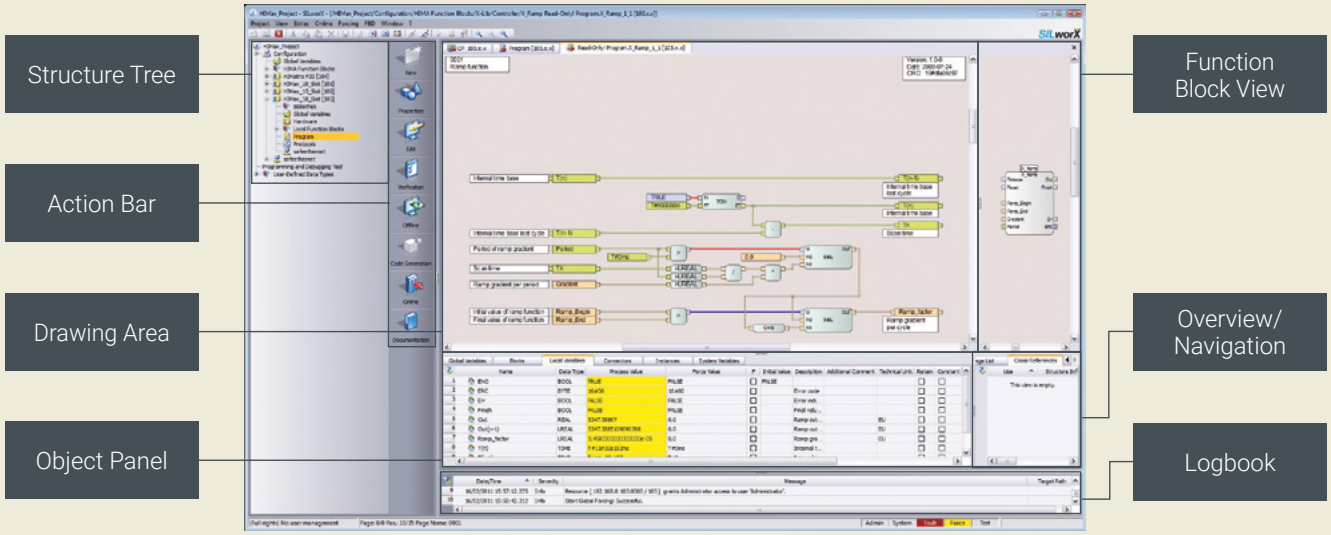
TECHNICAL FACTS
SILworX

SILworX®

High-End Safety Engineering

SILworX is the fully integrated configuration, programming, and diagnostic tool from HIMA. With SILworX, you can program and configure HIMatrix, HIQuad, and HIMax controllers as well as remote I/O systems. Error diagnostics also run via the same intuitive user interface. As a result, you reduce mistakes and achieve rapid engineering. This enables you to commission your safety system more quickly and promptly adapt to new requirements.



Intuitive user interface with drag-and-drop programming. Picture shows open function block editor in online view.

Highlights

- Function block diagrams, sequential function charts
- Programming language Structured Text (ST)
- Supports reload functionality for hardware and logic changes
- Project saved automatically each time it is loaded
- Safe comparator for hardware and logic changes
- Program validation including offline simulation, online test
- Secure double code generation with code comparison
- Monitored forcing of signals (up to five persons simultaneously)
- Project-wide cross-references and navigation
- Password protection for projects and controller access
- Supports SOE programming
- Supports multitasking for up to 32 independent programs
- Hardware import/export via XML
- Compliant with IEC 61508 Edition 2, IEC 61511 Edition 2, and IEC 61131-3
- C-Code function block option for using pretested C-Code within safety systems
- Smart Safety Test
- SILworX API (Application programming interface)

License Variants

Only pay for what you need

There are three license variants for SILworX. Choosing the right one for your needs depends on which control systems you are using.

- The **HIMatrix license** supports all systems in the HIMatrix F and HIMatrix M series. It is the most cost-effective solution, particularly for small installations.
- The **full license** supports all HIMax systems as well as HIMatrix systems. It is the comprehensive solution that covers all requirements.
- The **maintenance license** grants read access to HIMax and HIMatrix projects. Changes are not possible with this license.

Whichever license you choose, you can select from two variants:

- You receive the **hardlock license** on a USB stick. This means you can use SILworX on multiple PCs, provided the stick is plugged in.
- The **softlock license** is bound to one PC. However you do not need a USB stick, which could be misplaced.

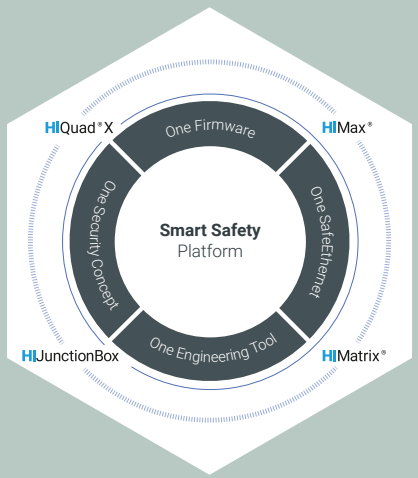
Cybersecurity

SILworX software runs on all standard Windows PCs and is compatible with all major antivirus programs. Upon startup, the software automatically performs a cyclic redundancy check (CRC) to detect errors in installation data and identify manipulation. Additional CRCs ensure that function-relevant project parts are also protected against undesired changes – a code comparison presents deviations graphically.

SILworX can also log all changes, helping you always maintain an overview and easily restore earlier project versions if needed.

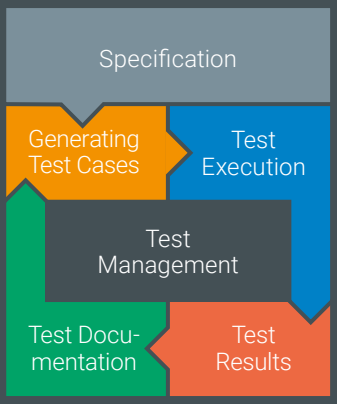
Smart Safety Platform

SILworX is the programming tool for HIMax, HIQuad X, and HIMatrix systems, as well as the HIJunctionBox. Together with SafeEthernet protocol, SILworX forms the core of the HIMA Smart Safety Platform.



Smart Safety Test

- Supports the use of recommended methods regarding automated tests and acceptance
- Defined test cases are reusable and always up to date
- Automated checks for any changes
- Usable to support and document proof tests
- Automated documentation of the test execution and results
- Directly executable on the safety PL



SILworX API

- Enable SILworX integration in external tools
- Gain control of SILworX functions
- Automate tests
- Automate readout of system and diagnostic information
- Automate archiving/ versioning

Ethernet Interface

- Microsoft Windows 10
- Windows Server 2016

Thanks to 64-bit structures, the complete performance capability of all current PC systems can be used.