

# STC-GROUP BOOSTS TEACHING CAPACITY, IMPROVES EFFICIENCY AND LOWERS MAINTENANCE COSTS

## RESULTS

- Teaching capacity has increased. Students can now train individually and in groups. An entire class can now work at any one time, with students working in the Training Plant and also individually on the simulator.
- Course effectiveness, depth and contents have improved.
- Course instructor efficiency has improved.
- Students have greater understanding of working with hazardous substances under extreme conditions following different simulated scenarios.
- Standardisation with the Emerson DeltaV™ distributed control system minimises system maintenance and maximise system availability.



## APPLICATION

Operator training solution providing realistic simulation of operations.

## CUSTOMER

STC-Group – Brielle, Netherlands – an institution that trains operators and maintenance technicians within the process industry. STC-Group offers a combination of theory and practice that is unique in Europe. Due to this combination, as well as close collaboration with the industrial sector, students have an easier transition path when entering employment. STC-Group even offers a career-start guarantee!

## CHALLENGE

The Training Plant at the Brielle facility consists of different processing units so students can gain a better understanding of each process. The number of students is rapidly rising. As a result, the capacity of the Training Plant was extremely overstretched. Opportunities for individual and group work within the Training Plant are limited. Expansion of the plant is a major undertaking that can be very costly. Furthermore, the capacity of the Training Plant was limited as it used eight different DCS systems, which needed to be operated separately and maintained.

*“We are extremely happy that we made the decision to establish a single point of contact within Emerson. This is a classic example of collaboration between schools and the business sector.”*

### SOLUTION

The capacity of the Training Plant was doubled by making two investments. Firstly, the DCS was upgraded to Emerson's DeltaV™ distributed control system for a single state-of-the-art system. In addition, an operator-training simulator was commissioned. For this purpose, exact copies of the DCS were made and the process was simulated in the high-fidelity simulator Mobatec. The operator-training system is comparable to a flight simulator used by airlines to give their pilots 'flight' hours and to train in extreme situations that could not be practiced with a real aircraft. The true-to-life display of the process enables the students to practice realistic (and extreme) situations.

STC-Group now has 14 of these operator-training systems to enable the students to practice the entire process on their own. Students also have the opportunity to work in groups and run the virtual factory as a team. The students can carry out the field operator's duties, within the simulator, using a 3D visual representation of the actual plant process.

The new system ensures maximum availability and far fewer technical difficulties. Any problems can now be fixed quickly and easily as STC-Group now has a single point of contact within Emerson.

Thanks to the new system, teachers are motivated to include new technology in the curriculum. For example, it is now possible to include a large number of subjects in a single exercise. In addition to measurement and management technology, challenges involving physics, chemistry and mathematics can now be included in a single assignment. This challenges students to devise and implement a total solution. STC-Group will also implement Emerson's Asset Performance Management software for maintaining the Training Plant.

Emerson has also integrated STC-Group's Magister student-tracking system. This enables results from the Training Plant to be displayed. The assessment structure is linked to the results in the Training Plant.



©2015, Emerson Process Management. All rights reserved.

The Emerson logo is a trademark and service mark of Emerson Electric Company. DeltaV is a mark of one of the Emerson Process Management family of companies. All other marks are the property of their respective owners. For Emerson Process Management trademarks and service marks, go to <http://www.emersonprocess.com/home/news/resources/marks.pdf>

The contents of this publication are presented for informational purposes only, and while every effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available on request. We reserve the right to modify or improve the design or specification of such products at any time without notice.

#### Emerson Process Management

Asia Pacific: 65.6777.8211

Europe, Middle East: 41.41.768.6111

North America, Latin America:

+1 800.833.8314 or

+1 512.832.3774

[www.emersonprocess.com/deltav](http://www.emersonprocess.com/deltav)