Automation Builder – Ethernet Gateway driver setup

1. Setup the Ethernet communication in Windows:

Before you are able to download the compiled program the first time from the PC to the PLC, you have to setup the communication parameter. There are two options you can use to login to the PLC, either with Ethernet or serial with TK503 USB cables.

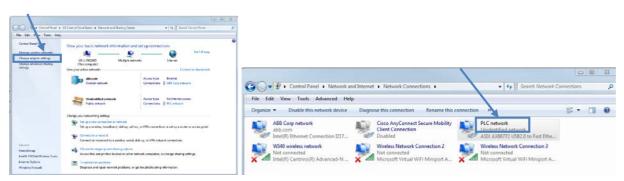
Online Access with Ethernet setup for your PC:

To verify the IP address of your PC

Make sure that your PC address is in the same subnet (First 3 octets are identical) as the CPU's IP address. The factory setting of the CPU for IP address is 192.168.0.10. Then the IP of the PC should be **192.168.0.x**, x should be different number than **10** so that it will not have an IP conflict with the CPU. Subnet mask should be 255.255.255.0.

To change the IP address in your PC:

- 1.1 Go to Windows Control Panel > Network and Internet > Network and Sharing Center
- 1.2 Click on Change adapter settings
- 1.3 Select Local Area Connection (in this example is **PLC network** connection below) and right click it to open the menu.



- 1.4 Choose **Properties** (the status is active when the Ethernet connection between PC and PLC is active)
- 1.5 Select Internet Protocol Version 4 (TCP/IPv4) and double click to see properties.
- 1.6 Key in your desired IP address and subnet mask then click OK.

| PLC network Status | PLC network Properties | Internet Protocol Version 4 (TCP/IPv4) Properties |
|--|---|---|
| General | Networking Sharing | General |
| Connection No Internet access | Connect using: | You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings. |
| IPv6 Connectivity: No network access Media State: Enabled Duration: 01:04:22 | Configure This connection uses the following items: | Obtain an IP address automatically Use the following IP address: |
| Speed: 100.0 Mbps | Imp Client for Microsoft Network Imp Client PC Network Filter Drive Imp Client PC Network Filter Drive Imp Client Scheduler | IP address: 192.168.3.249 Subnet mask: 255.255.255.0 |
| | File and Printer Sharing for Microsoft Networks Internet Protocol Version 6 (TCP/IPv9) | Default gateway: |
| Activity | | Obtain DNS server address automatically O Use the following DNS server addresses: |
| Sent — Received | Instal Uninstall Properties | Preferred DNS server: |
| Bytha: 99,128 538,848 | Description Transmission Control Protocol/Internet Protocol. The default | Alternate DNS server: |
| Properties Pisable Diagnose | wide area network protocol that provides communication across diverse interconnected networks. | Validate settings upon exit Advanced |
| Close | OK Cancel | OK Cancel |



2. Setup the IP address in Automation Builder software:

- Make sure the CPU's RUN switch is at **STOP** position
- Click IP-Configuration to access Scan tool

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|--|---|
| 19 € 8 6 ∧ ∧ 1 A 43 6 | |
| Devices | • 9 X PLC_ACSOD 1 0000 1 CTH1 X P-Configuration |
| | P settings Prore B settings P |
| | Link mode Auto Negotiation * |
| | Remote configuration |
| | ABBNetConfig protocolactive |

- Click on Scan button for searching active PLC on the network
- Highlight the active IP address in the search window
- Change the IP address to new IP address such as 192.168.3.20
- Click on Send Configuration button to send new IP address to PLC.

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- The warning message window display is shown below for this change.
- This screen shows the progress of IP address settings is sending to CPU. Wait about 30 seconds for CPU to register new IP address (the RUN and ERR lights are flashing during this process).
- Click OK to accept this new IP address for this CPU.

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|-----------|---|
| Â | Attention ! Setting the IP address will lead to a reset of the PLC in order to take over the new address. |
| | OK Cancel |



• Press "Scan" button again to verify the IP address of CPU. This window shows the Configured IP address sent to CPU successfully. This IP address will be used in IEC 61131-3 CoDeSys to download your PLC project to CPU.

| Abort scan | | | | | | | |
|-------------------|-------------|----------|---------------|-----------|--------------------|-----------------------|------------|
| 1AC address | Device name | Position | Serial number | Device ID | Current IP Address | Configured IP Address | Auth. supp |
| 00-24-59-04-03-A1 | PM554-T-ETH | Slot 0 | 000005929 | 0x00 | 192.168.3.20 | 192.168.3.20 | no |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

3. Download and Go online with project: From Online menu, select Communication Parameters.

| 🎭 CoDeSys - AC500.pro* | | |
|---------------------------------|---|--|
| File Edit Project Insert Extras | Online Window Help Login Logout | Alt+F8 Ctrl+F8 |
| ■ POUs Imp PLC_PRG (PRG) | Download Run Stop Reset (cold) Reset (cold) Reset (original) | F5 Shift#F8 |
| | Toggle Breakpoint Breakpoint Dialog Step over Step in Single Cycle | F9 F10 F8 Ctrl+F5 |
| | Write Values Force Values Release Force Write/Force-Dialog | Ctrl+F7 F7 Shift+F7 Ctrl+Shift+ |
| | Show Cell Stack Display Flow Control Simulation Prometers Communication Parameters | |

- 3.1 In the **Communication Parameter** dialog box, **click New...** button to add a new channel. Type the name for this channel. In this example below, **192.168.3.20** is the name for this channel.
- 3.2 In the popup Communication Parameters: New Channel dialog, fill in the "Name" field with 192.168.3.35, select TCP/IP in Device window then click OK.

| | EX I |
|--|---------|
| Communication Parameters | |
| Channels | |
| Communication Parameters: New Channel | ОК |
| | Cancel |
| Nane 192.168.3.20 OK | |
| Cancel | New |
| Device Caricei | |
| ABB Arcnet AC ABB SST Arcnet AC driver | Remove |
| ABB RS232 AC ABB RS232 AC driver | |
| Tcp/lp 3S Tcp/lp driver | Gateway |
| Serial (HS232) 35 Serial HS232 driver | Update |
| Tcp/lp (Level 2 Route) 3S Tcp/lp Level 2 Router Driver | |
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| | |



Click Gateway then select Local for Connection from popup Communication Parameters: Gateway window as shown below.

| Communication Parameters | 23 |
|--|--|
| Communication Parameters Channels Channels Tcp/lp Tcp/lp Tsp2168.3.15 Tsp2168.3.15 Tsp2168.3.15 Tsp2168.3.15 Tsp2168.3.15 Tsp2168.3.15 Communication Parameters: Gateway Communication Parameters: Gateway Connection: Local Connection: Local Connection: Local Concel Password: Concel Co | OK Cancel New Remove Gateway Update |
| Port: [1210 | |

- 3.3 Double click in each Value field to replace with
 - Address: **192.168.3.20**
 - Port: **1201**
 - Motorola byteorder: Yes

Click **OK** to accept these entries.

