

Training Simulator

The Training Simulator from Nor-Par is the novelty concept of an Operator Training System.

Unlike many other operator training systems that are based on simplified and closed "black-box" models, Nor-Par's Training Simulator is based on the **Blue-Print** model of the plant's own performance that truly reflects your own production. CHEMCAD and CC-DYNAMICS is the engine for the **Blue-Print** model.

Since the **Blue-Print** model has been developed in close cooperation with you, and you have taken part in the model calibration, you know the model and trust it. Together we can keep the **Blue-Print** model updated with the ongoing changes in your technology, so the model will always stay current with the reality of your production.

The Nor-Par's Training Simulator works on client-server basis. The **Blue-Print** model of plant's own performance works on the server, while a group of trainees operate on the "plant" at the remote stations using the familiar DCS-console or SCADA interface, similar to the one used by the plant's Control Room.

Unplanned and planned events as defined by the client are stored in

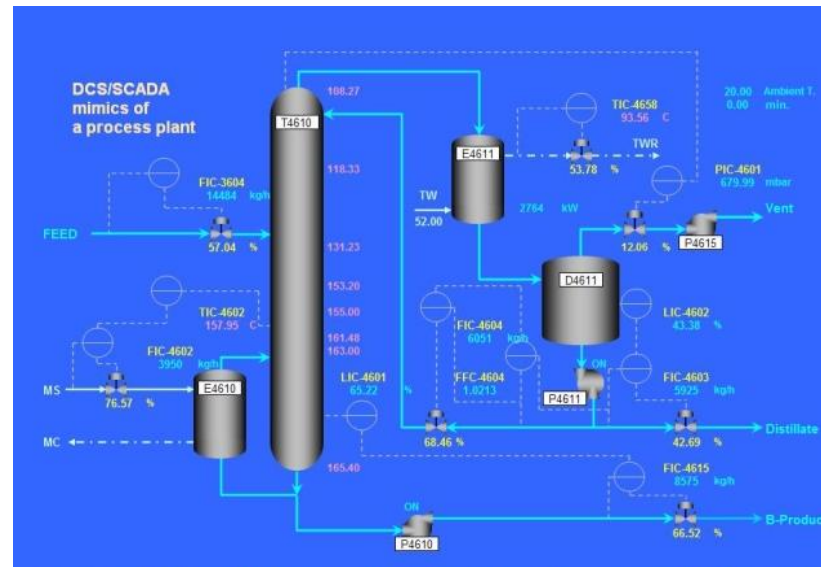
the Malfunction Database that is built together with the client according to precise safety and operational procedures of the client. The client can modify the contents of the Malfunction database as needed.

The Nor-Par's Training Simulator has the Predictive Simulation capability, allowing training of operators in 2-20 times acceleration with regard to real time. Often, emergency events that are perceived as very fast due to confusion in the control

room are in fact slower than they appear. Training the operators in the accelerated mode lets them learn more cases during one session. It also allows the operators predict and observe the consequence of their actions in near future faster.

Benefits from using the Nor-Par's Training Simulator:

- ✚ It is based on the **Blue-Print** model of your own current production, the model that you know, understand and trust; it is **not** a general "black-box" model. It is **not** a model of a single process-equipment such as a compressor or a distillation column; the model reflects your entire process plant.
- ✚ Perfect training of operators in pursuit of high operational excellence by greatly enhanced understanding of the true nature of the technology by the trainees
- ✚ Preventing losing the operational skills
- ✚ Downtime due to operator's error reduced; operational plant safety improved
- ✚ Learning start-up and shutdown procedures
- ✚ Consequences of operator's action to environment and to the plant's economy can be demonstrated
- ✚ Learning without consequences of risk/damage



A part of graphics interface of a Training Simulator