



SIEMENS

Ingenuity for life

Virtual training for plant operators

Trained personnel is a key aspect
of reaching production targets

The challenge

Increasing degrees of automation, new system functionalities, larger plants, more flexible production processes – automation projects are becoming more complex all the time. To bring products to the market faster while maintaining a high quality level, it is essential to have integrated engineering workflows with short changeover and commissioning times.

To meet the requirements for operating a plant in the glass industry, trained personnel is a key aspect to achieve production targets. However, on-the-job training while the plant is in operation is difficult, because various scenarios require fast and efficient reactions and new operators often do not have the necessary experience. Even experienced operators may have to be trained as a result of plant upgrades and testing of new exception scenarios. Exception scenarios, in particular, always pose a risk for personnel, environment or the plant itself and require the correct measure at just the right time.

The solution

Use SIMIT as virtual training environment to ensure various application options when training plant operators. Operating personnel can be trained even before commissioning the plant – with original operating screens and automation programs.

A digital twin is created with the virtual controller, a controller that was especially developed for virtual commissioning and operator training. The automation program can then be simply downloaded to the emulated automation system in this Software-in-the-Loop configuration.

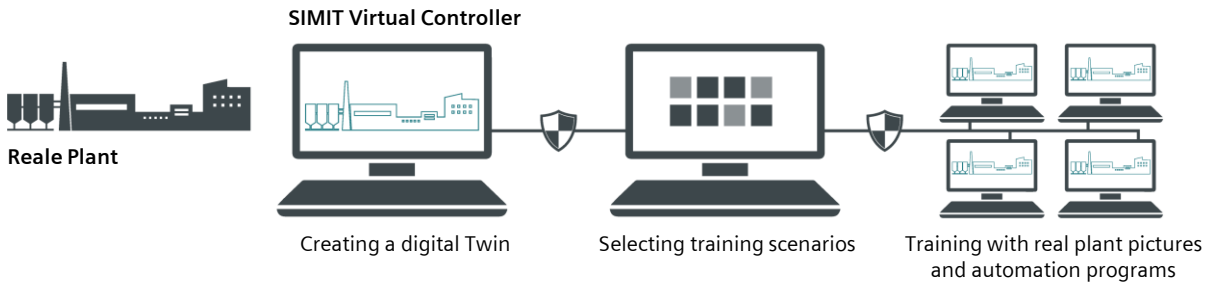
All reproducible training scenarios are available on call during ongoing operation. Any situation can be trained for realistically in the virtual environment without affecting production or endangering personnel, the environment or the plant. While SIMIT creates the ideal basis for protection and transfer of operating know-how.


While the controller is simulated with Software-in-the-Loop, the SIMIT UNIT is used to simulate the IO devices connected to the controller (Hardware-in-the-Loop). This way you can test your automation program with simulated process IO, even before commissioning.


Advantages of SIMIT


- Use of existing data to create the simulation
- Perform virtual commissioning – even without any hardware
- Testing automation applications environment – before installation in the real plant
- Train plant operators – in a safe but realistic environment
- Safe testing of process optimizations and enhancements


Start training today for the plants of tomorrow





 Higher productivity and operational safety due to appropriate training measures


 Protection and transfer of experience and technical expertise in modular and repeatable training units.


 Early training of plant operators even before the system is actually commissioned.

 Training under real conditions of standard and exception scenarios in a safe environment.

 Faster commissioning with fewer errors and risks.

 Training scenarios that can be called at any time independent of plant operation.

 Shorter startup and changeover times due to high-quality training.

 Plant modernizations can be realized more efficiently and professionally.

Available product portfolio

Portfolio	Article number
SIMIT SP V10.0 ENGINEERING S	6DL8913-0AK00-0AB5
SIMIT SP V10.0 ENGINEERING M	6DL8913-0BK00-0AB5
SIMIT SP V10.0 ENGINEERING L	6DL8913-0CK00-0AB5
SIMIT V10.0 Virtual Controller	6DL8913-0JK00-0AB5
SIMIT UNIT PB-2	9AE4122-2AA00
SIMIT UNIT PN-128	9AE4120-2AA00

**Published by
Siemens AG**

Vertical Glass
Siemensallee 84
76187 Karlsruhe, Germany
siemens.com/glass
© Siemens 2019

Subject to changes and errors. The information given in this document only contains general descriptions and/or performance features which may not always specifically reflect those described, or which may undergo modification in the course of further development of the products. The requested performance features are binding only when they are expressly agreed upon in the concluded contract. All product designations may be trademarks or product names of Siemens AG or supplier companies whose use by third parties for their own purposes could violate the rights of the owners.