

# NAPCON SIMULATOR

NAPCON Train solutions bring your  
real life plant into the virtual world taking  
operator training to a whole new level.



The background of the image shows a virtual industrial environment. It features several large, white, cylindrical storage tanks. A metal staircase with railings is visible on the right side, leading up between the tanks. The overall color palette is a soft, light blue, giving it a clean, digital feel.

**NAPCON SIMULATOR**

**BRINGS YOUR PLANT TO**

**THE VIRTUAL WORLD.**

NAPCON Simulator is a highly interactive training simulator that turns your plant into a safe yet intriguing training environment. It offers challenging and motivating training for both beginners and experts.



## NAPCON SIMULATOR BENEFITS

### SAFETY

NAPCON Simulator allows learning by doing in a realistic, yet risk-free environment.

### PROFITABILITY

Increased plant availability due to improved operator skills.

### CONFIDENCE

Operators can work professionally under pressure and solve problems efficiently. The simulator provides true value to beginners as well as to the most experienced operators.

### LIFECYCLE

We offer continuous maintenance and development services to ensure that the learning environment evolves together with the actual plant.

### FLEXIBILITY

Cloud services provide easy to scale virtual training rooms and location independent access.

### ENHANCEMENT

Allows identifying improvements in actual plant operability as well as in the automation system.



## NAPCON SIMULATOR KEY FEATURES

### COMPREHENSIVE

NAPCON Simulator simulates all the possible production states such as start-up, shutdown or special breakdown situations. You can also cover all sections including process phenomena, plant equipment and process automation (DCS, SIS, SEQ) in your training.

### TRAINER DASHBOARD

Easy to use graphical interface for introducing various faults and disturbances for different scenarios in any part of the process.

### AUTOMATION SYSTEM INDEPENDENT

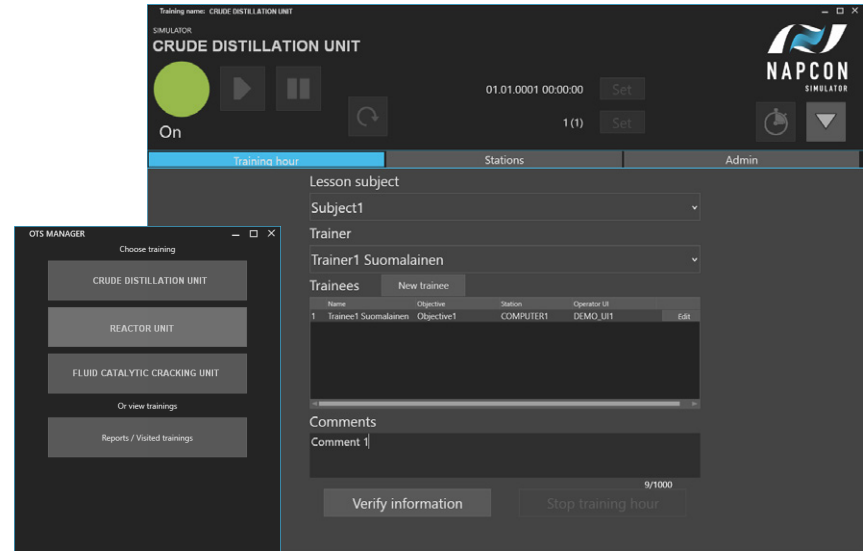
Emulated user interface allows creating high fidelity training simulator no matter which DCS is in use.

### HIGH FIDELITY PROCESS MODELS

Operators can focus on specific process phenomena to gain deeper understanding.

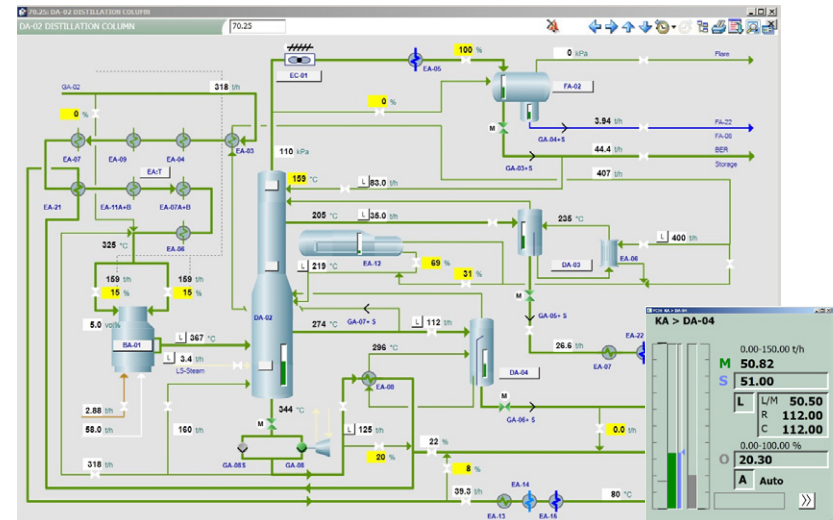
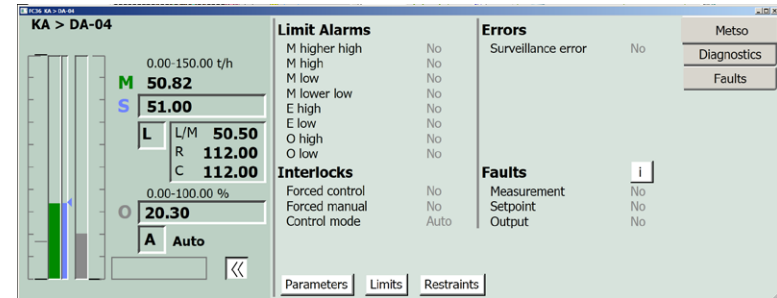
### SIMULATION VISUALIZATION

Detailed graphical user interface for automation and process models with data visualization.



## MAIN PROPERTIES

- Highly scalable operator training applications covering both the basics in process phenomena and process equipment as well as the production line wide team work training for operator shifts.
- Instructor functions for introducing various faults and disturbances for training scenarios.
- Generic and vendor specific emulated operator displays (GUI) available.
- High fidelity simulations based on rigorous physical properties and dynamic models for realistic operation experience.
- Integrated simulation of process and automation models at user defined simulation speed.

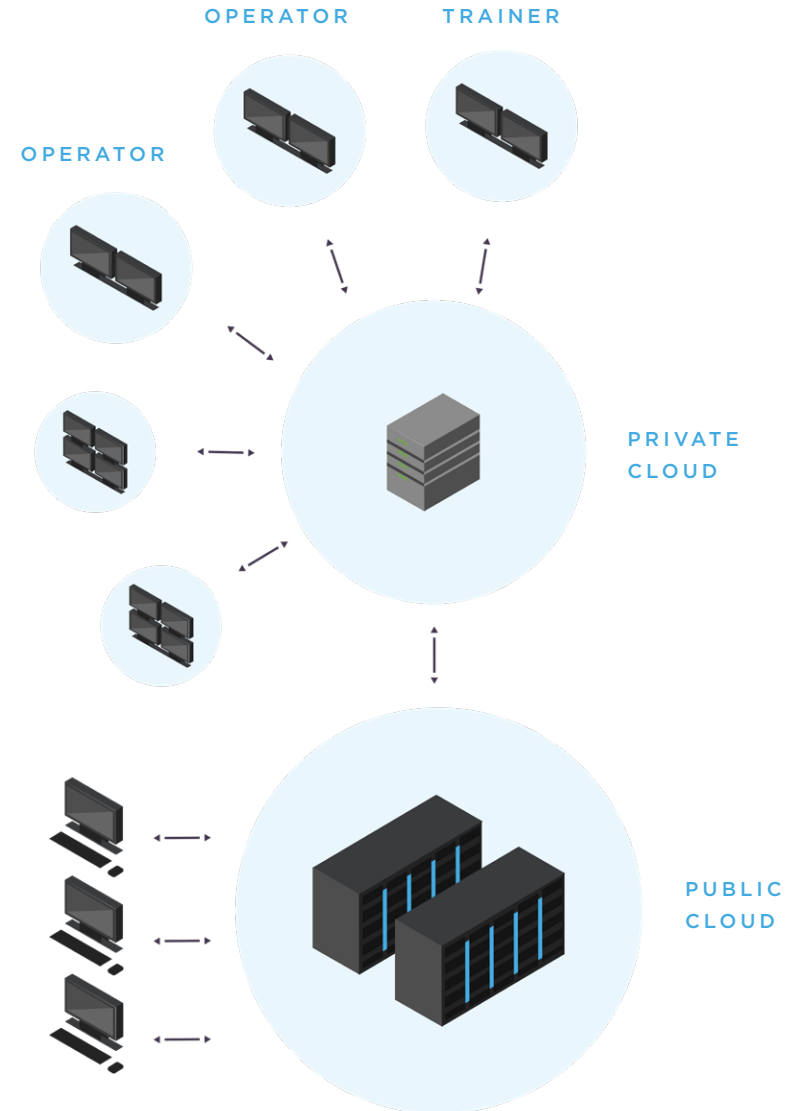


## PLATFORM

- Private in-premises or public cloud platform for flexible use of resources and location independent access.
- Windows 64 bit 7/8/10/2008/2012/2016+ platforms.
- Runs on NAPCON Informer platform offering advanced process information management services.

## TRAINING, SCENARIOS AND LEARNING ENVIRONMENT

- Pre-defined set of basic exercises for supervised training and individual learning.
- Trainer dashboard to run and manage simulator training sessions and generate training reports.
- Separate instructor work station with tailored graphical user interface and intuitive training functionalities on top of operator graphics and loop window expansions.
- True-to-life training environment for operators with high quality operating displays, multiple monitors and hardware switches or flexibility via touch screen switch panels.
- Large-scale training scenarios emphasizing the cooperation of panel and field operators and shift supervisor.

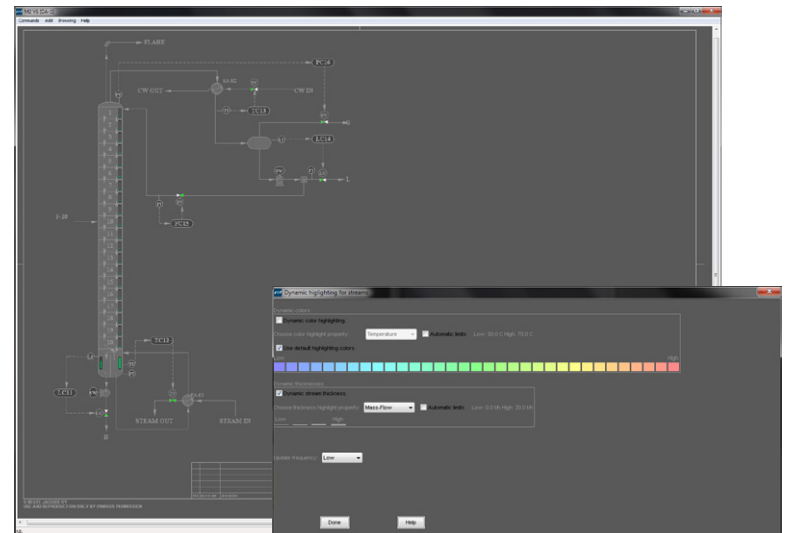
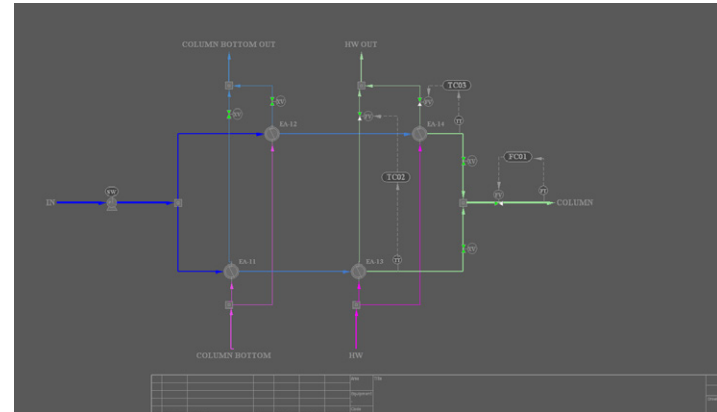


## TECHNOLOGY

- Extensive and customizable chemical component library with builtin thermodynamics.
- Several equations of state can be simultaneously used.
- Hierarchical and modular networks of simulated objects with variable step lengths enable simulations of highly complex systems with desired level of accuracy.
- Fully integrated database for storing simulation history.
- OPC UA standard compliant database.

## PROCESS AND AUTOMATION MODELS

- First-principle models for all commonly used process equipment.
- Advanced piping network modelling with two-phase flow calculations.
- Simulation of complex distributed control system (DCS), safety instrumented system (SIS) and sequential operations (SEQ) applications.
- Detailed graphical user interface with data visualization features to easily get touch on the process state and dynamics.



## NAPCON PRODUCTS



### UNDERSTAND

NAPCON Understand solutions will turn the data provided by your plant into relevant information that help optimize your company's production.

[NAPCON Informer](#)  
[NAPCON Analytics](#)



### IMPROVE

NAPCON Improve solutions will bring out the maximum potential of your operations and help you ensure that your investments meet your strategic goals.

[NAPCON Controller](#)  
[NAPCON Optimizer](#)



### TRAIN

NAPCON Train solutions will bring the real life plant into the virtual world, making training operators and testing the limits of your plant safe and exciting.

[NAPCON Simulator](#)  
[NAPCON Games](#)



### DECIDE

NAPCON Decision support enables you to make the right decisions, even in complex conditions.

[NAPCON Energy Performance](#)  
[NAPCON Performance Analysis](#)  
[NAPCON Flow Dynamics](#)  
[NAPCON Business Optimizer](#)

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