

Software & Tooling

One Integrated Software Toolchain for Rail Vehicles

Reducing engineering effort with integrated software tools.

SELECTRON

Integrated. Efficient. Transparent.

With Symphony Suite, Selectron offers a comprehensive and integrated software and information platform. It provides the right tool for every project phase - from engineering and configuration to analysis, visualization and maintenance.

A clearly structured toolchain with centralized information and documentation helps you work more efficiently, shortens time-to-market and reduces lifecycle costs.

Complete toolchain for efficient train applications

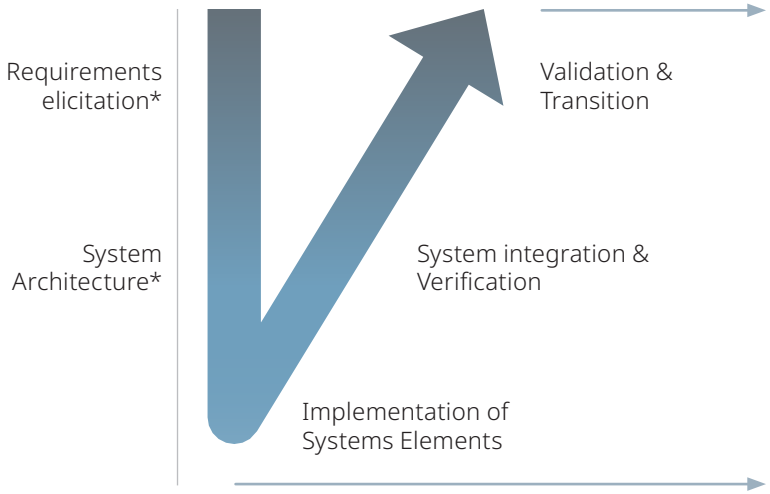
The Selectron toolchain guides developers through the entire development process using the proven V-model.

CAP1131 enables the efficient implementation of the train application. POUtest1131 supports systematic verification, while SIM1131 enables realistic simulations. In the final phase, Concerto provides powerful functions for analysis and diagnostics.

In this way, development, testing, simulation, and diagnostics are seamlessly integrated.

**) By the user, using the appropriate tools*

Application development is typically based on the V-model.



Symphony Suite

- **Concerto**
- **SystemParameter**
- **TOP1131**
- **POUtest1131**
- **SIM1131**
- **Maestro Designer**
- **CAP1131**

Why an integrated toolchain matters?

Single source of context	Earlier verification	Faster fault isolation
Reduces repetitive configuration across tools and project phases.	Test applications before vehicle hardware is fully available.	Provides diagnostic context from the vehicle directly to maintenance teams.

How you benefit.

Clear & structured	Efficient certification process	Intuitive to use	Flexible & scalable	Multilingual	Always up to date
All tools, documents and product information in one place.	Certified development and testing tools facilitate the certification process.	Streamlined interfaces and intuitive workflows.	From single devices to large rail vehicle projects.	Tools and documentation available in several languages.	Automatic update notifications keep your tools up to date.

SELECTRON

The right tool for every engineering task.

CAP1131
Engineering

Develop and commission rail vehicle control applications.

IEC 61131-3 programming: FB, SFC and ST
ANSI C support and reusable user libraries
Hardware configuration and parameterization
Communication setup, online monitoring and changes

TOP1131
Engineering

Centrally manage Selectron MAS controllers across the network.

Visual network topology
Automated batch updates of controllers
Data logging for development and commissioning

POUtest1131
Engineering

Automatically test CAP1131 code and applications.

Automated testing of IEC 61131-3 modules
Standards-compliant test reports
Early detection and prevention of regressions

SystemParameter
Configuration

Configure, update and commission vehicle systems quickly and efficiently.

Set communication and system parameters
Configure date, time, and related settings
Update firmware and applications with ease

Concerto Configuration
Analysis & Diagnosis

Define diagnostic data for reliable vehicle monitoring.

Configure diagnostic data sets (DDSs)
Define environment and process data groups
Prepare data logger events for vehicle recording

SIM1131
Analysis & Diagnosis

Simulate and test CAP1131 applications without additional hardware.

Virtual simulation of CAP1131 applications
Fast smoke tests without physical hardware
Comprehensive module tests with POUtest1131

Concerto Maintenance
Analysis & Diagnosis

Evaluate vehicle events and detect maintenance needs early.

Store recorded DDS data in a database
Filter and sort events for offline evaluation
Analyze event frequency and precise timestamps

Maestro Designer
Visualization

Create and test rail vehicle HMI applications with an intuitive graphical tool.

Rail-specific widgets for ETCS, diagnosis, video, and gauges
Trends, alarms, languages and day/night modes
Flexible visualization with integrated PC simulation
Supports safe applications up to SIL 2

Certified according to: CAP1131 (tool class T3) and SIM1131 (tool class T2): EN 50129, EN 50716 | POUtest1131 (tool class T2): EN 50128, EN 50657.

Next steps | Find the right toolchain for your application architecture.

Get in touch
Expert advice and tailored support for your projects.

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Software_Tooling_2026_V2_EN- Nov. 2026