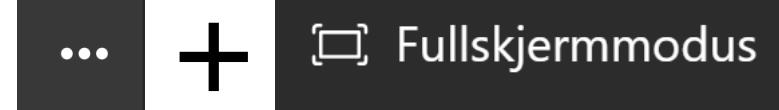


Velkommen! Vi begynner 12:05

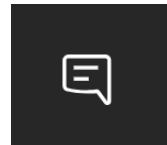
- Vi tar opptak av webinaret (blir delt senere)



- Anbefaler aktivering av full-skjerm:

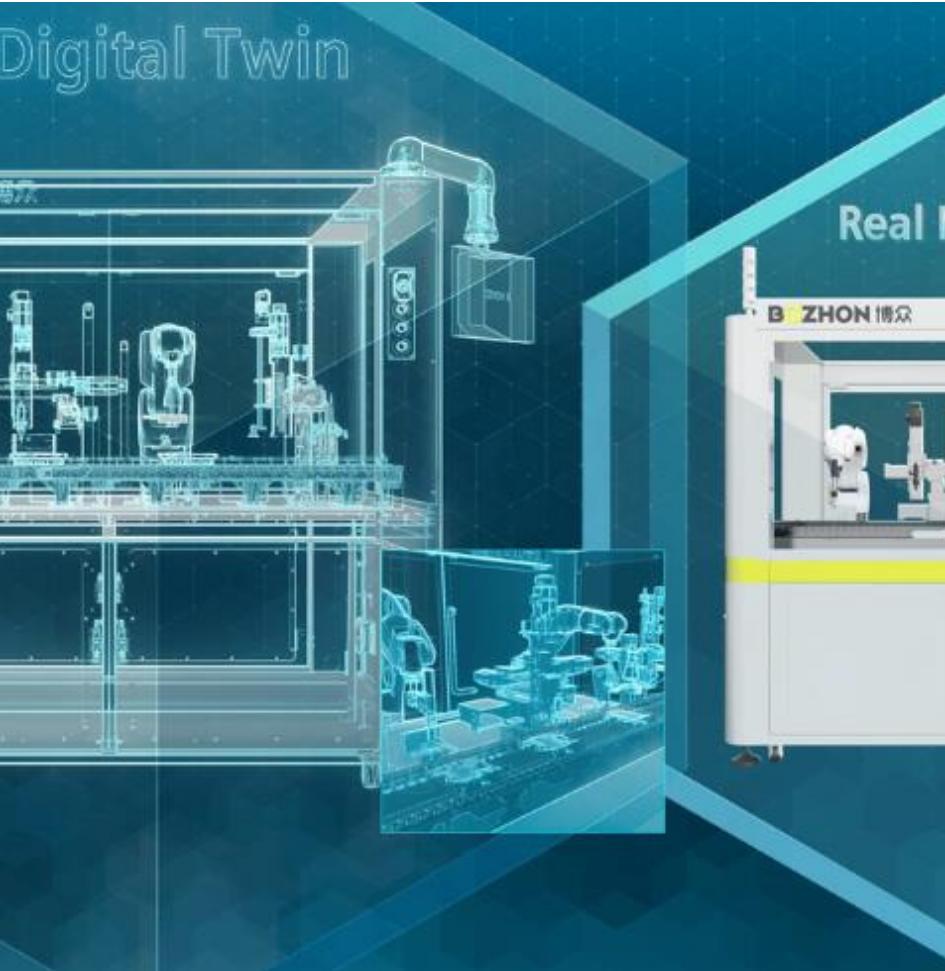


- Vi tar gjerne spørsmål i chatten og vi går gjennom disse til slutt.



Simit Simulation Framework

Optimize your plant,
increase your competitiveness



SIMATIC PCS 7

S7-400 PLS med tilbehør

ET 200iSP – Egensikker I/O for montering i Ex sone 1

Feltbussløsninger for prosessinstrumentering

Prosess-sikkerhet

Simulering med SIMIT Simulation Framework

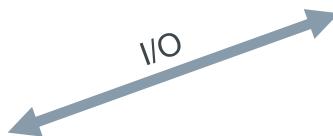
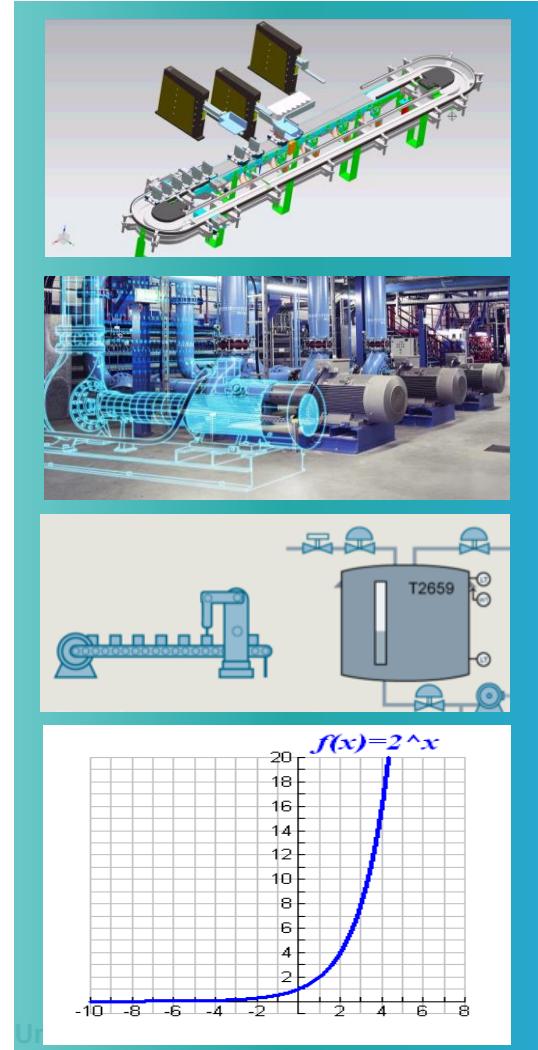
- Utvidet test/feilsøking før nedlasting av endring, eventuelt før FAT/SAT
- Operatøreropplæring og erfaringsoverføring mellom skift
- Prosessoptimalisering, test av ulike parametre og driftssituasjoner underveis i programkonfigurering.
- Kontinuerlig evaluering av drift (gi operatør eller kontrollsysten direkte beslutningsdata basert på simulerte scenarioer)
- Det er viktig å definere hva man ønsker å oppnå tidlig!

Simulering av et automatisert anlegg

SIEMENS
Ingenuity for life

HMI

Modell



PLS-program

PLC-sim (classic)
PLC-sim Advanced
Virtual Controller
HW-PLS med "Simulation Unit"



Grensesnitt for test

Feil på utstyr
Feil fra operatør
Test av avhengigheter, forriglinger,
sekvenser, alarmer, teste forskjellige
parameteroppsett, teste tidsfaktorer
...OSV



Hardware-in-the-Loop

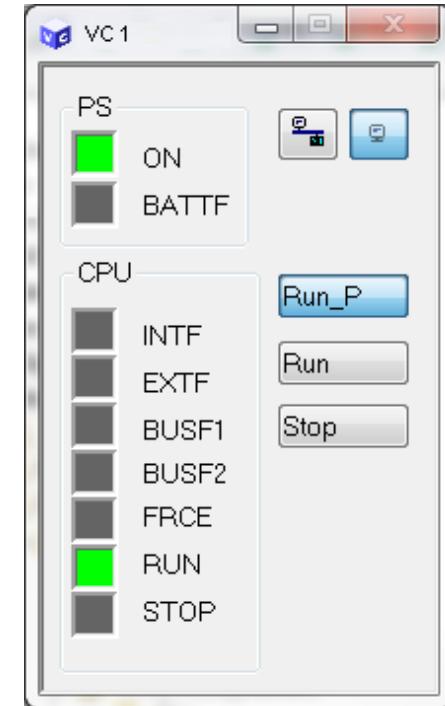
- Koble til Profibus eller profinet via Simit Unit

Software-in-the-Loop

- S7-1500 via PLCsim Advanced
- S7-300/400 i classic via PLCsim
- S7-300/400 kan emuleres av SIMIT Virtual Controller

Datakoblinger

- OPC
- Shared Memory for kommunikasjon med annen SW
- Remote control interface

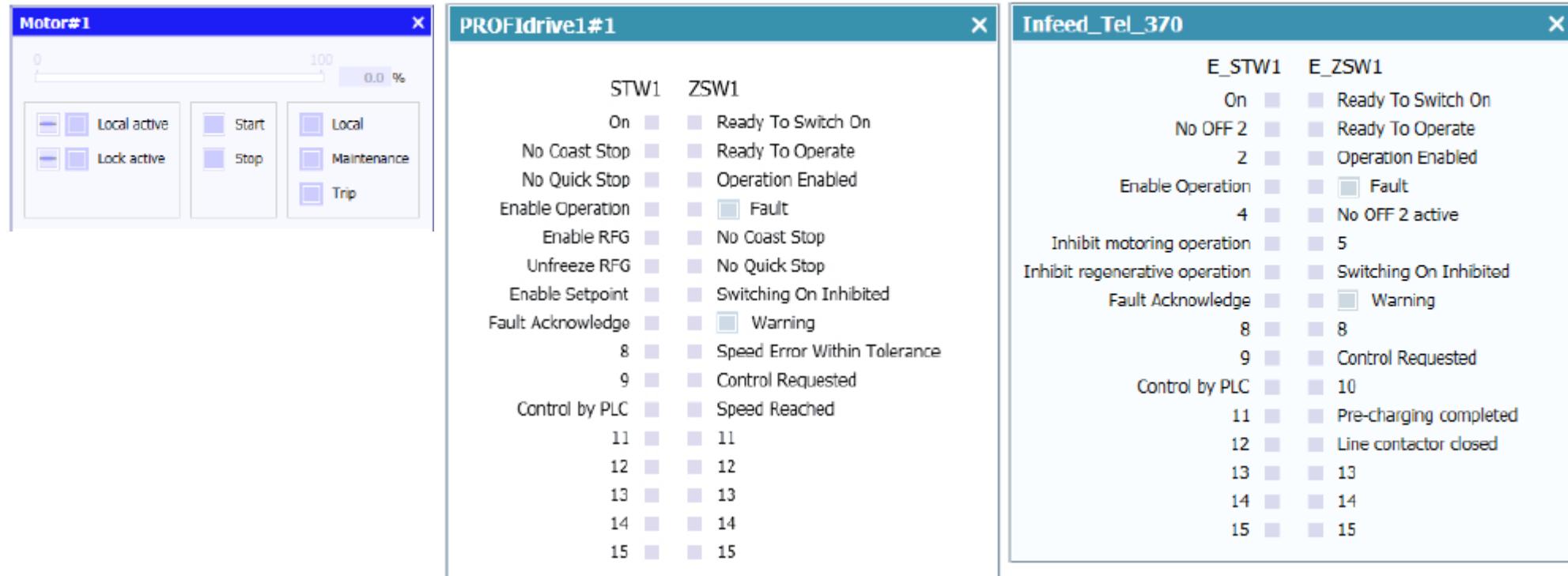
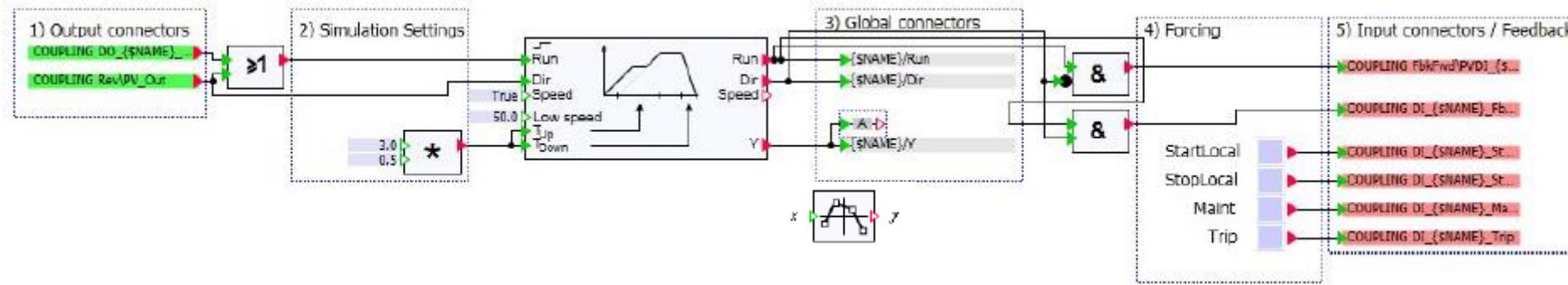


Live Demo



SIMIT som simulator (Modell og Grensesnitt for test)

SIEMENS
Ingenuity for life



Simulation **STANDARD** Library

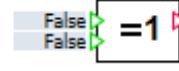
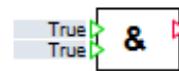
Library containing simulation models for

- Motors, valves
- Frequency converters
- Mathematical models
- ...

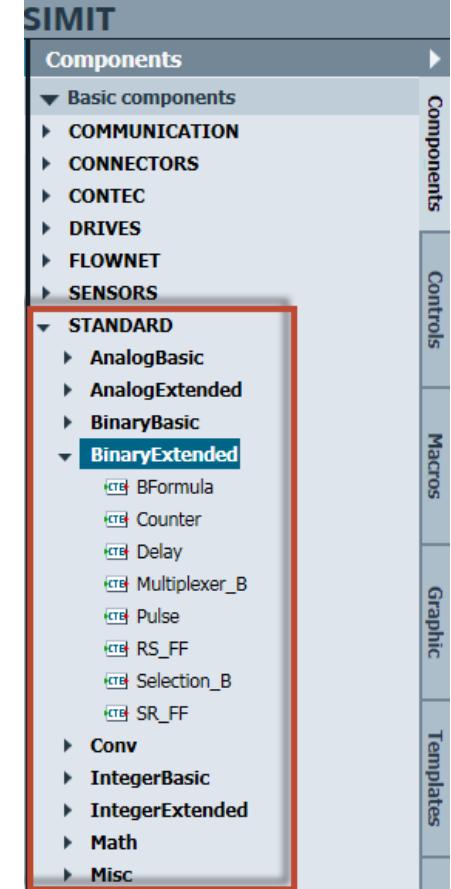
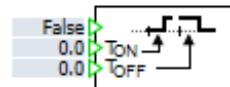
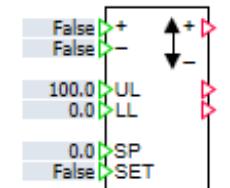
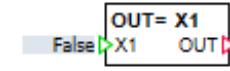
AnalogBasic



BinaryBasic



BinaryExtended



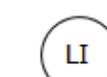
Simulation **FLOWNET Library**

- Library to build models in the schematics of a P&ID
- Library to simulate a piping network with single component liquids/gas (e.g. water) including pressure, temperature and flow

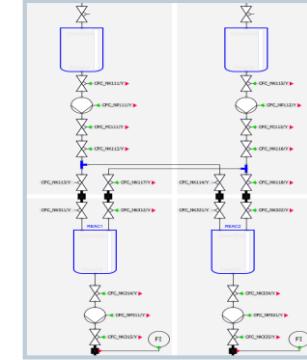
General



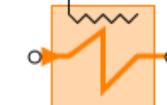
Measure



| MEASUREMENTS |
|--------------|
| Pressure |
| Temperature |
| Flow |
| Level |
| Weight |



Medium



...

SIMIT

Components

- ▼ Basic components
- ▶ COMMUNICATION
- ▶ CONNECTORS
- ▶ CONTEC
- ▶ DRIVES

▼ FLOWNET

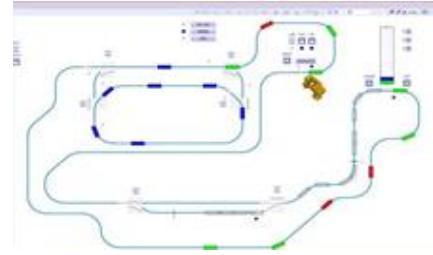
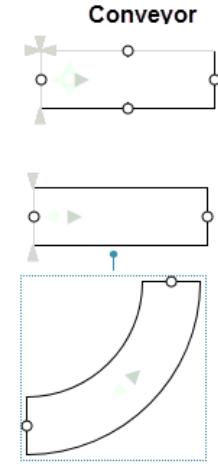
- ▶ GENERAL
- ▶ MEASURE
- ▼ MEDIUM
 - ▼ GAS
 - ElectricalHeaterGas
 - HeatExchangerGas
 - JointGas
 - JointParamGas
 - MnodeGas
 - NetGas
 - PnodeGas
 - StorageTankGas
 - ▶ LIQUID
 - ▶ WATER.STEAM
- ▶ SENSORS
- ▶ STANDARD

Components

Controls Macros Graphic Templates

Simulation **CONTEC Library**

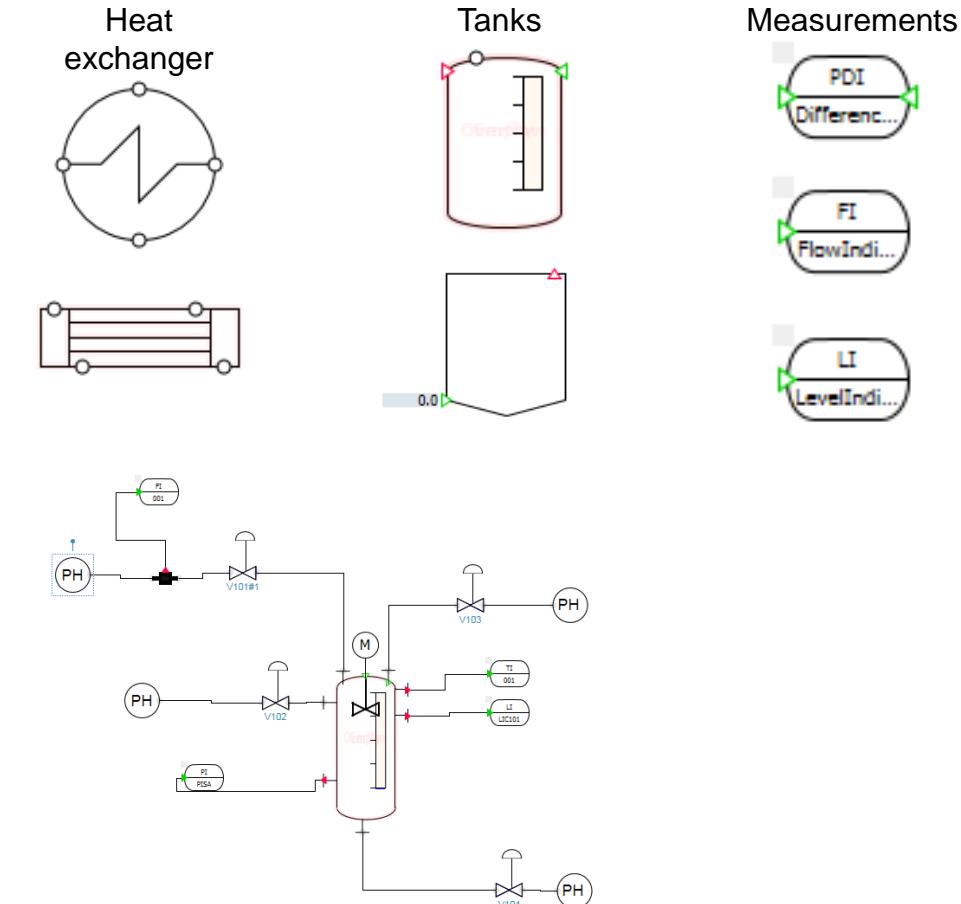
Library to build conveyor
simulation models



A screenshot of the SIMIT software interface focusing on the component tree. The tree is organized into categories: Basic components, COMMUNICATION, CONNECTORS, CONTEC, RAILS, DRIVES, FLOWNET, SENSORS, and STANDARD. The RAILS category is highlighted with a red border. Under RAILS, several components are listed with small preview icons: CurvedRail45-S4, CurvedRail90-S4, InOut, Rail-S4, RailLifterBase, RailLifterExtension, RailSwitch-F, and RailSwitch-M.

Simulation **CHEM BASIC** Library

- For chemical or pharmaceutical plant simulation
- To build models in the schematics of a P&ID
- Import via the generic import the technological behavior out of COMOS P&ID
- Simulate a piping network with single (pseudo) component, liquids or gas (e.g. water) including pressure, temperature and flow



SIMIT Promotion

Komponenten

Basiskomponenten

- ▼ **CHEM-BASIC**
 - Burners
 - Fittings
 - Graphics
 - Heatexchangers
 - Measurements
 - Mixing Apparatuses
 - Pumps
 - Separators
 - System
 - Tanks
 - Valves
- COMMUNICATION
- CONNECTORS
- CONTEC
- DRIVES
- FLOWNET
- SENSORS
- STANDARD

...
Komponer
Controls Makros Grafik Vorlagen

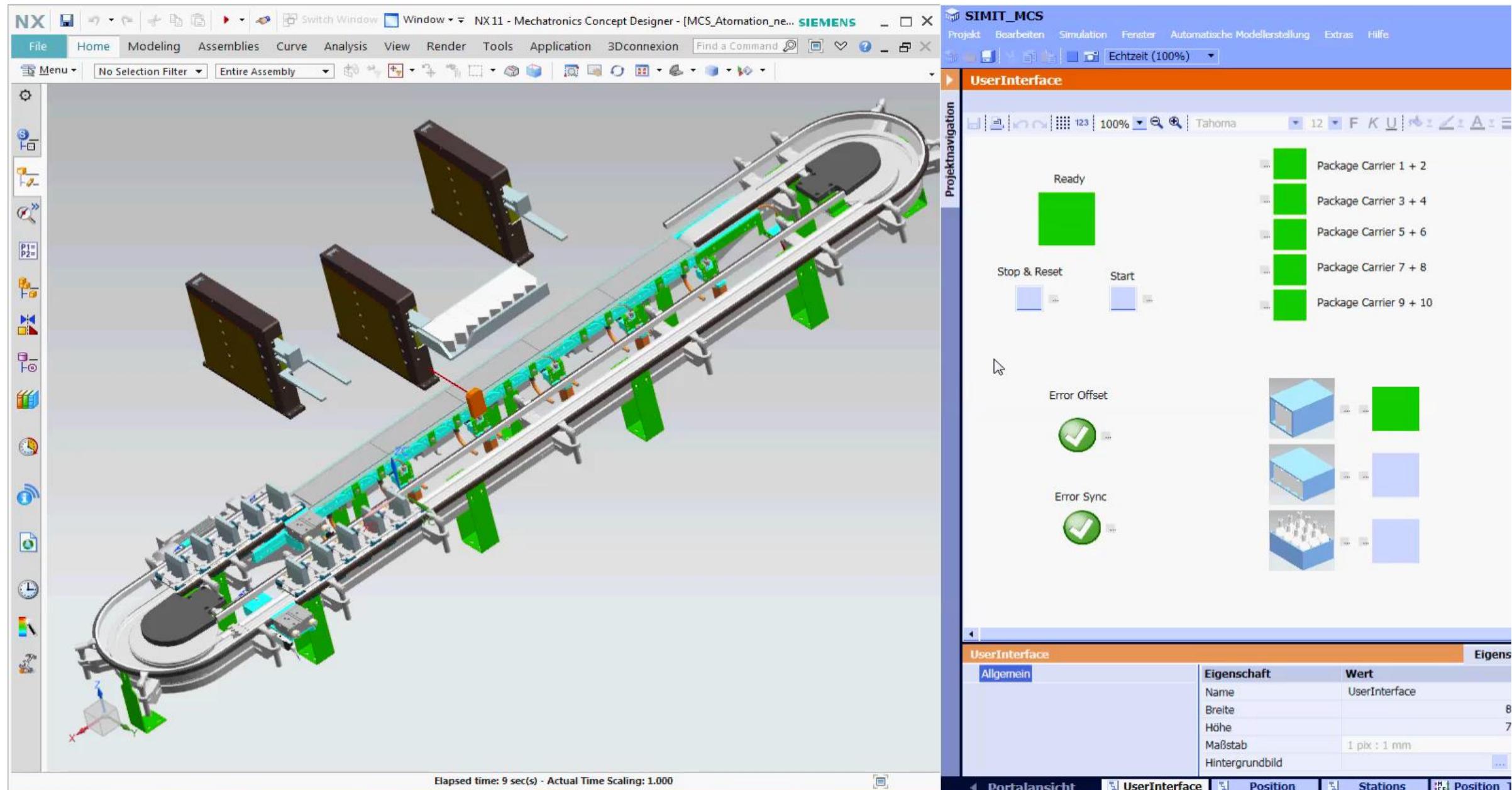
Device models Siemens field device

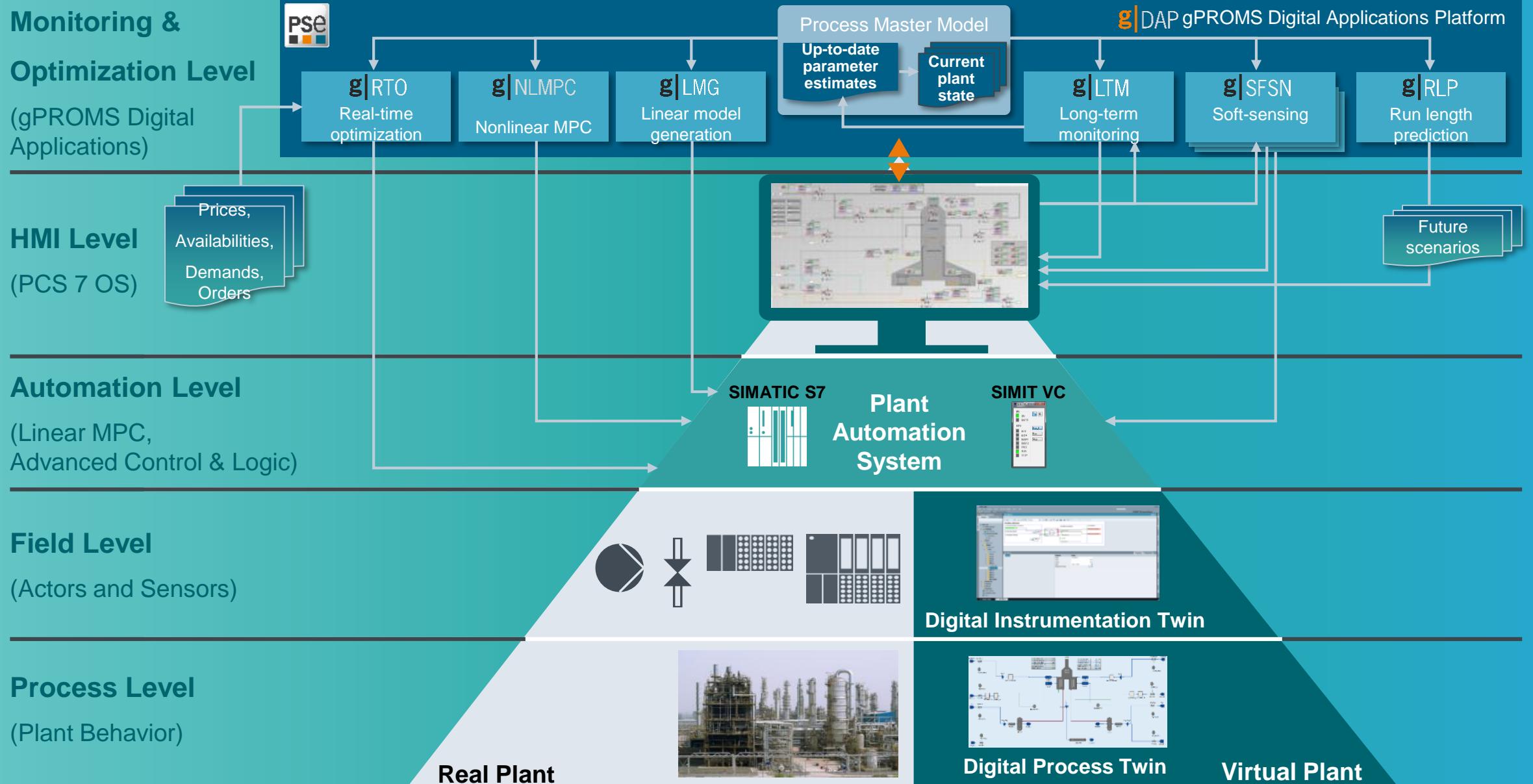
- Specific field device models
- 11 models will be available in the first step
- Continuous update via SIOS
- Higher engineering quality by enabling early detection of errors and more comprehensive automation checks
- Faster commissioning including specific field device functions tested early w/o final hardware



Eksempel på NX MCD koblet til SIMIT for test og til PLS

SIEMENS





Demo Version

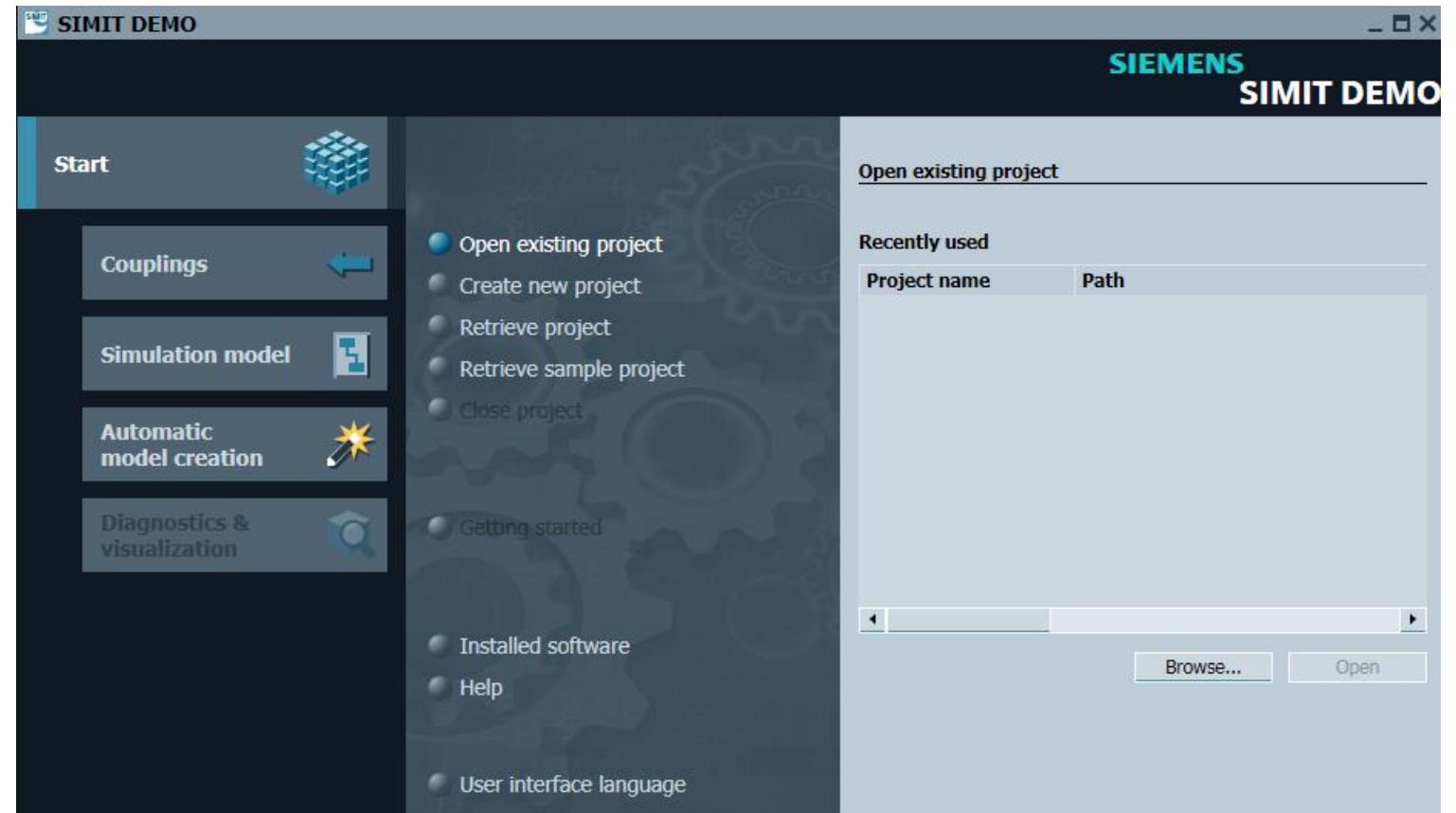


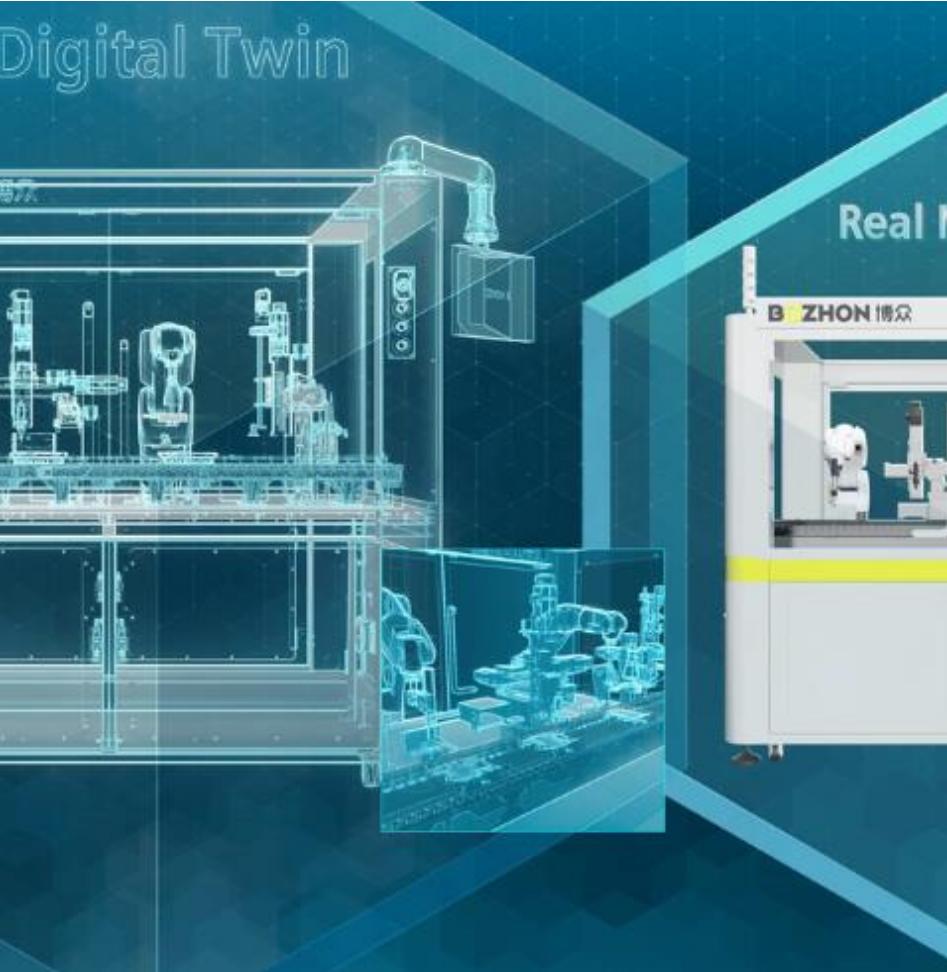
Simulation Demo Version

- Extended DEMO MODE 45 minutes, all couplings with a maximum of 30 bytes
- The dynamic graphic editor, the trend and messaging, the macro component editor, the SMD-typical import and the automatic control interface will be available for testing during the demo session

<https://support.industry.siemens.com>

ID: 109738278





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Mobil: 4640 9590

Film om Simit:

<https://www.siemens.com/global/en/home/products/automation/industry-software/simit.html>