

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 slide features a light blue, semi-transparent overlay over a photograph of an industrial facility. The image shows large, white, cylindrical storage tanks and a metal staircase with railings. The overall aesthetic is clean and professional, with a focus on industrial safety and training.

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 MAIN 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

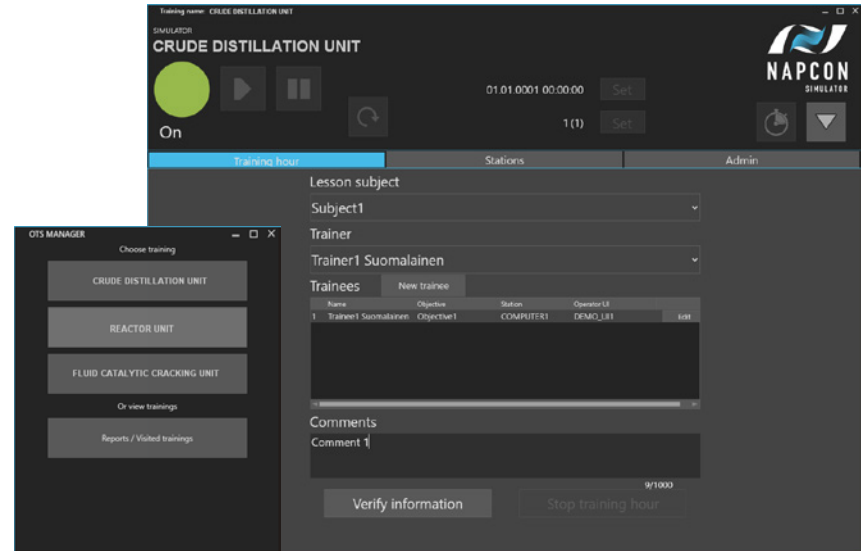
Emulated user interface allows creating high fidelity training simulator no matter which DCS is in use.

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.



NAPCON SIMULATOR MAIN 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.

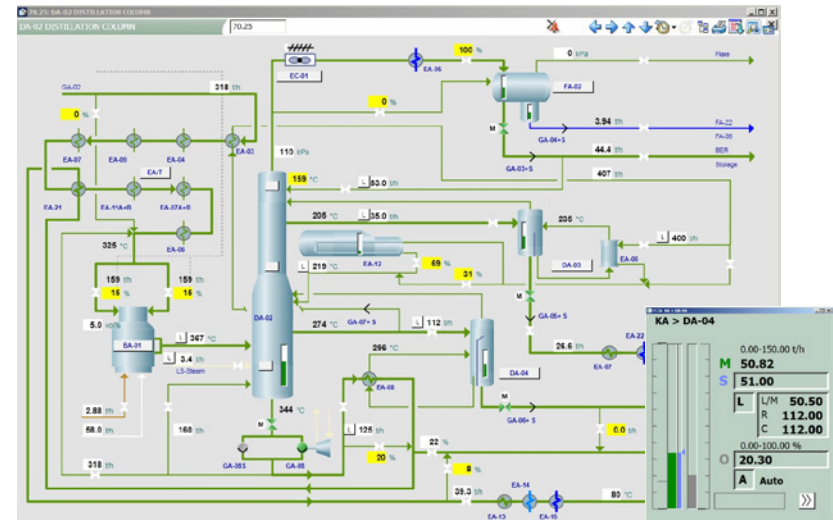
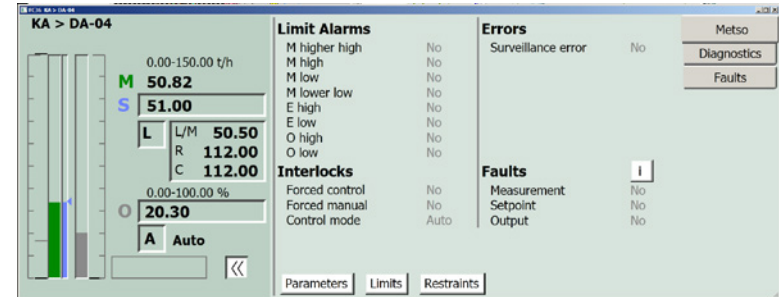
ENHANCEMENT

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



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.

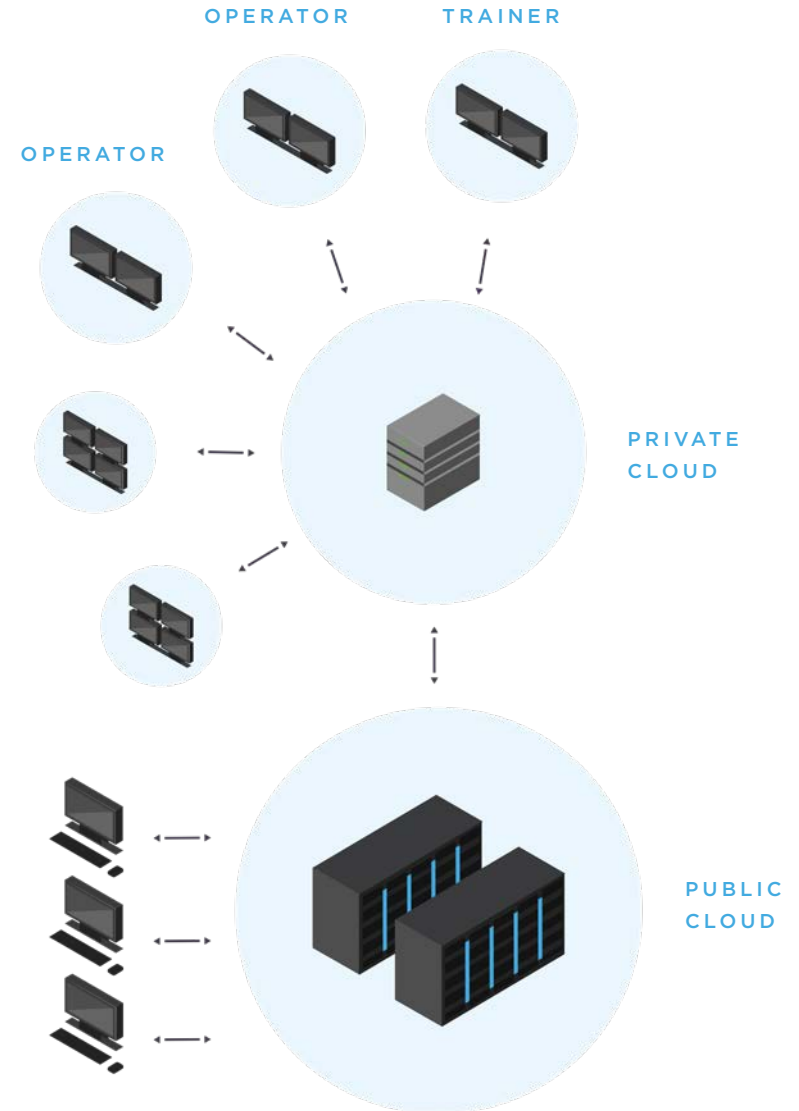


PLATFORM

- 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.

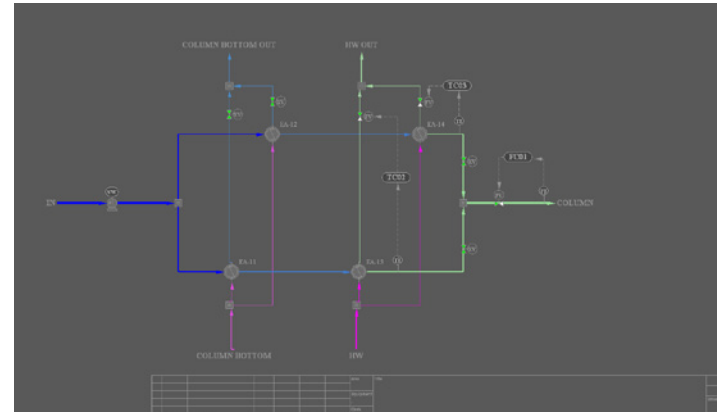
TRAINING, SCENARIOS AND LEARNING ENVIRONMENT

- 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.



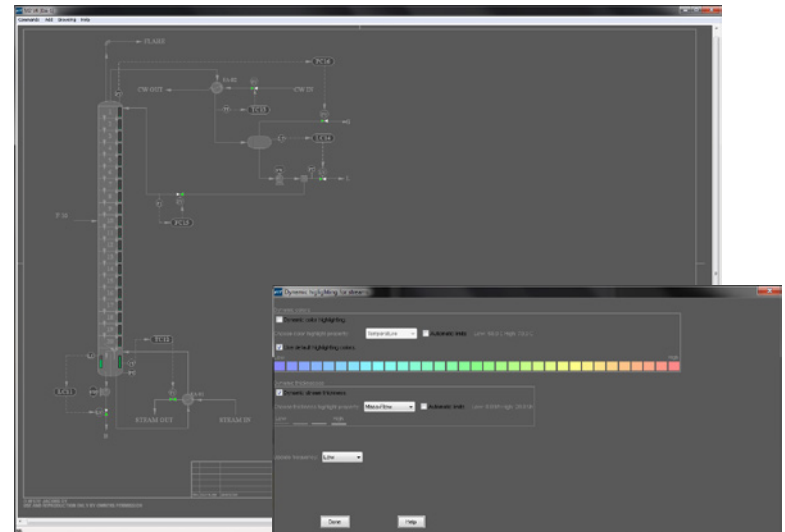
TECHNOLOGY

- 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 Flow Dynamics](#)
[NAPCON Business Optimizer](#)

HEAD OF SALES AND
MARKETING, NAPCON:

Jaakko Nauha

jaakko.nauha@neste.com

+358 50 458 7534

www.napconsuite.com

napcon@neste.com

+358(0)10 458 1200

