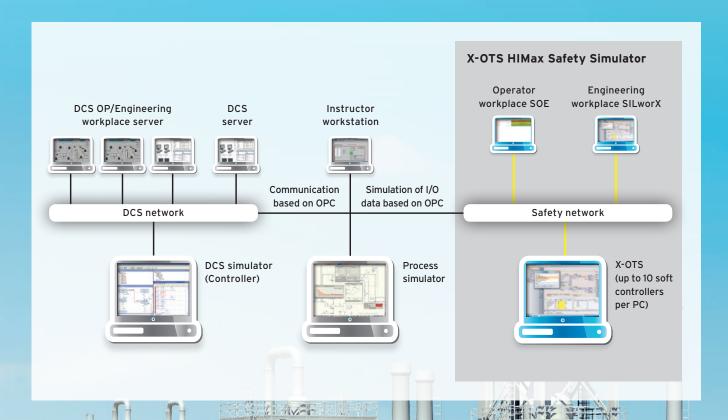
The X-OTS HIMax Safety Simulator adds the aspects of safety to the classical OTS (Operator Training System)





- Each HIMax controller will be simulated by one soft controller
- Up to 10 soft controllers can be run on one PC (depending on performance)
- Simulation of the real programs including multitasking with configurable cycle times
- Connection
- SoftPLC/Process simulation
- SoftPLC/DCS simulation via OPC-DA-Interface (I/O data and communication variables of the HIMax are transferred to OPC tags)
- Control of the special OTS functions also via OPC tags
- Start/Stop/Pause/Continue
- Save/load snapshots/initial conditions
- Setting of real-time factor time lapse/slow
- Reusability of snapshots/initial conditions also
- Communication between the different soft controllers via safeethernet and OPC/A&E
- Other protocols such as Modbus TCP, Modbus RTU and PROFIBUS DP may also be simulated using an additional HIMatrix controller (e.g. HIMatrix F10 PCI), which functions as a gateway

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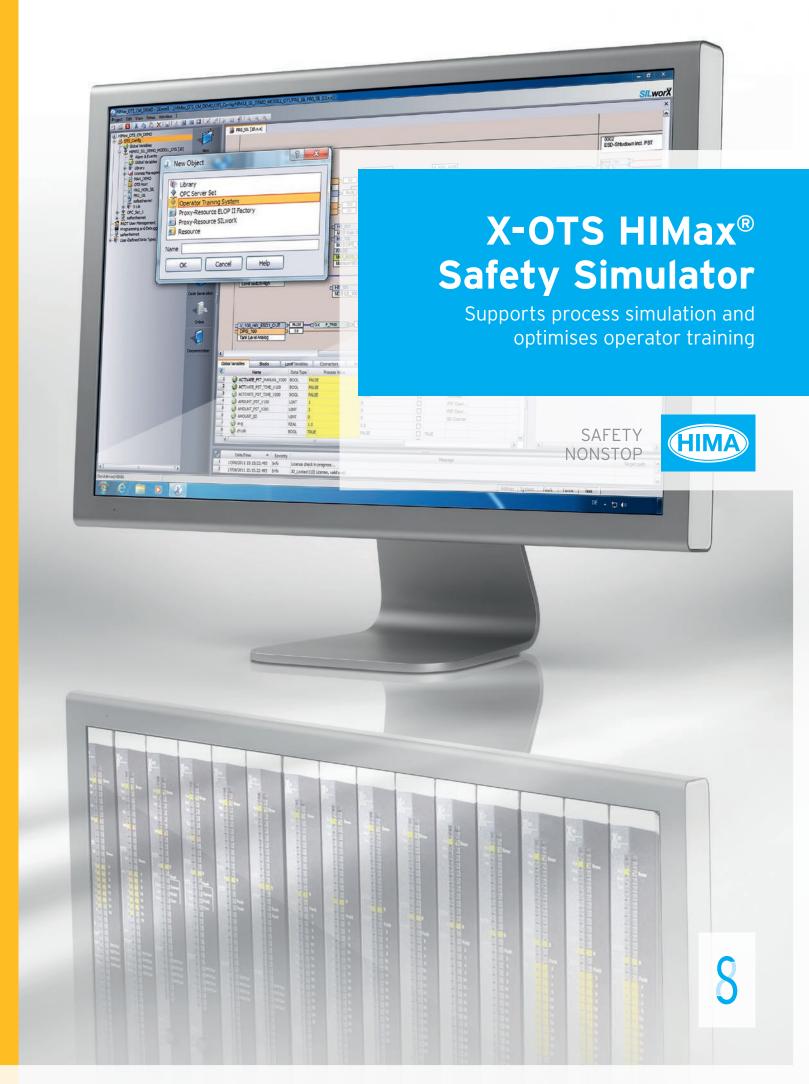






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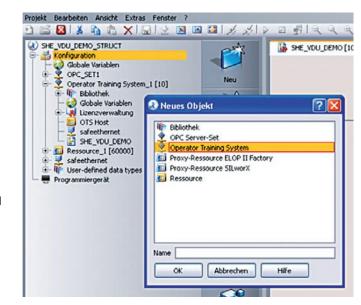


Improve safety and profitability

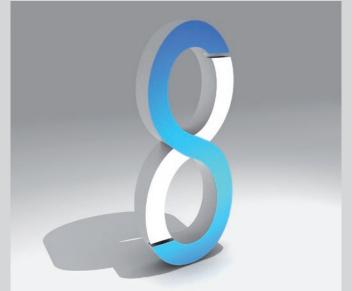
The right support always at the right time

The X-OTS HIMax simulation solution uses the SILworX® programming tool and a corresponding number of soft controllers.

- Application software can be checked in real scenarios prior to commissioning, leading to shorter commissioning times
- Shorter commissioning times lead to an earlier plant startup and improved efficiency
- Software optimisation before commissioning further increases plant efficiency
- Operating staff can also increase efficiency the better the training, the better the protection against human errors und spurious trips



Process simulation allows processes to be optimised, commissioning prepared and operators trained.



HIMA. Safety. Nonstop.

It's a philosophy more than 100 years in the making. It's built on HIMA's singular focus on safety and is proven by decades of technology breakthroughs. It represents our commitment to providing maximum safety and uninterrupted plant operations. Our goal isn't just to design the world's best safety systems. It's to help keep your business safe and running. No shutdowns. No failures. Maximum uptime. Maximum profitability. We also call it Safety. Nonstop.

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Every lifecycle phase has unique requirements for functional safety. The X-OTS HIMax Safety Simulator helps you gain the knowledge when you need it.

Phase 2, Design and Engineering

The X-OTS HIMax Safety Simulator helps in testing your entire safety concept as well as SIL verification and the factory acceptance test while improving the loop test. The goal is to optimise design and detail engineering quality to avoid potential extensive reworking during construction time.

Phase 3, Installation and Commissioning

Well-trained operators increase safety by minimising operator errors. X-OTS HIMax will help make sure that operators are well trained. Even last-minute changes can be simulated and trained for.

Phase 4, Validation

The simulation uncovers most of the problems prior to a trial run. It helps to make sure that the functional test and TÜV approvals are successful.

Phase 5, Operation and Maintenance

X-OTS HIMax creates a safe environment for new operating staff. This enables, for example, hazard training for newly hired personnel – something that would be impossible during operations.

Phase 6, Modification

Learn more about special

HIMA LIFECYCLE SERVICES at our website: www.hima.com/Lifecycle_Services

Before any real changes are made to a plant, they can be simulated and trained. Since the alteration possibilities can be gone through with little stress, the simulator also helps when optimising processes.



10 years of safety simulation experience

In 2003 HIMA launched the first safety simulator to support plant simulations. That simulator was based on the HIQuad safety system from HIMA. Since then HIMA engineers have continuously developed this simulation solution. In 2008 the HIMax system was launched. Ever since, the goal has been to launch a HIMax simulation solution. Extensive expertise and years of experience with simulation went into the development of X-OTS.

Ten years of experience and many years of cooperation with the manufacturers of process simulation systems mean that the new X-OTS HIMax Safety Simulator provides optimal practicality and a high level of efficiency.

HIMA can work with simulation software from the following manufacturers:

- Kongsberg Maritim (K-Spice)
- Mynah (MiMic)
- Mewes & Partner (WinMod)
- Honeywell (UniSim)
- Invensys (DynSim)RSI (IndissPlus)
- Omega Simulation (OmegaLand)