



CUSTOMER CASE STUDY

Making Operator Training Accessible and Economical with OLEUM

Total OLEUM - www.oleum.total.com
 Industry - Oil and Gas

Goals

- Provide OLEUM with dynamic simulators for use in training courses for operator competency development
- Replace existing, outdated generic simulators
- Establish a modern OTS solution that can be in place for the foreseeable future
- Provide a scalable training simulator upon which new models, users, and geographical regions can be introduced at any time with little cost.

Challenges

- The typical training instructor has limited skill sets to update and maintain a complex simulator system.
- The average training simulator can only be used by a small set of trainees at a time
- Localized training programs often require on-site dedicated instructors
- Typical simulator has a time zone / access limitation / resource availability that limits on-demand use of the system
- Old simulator systems could not be directly linked to corporate training databases

Solution

- Operator Training Simulators (OTS)
- DYNOSIM Dynamic Simulation (Powered by SimSci)
- InTouch HMI

Results

- Cloud OTS has reduced operator training time from months down to weeks
- OLEUM is now able to train up to 2000 trainees per year
- OLEUM can train many different batches at once (through self-training and instructor-led training)
- High IT costs for hardware and maintenance are now nearly zero
- With cloud access, major travel costs can be avoided
- The high capital cost of a traditional simulator is transformed into a monthly subscription cost matching the training activity of OLEUM

Background

La Mède, France – Total is the world’s 4th-ranked international oil and gas company and the world’s second largest LNG producer. Total has been producing biofuels for more than 20 years and stands today as the leading distributor in Europe.

OLEUM, a division of Total Group, is the European training center for Total’s Oil & Petrochemicals business units. OLEUM is the first European training center to offer tailor-made training courses in an industry-scale processing plant. There are two training plants: one located in Dunkirk in the north of France in a former refinery, and the second near Marseille on the industrial site of La Mède.

“The La Mède facility hosts Total’s second OLEUM training center, which is one of the world’s few such facilities based in a real industrial complex. The center can train up to 2,000 people a year on a range of technical courses, and as its OTS solution, Total worked with AVEVA to set up all the alarming functions, design the OTS operator interface, and deliver its offerings in a cloud environment.”

-
Luc Seyfried,
Chief of Project Formation, Total Refineries

The OLEUM Training Centers provide a range of technical training courses for internal trainees or external contractors in the areas of production, maintenance, inspection, safety, analysis and lab work. It offers simulator-based training solutions via remote learning and cloud computing, all in SEVESO environments.

OLEUM Combines Teaching Expertise with Life-Size Technical Platforms

In 2015, Total announced plans to transform its La Mède refinery into a unique facility in France, dedicated to promising growth sectors for the group and the region. Most notably, the facility will host France’s first world-class bio-refinery to meet the growing demand for biofuels.

The OLEUM training centers in Dunkirk and La Mède enable trainees to experience all technical courses in a full-scale unit under safe, healthy and controlled conditions. In these unique facilities, they use AVEVA OTS to learn operating procedures, routine checks, first-level maintenance, fault diagnosis and rectification, pre-alarm recording and triggering, degassing, assembly and disassembly sequences, and the console operator competencies used in control panel rooms.

“We designed a technical training offer for Total, combining classical methods, combining practice on real size units and coaching on process units. All this embedded with the same teaching team.”

-
Stéphane Rémy,
Head of Industry Learning Solutions, Total Learning Solutions

The La Mède OLEUM center will also provide a digital demonstration platform to experiment with new digital projects under real operating conditions in Total’s industrial environment.

In Search of a Modern, Flexible, Economical OTS Solution

In preparation for the replacement of existing generic simulators—for which support concluded in summer 2018—OLEUM went in search of an OTS solution that would reduce costs, expand Total’s training offerings, provide a scalable training simulator, enable the corporation to train operators off-site, and supply modern training offerings for many years.

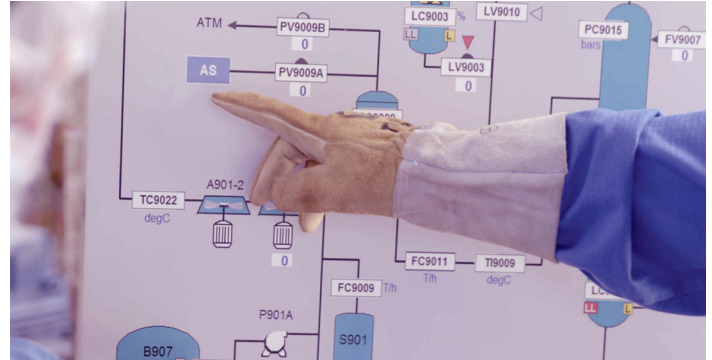
That’s why Total selected AVEVA’s OTS solution. It was the first cloud-based OTS delivered by AVEVA, and the first solution integrated with Total’s corporate Learning Management System. In AVEVA OTS, Total OLEUM found a modern, scalable, flexible and economic solution that would expand its ability to train operators across the corporation without spending millions of euros on travel.

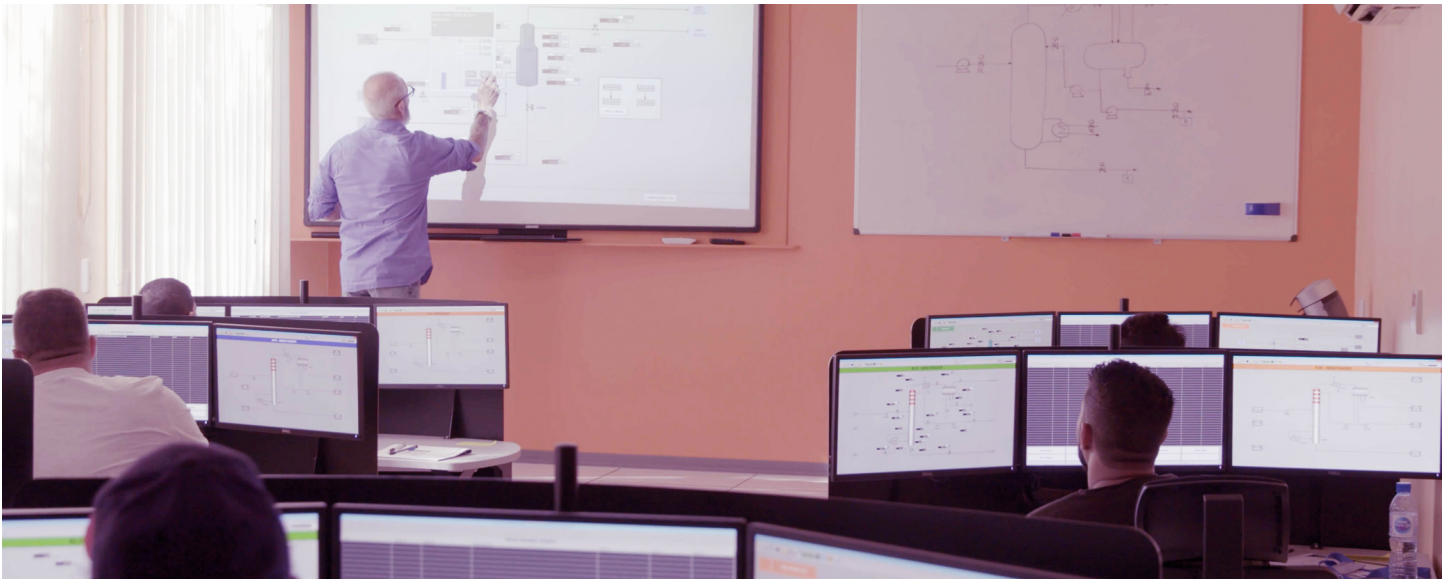
Beyond economic savings, the AVEVA OTS helps solve many of Total’s challenges:

- While the typical time to train an operator used to be months, it now takes weeks thanks to OTS cloud access and self-guided training options.
- An on-premise simulator can only train one batch of operators at a time. Cloud-based OTS removes that constraint for both self-training and instructor-led training modules.
- On-premise simulators carry a high upfront capital expense. Subscription-based Cloud OTS shifts costs to operating expenses that match training activity and budgets.
- Travel was a major training expense. Remote access drastically reduces the need for travel.
- Training material was difficult to update and support at different locations. With the scalability and accessibility of Cloud OTS, materials can be standardized and updated by subject matter experts.

“I strongly believe using OTS is really improving our operational excellence. It’s increasing the competency and reducing the risk of having accidents. And it seems that AVEVA is the only one who has the answer for this requirement.”

-
Eric Scappazzoni,
Manufacturing & Projects Division, Total





Benefits of AVEVA OTS for Total OLEUM

While Total continues to expand its use of AVEVA OTS, the corporation has already realized early returns on its investment, such as:

- The ability to train up to 2,000 operators each year
- Increased operator training efficiency, going from months to weeks
- Faster commissioning of simulator models
- Standardized training materials, available from anywhere
- Easier solution to implement changes and re-work of models
- Secure web interface
- Very minimal IT involvement, resulting in IT maintenance savings and no hardware footprint

“The future of OLEUM today depends on our ability to innovate, and we are convinced that the best way to innovate today is to work with partners. And of course with AVEVA we developed new training solutions regarding cloud solutions for dedicated process simulators for our business unit.”

-
Stéphane Rémy,
Head of Industry Learning Solutions, Total Learning Solutions