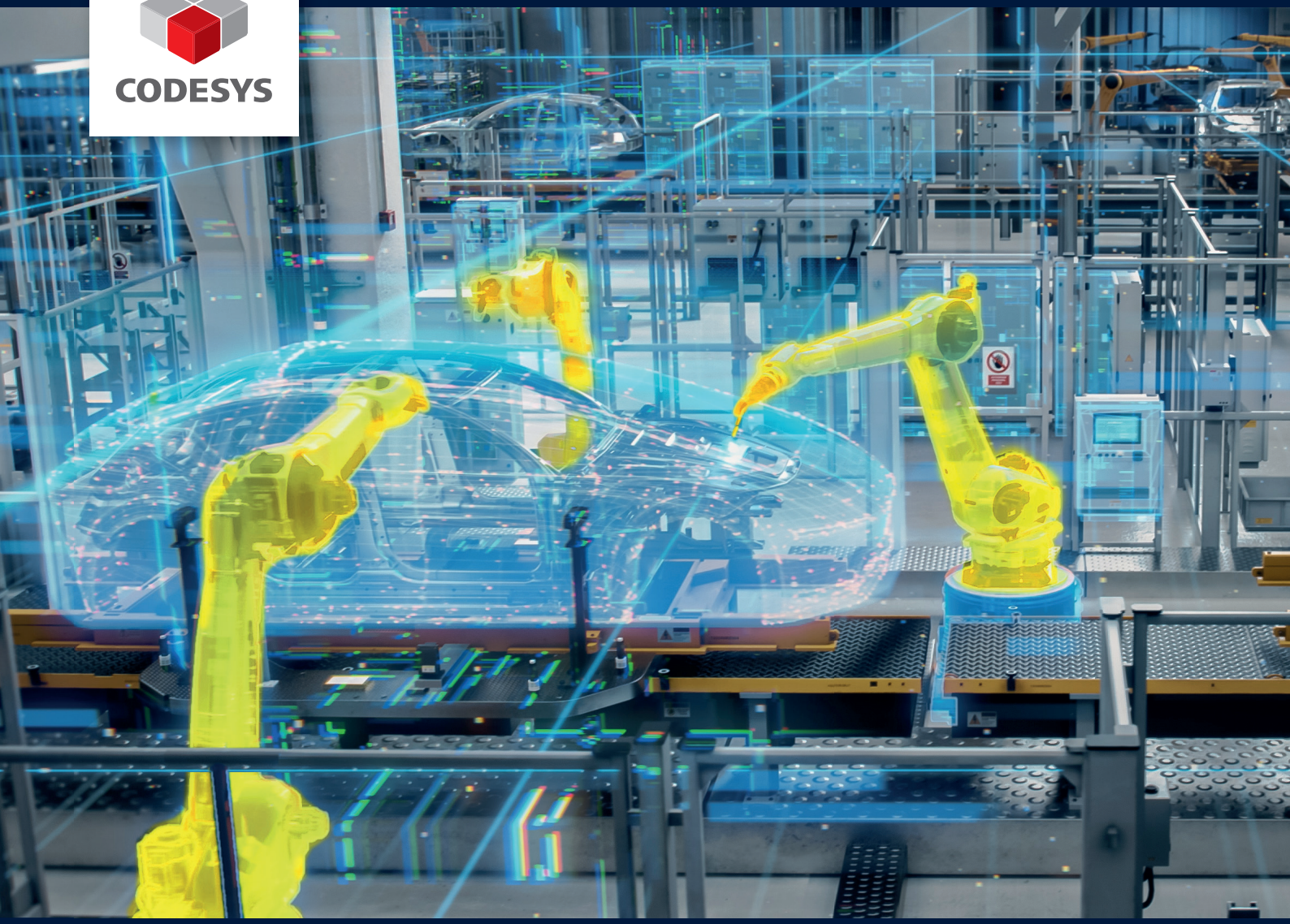


Virtual PLC / Virtual Safe PLC

Virtualized control systems with CODESYS

What's new in Virtual (Safe) Control SL

- 64-bit support (x64, Arm64) – up to 50 % shorter application execution time*
- Second time provider – precise cycle timing on local hardware, no external time source required
- Docker Compose support – container deployment straight from IT tooling, no CODESYS Development System 3 needed

Next

Margo alignment planned for 2027 – open interoperability across edge devices and orchestration platforms

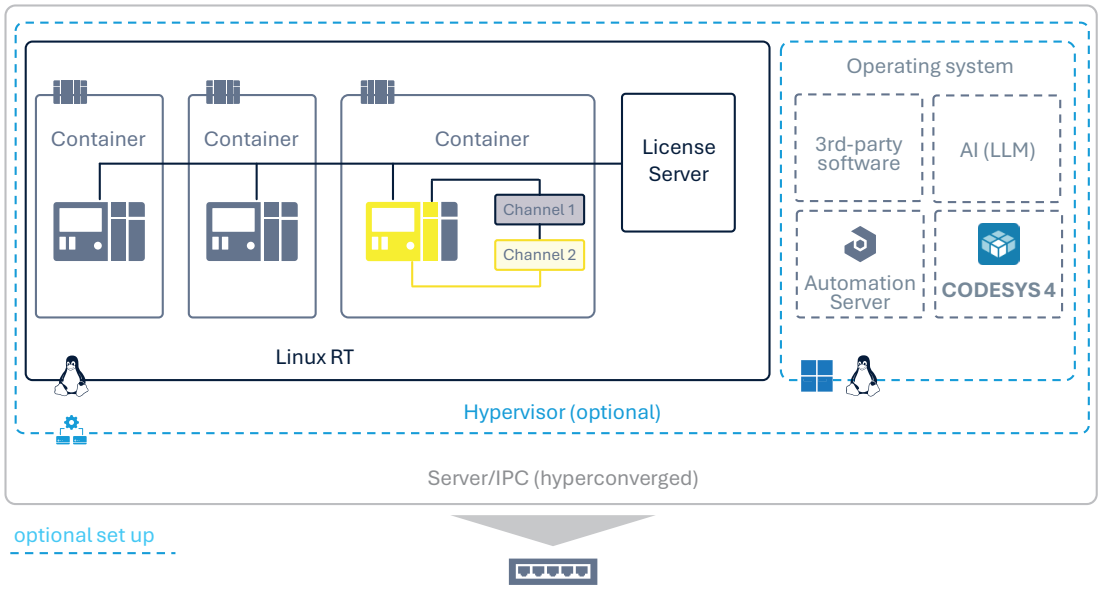
*Set up: Intel i7 10gen, 3,6 Ghz @ 4 cores, 16 Safe connections & 100 Function blocks

Application execution time

32-bit: ■■■■■■■■ 0.8 ms

64-bit (x64 / ARM64): ■■■■ 0.4 ms → 50% faster!

Soft- & hardware architecture



PROFIsafe

Safety over EtherCAT

Advantages:

Cost savings
Replace *n* physical PLCs with a single platform containing *n* virtual controllers.

Maintenance made easy
Update your firmware or application within seconds.

Security-by-design
Split up application parts and encapsulate them in the containers – just like microservices in IT.

Reduced downtime
A central hardware, managed by IT, executes multiple virtual controllers. The result: higher availability without the need to set up each PLC redundantly.

SoftSafety
Realize a virtual safety controller according to IEC 61508 SIL3 through diversified encoding.

No hardware lock-in
Run Virtual (Safe) Control SL on standard x86 or Arm hardware, in your machine or plant.

Scalability
Choose the right license and turn a virtual PLC into any desired device such as a compact controller, a motion controller, or a high-performance PLC.

Flexible orchestration
Set up/delete virtual controllers with or completely without Linux knowledge.

Flexibility
New function in your machine = new hardware? Not necessarily! Simply add a new virtual PLC and use it to implement the new function. No more pressure to use new hardware in order to implement new functions.

Reduced space and wiring requirements
For an additional CODESYS Virtual Control, you don't need new cables or additional power supply on your central computer. Your I/Os can be connected via Industrial Ethernet anyway.

Portable safety
Swap your hardware without re-certifying your safety application.

Scan QR code for detailed information!