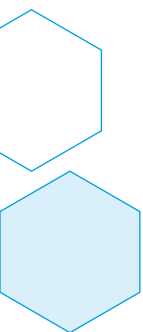




CODESYS® Roadmap | July 2026

Hilmar Panzer | Managing Director & CTO

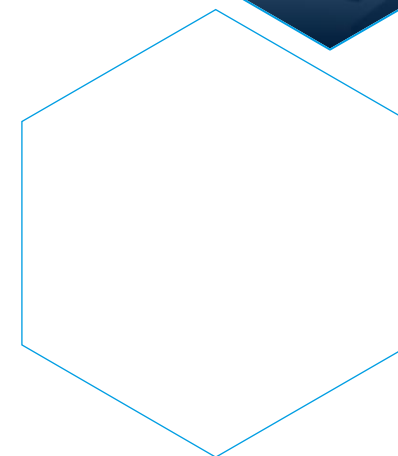


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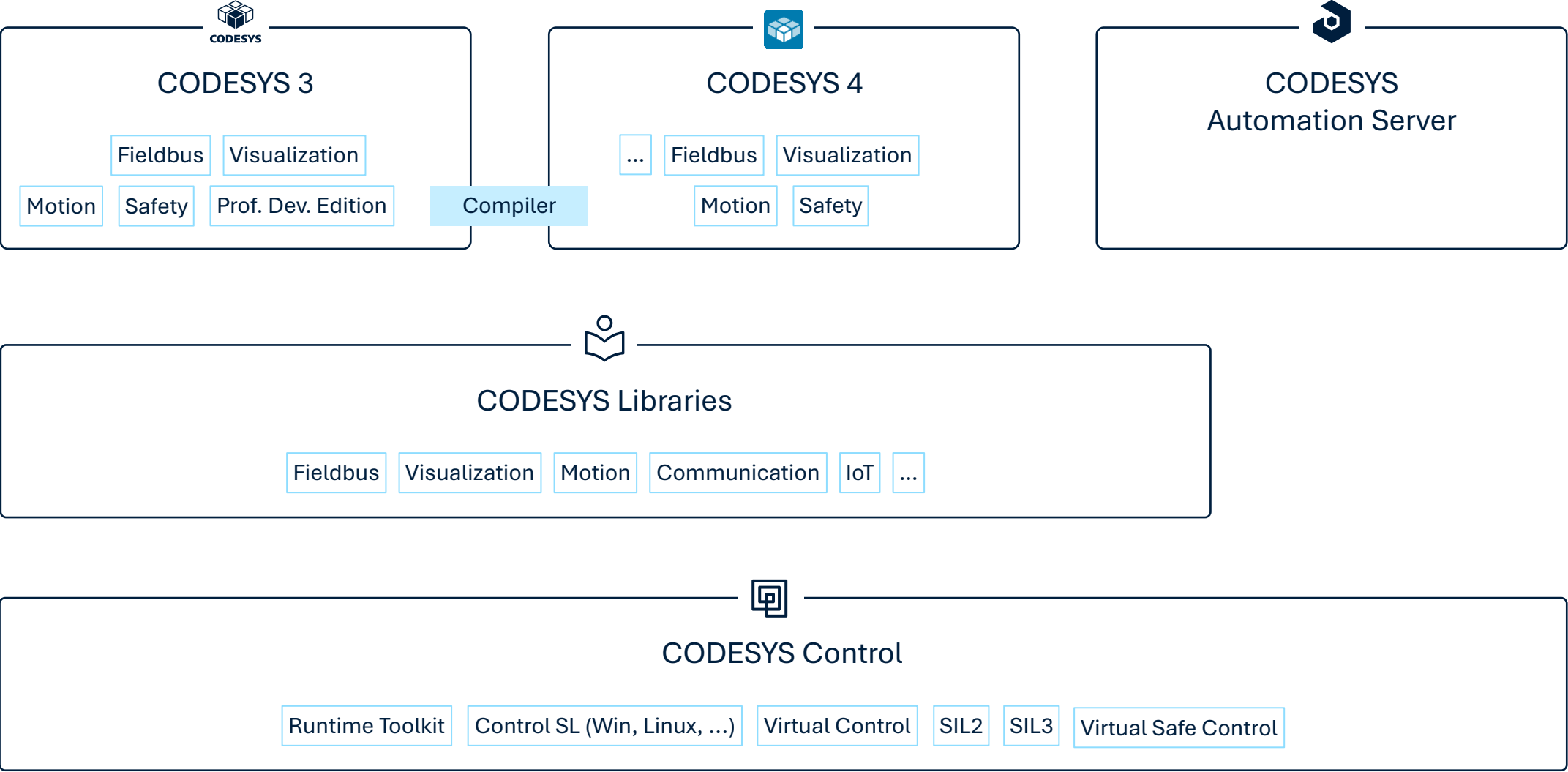
This presentation contains our product planning schedule defined at the time this presentation was created.

The specified contents and timeframes may change or be rescheduled for various reasons.

They should therefore be regarded as a statement of intent, but are not binding.



Product structure and document content



DevOps Tools

Add-ons
(with functionality independent from the Engineering System)

Controller

IEC61131-3 language editors



CODESYS Ladder



1.3.0.0 | Q3 2026

- New Toolbox customizations can be used with the new Ladder editor.
- Textual storage format (support for CODESYS File-Based Storage)



CODESYS CFC



4.6.0.0 | Q2 2027

- Textual storage format (support for CODESYS File-Based Storage)



Professional Developer Edition



Git

 Q3 2026

File-based storage as backend



File-Based Storage

 V1.0.0.0 | Q3 2026

- New alternative text-based project format for CODESYS 3
- Similar, yet not identical with CODESYS 4 project format
- It is part of the Professional Developer Edition and requires this license for saving.
 - Opening a project does not require a license.
- V1.0 takes into account your feedback on V0.9. It will provide:
 - file format changes,
 - harmonized line endings,
 - optimized user experience.
 - Libraries (.fbslib) can be exchanged from CODESYS 4 to CODESYS Development System and vice versa. (Restrictions possible)
- Requires SP22



Professional Developer Edition



Test Manager



Q4 2026

- Usable in the CI/CD workflow without UI
- Requires SP22



Simulation interface



1.0.0.0 | Q4 2026

- Enables virtual commissioning and automated HW/SW testing of CODESYS-controlled machines.
- Integrates CODESYS applications in third-party simulation tools (Software-in-the-loop).
- Standard interface based on OPC UA Pub/Sub and information model
- Switches easily between simulation and real target without project changes.
- A preview version for evaluation is already available.



Artificial Intelligence (Professional Developer Edition)



Model context protocol MCP Server

- SDK for tools to allow add-ons to provide their own MCP commands  Q3 2026
- Online operations for debugging (monitoring, ...)  Q3 2026
- Visualization support  Q1 2027
- Fieldbus support  2027



Agentic coding

 Q4 2026

- Enables the possibility for agent coding of CODESYS project sources (e.g. by Claude code)
- Requires File-Based Storage 1.0



Visualization



File-Based Storage support

 Q4 2026

Visual objects with all elements can be stored and read with File-Based Storage.



Redundancy for Alarms*

 2027

Support of alarm status synchronization with CODESYS Redundancy

* Requires additional license "CODESYS Connectivity Redundancy"



Fieldbus

Online change support* in IO configuration

Extended online change support of

- PROFINET
 4.8.0.0 | 07.2026
- MODBUS
 Q4 2026

Ethernet/IP 4.10.0.0 | Q4 2026

- UI configurator support to add, delete, and edit connections

Maintenance versions

- EtherCAT
 4.12.0.0 | 07.2026
- Ethernet/IP
 4.9.1.0 | 07.2026

* Requires additional license “CODESYS Connectivity Redundancy”



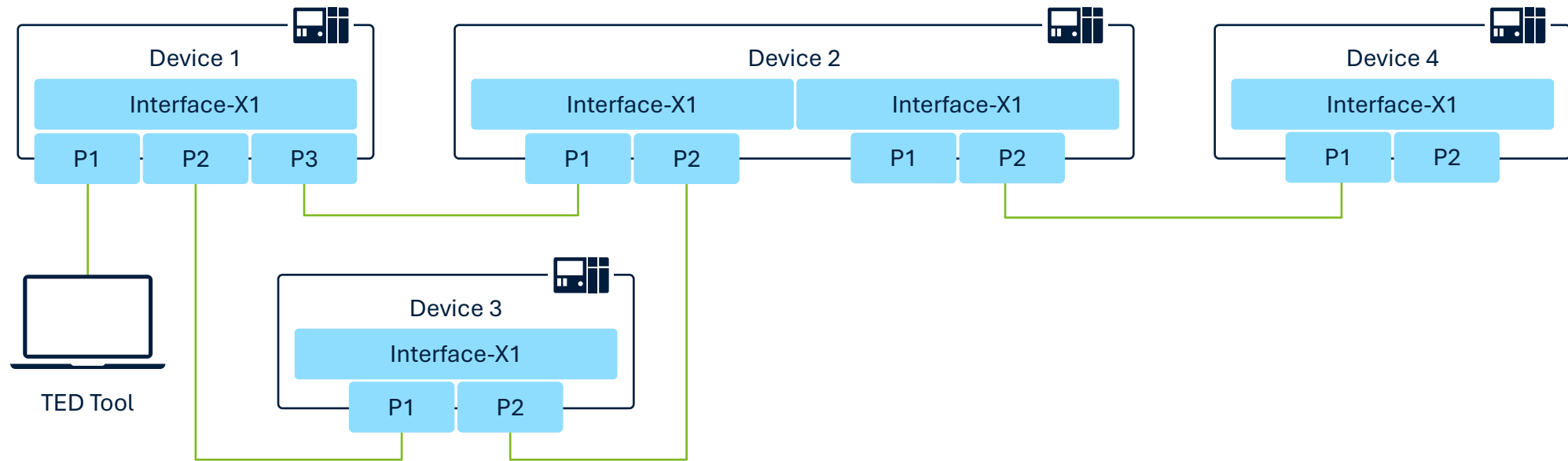
Fieldbus

PROFINET

 07.2026

Topology editor local I/O drivers:

Defines and supervises the topology of all PROFINET devices graphically.



Communication

OPC UA Server Information models

 4.9.0.0 | Q4 2026

- OPC UA Core model implemented in firmware is usually older than the latest model.
- Many companion specifications reference the latest OPC UA Core model.
- Application download only refused if unavailable parts are actually referenced by currently used information model.

OPC UA Server: GDS support

 V3.5 SP23 | Q1 2027

Supports OPC UA certificate management by connecting to a third-party global discovery server.

* Requires additional license “CODESYS Connectivity Redundancy”

Safety

Safety extension

 Q4 2026

Safety applications can be managed
by CODESYS git.





G-Code for Robotics



4.21.0.0 | Q4 2026

- Use existing G-Code functionality (interpreter, path preprocessors) to program an axis group.
- Benefit from the combination of robotics configuration and path planning with CNC features.
- G-Code is connected to the axis group using MC_MovePath



CNC



4.21.0.0 | Q4 2026

- Improved additional axes

The additional axes A/B/C/P/Q/U/V/W can now all be used in a uniform way. They all support higher order interpolation (quintic by default, can be set to cubic or linear).



Compiler

Code generator for RISC-V (64 Bit)

 1.0.0.0 | Q3 2026

Performance improvements

 V3.5 SP23 | Q1 2027

- Investigate and implement potential performance improvements
- E.g. support Fast Online Change for visualizations

Introduction CODESYS 4

- Alternative programming tool based on web technology
 - Proven compilers from CODESYS 3 are reused.
- Compatible with CODESYS 3 Control – there will be no separate runtime for CODESYS 4.
- Add-ons programmed as libraries are reused from CODESYS 3.
- Platform-independent engineering tool for CODESYS PLCs
 - Backend running on desktop, server, cloud, or on the PLC itself; Windows- and Linux-based
 - Frontend running on any device with web browser support
- Textual project storage
- V1.0.0.0 will provide limited functionality compared to CODESYS 3.
- Currently we focus on the following use cases:
 - Library development and CI/CD integration
 - Applications for which the current set of objects is sufficient
 - Edge applications (ST, MODBUS, IIoT libraries, libraries)
 - Simple applications

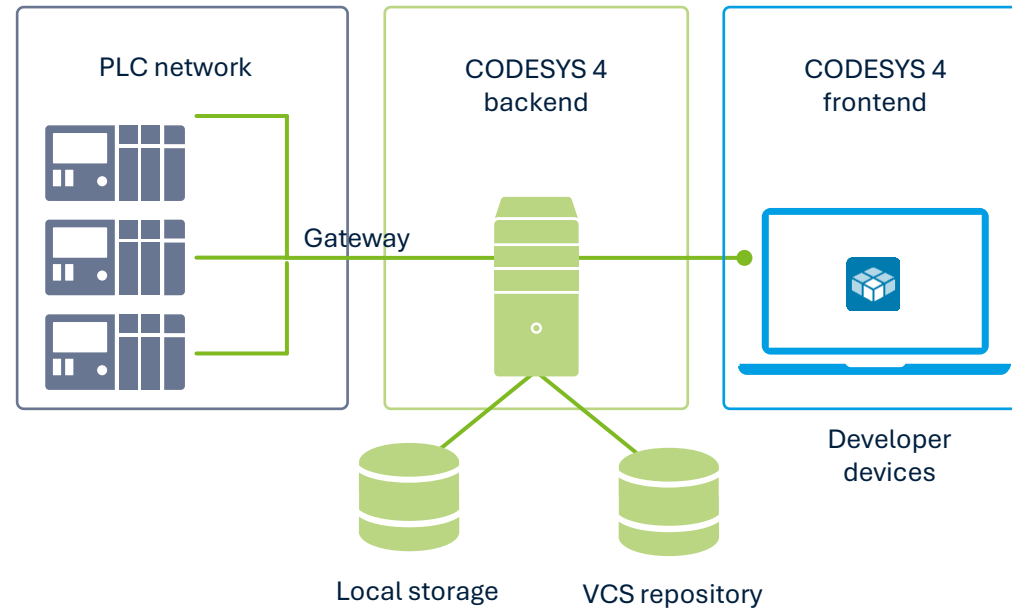


Release plan for CODESYS 4

- After 2028, CODESYS 4 will require a license fee.
- There will be frequent updates (6 – 8 weeks) for CODESYS 4, bringing new functionality step by step.
- Linear end-of-line versions, no official regular patches (as in CODESYS 3) planned.
- New functionality, current status, and modules under development will be announced in this roadmap and in the CODESYS Feature Briefing.

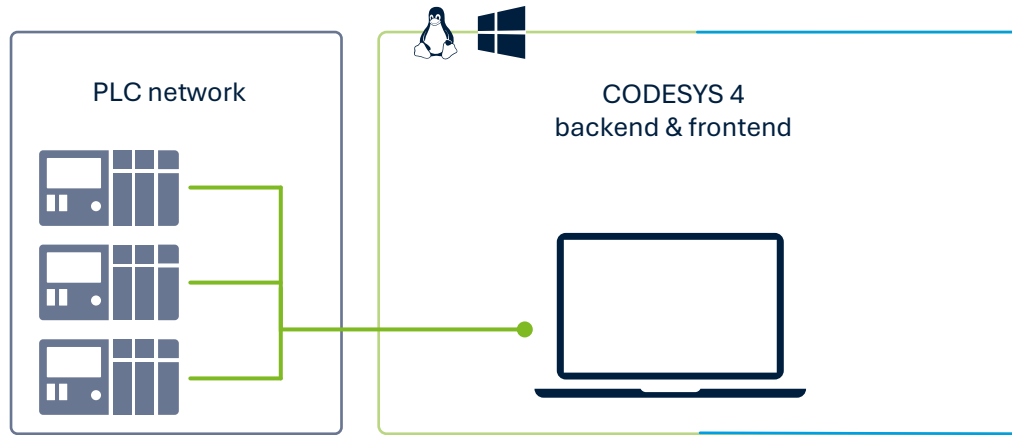


Architecture of CODESYS 4

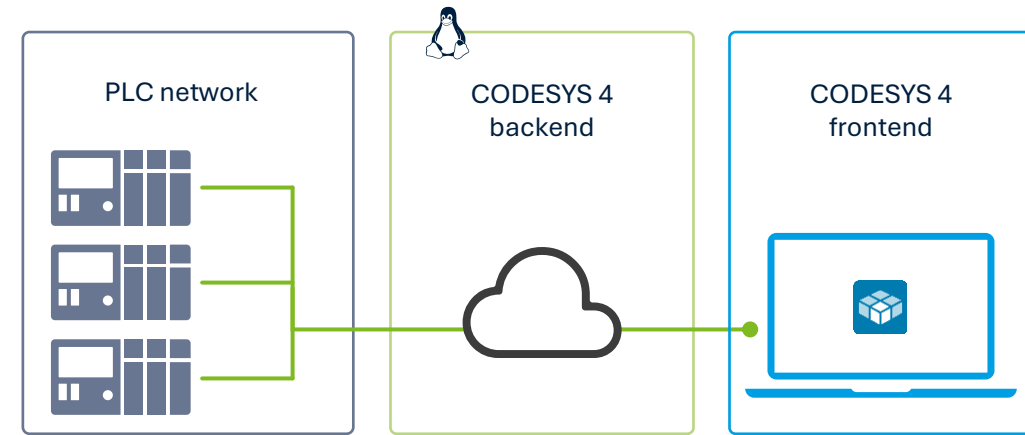


Operating options of CODESYS 4

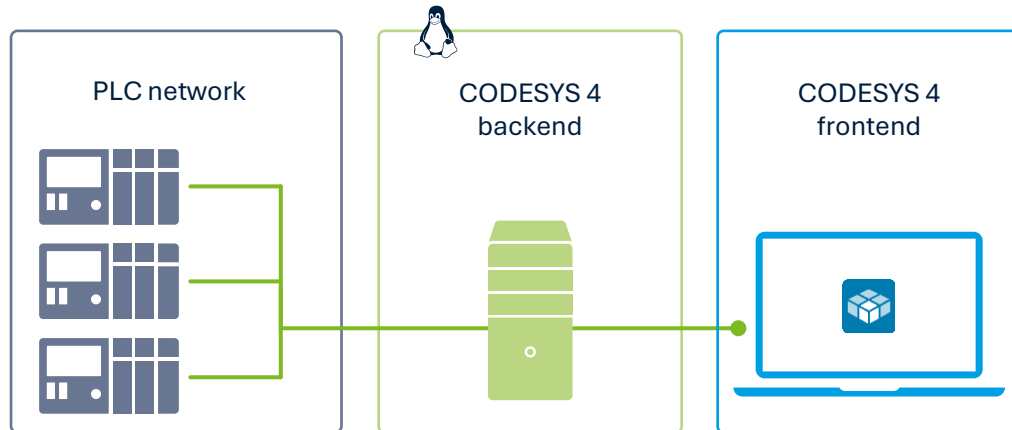
Desktop/Client



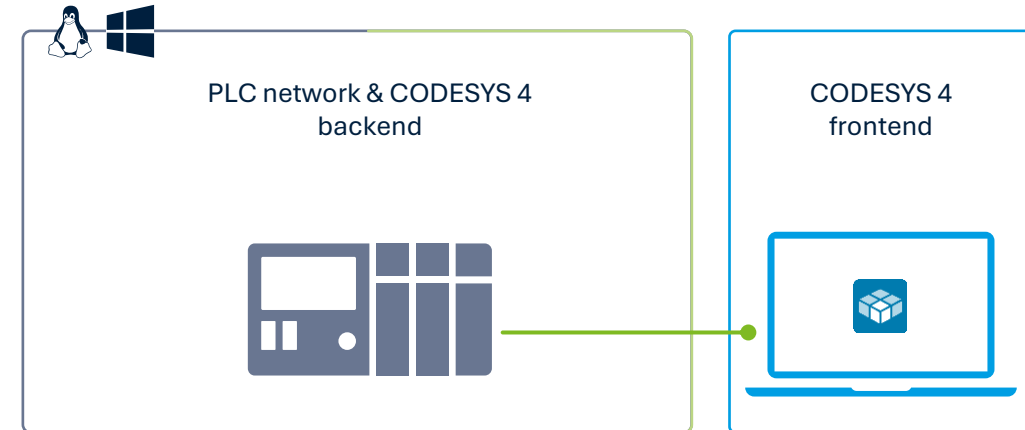
Cloud/Client



Edge/Client



PLC/Client



Essentials - architecture and deployment

 1.0.0.0 | 09.2026

Desktop deployment

Install and run both frontend and backend server on a Windows desktop system.

Controller deployment

Install and run the backend server on Raspberry Pi as proof of concept.
Other Linux systems can be provided.

On-prem deployment

Install and run the backend server on a Linux-based server.



Essentials

 1.0.0.0 | 09.2026

UI and essential editors

- Navigator
- Editor / view host
- Command infrastructure
- ST editor
 - Enhanced offline functionality
 - Online mode and monitoring

Compiled library generation

- Compatible with CODESYS 3
- Limited to currently supported objects
 - ST, GVL, ...
 - Library Manager
 - LD
 - CFC
 - Visualization objects  Q4 2026
- No library documentation support yet



IEC61131-3 programming language editors

Ladder editor

 1.0.0.0

- Clear diagrams at every zoom level:
Maintain readability and precision at all zoom levels.
- Consistent UI in light and dark mode:
Improves usability and visual comfort in different working environments.
- Fast and intuitive editing experience
Mouse, keyboard, drag-and-drop, context menu, undo/redo, errors marked through underlining, tool tips
- Online mode

CFC editor

 2027

- Full-fledged CFC editor
- First milestone: definition of textual storage format

ST editor

 2026, 2027

Advanced features will be added in the upcoming versions in the course of 2026.

Fieldbus

DeviceObject

 2026

- Basic support  1.0.0.0 | 09.2026
- Device status in object tree
 1.0.0.0 | 09.2026
- IO mapping dialog with full feature support  1.0.0.0 | 09.2026
- Device repository  Q4 2026
- Complete device pages (logger messages, status page, function block instances)  2027

MODBUS

 2026

- TCP Server und Client
 1.0.0.0 | 09.2026
- Serial  Q4 2026

EtherCAT

 2027

Communication



Communication Manager



2027

First editor to enable easy publishing of symbols as OPC UA Server.



Professional Developer Edition CODESYS 4



Static Analysis CODESYS 4



Q1 2027

Port static analysis to CODESYS 4 for enhancing CI/CD use cases.



Automation Server

☐☐ On-premises support

📅 1.0 | Q3 2026

- Cloud-independent Automation Server on customer's own IT infrastructure
- Release candidate available since Q4 2025: Contact us at sales@codesys.com

☐☐ Audit log

📅 2027

- Chronological, tamper-evident records that track system events, user actions, and security-relevant activities

☐☐ File management

📅 July 2026 & Q4 2026

- Exchange files between PLCs and clients via browser (already released)
- Manage files and folders on PLCs (already released)
- Central file system on the Automation Server (already released)
- Deployment of additional files alongside applications (July 2026)
- Transfer of multiple files to multiple PLCs in one go (Q4 2026)
- Move and copy files and folders inside the Automation Server (Q4 2026)
- Drag & drop files and folders between PLCs, clients, and Automation Server (Q4 2026)



Application



Base Libraries



5.0.0.0 | Q3 2026

New version without obsolete CAA libraries



SRCI



Q4 2026

Robotics interface library following
PI SRCI specification



OPC UA Client library



Q3 2026

Improves the handling of problems with
subscriptions on the server side.



OSCAT Library



3.3.5 | Q3 2026

Update library in CODESYS Store to version 3.3.5



IIoT Libraries



1.14.0.0 | Q4 2026

Web Client will support the content-type
"multipart/form-data"



Runtime Toolkit

CODESYS Control

- Independent release cycle for the runtime toolkits  3.5.100.0 | Q4 2026
Instead of releasing the runtimes along with CODESYS 3 Essentials, they can be released in an independent cycle.
- Support of TLS1.3  3.5.100.0 | Q4 2026
- Single device licensing for device vendors  Q2 2027
 - Harden the CODESYS licensing mechanism.
 - Binding extension for containerized applications
- CRA-compliant runtime  Q1 2027
 - Implement security features that are important for CRA.
 - Complete threat model for runtime system.
- Management of certificates  Q2 2027
 - Possibility to provide different backends for certificate storage (e.g. TPMs)

Redundancy

CODESYS Control

- Redundancy improvements  3.5.100.0 | Q4 2026
 - Improve startup behavior
 - Avoid standalone/standalone scenarios
 - Improve data consistence in conjunction with asynchronous events (e.g., alarms)
 - Synchronize certificates, settings, and user management

Control for Windows

CODESYS Control RTE

 4.0.0.0 | Q1 2027

- UTF8 support for all strings
- Independent release cycle from CODESYS 3 IDE
- New consistent retain mechanism using buffered file system

RTOSVisor (Acontis)

New product in the CODESYS Store

Third-party hypervisor solution

RTS Hypervisor (Real-Time Systems):

 2027 | New product in the CODESYS Store

Third-party hypervisor solution



Control for Linux SL

CODESYS Control for Weidmüller SL

 Q4 2026

Standalone Deploy Tool

 Q1 2027

- No IDE necessary
- Headless CLI tool (UI also planned for later versions)
- Windows and Linux support

Control for Linux SL (Virtual Control)

Licensing in container

 Q1 2027

Support of containerized operation of license servers on TPM 2.0 systems

Cluster support

 2027

Provide runtimes with generic deploy mechanisms for cluster use cases.

Product development starting Q4 2026

Docker compose

 Q4 2026

Deployment solution for Virtual Control SL based on Docker compose

Support of Red Hat UBI (universal base image)

 Q1 2027

■ Cluster support

 2027

- Kubernetes
- Margo

CODESYS Safe Control SIL3

Safe Control

Product overview:

- Safety Runtime Toolkit
(two-channel hardware)
- Safe Control Core Toolkit
(coded processing)
For device manufacturers
- Virtual Safe Control SL
(coded processing)
 - Ready-to-use product for standard hardwares with Linux
 - Integrates and releases new functionalities of Safe Control Core with a short delay

New features planned for Safe Control Core:

- Support for 64 Bit runtimes x86, ARM64  4.3.0.0 | Q3 2026
- External library interface  4.4.0.0 | Q1 2027
 - Interface to extend Virtual Safe Control SL with own safety-related functionality as external function block
 - Including FLOAT support in external implementations
- Local Time Provider  4.4.0.0 | Q1 2027
- Safe Network Variables  4.4.0.0 | Q1 2027
- Profisafe F-Device V2.6 support  4.5.0.0 | Q3 2027



Safety SIL2

SIL2

 Q4 2026

No more strict version binding

- SIL2 runtime versions may differ from IDE version.
 - Device manufacturers can qualify a new IDE version much easier for existing runtime versions.
- No runtime update required when the IDE is updated.

Licensing

Introduction of Wibu License Portal

 Q4 2026

- Self-service licensing
Users can independently activate, deactivate, and restore licenses, thus reducing support effort.
- Flexible business models
Management of B2C, B2B, B2E, reseller, and project-based licenses with detailed role and group structures.
- Workflow automation
Integration with ERP, CRM, and e-commerce systems via API for the creation, delivery, and reporting of licenses.

