

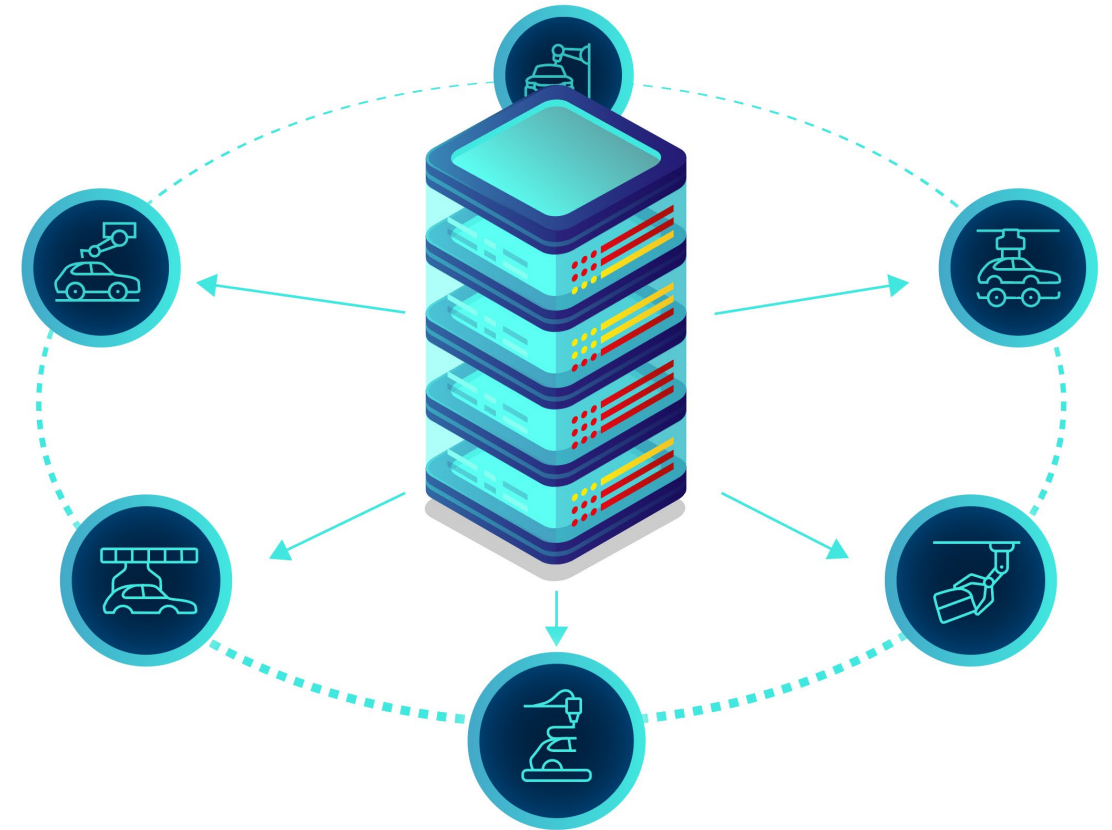
CODESYS RUNTIME

Control SL

CODESYS Feature Briefing, October 2024
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Virtual Control SL – Release and usability improvements

- First official release of the vPLC with SL versior
- **Planned improvements for version 4.15.0.0:**
 - Import / export of instances
 - Drop-down menu for available NICs
 - Improved security



*Application example:
Control of different production cells
in the automotive industry via IT server*

LicenseServer for Linux SL

- **CODESYS add-on to support the handling of network licenses**
 - ➔ Deployment of cockpit-based plug-in on target device
- **Release with SL version 4.13.0.0**

➔ First step towards the integration of a web-based management for CODESYS PLCs

The screenshot displays the LicenseServer web interface. On the left is a dark sidebar menu with a search bar and navigation items: Apps (with an 'Edit' link), CODESYS WBM (highlighted), System, Overview, Logs, Storage, Networking, Accounts, Services, Tools, Applications, Software updates, and Terminal. The main content area is titled 'Actions' and 'CODESYS Licensing'. It features three sections: 1. 'Activate ticket' with input fields for Firmcode (6000437), Serialnumber (130-774910826), and Ticket (xyz), and an 'ACTIVATE TICKET' button. 2. 'Create new container' with a text prompt, a file selection button labeled 'Durchsuchen...', and a 'CREATE' button. 3. 'Delete container' with a 'Serialnumber' input field and a 'DELETE CONTAINER' button. Below these is a 'Licenses/containers on the system:' section with a 'REFRESH' button. At the bottom, there is a footer with version information: 'cmu - CodeMeter Universal Support Tool. Version 8.10a of 2024-Jun-17 (Build 6230) for Linux/ARMHF 64-Bit. Copyright (C) 2007-2024 by WIBU-SYSTEMS AG. All rights reserved.' and a list of features and PIOS.

TargetVisu for Linux SL

- Separate, small runtime system managing the display of visualizations
- Release with SL version 4.13.0.0

Target Visualization for Linux SL Configuration

CODESYS Communication

Username Password

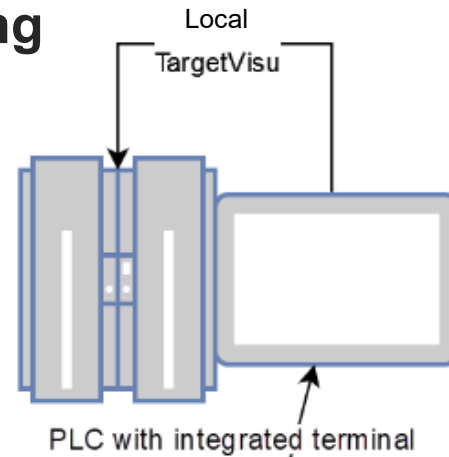
PLC name Application

Clear values and ask on next startup

Host Configuration

Set X Display + User on login Start Delay

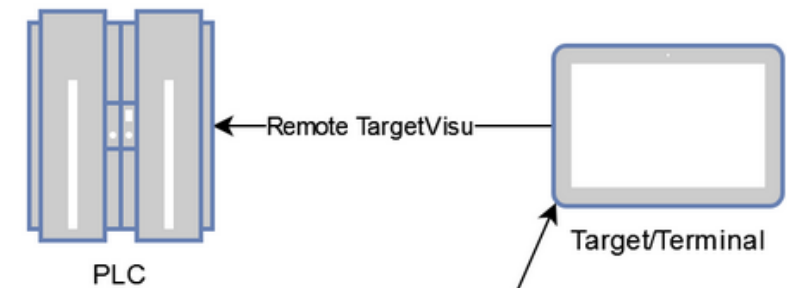
Cancel Apply



Installation + Configuration



1



Installation + Configuration



2

Control SL Deploy Tool

- Complete overhaul of the CODESYS SL Deploy Tool
- Planned release with SL version 4.14.0.0

→ Migration of all SL products

→ Central management of all runtimes and services on a target device

→ Smart recognition of supported options

The screenshot displays the 'Deploy Control SL' web interface. On the left, a sidebar contains three menu items: 'Communication', 'Deployment', and 'Operation'. The main content area is divided into several sections:

- Login:** Includes fields for 'IP address' (192.168.99.16), 'Port' (22), and 'User name' (pi). A 'Scan' button is next to the IP field. The 'Password' field is masked with dots. The status is 'Connected', with 'Connect' and 'Disconnect' buttons.
- Key Based Login:** A section with a dropdown arrow.
- Device Information:** A table of system details.

Device Information					
Device Architecture	arm64	Container Architectures	arm64	Python Available	True
Distribution	ubuntudebian	Container Engine	Docker	VPLC API Version	
Version	23.10	Package Managers	dpkg	Init Processes	Systemd, SysV
Userland Architectures	arm64				

Deployment

The screenshot shows the 'Deploy Control SL' interface with the 'Deployment' tab selected. The 'Install and Deploy Product' section shows the product 'CODESYS Virtual Control for Linux SL' and version '4.13.0.0 (arm64)'. Below this, there are two tables: 'Installed Packages' and 'Installed Images'.

Installed Packages

Product	Version
CODESYS Edge Gateway for Linux	4.13.0.0-b.trunk.48
CODESYS TargetVisu for Linux SL	4.13.0.0-b.trunk.48
CODESYS LicenseServer for Linux SL	4.13.0.0-b.trunk.48

Installed Images

Product	Image Version	Architecture	Used by
CODESYS Virtual Control for Linux SL	4.13.0.0-b.trunk.48	armhf	
CODESYS Virtual Control for Linux SL	4.13.0.0-b.trunk.48	arm64	Runtime, first
CODESYS Virtual Edge Gateway for Linux	4.13.0.0-b.trunk.48	arm64	
CODESYS Virtual Edge Gateway for Linux	4.13.0.0-b.trunk.48	armhf	edge

Operation

The screenshot displays the 'Deploy Control SL' interface with three main sections:

- Services:** A table listing installed services and their status.
- VPLCs:** A table listing Virtual Product Line Components (VPLCs) and their status.
- Settings:** Configuration options for the instance, including Autostart, Capabilities, Hostname, Image, and Technology.

Services Table:

Product	State	Action
CODESYS Edge Gateway for Linux	Running	⏸
CODESYS TargetVisu for Linux SL	Running	⏸
CODESYS LicenseServer for Linux SL	Running	⏸

VPLCs Table:

Instance	State	Product	Dependencies	Action
Runtime	Running	Runtime		⏸
edge	Running	Gateway		⏸
first	Stopped	Runtime		▶

Settings Panel:

- Instance:**
 - Autostart: **False**
 - Capabilities: **cap_chown, cap_ipc_lock, cap_kill, cap_net_admin, cap_net_raw**
 - Dependencies:
 - Genericcommands:
 - Hostname: **first**
 - Image: **codesyscontrol_virtuallinuxarm64:4.13.0.0-b.trunk.48**
 - Ipc:
 - Licenseserver:
 - Mounts: **/var/opt/codesysvcontrol/instances/first/conf/codesyscc**
 - Network:
 - Nic:
 - Ports:
 - Producttype: Runtime
 - Technology: **Docker**

Capabilities: The capabilities you want the instance to have. Write as: cap_chown, cap_net_raw

Save

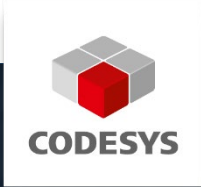
General improvements

Increased security – no more generic root rights for Linux SL runtimes

→ Planned release with SL version 4.15.0.0

RPM integration and support of Red Hat base image

→ Planned release with SL version 4.14.0.0



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