

CODESYS Licenses

PLC500, PLC500ED, PLC500MC PLC410

Application Note





Application Note

PLC410, PLC500, PLC500ED, PLC500MC

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1		1-1
	1.1 ADVANTAGES AND DISADVANTAGES OF SOFTCONTAINER AND USB DONGLE	1-1
	1.2 LIST OF PROTOCOLS AND FUNCTIONALITIES FOR LICENSING	1-1
2	ACQUISITIONS	2-1
	2.1 PURCHASE OF LICENSES	2-1
	2.2 PURCHASE OF DONGLES	2-2
3	INSTALLATION OF THE LICENSE VIA SOFTCONTAINER	3-1
4	INSTALLATION OF THE LICENSE ON USB DONGLE	4-1
5		5-1

1 INTRODUCTION

This **Application Note** aims to assist in the installation of **SL** (Single Licenses) licenses on PLC models PLC410, PLC500, PLC500ED, and PLC500MC. It should be noted that the provided data may undergo slight changes due to the ongoing development and updates of products and libraries.

Licenses purchased through the CODESYS Store can be activated directly on the PLC via **SoftContainer** or used with **USB Dongles** (also purchased from the CODESYS Store). With the **SoftContainer**, the license is directly linked to the PLC, while with the **USB Dongle** option, the license remains active on the device connected with the dongle.

NOTE!

The PLC410 model does not feature a USB OTG interface, making it incompatible with USB dongles. For this model, use the **SoftContainer** option for licensing.

1.1 ADVANTAGES AND DISADVANTAGES OF SOFTCONTAINER AND USB DONGLE

Below is a table showing the main advantages and disadvantages of using each licensing mode.

Software License Container (SoftContainer)	CODESYS Key (USB Dongle)		
Advantages	Advantages		
No additional hardware required	License valid regardless of device type		
No extra costs	Easy transfer of license to another device		
No physical delivery needed	License remains valid even if device fails		
Unlimited number of licenses storable	Simple license granting and revocation process		
License usable immediately	Nearly unlimited number of licenses storable (approx. 4,000)		
	Also usable for security tasks, such as project encryption		
Disadvantages	Disadvantages		
License cannot be transferred	Additional hardware and USB slot required		
License lost if device fails	 Additional costs for USB dongle, shipping, and customs fees (if applicable) 		
	Wait time until dongle delivery		

1.2 LIST OF PROTOCOLS AND FUNCTIONALITIES FOR LICENSING

Some specific CODESYS protocols and functionalities operate in a time-limited demo mode, usually between 30 minutes and 2 hours. After this period, it is necessary to download the application again or restart the device to reactivate the demo mode.

The following is a list of protocols and functionalities that run in demo mode and can be activated via SL:

- CODESYS CANopen Device SL
- CODESYS OPC UA Server SL
- CODESYS J1939 Manager SL
- CODESYS WebVisu SL

2 ACQUISITIONS

The licenses of type **SL** (*Single License*) and USB Dongles (**CODESYS Key**) must be purchased directly from the **CODESYS Store** through a user account.

2.1 PURCHASE OF LICENSES

The following steps illustrate the purchase of an SL license directly on the CODESYS Store website.

1 - Create an account and log in to the CODESYS Store.

CODESYS Search entire store here	Welcome to the x0002315 Stare International EN EN Sign In Q International Environment Stare Envit Stare Environment Stare Environment Stare Environment Stare Envi
Application Based Licenses 🗸 🛛 Automation Server 🗸	SoftPLC V Engineering V Trainings & Events V Examples
Customer Login Registered Customers	As a customer from the USA, Canada or Mexico please visit the CODESYS Store North
If you have an account, sign in with your email address.	America
Email *	Corporate Customer
user@weg.net Password * Sign In Forgot Your Password?	Here you can register your company. After verification of your company data, we will activate your account that enables you to purchase products from the CODESVS Store. If you can provide a valid VAT ID number or business tax certificate and are exempt from VAT, no VAT will be charged on your orders.
* Required Fields	Individual Customer Here you can create an individual customer account as a private person. If you are exempt from paying taxes, please register as a corporate customer. An individual customer account cannot be converted into a company account afterwards. Immediately after registration you can download software and use all products marked 'Free' for for orders of licenses are possible as soon as you have confirmed your e-mail address. For orders the legal value added tax will be added. Create Individual Customer Account

Figure 2.1: Login to the CODESYS Store

2 - Select and purchase the desired license.

	Hello Mr.		Sign Out 🕞
CODESYS Search entire store here	۹,	My Account My Question	1 item €99.00 ତੈ Cart
Review & Payments			
Payment Method		Order Summary	
O Credit card		1 Item in Cart	^
O PayPal What is PayPal?		CODESYS OPC UA Server SL Cty: 1 €99.00	
O Payment by involce			
Apply Discount Code 🗸 🗸		Change Items in Cart	
Reference		Subtotal (net)	€99.00
		Grand Total	€99.00

Figure 2.2: License Purchase

3 - After payment confirmation, the licenses will be sent by CODESYS and will be available for the user in the **My Licenses** tab. The **Ticket** is the code used to activate the license on the device.

		Hello N	Ar. Welcom	e to the CODESYS Store International	EN Sign Out \bigcirc
			Q		€0.00 रे
CODESYS	Search entire store here		My Account	My Question	
	Application Based Licenses $ \checkmark$	Automation Server 🗸 SoftPLC 🗸	Engineering 🗸 Trainings	& Events 🗸 Examples	
My Account My Quotes	My License	25			
My Orders Order by Article no.	Ticket	Name of the Iter	n 🗢 Purchase Da	ate 🗘 Download Link	
	XXXXX-XXXX-XX	CODESYS OPC U	A Server SL 26.10.2023	more packages available via our	CODESYS Installer
Address Book Account Information Stored Payment Methods	*****	CODESYS PROFI	NET Controller SL 26.10.2023	more packages available via our	CODESYS Installer
Company Profile	XXXXX-XXXXX-XX	CODESYS PROFI	NET Device SL 26.10.2023	more packages available via our	CODESYS Installer
Company Structure	XXXXX-XXXXX-XX	CODESYS PROFI	NET Device SL 26.10.2023	more packages available via our	CODESYS Installer
Roles and Permissions	*****	CODESYS J1939	Manager SL 26.10.2023	more packages available via our	CODESYS Installer
My Servers Newsletter Subscriptions	xxxxx-xxxxx-xx	CODESYS J1939	Manager SL 26.10.2023	more packages available via our	CODESYS Installer
My Licenses Delete Account My Support Authorizations	*****	XXX-XXXXX-XXXXX CODESYS SoftM	otion SL 26.10.2023	Download	
My Subscription Profiles	XXXXX-XXXXX-XX	CODESYS SoftM	otion SL 26.10.2023	Download	

Figure 2.3: My Licenses Tab

2.2 PURCHASE OF DONGLES

The following steps illustrate the purchase of a USB Dongle (**CODESYS Key**) through the **CODESYS Store** website.

1 - Create an account and log in to the CODESYS Store.



Figure 2.4: Login to the CODESYS Store

2 - Select and purchase the USB Dongle (CODESYS Key), correctly filling in the delivery address.

	Hello Mr.	Welcome to the CODESYS Store International	CODESYS Stare International EN Sign Out 🕞		
CODESYS Search entire store here	Q _{My}	Account My Question	1 item €40.00 ℃ Cart		
Shipping Review & Payments					
Weg Weg Pref. Waldemar Grubba, 3300 Jaragua do Sul, 89256-900 Brazil +55(47) 3276-4000		Order Summary 1 Item in Cart CODESYS Key Chy: 1 €40.00 Change Items in Cart	^		
• New Address Shipping Methods • €70.00 Per DPD Per DPD		_			
	Next				

Figure 2.5: USB Dongle Purchase

3 - After payment confirmation, the USB Dongle will be sent to the address specified during the purchase.



Figure 2.6: USB Dongle (CODESYS Key)



NOTE!

For proper functioning, the USB dongle (CODESYS Key) must be connected to the USB OTG interface (USB1) of the PLC models PLC500, PLC500ED, and PLC500MC.

3 INSTALLATION OF THE LICENSE VIA SOFTCONTAINER

When using the **SoftContainer** option, licenses are installed directly on the PLC, eliminating the need for a USB Dongle (CODESYS Key).

To install a license via SoftContainer, follow the steps below:

1 - With the desired device connected, open the CODESYS software and navigate to the **Tools** \rightarrow **License Manager** menu.



Figure 3.1: Open License Manager...

3 - Select **Device** and **Soft container** to install the license directly on the PLC.

License Manager - Select Target	×	License Manager - Select Container X
Select Target What kind of target do you like to manage?		Select Container What kind of container do you like to handle?
O Workstation		
Device		Soft container
Cancel < Back. Next >	74	Cancel <back next=""></back>

Figure 3.2: SoftContainer for PLC licensing



4 - Select the device where you want to activate the license and click OK.

Select Device		_	×
Select the Network Path to the Controller			
Gateway-1	Device Name: PLC500	^	Add Gateway
[] PLC300 [3001.20EA]	Device Address:		Add Device
	Block driver		Delete
	UDP		Scan Network
	Encrypted Communication: TLS supported		Wink
	Number of channels: 16		
	Target ID: 1799 0001		
	Target Name: PLC500 Industrial		
	Target Type: 4096	~	
	, ,		
	Ε	OK	Cancel:

Figure 3.3: Device selection for licensing

5 - Click on Install Licenses.

- E Softcontainer: [0]: SN=130-2056106241, Version=3.00, Chip=0, Rev=0	Name Company Unit counter License quantity Usageperiod Feature map Activation time Expiration time Firm code Product code Description
< The license for the product exists on the selected license container. The license for the product exists on the selected license container, but is inva	lid (e.g. expired).

Figure 3.4: License Manager - Overview



Licenses already activated on the device will be displayed in this tab.

6 - Select the option Activate license and click Next.

Softcontainer: [0]: SN=	Install Licenses What do you want to do?	
	O Activate license Use this option if this machine has internet access and the software vendor has supplied a license activation ticket to you. O Request license If this machine does not have internet access, then you can create a context file of your doing which can be activated over the internet on another machine. Then the resulting license update file can be installed on this machine by means of "Install license". Install license If you have received a license update file, then use this option to install it to your dongle.	
<	Cancel < Bock Next > Cancel Finish	
The license for the product The license for the product The license for the product	exists on the selected license container. exists on the selected license container, but is invalid (e.g. expired). does not exist on the selected license container.	

Figure 3.5: License activation

7 - Enter or paste the **Ticket** received from the CODESYS website into the **Ticket ID** field. Select the **Softcontainer** option in the **Container** field and click **Next**.

License Manager - Overview	ses are present or	missing.	×
Licenses	Specify your tick by the software to container Container	Activate License Activate License Se over the internet TD and select the loense server. Both values have been provided to you endor during the order process. XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX-XXXX	
 The license for the product exist: The license for the product exist: The license for the product does 	s on the selected li s on the selected li not exist on the se	zense container. zense container, but is invalid (e.g. expired). lected license container.	
Install Licenses Addi	tional Functions		Close

Figure 3.6: License installation



	Install licenses - License Activation Completed X	
	License activation completed	
	The license activation has been completed successfully.	
	Cancel < Back Next> Finish	
The license for the produ	ct exists on the selected license container.	

8 - After following these steps, the license will be installed on the PLC. Click **Finish** to close the window.

Figure 3.7: License installed

9 - Upon completion of the process, the license will be activated and can be viewed in the **License Manager** tab, as shown in the figure below.

The following containers with their licenses are present or missing. Licenses Softcontainer: [0]: SN=130-2056106241, Version=3.00, Chip=0, Rev=0 CODESYS OPC UA Server SL CODESYS OPC UA Server SL The license for the product exists on the selected license container.	Name Company Unit counter License quantity Usageperiod Feature map Activation time Expiration time Firm code Product code Description Runtime extensio	CODESYS OPC UA Server SL CODESYS GmbH - - 0001 - - 101597 4352 n for publishing variables via OPC UA	
The license for the product exists on the selected license container, but is inva The license for the product does not exist on the selected license container.	iid (e.g. expired).		
Install Licenses Additional Functions			Close

Figure 3.8: View of installed licenses



NOTE!

When activating a license, it is recommended to clearly document which licenses (**Tickets**) were activated for each product. This record is necessary to facilitate the process of license recovery with CODESYS.

4 INSTALLATION OF THE LICENSE ON USB DONGLE

When installing a license on a USB Dongle (**CODESYS Key**), the PLC connected to this dongle will have the license automatically enabled.

To install a license on a USB Dongle (CODESYS Key), follow the steps below:

1 - Open the CODESYS Software and navigate to the **Tools** \rightarrow **License Manager** menu.



Figure 4.1: Open the License Manager...

3 - Select **Device** and **Dongle** to install the license via PLC.

License Manager - Select Target	1 1	License Manager - Select Container	×
Select Target What kind of target do you like to manage?		Select Container What kind of container do you like to handle?	
O Workstation		Dongle	
Device		O Soft container	
Cancel <back next=""></back>		Cancel < Back Next :	۲,





NOTE!

It is also possible to install the license by connecting the **Dongle** directly to the computer. In this case, select the **Workstation** \rightarrow **Dongle** option.

4 - Select the device with the USB Dongle (CODESYS Key) connected, on which you want to activate the license.

Select Device			×
Select the Network Path to the Controller			
Gateway-1	Device Name: PLC500	^	Add Gateway
	Device Address:		Add Device
	3001.20EA		Delete
	UDP		Scan Network
	Encrypted Communication: TLS supported		Wink
	Number of channels: 16		
	Target ID: 1799 0001		
	Target Name: PLC500 Industrial		
	Target Type: 4096		
	1		
	Г	Ok	Cancel
	L	0	

Figure 4.3: Device selection

5 - Click on Install licenses.

E → Dongle: [1]: SN=3-6910197, Version=4.50, Chip=152, Rev=11	Name Company Unit counter License quantity Usageperiod Feature map Activatione time
	Expiration time Expiration time Firm code Product code Description
 The license for the product exists on the selected license container. The license for the product exists on the selected license container, but is in the selected license container. The license for the product does not aviet, on the selected license container. 	nvalid (e.g. expired).

Figure 4.4: License Manager - Overview



Licenses already activated on the device will be displayed in this tab.

6 - Select the option Activate license and click Next.

	Install licenses - Select Operation X Install Licenses What do you want to do?	
The license for the product exists on th The license for the product exists on th The license for the product does not ex	e selected license container. e selected license container, but is invalid (e.g. expired). ist on the selected license container.	

Figure 4.5: Activate license

7 - Enter or paste the *Ticket* received from the CODESYS website into the **Ticket ID** field. Choose the **Dongle** option in the **Container** field and click **Next**.

Pongle: [1]: SN=3-6910197, Version= Patch Protection Only	n=4.50, Chip=152, Rev=11 Name Company	
	Install licenses - Activate License × Install Licenses Activate a license over the Internet	
	Specify your ticket ID and select the license server. Both values have been provided to you by the software vendor during the order process.	
	License server 3S-Smart Software Solutions GmbH (http://license.codesys.com) Container Dongle: [1]: SN=3-6910197, Version=4.50, Chip=152, Rev=11	
	Cancel < Back Next > D Fritsin	
The license for the product exists on The license for the product exists on i	the selected license container. the selected license container, but is invalid (e.g. expired).	

Figure 4.6: Install license



ATTENTION!

To install new licenses, the computer must be connected to the internet.

8 - After completing these steps, the license will be installed on the **USB Dongle**. Click **Finish** to close the window.

Dongle: [1]: SN=3-6910197, Version Patch Protection Only	n=4.50, Chip=152, Rev=11 Name Company	
	Install Licenses Install Licenses Activate a license over the internet	
	The license activation has been completed successfully.	
	Cancel < Back Netto Finish	
The license for the product exists on t	he selected license container. he selected license container, but is invalid (e.g. expired).	

Figure 4.7: License installed

9 - Once the process is complete, the license will be activated and can be viewed in the **License Manager** tab, as shown in the figure below.

License Manager - Overview	×		
The following containers with their licenses are present or missing. Licenses Conservation Cons	Name Company Unit counter License quantity Usageperiod Feature map Activation time Expiration time Expiration time Firm code Product code Description		
 The license for the product exists on the selected license container. The license for the product exists on the selected license container, but is invalid (e.g. expired). The license for the product does not exist on the selected license container. 			
Install Licenses Additional Functions	Close		

Figure 4.8: View of licenses installed on the USB Dongle

5 LICENSE RECOVERY

In the event of a failure of the PLC on which the license is installed, you can request the reactivation of the license. To do this, follow the steps below to contact CODESYS support:

- Send an email to sales@codesys.com requesting the reactivation of the Ticket.
- In the email, include the following information:
 - The number of the **Ticket** installed on the device.
 - A detailed description of the justification for the license reactivation.



ATTENTION!

The approval for the reactivation of the license **is not guaranteed** and is subject to review by the CODESYS support team, which will evaluate each case based on the information provided and the applicable policies.



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