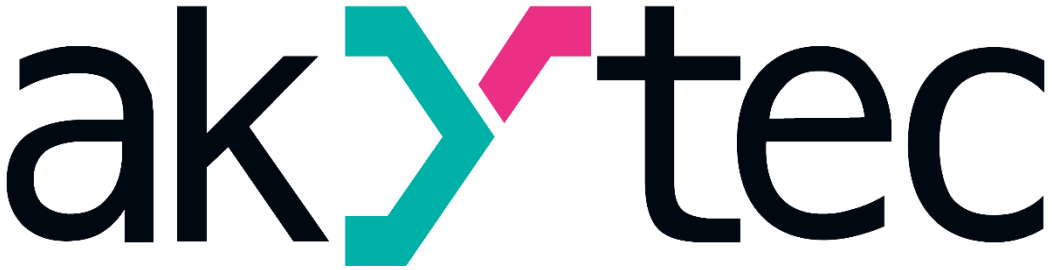
Replication Master and Export Device to akYtec Cloud Plugins



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1 Replication Master

The **Replication Master** is a plugin in akYtec's ALP software that creates an executable file, enabling you to load a program directly onto a PR device without installing the ALP software on-site. This is especially useful for sharing code remotely with users unfamiliar with PR device programming or when keeping your code confidential.

To create this executable file, follow these steps:

1.1 Install the Replication Master Plugin:

- Open ALP and navigate to the top left corner.
- Click the **Plugins** tab → **Plugin Manager** (ensure you have an internet connection).
- In the window that appears, select **Replication Master** and click **Install** (Figure 1).
- Restart ALP to apply the plugin.

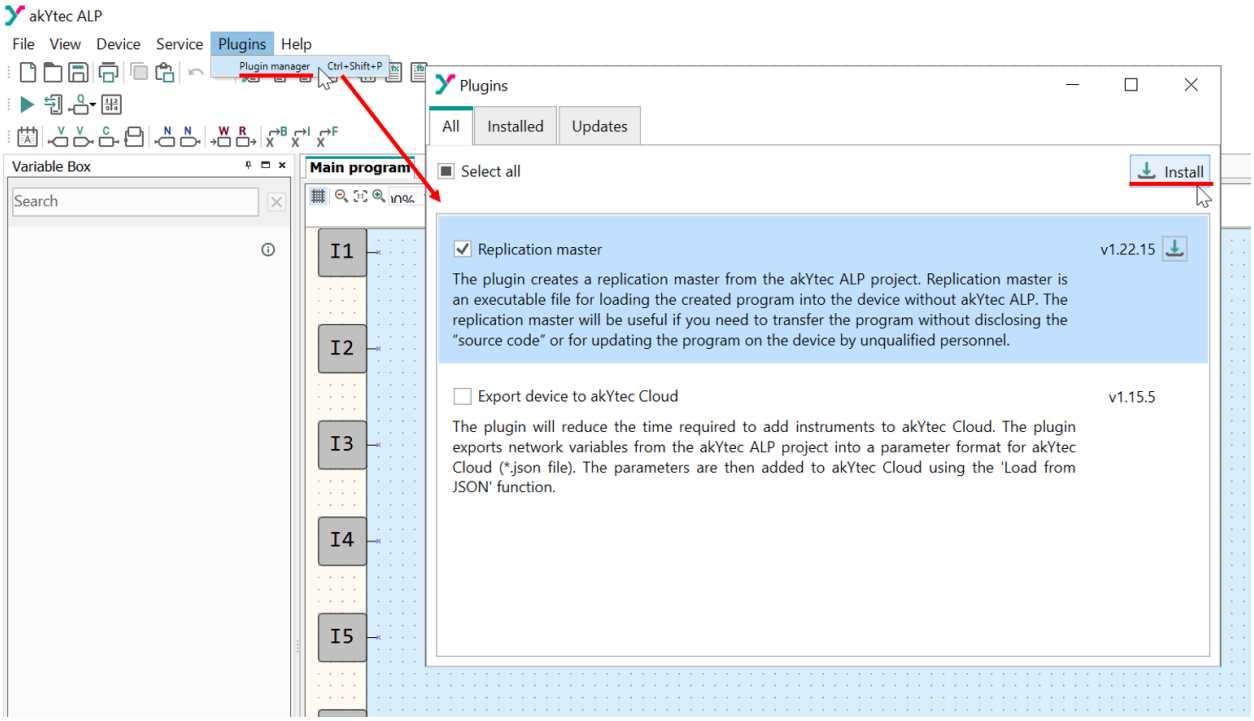


Figure 1 Installing the "Replication Master" plugin

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1.2 Create a Replication Master File:

- Start a new project in ALP.
- Go to the **Plugins** tab → click **Create a replication master** (Figure 2).
- A popup window will appear (Figure 3) where you can configure device parameters:
  - **Device name**
  - **Firmware version** (ensure this version is correct to prevent memory corruption)
  - **File name, path**
  - **Operating system (Windows or Linux)**
- After setting the parameters, click **Create**.
- In the bottom window, output file location is displayed, indicating that the file is successfully created (Figure 4).

Note: To compile the file for Linux OS, you must first install the package "Microsoft .NET 6.0.428 SDK"

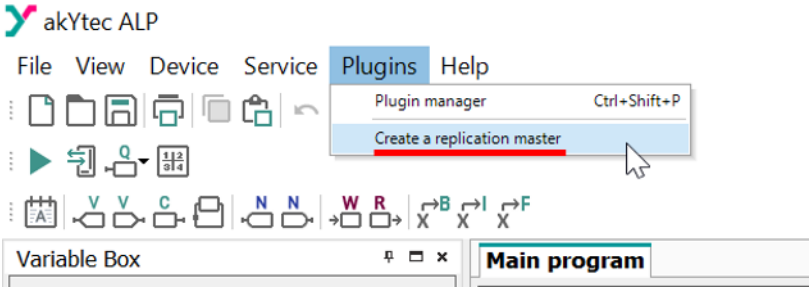


Figure 2 Opening Replication Master

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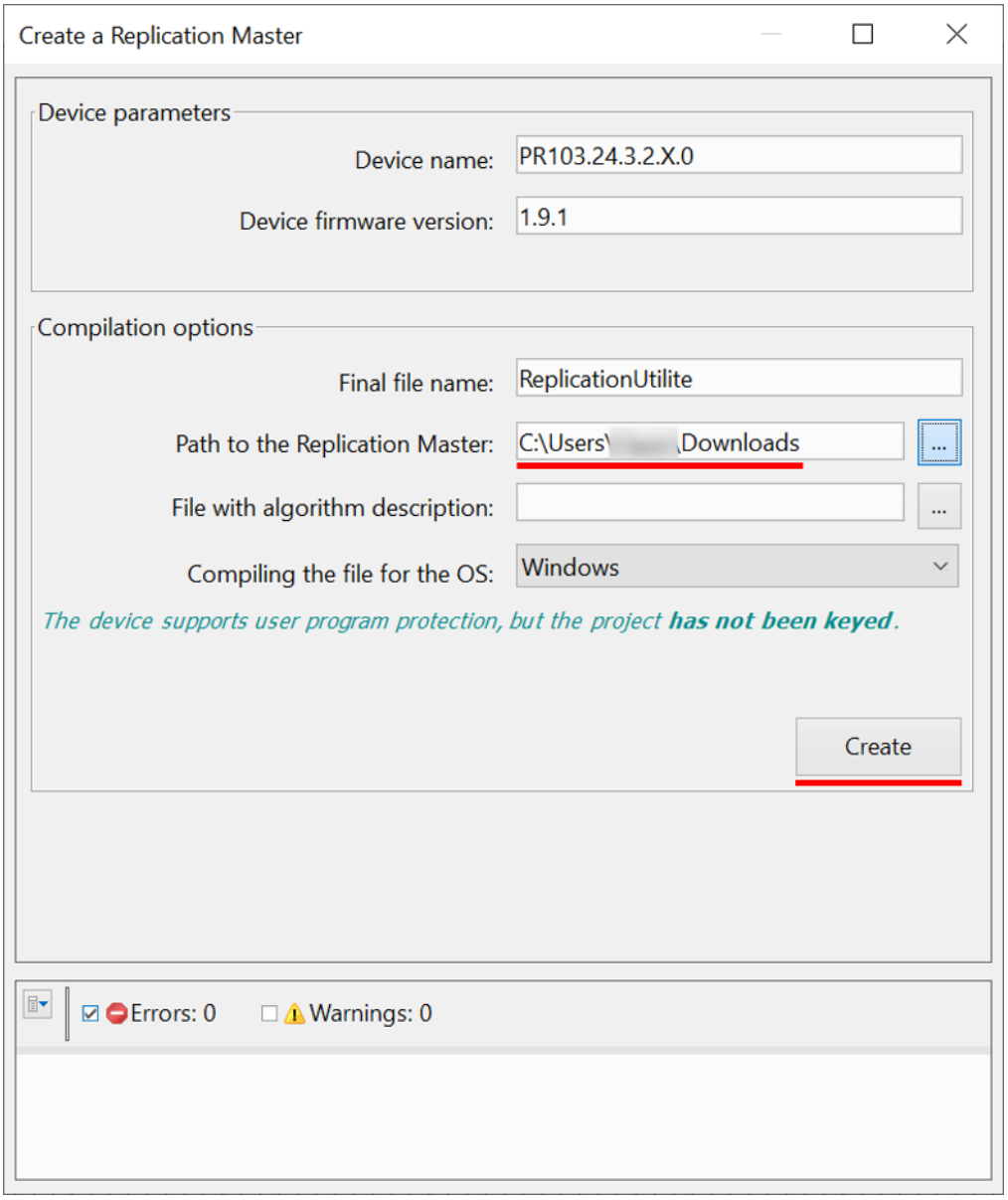


Figure 3 Setting parameters of the Replication Master

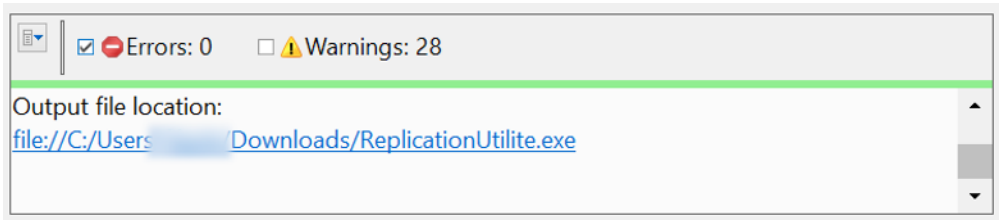


Figure 4 File created message

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1.3 Transfer the Program to the Device (WINDOWS):

- Connect the target device to your PC.
- Launch the generated file from the saved path (Figure 5).
- Click **Next** to proceed through the setup wizard (Figure 6).

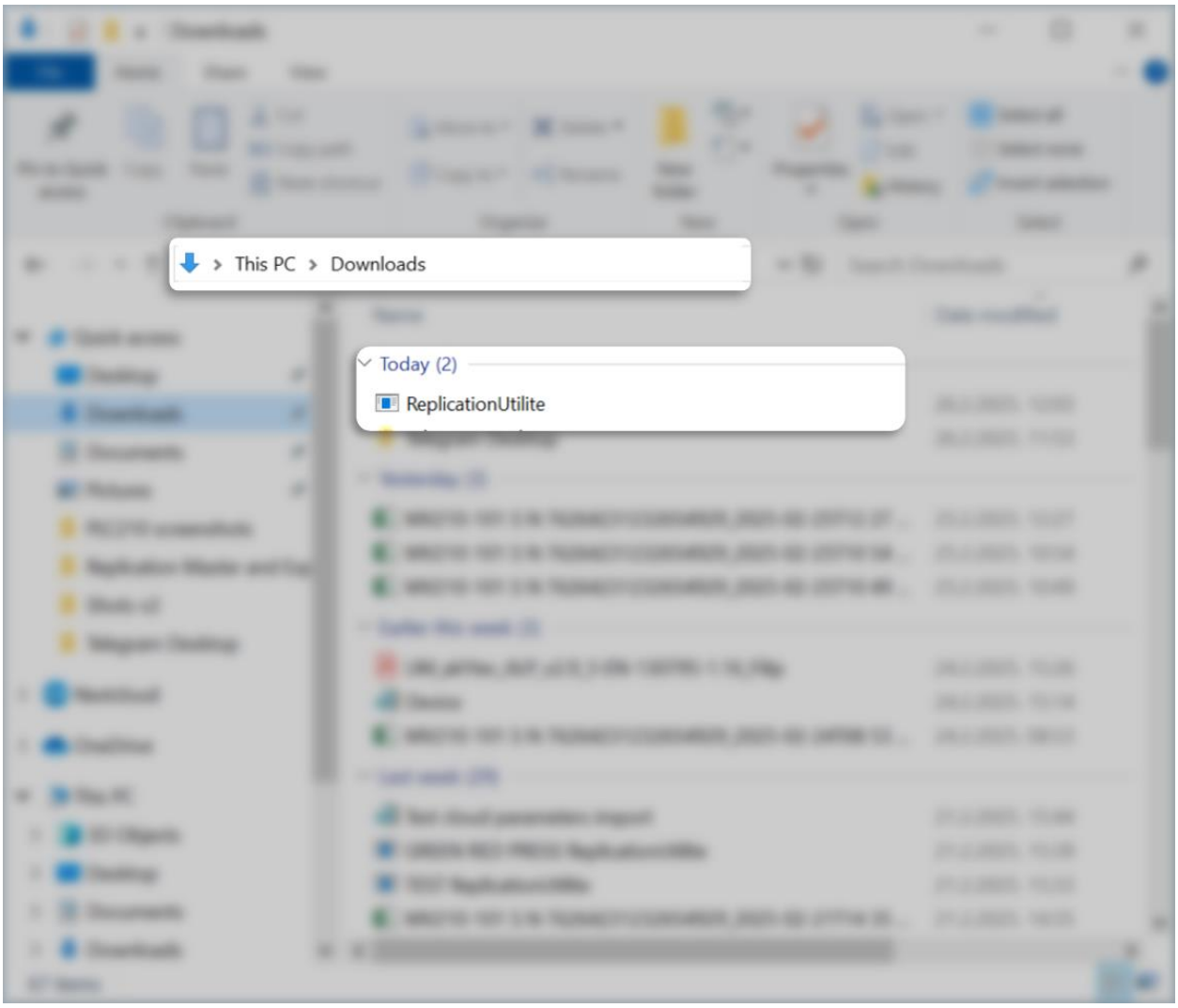


Figure 5 Opening the Replication Master executable file

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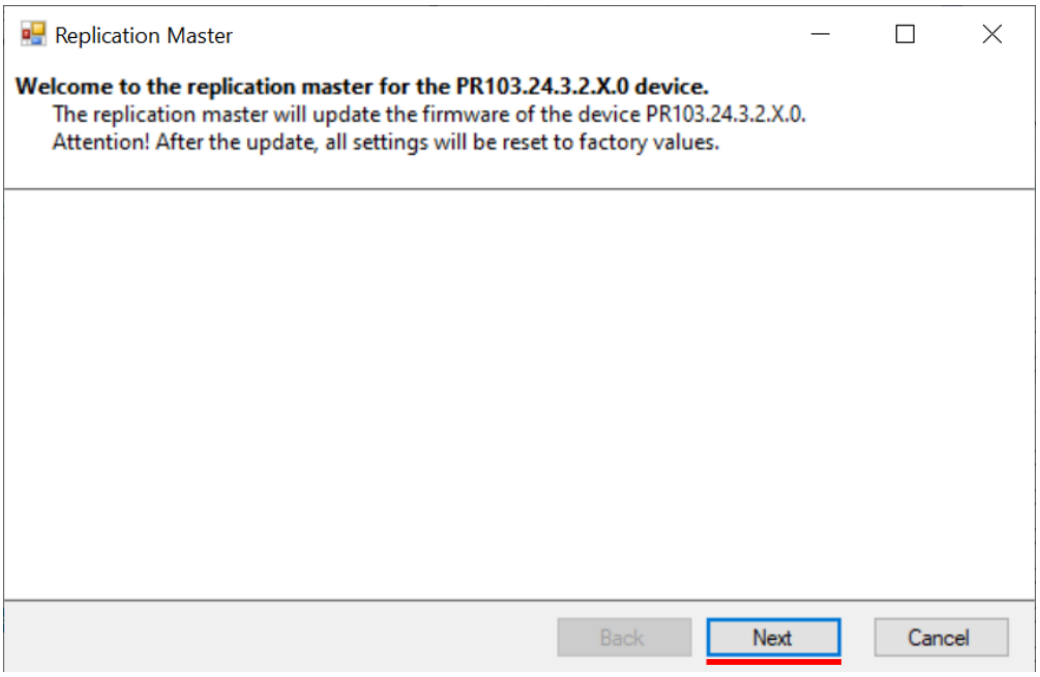


Figure 6 Launching the Replication Master setup wizard

1.3.1 Set Up the Connection:

- Choose the connection type: **Serial port** or **Ethernet/Wi-Fi** (Figure 7).
- Configure the connection parameters (Figure 8):
  - **For Serial port:** Set the correct **Port name** and **Device address**.
  - **For Ethernet/Wi-Fi:** Set the correct **IP address**.
- If the device is password-protected, enter the password.
- Click **Next**.

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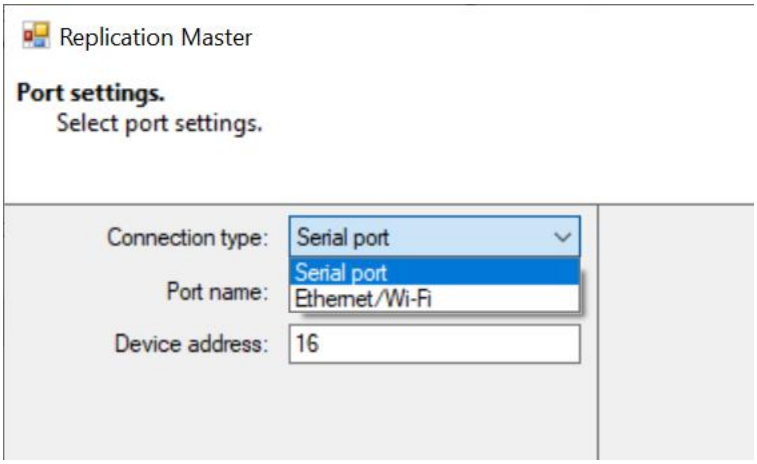


Figure 7 Selecting the connection type

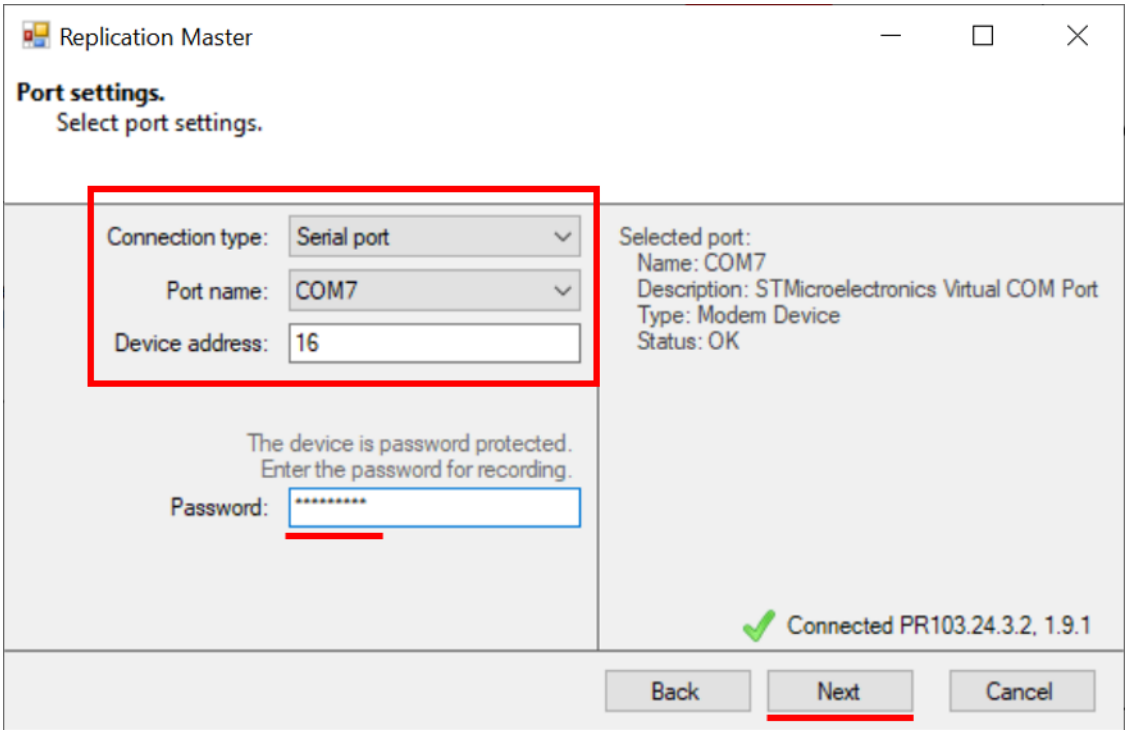


Figure 8 Setting connection parameters

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1.3.2 Write the Program to the Device:

- A warning window appears (Figure 9).
- Click **Write** to start the transfer.
- Once complete, a success message appears (Figure 10).

Note: *The Replication Master also updates the device firmware to the latest version available at the time of creation, adding an extra layer of convenience.*

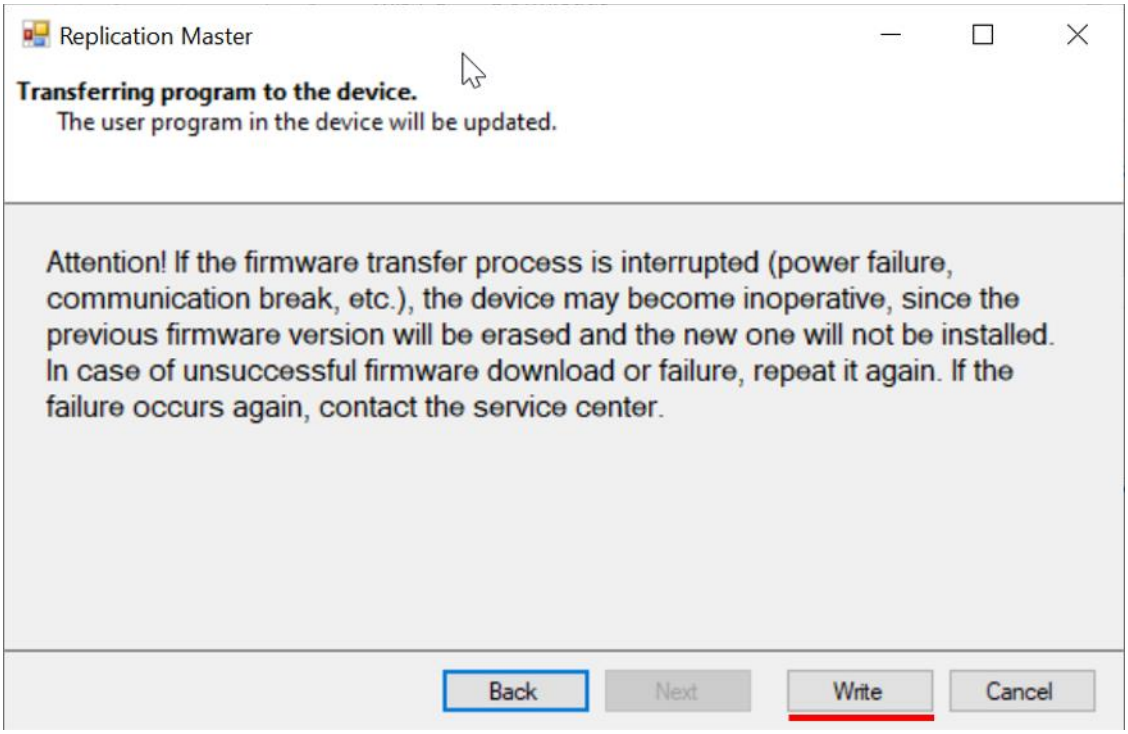


Figure 9 Transferring program to the device

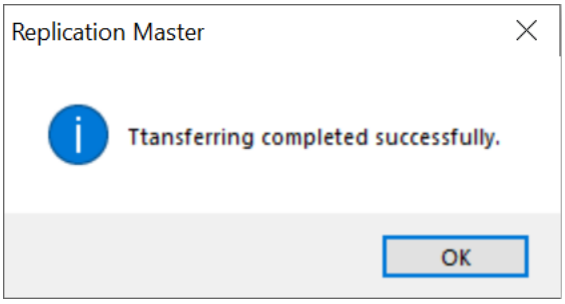


Figure 10 Successful program transfer confirmation message

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1.4 Transfer the Program to the Device (LINUX):

- Connect the target device to your PC.
- Install **.Net 6** on your device (this is mandatory so you can run the file).

  Note: *This installation requires at least 500MB of memory. Ensure you have enough free space on your Linux device.*
- Before running the file, make sure it's executable. In the command line enter:

  chmod +x ./"FileName"

  Replace "FileName" with your file's name.
- Run the executable file:
  - **For Ethernet connection:** Open the command line and enter:

    ./"FileName" -ip:192.168.1.100

    Replace "FileName" with your executable **file's name**, and 192.168.1.100 with your device's **IP address** (Figure 11).
  - **For Serial port:** Open the command line and enter:

    ./"FileName" -portname:/dev/ttyACM0

    Replace "FileName" with your executable **file's name**, and ACM0 with the correct **port address** (Figure 12).

If everything is done correctly, the command line will display a status line of the program loading into the device (Figure 13).

Note: *If any error occurs, consult the documentation for troubleshooting tips.*

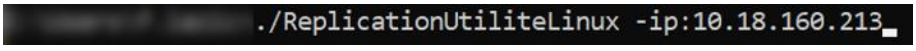


Figure 11 Ethernet connection command line

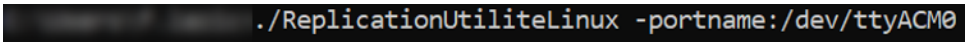


Figure 12 Serial Port connection command line



Figure 13 Status line

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2 Export Device to akYtec Cloud

The **Export device to akYtec Cloud** plugin gathers all network variables in your project and saves them as a .json file. This file can be imported into your akYtec Cloud configuration using the **Import from JSON** feature.

Follow these steps to export your device parameters:

2.1 Install the Export Plugin:

- Open ALP and navigate to the **Plugins** tab.
- Click **Plugin Manager** → select **Export device to akYtec Cloud** → click **Install** (Figure 14).
- Restart ALP to apply the plugin.

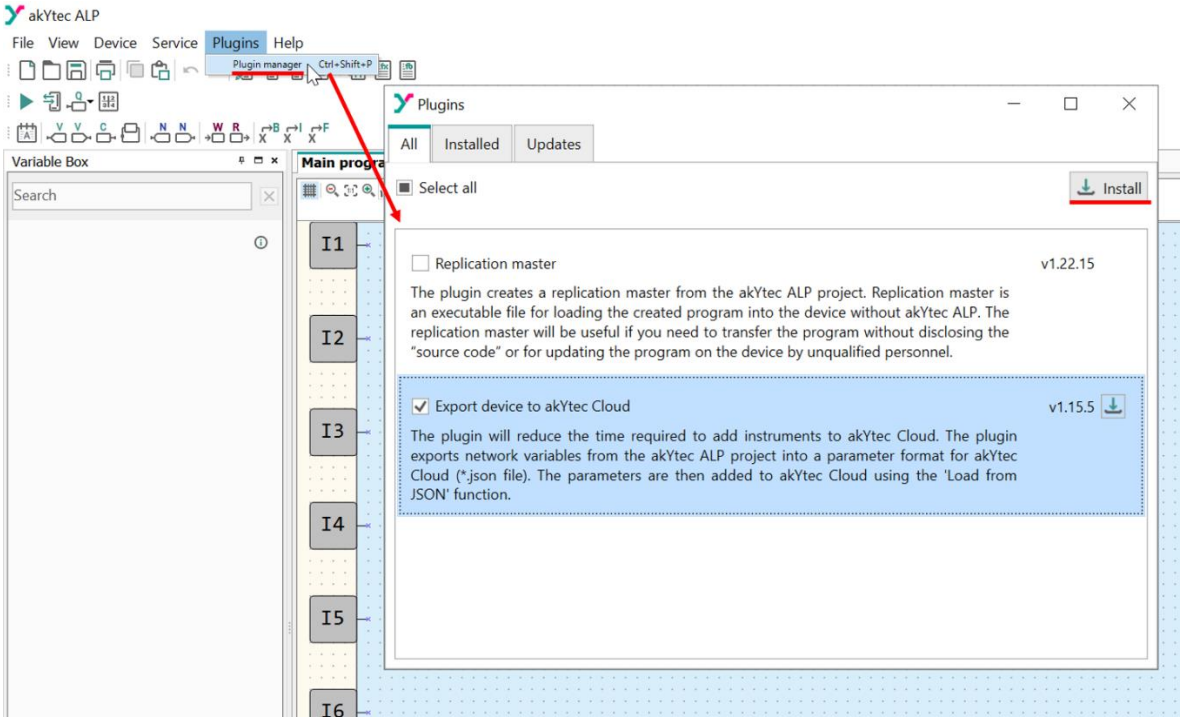


Figure 14 Installing "Export device to akYtec Cloud" plugin

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2.2 Create and Save the JSON File:

- Open your project.
- In the **Plugins** tab, click **Export device to akYtec Cloud** (Figure 15).
- Save the generated .json file to a preferred directory.

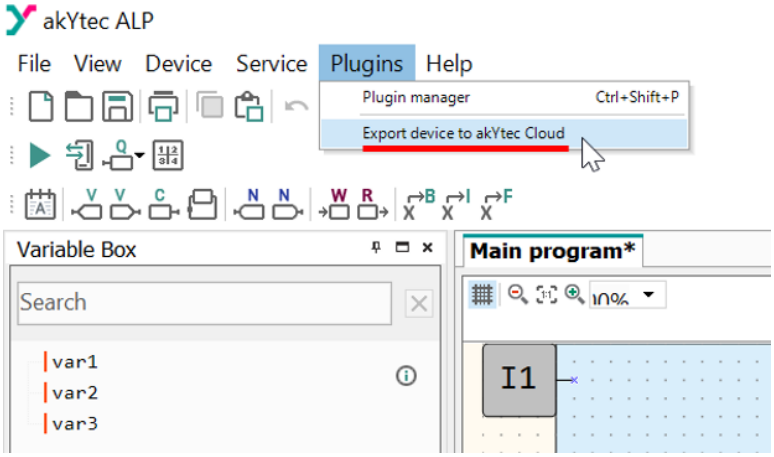


Figure 15 Opening Export device to akYtec Cloud

2.3 Import the JSON File to akYtec Cloud:

- Open **akYtec Cloud** and navigate to the **Administration** page (Figure 16).
- Click the **Devices** tab and select the target device (Figure 17).
- Click **Parameter settings** → **Import** → **Import from JSON** (Figure 18).
- In the popup, click **Choose File**, select your .json file, and click **Import parameters** (Figure 19).

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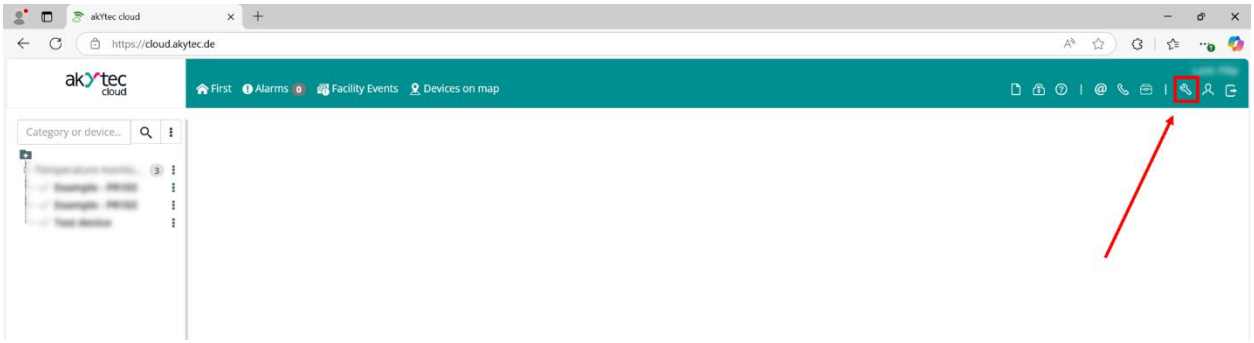


Figure 16 Open Administration page

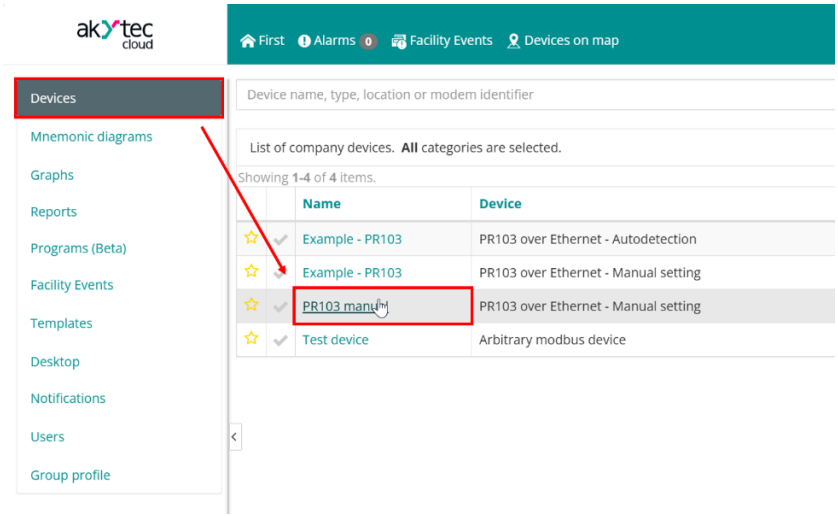


Figure 17 Select desired device

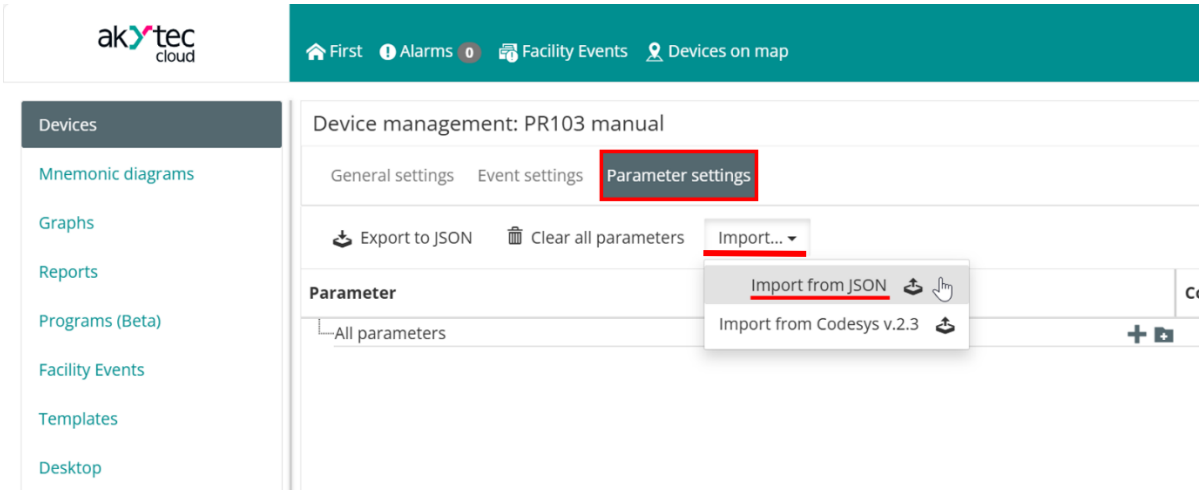


Figure 18 Start import process

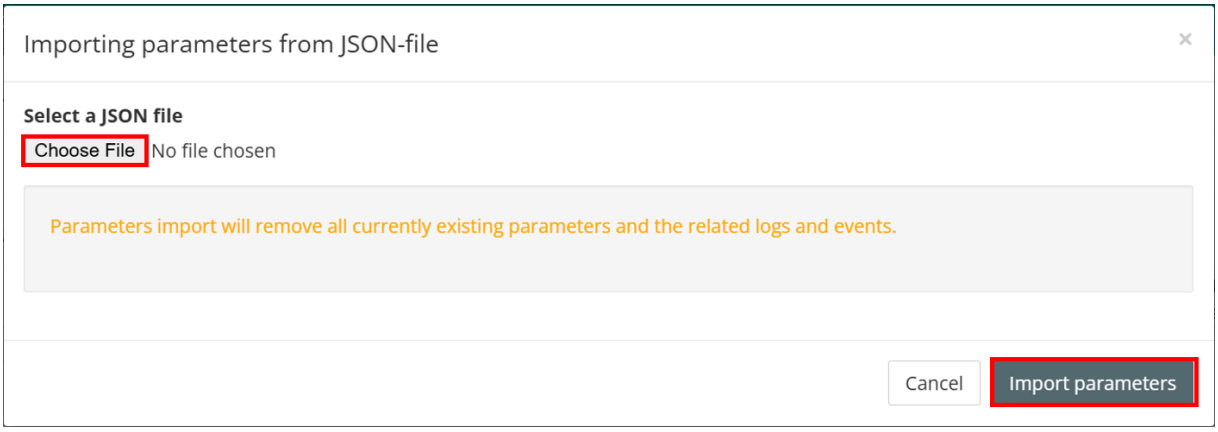


Figure 19 Choose a file to import

Note: *Importing parameters will overwrite all existing parameters, logs, and events.*

2.4 Verify the Import:

- After the import is complete, you'll see the newly exported variables in **Parameter settings** tab (Figure 20).

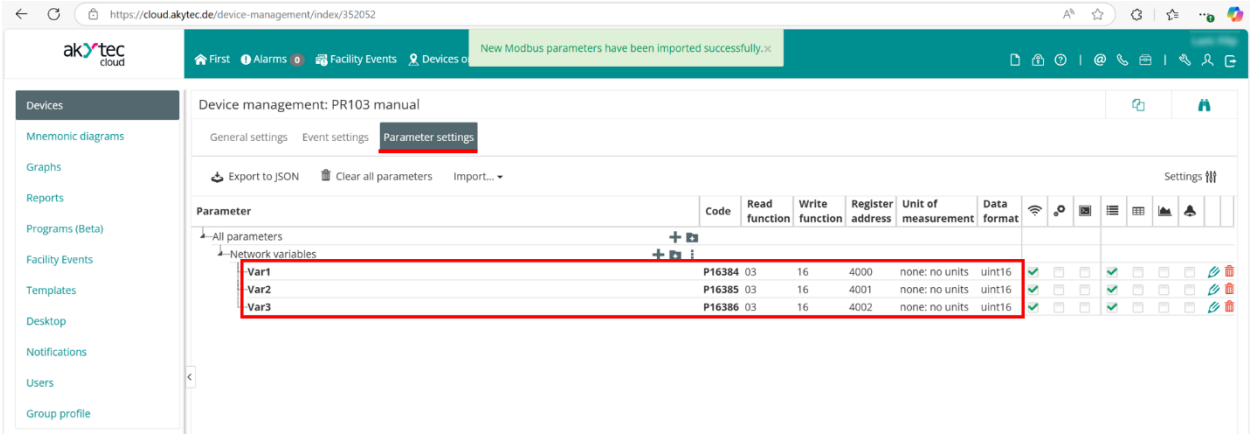


Figure 20 Variables that were exported

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