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## Managing packages and licenses

### Licensing additional projects (plugins)

### Licensing additional projects (plugins)

In addition to the standard installation, third-party manufacturers such as Codesys GmbH offer additional products for use in PLC Engineering that are subject to a fee and license. The manufacturer provides the licenses for such products as ticket numbers, which can be installed via the License Manager in PLC Engineering.

The license information is stored on the runtime system of the ctrlX device. For more information on the topic "Licensing", refer to the "HOW-TO" section of the ctrlX Automation website (<https://developer.community.boschrexroth.com/t5/Store-and-How-to/FAQ-Licensing-with-ctrlX-AUTOMATION/ba-p/48094>).

In the license repository you can retrieve the current information for each ticket number from the central license server. Other information is also provided, such as whether a license can still be activated or must be returned.

### **License check when starting PLC Engineering**

When it starts, PLC Engineering checks the selected profile for plug-ins that are subject to licensing.

- If the profile does not include plug-ins subject to licensing, then PLC Engineering starts as usual without a message.
- If the profile includes plug-ins subject to licensing and a dongle with the required licenses is connected to the USB port of the computer, then PLC Engineering starts without any message.
- If the profile includes plug-ins subject to licensing but no dongle is available or a required license cannot be found, then, PLC Engineering displays the "License Missing" dialog at start-up.  
Note: When starting from the command line, this dialog is skipped when specifying the `--skipunlicensedplugins` option in the command line. In this case plug-ins without the required license are automatically not loaded.

### **License check during running operation**

While PLC Engineering is running, it is checked every five minutes whether the required licenses are available. If a license is missing, for example as the dongle has been removed in the meantime, the "Missing license" dialog is displayed and there are the following options:

- Plug the dongle back in and press "Repeat": If the dongle is equipped with the missing licenses, you can now continue working.

- “Save Current Project and Exit”: PLC Engineering saves the project and closes.
- “Close”: PLC Engineering closes without saving the project.



When removing the license dongle after the plug-in has been loaded, an error message is displayed.

To fix the problem, plug the dongle back in and press the **Retry** button. If the dongle contains a valid license, the dialog closes and you can continue working. Clicking “Cancel” will exit PLC Engineering.

## Installing/uninstalling add-ons

### Installing/uninstalling add-ons

The installation and management of externally provided software add-ons for ctrlX I/O Engineering and ctrlX PLC Engineering is realized via the "Add-On Installer" software, see:

↳ 'Add-on installer' dialog



The ctrlX Add-On Installer is based on functions of the CODESYS installer of the CODESYS GmbH.

The complete documentation can be found on the CODESYS website, see: Web documentation ([https://content.helpmecodesys.com/en/CODESYS%20Installer/\\_inst\\_start\\_page.html](https://content.helpmecodesys.com/en/CODESYS%20Installer/_inst_start_page.html))

### Installing the add-on

1. Open the add-on installer via the menu **Tools** → **Add-on installer**
2. Click on “Install file”
3. In the “Open” dialog, select an add-on from the file directory and click on “Open”.
4. In the next step, the “Confirmation required” dialog shows an overview of the add-on to be installed. Confirm the installation with “Ok”. Optionally, you can also cancel the installation by clicking on the “Cancel” button
5. The “Install packages” dialog opens.
 

In the first step, the certificates are displayed for unknown add-ons, including the associated properties. The dialog and displays information on whether and how the selected add-on is signed.
6. If it is a self-signed or unsigned add-on, explicitly allow the installation of this add-on by enabling the “Allow unsigned and self-signed add-ons” option.
7. If you agree with the displayed signing, click on “Continue”. Cancel the installation by clicking on “Cancel”.

8. ⇒ Add-ons may also include licensing information. This information is displayed in the next step. Via the tabs “License Agreement”, “Signature” and “Third Party Licenses” you can read the corresponding details. You can continue with the installation only after confirming the respective conditions by clicking the box next to it and then confirming with the “Continue” button. PLC Engineering also displays the “checksum” of the add-on.
  
9. Close the PLC Engineering application so that the add-on can be installed.
  - ⇒ The add-on installer performs the installation of the add-on in PLC Engineering and displays the installation steps as well as their progress.
10. Finally, the result of the installation is displayed. Finally, confirm the result with “OK” on “Finish”.

## Uninstalling the add-on

1. Select the add-on
2. Click on “Uninstall”
  - ⇒ The wizard opens and is ready to uninstall the add-on.
3. Close the PLC Engineering application so that the add-on can be uninstalled.
  - ⇒ The add-on installer performs the uninstallation of the add-on.

## Licensing products

### Licensing products

The use of many software products is license-protected, so before you start using a product, first activate it. An add-on product that extends the scope of work of ctrlX I/O Engineering or ctrlX PLC Engineering is usually activated with a workstation license. Licensing is realized via the Codesys security key, a dongle that manages all licenses of your workstation. Optionally, some products will soon support licensing on a soft container.

Both licenses of add-on products on the local computer and individual device licenses can be managed uniformly via the PLC Engineering license manager. For devices with a unique serial number, if the license information on the device is lost, the license manager can reactivate the license from an automatically stored license backup file.



If possible, license your products via online activation instead of offline activation.

## Online activation

Activation is possible in the “License manager” dialog in ctrlX PLC Engineering System. The prerequisite for this is that your development system has internet access. The target system itself does not require internet access.

Optionally, activate a license on the “License Central” website.

## Offline activation

If your workstation computer does not have internet access, activate products using a license activation file. The PLC Engineering license server provides the file. Connect to the server from any web-enabled computer and request the file. Then transfer the file to your workstation computer using any storage device. As usual, the product is activated in ctrlX PLC Engineering System, both for workstation licenses and for single device licenses.

Optionally, if you have access to a web-enabled computer but ctrlX PLC Engineering System is not installed, you can access the “CodeMeter Control Center” from Wibu-Systems to activate the license.



The “CodeMeter control center” controls the CodeMeter service and is included in the PLC Engineeringsetup.

- ▶ Offline activation of an add-on license on the local computer
- ▶ Restoring licenses
- ▶ List license information for products and device features of a control

## CODESYS Professional Developer Edition

### CODESYS Professional Developer Edition

The CODESYS Professional Developer Edition subscription combines all solutions for professional application development according to IEC 61131-3 and their management in a single license.

- **CODESYS SVN**

Connecting to the software versioning system Apache™ Subversion® for professional source code management.

- **CODESYS Static Analysis**

Checking the source code using predefined rules and providing characteristic numbers on the code quality.

- **CODESYS Profiler**

Detailed measurements of runtime performance and code coverage at module level to detect timing issues.

- **CODESYS Test Manager**

Executing automated tests of applications and libraries.

- **CODESYS UML**

Two new diagrams of the Unified Modeling Language: the class diagram and the state diagram.

- **CODESYS Git**

Integrated use of the distributed version management system Git™ for all application objects.

## Licensing via Rexroth licenses

Register the PC via the Rexroth license portal before purchasing the CODESYS Professional Developer Edition annual license. The registration function can be found in ctrlX WORKS on the page “Licenses”, see here: Web documentation ([https://docs.automation.boschrexroth.com/cdphelp?tkeyword=ctrlX\\_WORKS\\_SCREEN\\_settings\\_licenses](https://docs.automation.boschrexroth.com/cdphelp?tkeyword=ctrlX_WORKS_SCREEN_settings_licenses))

After purchasing the CODESYS Professional Developer Edition annual license (SWL-W-PCx-COSYxPROxDEVxED-Y1NN), import the license into ctrlX WORKS using the “Upload license file (Capability Response)” function. In addition, the add-on „Bosch Rexroth License Provider“ has to be installed via the Add-On Installer in PLC Engineering, see here: Web documentation ([https://docs.automation.boschrexroth.com/cdphelp?tkeyword=\\_cds\\_installing\\_package](https://docs.automation.boschrexroth.com/cdphelp?tkeyword=_cds_installing_package))