How to upload an HMI program in TIA Portal: create a complete backup of a Siemens HMI

If you want to know how to upload an HMI program in TIA Portal from a connected Siemens panel, this guide covers the workflow. You find the HMI on the network, open the **Create backup** dialog, and use SIMATIC ProSave to save a complete backup of the panel to a file on your computer. The example uses a TP700 Comfort panel.

Prerequisites

- TIA Portal is open with your project loaded. The project tree shows devices such as "PLC_1 [CPU 312]" and "HMI_1 [TP700 Comfort]".
- Your computer has a network adapter you can select under **PG/PC interface**. The example uses "PN/IE" with "Realtek USB Gbe Family Controller".
- You have a folder where you can save the backup file.

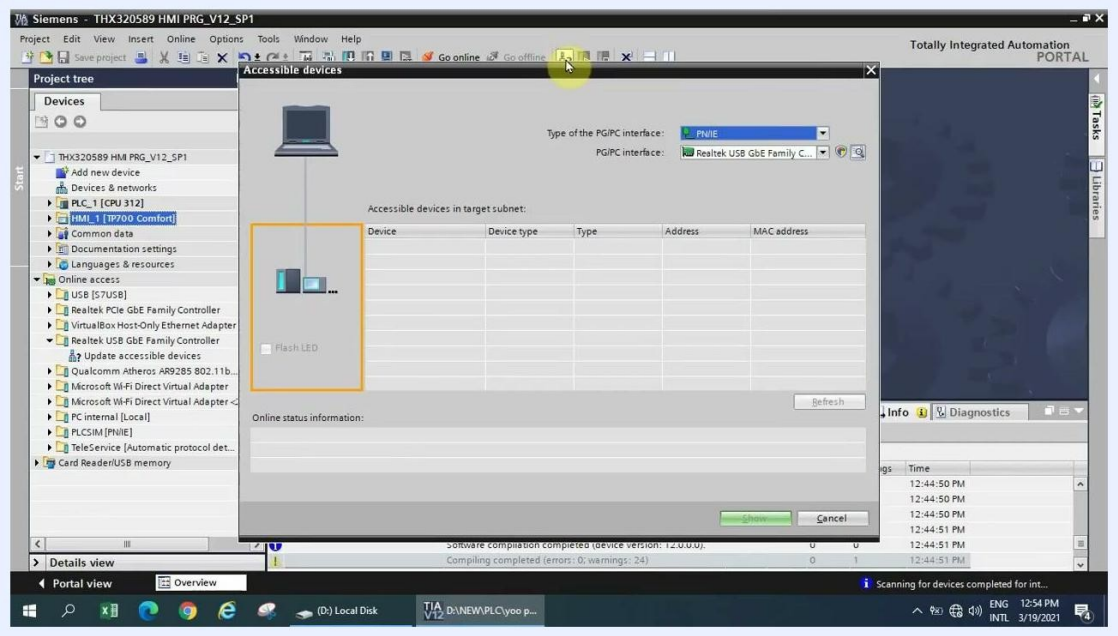
Step 1: Open the TIA Portal project

Make sure TIA Portal is open with your project loaded. The project tree on the left lists your devices, including "PLC_1 [CPU 312]" and "HMI_1 [TP700 Comfort]".

Step 2: Open the accessible devices dialog

1. In the project tree, go to the **Online access** section.
2. Under **PG/PC interface**, select the appropriate network adapter, for example "PN/IE" and "Realtek USB Gbe Family Controller".

The **Accessible devices in target subnet** area is empty at first, and the **Flash LED** option is visible but not active.



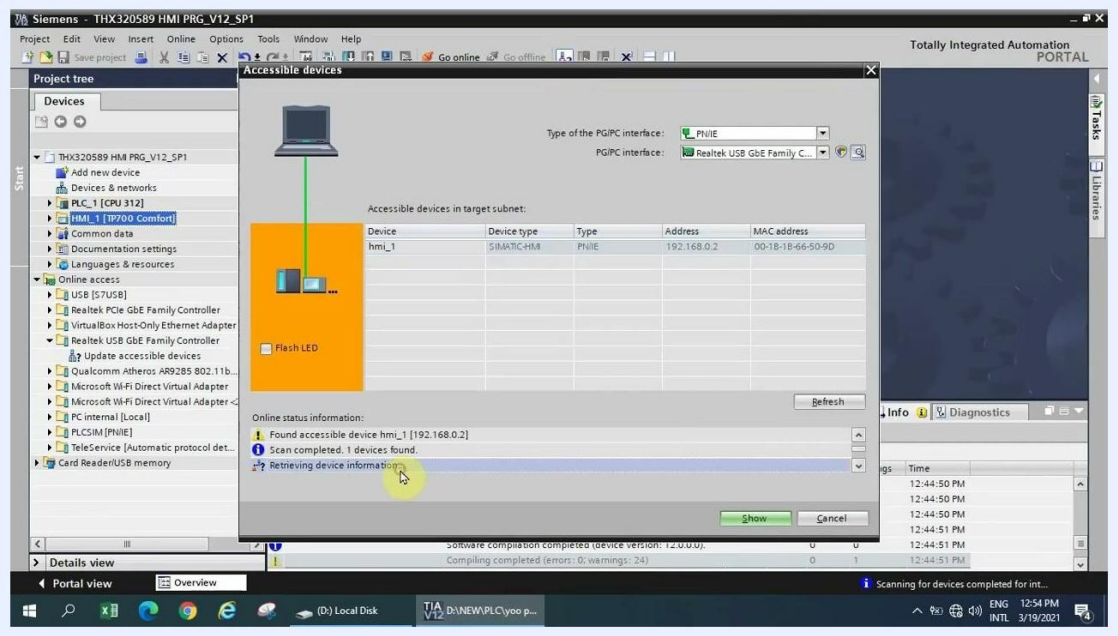
TIA Portal accessible devices dialog with an empty device list, network adapter selection, and the Flash LED option

Step 3: Scan for accessible devices

Click **Refresh** to scan the network. The device "hmi_1" appears in the list with these details:

- **Device type:** SIMATIC-HMI
- **Type:** PN/IE
- **Address:** 192.168.0.2
- **MAC address:** 00-1B-1B-66-50-9D

The status area shows "Found accessible device hmi_1 [192.168.0.2]", "Scan completed: 1 devices found.", and "Retrieving device information...".

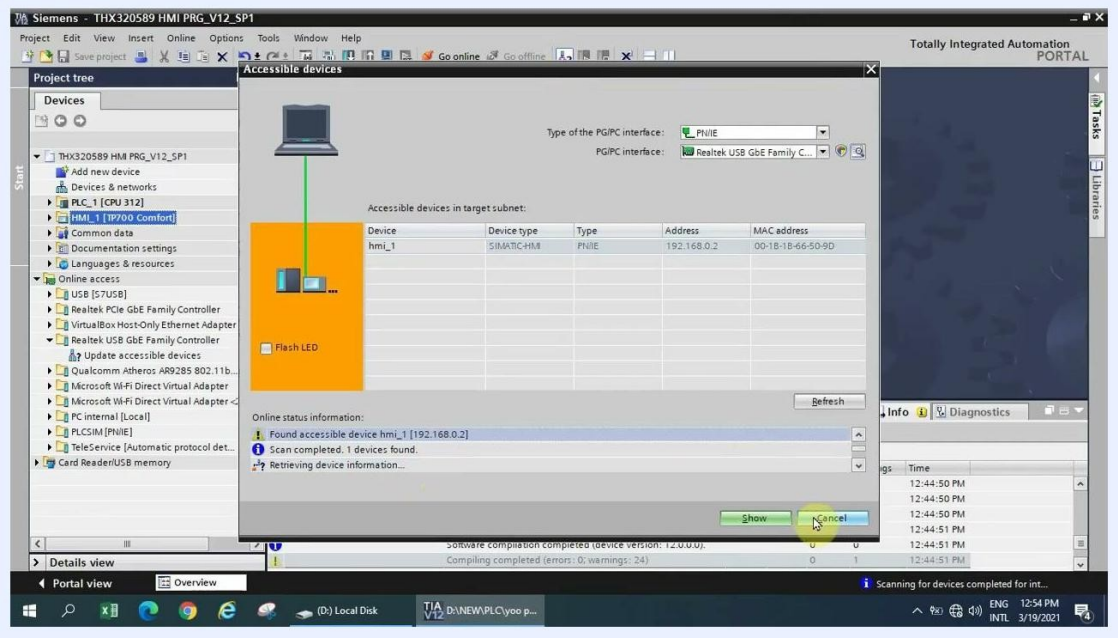


Scan results showing hmi_1 found at 192.168.0.2, with device details and status messages

Step 4: Select the detected device

1. Highlight "hmi_1" in the device list.
2. Confirm that the device details match your target HMI.

3. Click **Show** to proceed.



The hmi_1 device selected with the Show button ready to click

Step 5: Open the Create backup dialog

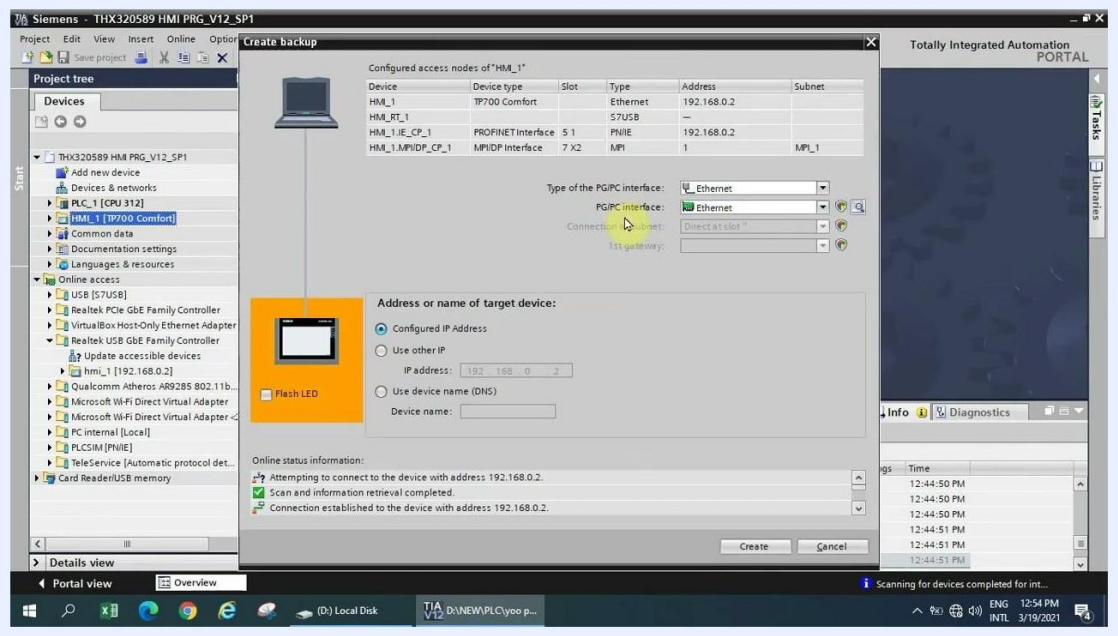
The **Create backup** window opens and lists the configured access nodes for "HMI_1":

- **TP700 Comfort** (Ethernet, 192.168.0.2)
- **PROFINET Interface** (PN/IE, 192.168.0.2)
- **MPI/DP Interface** (MPI, 1)

Configure the connection as follows:

1. Set **Type of the PG/PC interface** to "Ethernet".
2. Set **PG/PC interface** to "Ethernet".
3. Under **Address or name of target device**, select "Configured IP Address" (192.168.0.2).

The status area confirms "Connection established to the device with address 192.168.0.2." and "Scan and information retrieval completed."



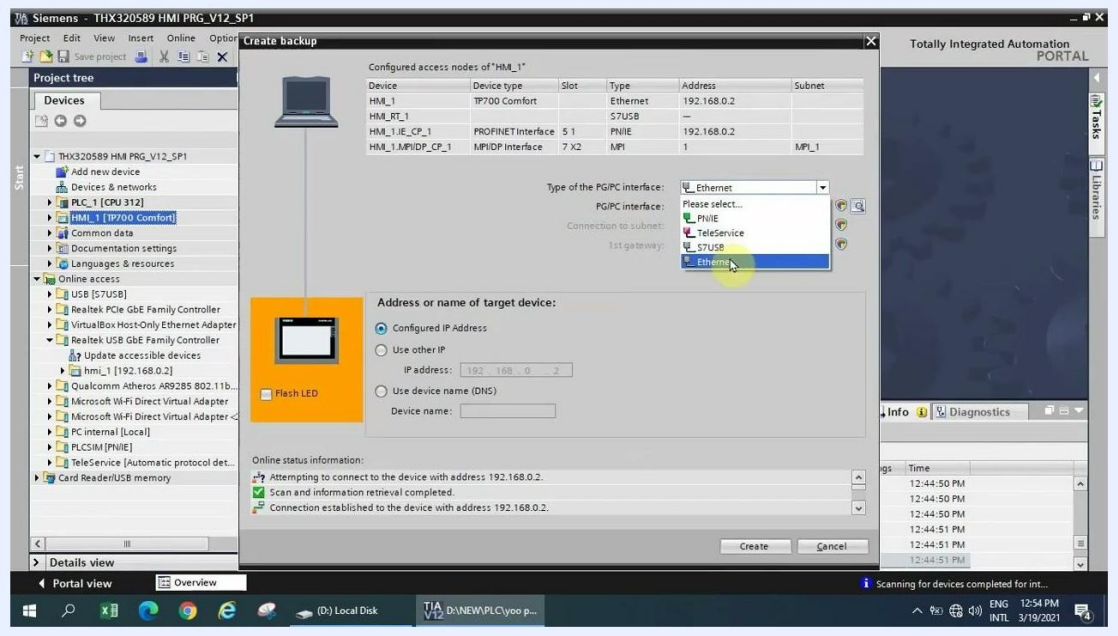
Create backup dialog with device nodes, Ethernet interface selected, and a connection established to 192.168.0.2

Step 6: Change the PG/PC interface (optional)

If you need a different interface, open the **PG/PC interface** dropdown and choose from the available options:

- PN/IE
- TeleService
- S7USB

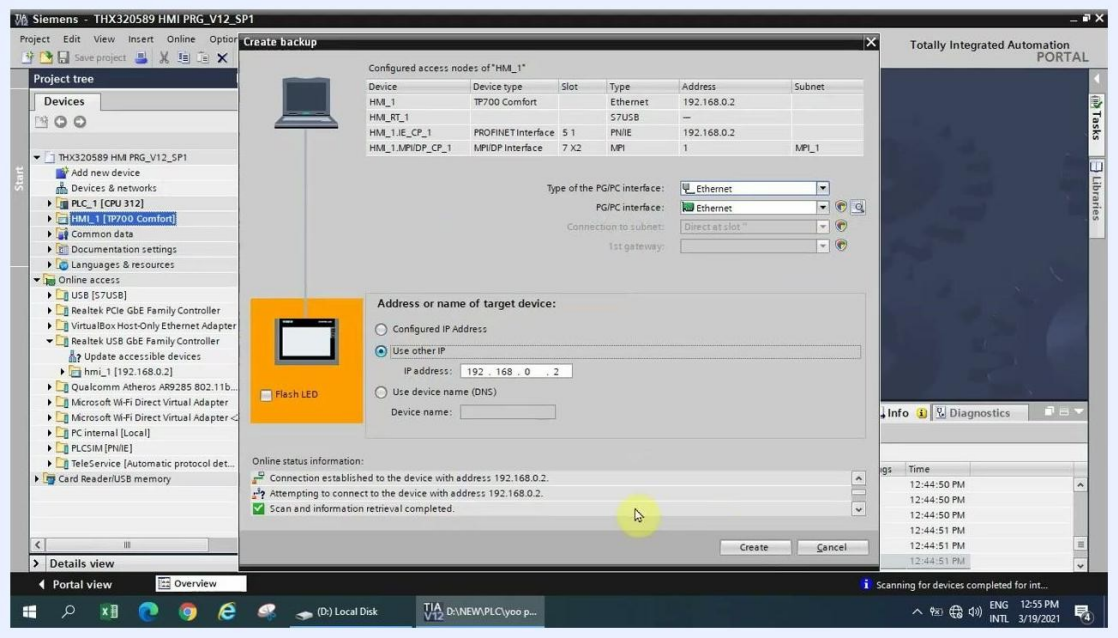
- Ethernet (selected in this example)



The PG/PC interface dropdown open, showing the available interface options

Step 7: Use a different IP address (optional)

If required, select **Use other IP** and enter the IP address, which is 192.168.0.2 in this example. The status area updates as the connection attempt runs. Confirm that it reads "Connection established to the device with address 192.168.0.2."



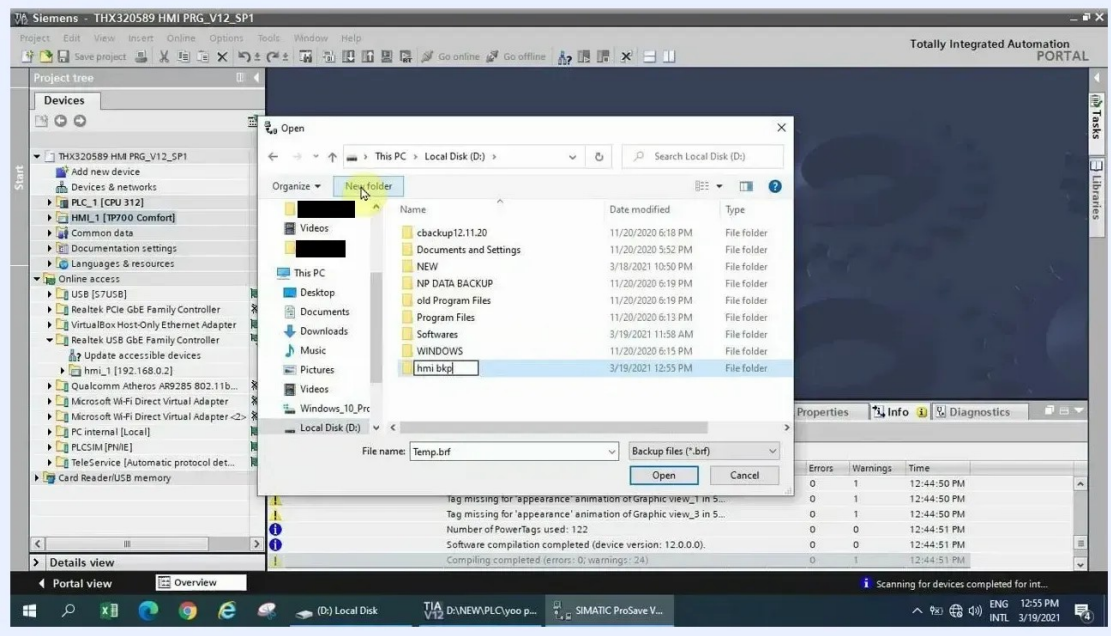
The Use other IP option selected with 192.168.0.2 entered and the connection established

Step 8: Choose the backup file location

If prompted, use the file browser to select or create a folder for the backup.

1. In this example, create a folder named "hmi bkp" on Local Disk (D:).
2. Enter the file name "Temp.brf".

3. Click **Open**.



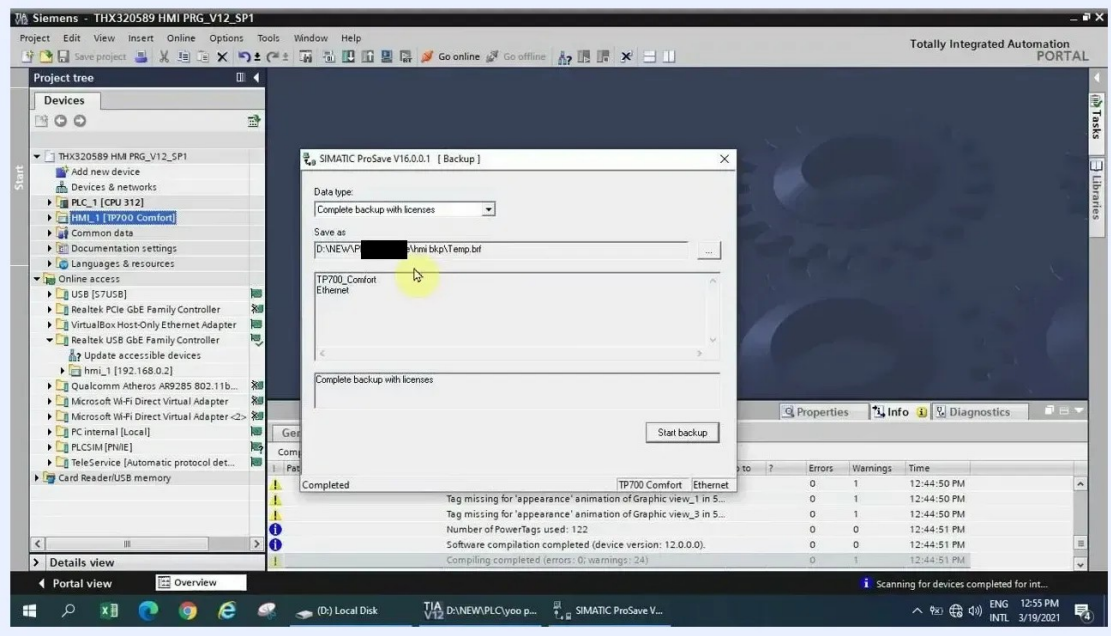
File browser with the new folder hmi bkp being created and the file name set to Temp.brf

Step 9: Configure and start the backup in SIMATIC ProSave

The "SIMATIC ProSave V16.0.0.1 [Backup]" dialog appears.

1. Set **Data type** to "Complete backup with licenses".
2. In the **Save as** field, enter the backup file path, for example D:\NEW\PLC\yoo pune\hmi bkp\Temp.brf.
3. Confirm that the listed device is "TP700_Comfort" via Ethernet.
4. Check that the status area reads "Complete backup with licenses".

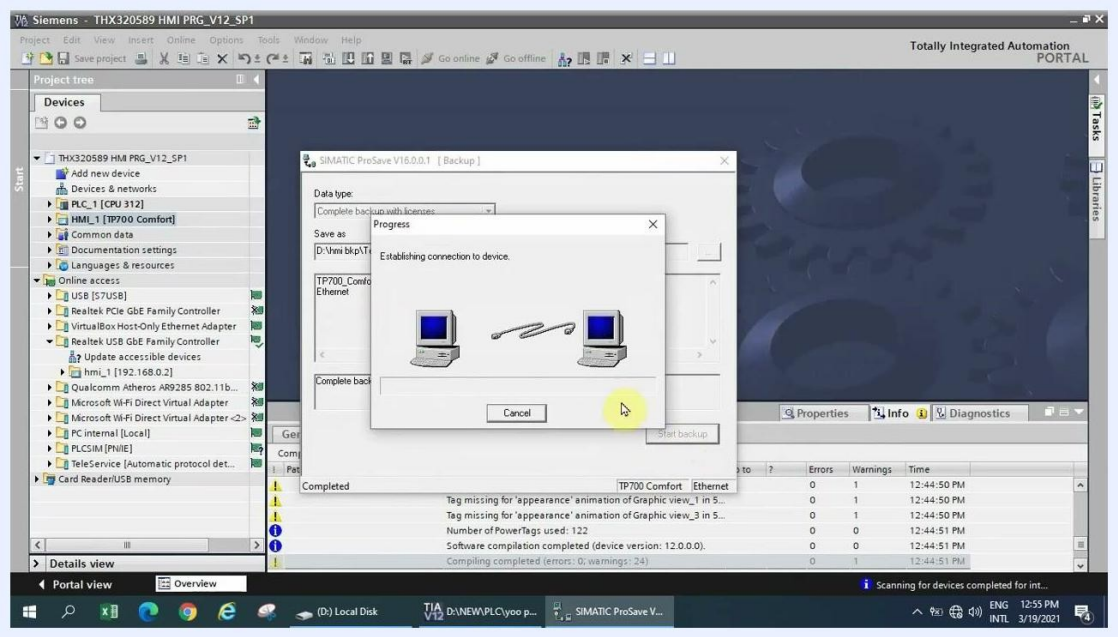
5. Click **Start backup**.



SIMATIC ProSave backup dialog with the data type, save path, and device information set

Step 10: Establish the connection

A progress window appears with the message "Establishing connection to device" and an image of two computers connected by a cable. Wait for the connection to be established and the backup to begin.



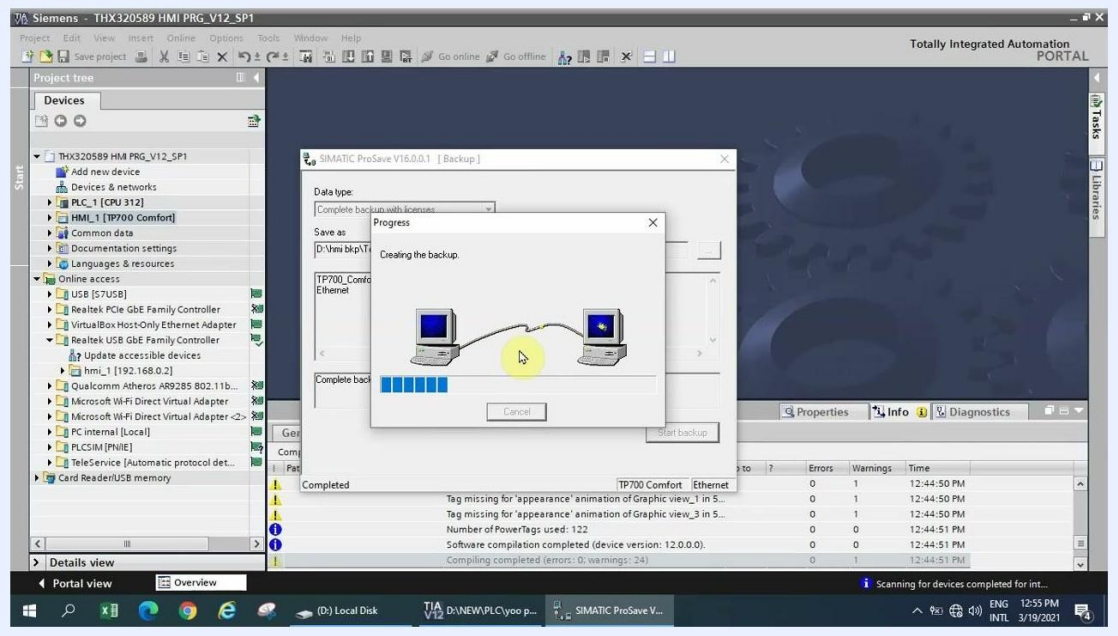
Progress window showing Establishing connection to device with computer icons and a cable

Step 11: Monitor the backup progress

Watch the **Progress** window in SIMATIC ProSave V16.0.0.1. It shows:

- The status message "Creating the backup."
- Two computer icons connected by a cable, representing the data transfer.
- A blue progress bar that fills as the backup proceeds.
- A **Cancel** button, in case you need to stop the process.

Do not close the window or interrupt the process.



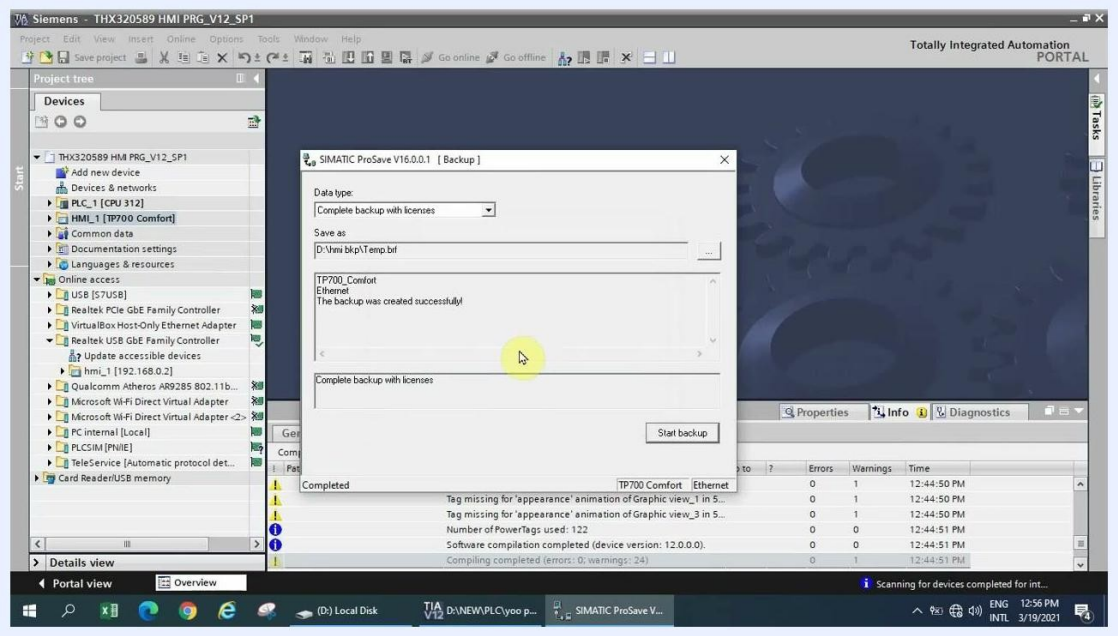
SIMATIC ProSave Progress window showing Creating the backup with a partially filled progress bar

Step 12: Verify that the backup completed

When the backup finishes, the **Progress** window closes automatically. The main SIMATIC ProSave window then shows:

- **Data type:** "Complete backup with licenses"
- **Save as:** D:\hmi bkp\Temp.brf
- **Device:** "TP700_Comfort" (Ethernet)
- **Status message:** "The backup was created successfully!"

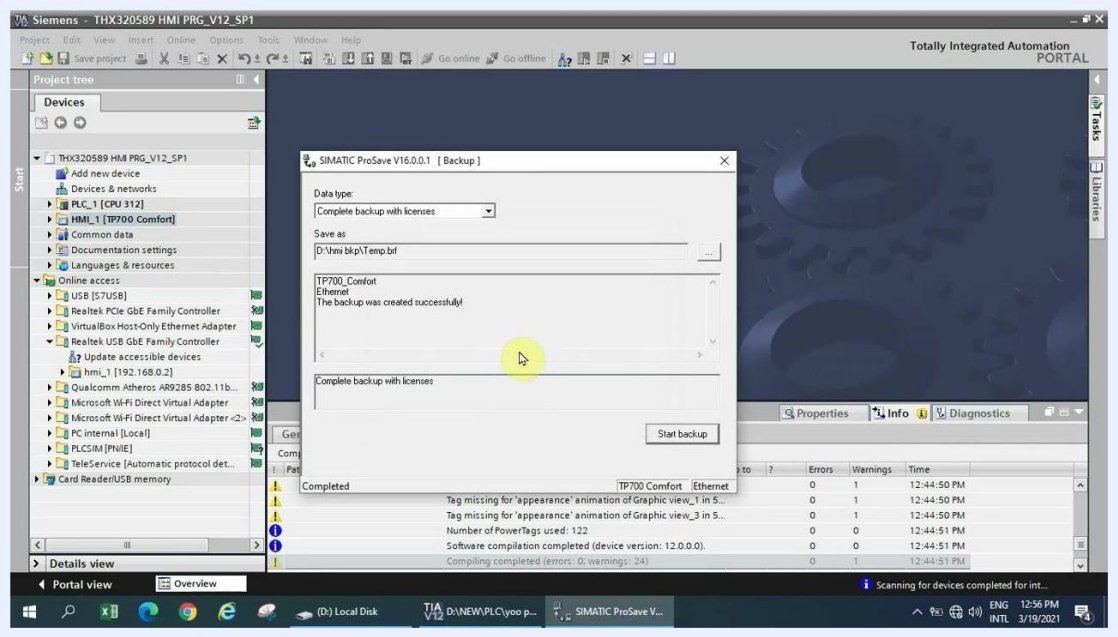
The **Start backup** button is enabled again. Confirm that the status message indicates success before you close the application.



SIMATIC ProSave window showing the message The backup was created successfully!

Step 13: Close SIMATIC ProSave

Once you have confirmed the backup, close the SIMATIC ProSave window. The TIA Portal main interface stays open and shows the project tree and device overview.



TIA Portal main interface with the project tree and no active ProSave dialogs

Summary

You have created and verified a complete backup of your Siemens HMI (TP700 Comfort) using TIA Portal and SIMATIC ProSave. Store the backup file, Temp.brf, securely for future restoration or archival purposes.

What's next

- Keep the Temp.brf file in a safe location for restoration or archiving.
- Repeat the procedure whenever you want a new backup of the panel.