



**SIEMENS**  
*Ingenuity for life*

# SIMIT UNIT

## Hardware platform for real time simulation via PROFINET and PROFIBUS

The continuously increasing pressure on project delivery times and the constantly higher profitability targets in automation projects require optimized engineering workflows as well as the shortest set-up and commissioning times for new product lines, systems or even complete systems.

### Your advantages

- Better quality of control programs
- Simple and intuitive operation
- Time and cost reduction through early error detection
- Less system failures and downtimes
- More safety for man and machine
- Quick start of production

The SIMIT UNIT is completely integrated into the SIMIT portfolio and can be operated and configured via a common user interface. The switch between hardware and software-in-the-loop can be accomplished with only a few steps.

With the SIMIT UNIT you can simulate the complete behavior of your plant reaction-free and in real time and therefore achieve an efficient engineering workflow.

In the hardware-in-the-loop configuration, the automation program is loaded in the real automation system. The SIMIT coupling, used in combination with the corresponding SIMIT UNIT, simulates I/O signals of the controllers as well as signals from field devices like actuators and sensors.

Simulation of failsafe technique and redundancy as well as parallel operation with real field devices is also possible with SIMIT UNIT. Also, the failsafe function for i-Devices on PROFINET for time-critical and safety-related areas are supported.

The connection to a real controller can be made via PROFIBUS, PROFINET, PRODAVE and OPC.

# PROFINET IO and PROFIBUS DP

## Simulation of PROFINET IO

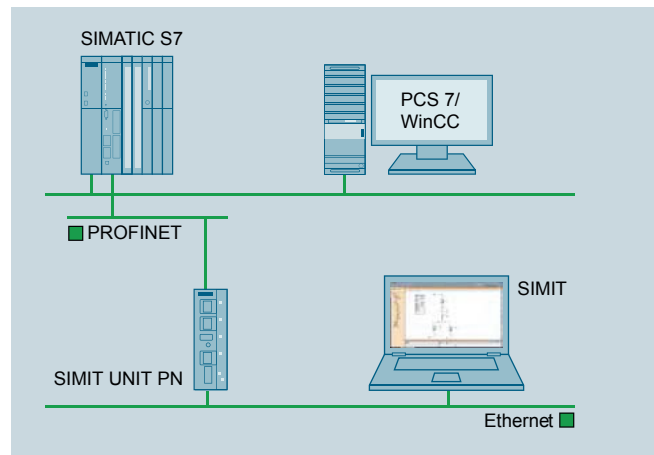
- One SIMIT UNIT PROFINET IO per controller required
- Simulation of up to 256 devices per controller
- Connection boxes available for 128 or 256 devices per controller
- Support of ET 200SP HA
- Support for CFU
- Support of R1 redundancy in the SIMIT UNIT PN 256
- Support process alarm PN
- Extends the HW-in-the-loop performance
- Improves the application possibilities of supported hardware

## Simulation of PROFIBUS DP

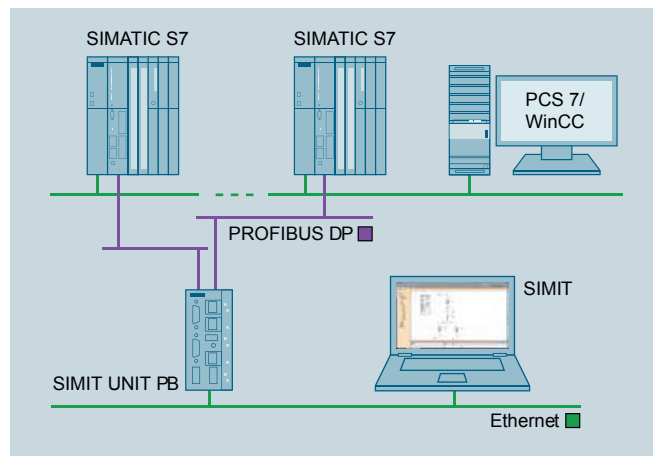
- Connection of up to 2 controllers to SIMIT with a SIMIT UNIT PROFIBUS DP
- 2 channels
- Simulation of max. 125 slaves per channel
- Process alarms, diagnostic alarms
- S7-specific PROFIBUS functions
- Redundant peripheral devices
- Failsafe modules

## Ordering Data

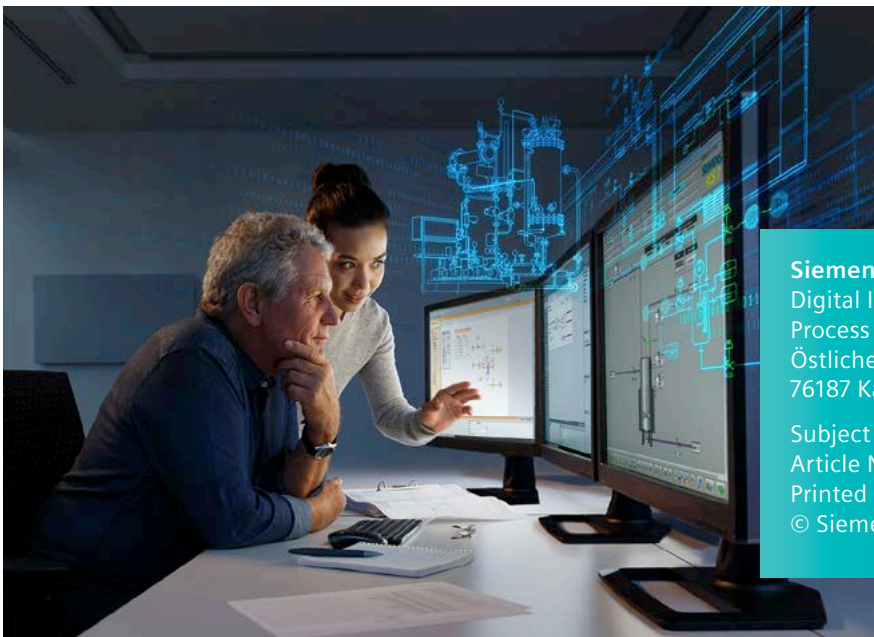
- **SIMIT UNIT PB 2** 2-channel with 12 Mbit/s  
Article No.: 9AE4122-2AAOO
- **SIMIT UNIT PN 128** Max. 128 PROFINET I/O Devices  
Article No.: 9AE4120-2AAOO
- **SIMIT UNIT PN 256** Max. 256 PROFINET I/O Devices  
Article No.: 9AE4120-2ABOO



Simulation of PROFINET IO



Simulation of PROFIBUS DP



### Siemens AG

Digital Industries  
Process Automation  
Östliche Rheinbrückenstraße 50  
76187 Karlsruhe, Germany

Subject to change without prior notice  
Article No. DIPA-B10006-00-7600  
Printed in Germany  
© Siemens 2019