

Press Release

From a programming tool to a hub for the digitalization of data from safety devices

HIMA introduces new SILworX version 14.0.0

(Bruehl, Germany, 15th November 2023)

- Efficiency gains in engineering, diagnostics and testing of safety applications
- Plug-ins help to make the infrastructure more flexible
- Collaborative engineering with a streamlined approach to working on multi-file
- Automatic testing of safety equipment and communication

The development of new Industry 4.0 technologies and functions is much faster than the further development of classic process automation equipment. Adding new functions to safety devices requires particular care. The engineering, diagnostics and test tools in the new version of SILworX® will become the hub for the digitalization of data from safety devices.

Whether in the engineering of large and distributed automation projects, in the diagnosis of faults or in regular testing, the specification, configuration and maintenance of safety devices in process plants requires a level of effort and careful attention that should not be underestimated. If new functions are added to components of safety devices, time-consuming recertification was traditionally necessary. HIMA is taking a new and important step in terms of digitalization with the next version of SILworX to help to reduce this effort through consistent digitalization and new functions in order to simplify these tasks while still being able to use modern Industry 4.0 functions flexibly.

A distinction is made between core functions for programming safety controllers and Industry 4.0 functions. New functions that are not safety-related can be integrated using modular plug-ins via an interface that does not affect the core safety-rated SILworX functions. This modular structure makes it possible to digitalize automation processes quickly and flexibly, and users can create extensions themselves or use plug-in modules from HIMA or other providers.

This enables planners and plant operators to quickly and easily add new functionality, or adapt or replace existing functions in a compliant, efficient and future-proofed way. This significantly increases efficiencies in engineering, diagnostic and test tasks by reducing efforts and costs.

Safety technology becomes simpler and more efficient

"The ability to integrate external plug-ins into SILworX without compromising the safety function is an important step in our 'Safety goes Digital' strategy," says Peter Sieber, Vice President Strategic Marketing at HIMA. Under the motto #safetygoesdigital, HIMA is driving forward the digitalization of functional safety with added value.

Simplifies collaboration in large teams

In addition to plug-ins, the new version of the engineering tool also simplifies collaboration in automation projects: The new "Multi-File Project" option enables projects to be saved as a library of related files for the different parts of the project, with version control embedded into each component. These can be imported individually into external versioning tools and later reassembled into a project. This makes team collaboration on large projects much easier and more efficient.

The COMPARATOR PLUS function helps to make the engineering and modification of safety systems more efficient, while reducing the work needed to demonstrate change management throughout the safety lifecycle. Changes between different versions of safety logic and functionality are graphically compared and documented in an intuitive manner.

Simplifies complex time-consuming safety tests

Of particular interest to plant operators is the ability to implement automatic testing of all of the loops of the Safety Instrumented System (SIS), as well as the communication to the basic process control system (BPCS) and the field device level. The HIMA Smart Safety Test enables logic tests, automated recurrent testing, partial stroke tests, transmitter tests and stress tests for the BPCS. The tests, and documentation of their results, are carried out automatically.

"The new functions of SILworX – including multi-file projects, smart safety test and plug-ins – lead to significant efficiency gains in the engineering and operation of safety devices," says Ivo Hanspach, Director Product Management, HIMA.

About SILworX

SILworX is a safety-related configuration, programming and diagnostic tool developed by HIMA to program and configure all HIMA systems. Fault diagnosis and testing tasks on safety applications are also carried out via the same intuitive user interface. The new version has now been expanded to include Industry 4.0 features. The SILworX software runs on standard Windows PCs in a "software container", which makes it independent of Windows. It can be used in combination with all popular antivirus programs. Each time it is started, the software automatically uses Cyclic Redundancy Check (CRC) methods to ensure there are no incorrect installation data or manipulations. Additional CRCs are used to ensure protection of the project from unwanted changes.

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Images



Image 1:

The SILworX i4.0 concept distinguishes between core functions and Industry 4.0 functions, which are certified according to IEC 61508. External plug-ins can also be used flexibly via the new interface. The safety functions are not affected. (Image: HIMA)



Image 2:

With the "Multi-Files Project" option, different versions and parts of a project can be managed by SILworX saving the project in several individual files instead of just one. (Image: HIMA)



Images 3 and 4:

With a four-stage approach, HIMA is driving forward the digitalization of functional safety with added value. (Images: HIMA)



Image 5: Peter Sieber, Vice President Strategic Marketing at HIMA. (Image: HIMA)



Image 6: Ivo Hanspach, Director of Product Management at HIMA. (Image: HIMA)

About HIMA

The HIMA Group is the world's leading independent provider of safety-related automation solutions for the process and railway industries to protect people, the environment and assets. Founded in 1908 and headquartered in Germany, the family-owned company counts about 900 employees and operates from over 50 locations worldwide.

Process Industry Solutions

HIMA solutions help increase functional safety, strengthen OT security and boost plant profitability. For over 50 years, HIMA has been a trusted partner to the world's largest companies in the process industry (including chemical, petrochemicals, oil, gas, and energy-producing companies). With more than 50,000 TÜV-certified safety systems (SIL 3 and SIL 4) installed worldwide, HIMA qualifies as the technology leader in this sector.

As a safety expert, HIMA provides the safety technology as well as consulting, engineering, services, and training to best assist the customers throughout the entire safety lifecycle.

The world's first scalable platform with built-in OT security, HIMA's Safety Platform enables a broad range of systems on a single technology basis, from small solutions for all the way up to highly complex applications. The independent safety controllers are physically separated and employ open standards. Users can thus combine the most suitable safety solution with any leading BPCS (basic process control system).

Typical safety applications include emergency shutdown (ESD), burner control (BCS/BMS), turbo machinery control (TMC), pipeline management control with leak detection (PMC), fire and gas (F&G) and high-integrity pressure protection systems (HIPPS), subsea and tank farms.

Rail Industry Solutions

With the world's first CENELEC SIL 4-certified programmable safety controller, HIMA has revolutionized the railway industry. The commercial off-the-shelf (COTS) products are open safety controllers that ensure end users and integrators independence, flexibility and cost savings, and can be easily integrated and maintained in a wide variety of solutions. As the core element, HIMA systems provide functional safety and IT security in applications such as level crossings, interlockings and rolling stocks.

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