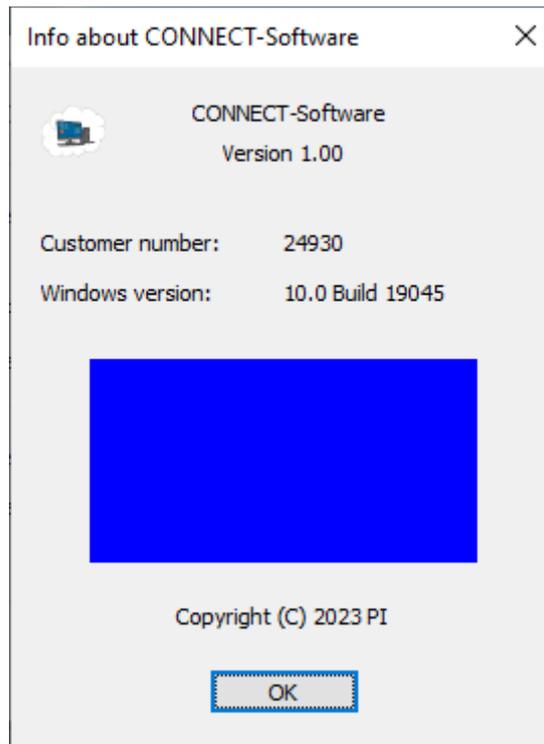
6 Application notes

6.1 Access to participant via TIA portal

With the help of the CONNECT-Software and the TIA portal you have the possibility to access a remote participant like a controller or panel to e. g. execute a diagnostic or transfer a change. If the device at site and your PC is not within the same subnet a message appears, which says that another IP address have to be added:
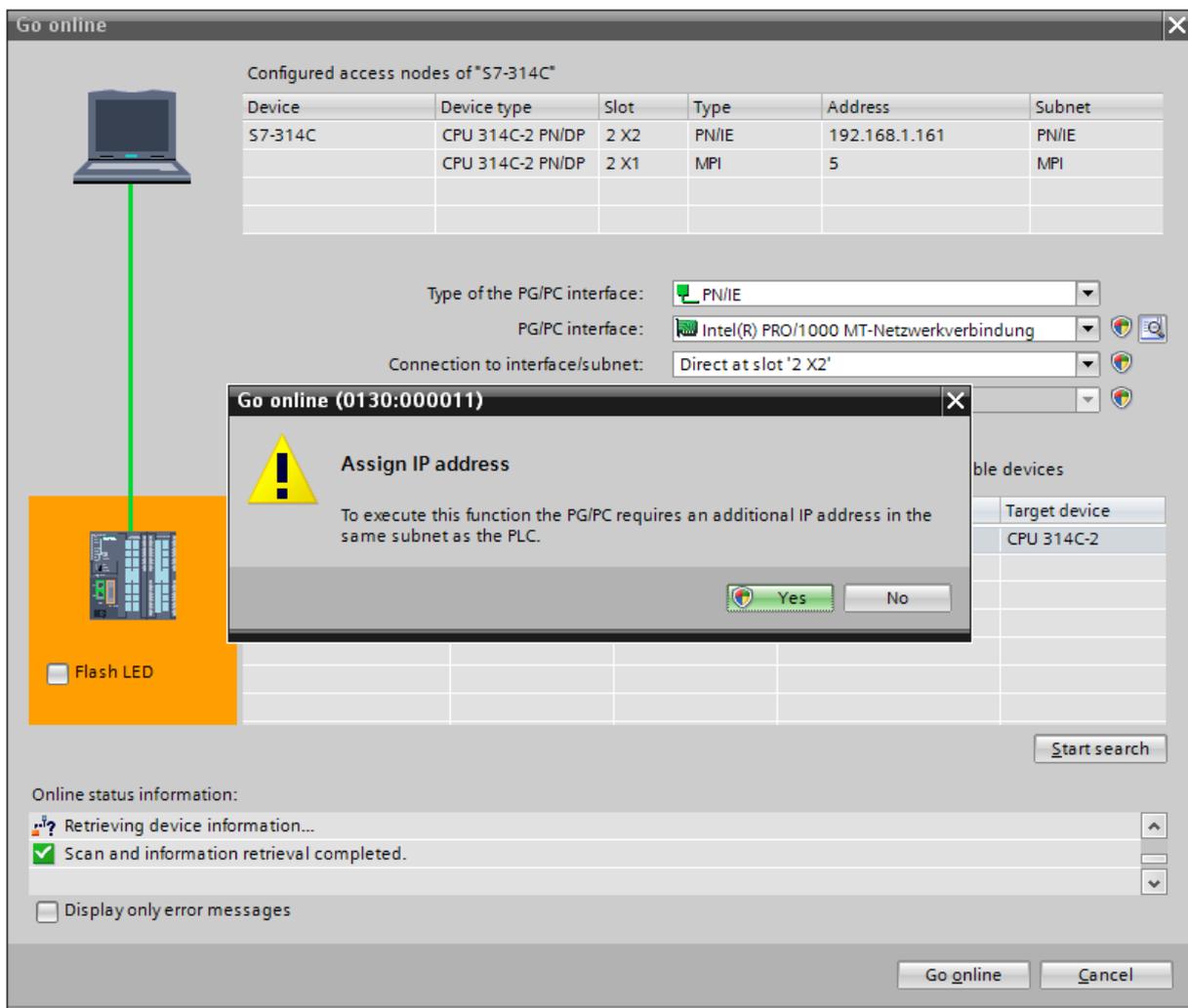
This message should be confirmed with "No". But a communication should be possible in both cases, at least when the CONNECT partner device and your PC is configured properly.

If you accidentally clicked on "Yes", a temporarily IP address gets added by the TIA portal, which needs to be deleted first.

For this you will have to expand the entry "Online access" on the Project tree (within the Project view), search for your network card and open the properties of them. Within the appeared dialog you have to navigate to the entry "Configurations" → "IE-PG access". There you should see the temporarily created IP address:
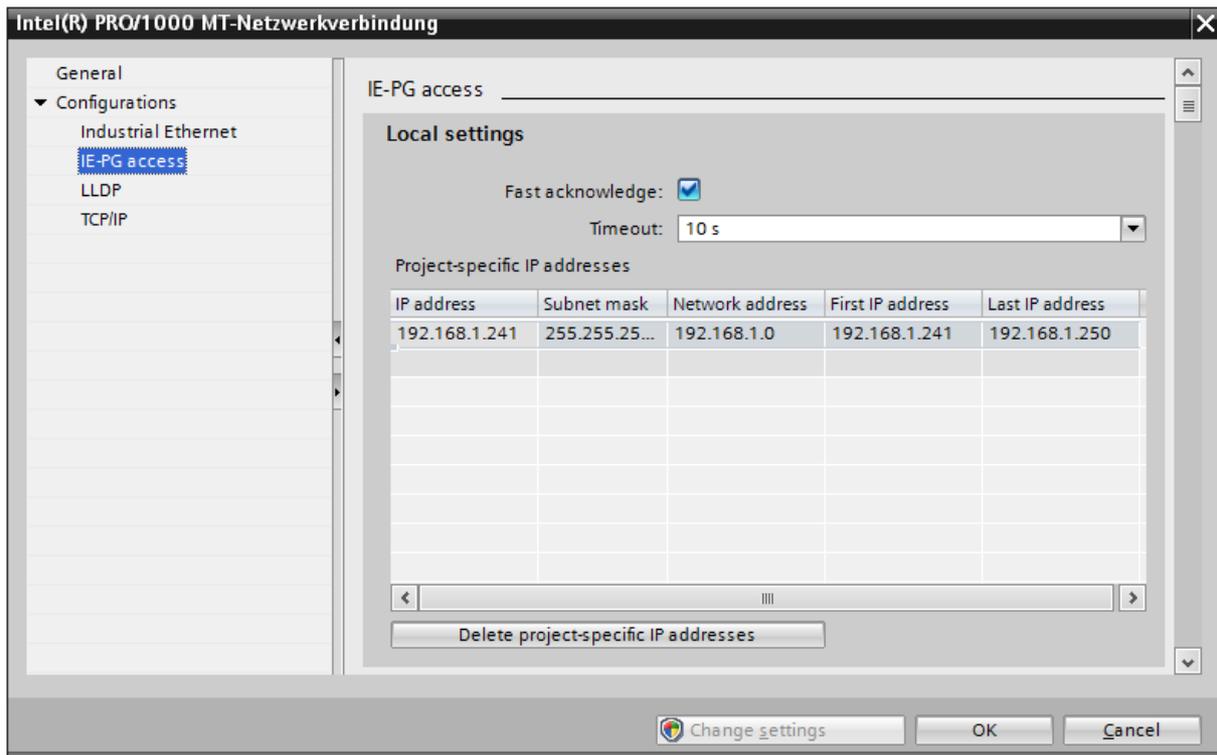
In the dialog you have to click on "Delete project-specific IP addresses". Finally you can close the dialog and connect to your participant.