

Replacing Communicator Classic with New Communicator

QUICK GUIDE

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1. Overview

This guide describes how to replace the Communicator Classic with the new Communicator.

Essentially, there are three main parts to take into consideration:

1. *Physical differences*: power and network connectors are not in the same place, and the configuration port is different.
2. *Configuration conversion*: locating your old configuration and importing it into the new communicator.
3. *Network configuration file update*: how to locate the new GSD/GSDML/EDS file for your network and update the PLC (master).

The goal is to have the new Communicator up and running with a configuration originally from the old Communicator Classic. The screenshot below shows the desired view, where the new Communicator successfully is using the converted configuration.

The screenshot displays the Anybus Communicator web interface. The top header shows the Anybus logo and the title "Anybus Communicator" with version information (Article Number: ABC3007, Version: 1.7.1, Serial Number: A0477F71, GUI Version: 2.7.1) and an "Apply" button. The left sidebar contains navigation options: Home, Configuration, Serial RS-232/485, Communication, Nodes & transactions, EtherNet/IP™, I/O data map, Maintenance (Files & firmware), and Troubleshooting (Diagnostics, Support).

The main content area shows three operational status cards:

- EtherNet/IP™**: Data exchange is active. IP: 10.10.55.149. Up: 20 byte(s), Down: 0 byte(s). Includes a diagram of a PLC connected to a network.
- Anybus Communicator**: Anybus Communicator is operational. Includes a status legend (Gateway, EtherNet/IP™, Serial) and a diagram of the Anybus Communicator hardware.
- Serial RS-232/485**: Data exchange is active. Modbus RTU, RS-485, 19200 baud. Down: 0 byte(s), Up: 20 byte(s). Includes a diagram of a node labeled "MyNode".

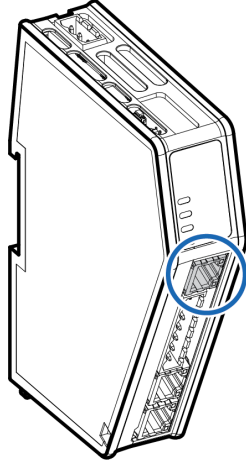
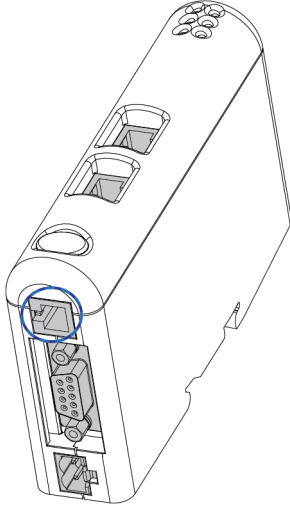
2. Physical Differences

2.1. Physical Comparison



NOTE

The Communicator Classic requires more space at the bottom to accommodate the DSUB connector, while the new Communicator is slightly taller.

Part	Communicator	Communicator Classic
Dimensions	27 x 98 x 144 mm (L x W x H)	27 x 75 x 120 mm (L x W x H)
Product Image (configuration port is marked)		
Configuration Port	RJ45 connector	RS232 cable hosting a RJ11 connector
Serial Port	7-pin screw connector	D-sub
Power Connector	3-pin connector	2-pin connector

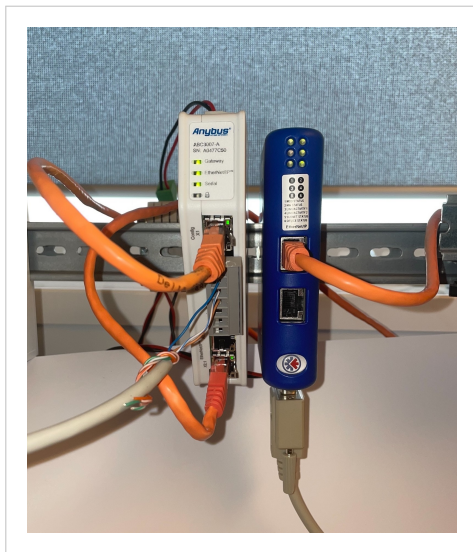
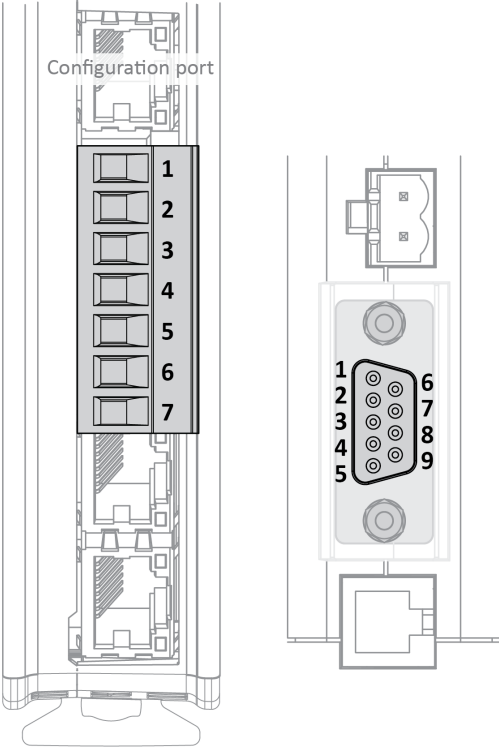


Figure 1. The Communicator and the Communicator Classic mounted on a DIN rail

2.2. Serial RS232/RS485 to DSUB Pinout Converter

Serial RS232/RS485 to DSUB Converter	Signal	Screw terminal pin	DSUB pin
 <p>The diagram shows a vertical view of the converter. At the top, a 'Configuration port' is indicated. Below it, a vertical strip of screw terminals is numbered 1 through 7. To the right, a DSUB connector is shown with its pins numbered 1 through 9. The DSUB connector has a central ground pin (pin 5) and two rows of four pins each (pins 1-4 and 6-9).</p>	+5 V OUT	1	1
	RS485+ A	2	8
	RS485- B	3	9
	Signal GND	4	5
	Functional Earth (FE)	5	Shield
	RS232 Tx Transmit Data	6	3
	RS232 Rx Receive Data	7	2
	Not used	N/A	4
	Not used	N/A	6
	Not used	N/A	7

3. Configuration Conversion

Before You Begin

The intended use of the configuration conversion is to:

- convert custom protocols.
- get a new Communicator unit up and running quickly and then complete the configuration in the Communicator's built-in web interface.



NOTE

If standard Modbus RTU commands are imported, they are converted to custom request/response transactions. The behavior of the standard Modbus RTU commands is preserved.

If you want to add additional commands you have to add them via the transaction templates in the user interface (all Modbus commands are available)

Procedure

Locate the configuration file used with the Communicator Classic, that should be converted to work with the new Communicator.

In the new Communicator built-in web interface:

1. On the **Files & firmware** page, click the **Import Anybus Communicator Classic configuration** button.
2. In the Import configuration window, click **Select file (.cfg)**.



NOTE

If there is an accompanying .cfx name file, it can also be selected and imported.

Import Anybus Communicator Classic configuration

Importing a Anybus Communicator Classic configuration will replace the current configuration, but not apply the imported configuration. An optional name file (.cfx) can also be uploaded.

Select file (.cfg) Barcode_Reader.cfg

Select name file (.cfx) Barcode_Reader.cfx

Cancel Import

3. In the Open dialog box, browse to and select the configuration file and click **Open**.
4. To import the configuration file, click **Import**.

Result

The configuration is now imported in to the new Communicator built-in web interface.

A pop-up window appear, saying **The import succeeded with the following messages.**

This window will present things that might need tweaking or corrections.

Possible configuration parts that might look different or need correction

- The fieldbus/network settings may require adjustment for the new network environment.
- Previously, timeouts were set per transaction; now they are set on the node level.
- Pure Modbus configurations are reinterpreted and imported as custom request/response transactions.
- Control/status word is replaced with data exchange control and status byte.
- Receive and transmit counter are replaced with positive ack or negative ack.

4. Network Configuration File Update

When replacing the Communicator Classic with the new Communicator, it is also mandatory to update the network configuration file (EDS, GSDML, GSD etc.) in the PLC software.

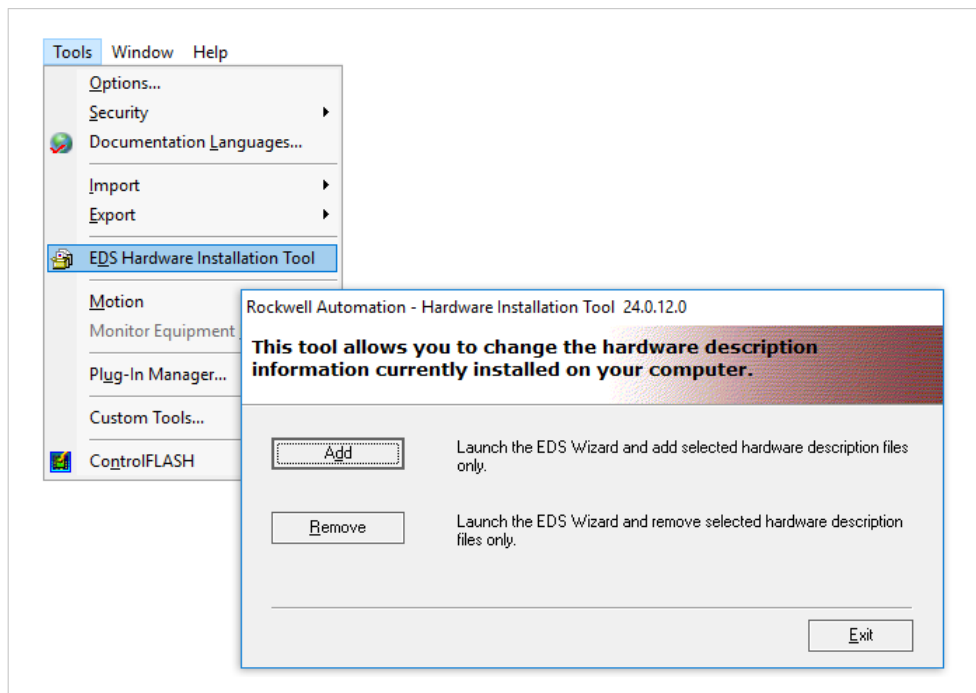
To retrieve the network configuration file from the web interface of the new Communicator (the example is for EtherNet/IP™, but it is identical for all networks):

1. Select EtherNet/IP™ in the left menu.
2. Select Files & Firmware.
3. Click EDS File.
→ This will download the EDS File to the computer.

Below, see two example of how to import the network configuration file into Studio 5000 and TIA Portal.

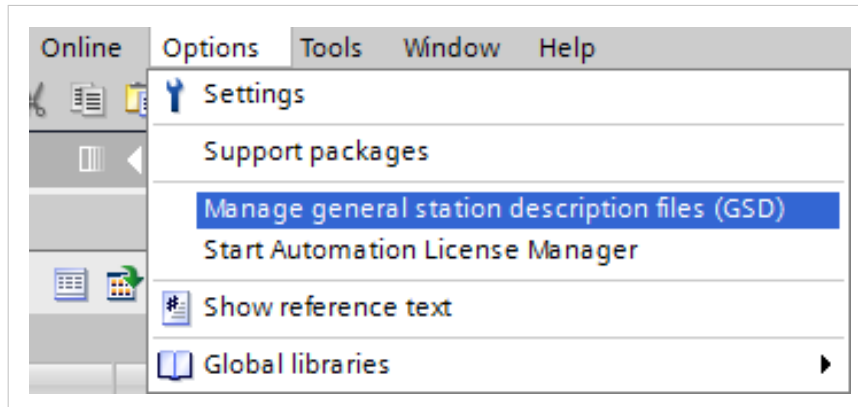
Example 1. How to import an EDS file into Studio 5000

1. Make sure that Studio 5000 is in Offline mode.
2. Open the Hardware Installation Tool wizard from the Start Menu or from the Tools menu in Studio 5000 and follow the on-screen instructions to install the EDS file.



Example 2. How to import a GSDML file into TIA Portal

1. In the Options menu in TIA Portal, select Manage general station description files (GSD).



2. After the GSD file has been imported into the configuration tool the Communicator will be available in the hardware catalog.

5. Advanced Settings

For detailed information, refer to the user manual for your specific Communicator product variant.

Legacy Mode

Option available for PROFINET, PROFIBUS, EtherNet/IP, Modbus TCP, and EtherCAT

If you already have an Communicator Classic product file (such as General Station Description (GSD), General Station Description Markup Language (GSDML), Electronic Data Sheets (EDS), or EtherCAT SubDevice Information (ESI) file) installed in your PLC, legacy mode allows you to continue using the settings from the product file for the new Communicator.

The screenshot shows the Anybus Communicator PIR web interface. The left sidebar contains navigation options: Home, Configuration, Serial RS-232/485, PROFINET (selected), I/O configuration, Maintenance, System, Files & firmware, Troubleshooting, Diagnostics, and Support. The main content area is titled 'Anybus Communicator PIR' and includes an 'Apply' button. Below the title, there are fields for DHCP enabled, IP address*, Subnet mask*, Default gateway*, Primary DNS, and Secondary DNS. A Hostname field is also present. The 'PROFINET settings' section includes a Station name field. The 'GSDML file' section has a 'GSDML file' button and a note: 'Extract the GSDML file from the archive and use it to configure the PROFINET PLC to use the Anybus Communicator PIR.' The 'Advanced settings' section, highlighted with a red box, contains a checked checkbox for 'Use legacy mode' and a note: 'Use the legacy mode to force the product into being compatible to how the previous generation product behaved.'

Example Communicator Modbus RTU/Serial to **PROFINET, Advanced settings, Use legacy mode.**

Figure 2. Advanced settings, **Use legacy mode** enabled

In the Communicator built-in web interface, you can find the legacy mode settings on the network-specific page for **PROFINET, PROFIBUS, EtherNet/IP, Modbus TCP, and EtherCAT.**

To enable legacy mode, select the **Use legacy mode** checkbox.

For PROFINET, the Communicator uses one slot for Input and one for Output. By enabling legacy mode, you can use a maximum of 63 slots.

For Modbus TCP, legacy mode is compatible with the Communicator Classic Anybus Address Mode function and allows the use multiple Modbus function codes to access the same data.

Allow any module mapping

Option available for PROFIBUS

When **Use legacy mode** is enabled, **Allow any module mapping** is automatically enabled.

Allow any module mapping enables the use of any module at any slot position, rather than using fixed slot positions for each module.

By default, the Communicator uses fixed slot positions for each module. Enabling **Allow any module mapping** allows the use of any module at any slot position, with a maximum of 24 slots.

You may choose to only select **Allow any module mapping** without enabling the legacy mode.

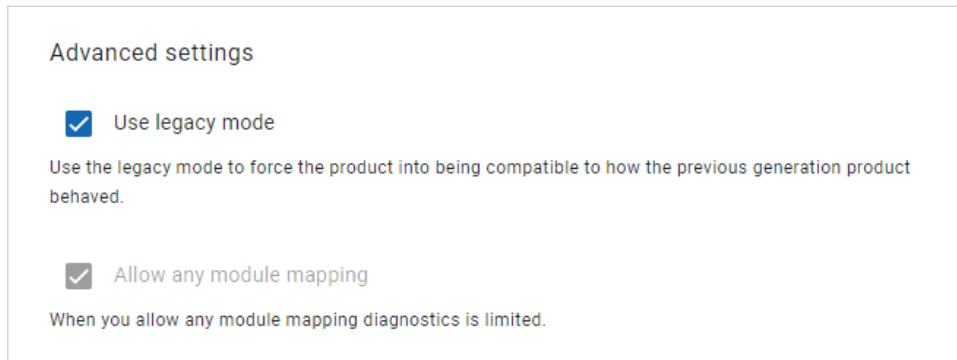


Figure 3. **Use legacy mode** and **Allow any module mapping** enabled