

Success Story

Efficiency from loading to reporting at TanQuid

Optimization of the automatic operation of tank terminals / Centralized control system using OpenTAS

Mergers are a challenge for any company. If the newly formed company is to act as a coordinated entity, it must integrate all of its processes, systems and databases as quickly as possible. TanQuid GmbH & Co. KG, currently Germany's biggest independent tank terminal operator, was faced with this particular challenge in 2008. At that time, TanQuid was a business created from three newly merged companies with completely different system structures. It was clear what had to be done. The new company urgently needed a standard terminal management system that could draw upon the same data at all of its sites to enable centralized terminal control. A challenging project had begun. TanQuid selected the OpenTAS terminal management and automation system from Implico, a consulting and software company with many years of expertise in this field.

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Head of IT,
TanQuid GmbH & Co. KG



TanQuid was spun off from the VTG-Lehnkering Group as an independent tank storage company. It subsequently expanded with the acquisition of the Petroplus and IVG tank terminals sites. The company now owns 14 terminals with storage capacities of between 24,500m³ and 878,000m³. It operates two further tank terminals on behalf of other companies, and on January 1, 2012, the Transtank joint venture with BP Europa SE was added to the portfolio. Because OpenTAS had been used successfully for many years at the five sites of the former VTG-Tanklager (one of Implico's first customers), it did not take long for TanQuid management to decide that OpenTAS was the right solution for their new company too. The way forward was now clear: In the future all of the company's sites would use the same release of OpenTAS.

A uniform data language

Thomas Knutzen, head of IT at TanQuid, remembers the start of the projects well. "We had in fact undertaken to complete three projects in one: consolidating our data, importing the new database into a new technical environment, and then implementing the latest release of OpenTAS." Everyone



involved was aware that the different data systems were unable to communicate with each other. Bernd Marschalk, Implico project manager, adds, "The most important thing was consolidating the data, because without doing that, we would not be able to carry out the system migration."

In the three original companies, all the products, model types, transaction numbers and transaction codes were different. The first

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step towards building a common database was therefore to extract the data from the three different databases. This data extraction was basic to analyze in-depth the data in common. The analysis gave an overview of several thousand records. Out of this could be deduced which products were the best sellers and which product numbers had failed to generate any activity for some time. The project team then decided which records they wanted to keep. Specialists at Implico redefined the data keys in order to transfer them to the new system. "This paved the way for importing the master data from its various locations into OpenTAS at each migration date," says Marschalk.

The whole project now focused on bringing all of the processes together and controlling them from a central point. We needed to make sure that the data systems at each site understood the same language. When they look back at this, Knutzen and Marschalk

agree that they had set themselves a very ambitious goal. The more the project progressed, the more they began to appreciate its magnitude and complexity. The size of the team grew in size as a result. The team always had to bear in mind during the migration project that every change to the system would have consequences that could extend as far as the tank truck driver. It was more than simply a matter of integrating new software. Numerous processes – the logistics chain and working processes, for example – had to be aligned. The customer expected the coherent deployment of OpenTAS to make its processes more efficient and identical at all sites in the future.

Roll-out in record time

Following the data consolidation, OpenTAS 4.3 needed to be rolled out nationwide, initially at nine TanQuid tank farms. The Salzgitter site was the first in line. In April 2009, it was the first site to go live with the new OpenTAS release. The other eight terminals followed in close succession. Each terminal had local issues to contend with and therefore faced its own, unique challenges. "The changeover dates brought their own problems. Migrating data in the middle of the month required particular care to ensure that the data was transferred accurately because we had to keep specific German regulations concerning taxation of energy in mind," says TanQuid's head of IT, Thomas Knutzen. The obstacles were all dealt with, and in April 2010, the harmonization project successfully concluded with the migration of the Berlin terminal. In under a year, the project team had succeeded in converting the nine sites to automatic loading with OpenTAS 4.3 for all modes of transport – truck, train, ship and pipeline.

At the same time, Implico created a new central database and renovated its entire technical infrastructure.

In separate subsequent projects, oil and gas specialists from Implico converted the Hünxe tank terminal to OpenTAS in November 2010 and more recently, in August 2011, the Neuss 1 depot. As a result, eleven TanQuid sites are now operating with the new release of OpenTAS. They are all integrated in the central database and can therefore be controlled centrally. Three more tank farms transfer their data from a non-OpenTAS system. "A special interface converts this data, allowing entries to be made via OpenTAS and enabling the other system to send the loading data back to OpenTAS," says Marschalk. This process ensures that reporting from this tank terminal to the control center is standardized and comparable.

Efficient, fast and cost saving

TanQuid gains a number of benefits from the standardized OpenTAS Terminal Management and Automation System. Thomas Knutzen: "The key benefit is that we manage several sites using a standardized software solution based on a single database. The technical environment is therefore easily scalable to include new sites. Every tank farm submits the same type of data, allowing our headquarters to operate a standard reporting system."

The tank farm processes and the automated IT background processes are virtually identical at each site. TanQuid customers can use the same customer number at all sites. Individual customer requirements, such as data communication interfaces, can therefore be provided quickly and efficiently at multiple locations at the same time. In



addition, TanQuid staff at different sites can collaborate in solving new challenges. Similarly, the period of familiarization needed when moving from one TanQuid site to another is greatly reduced. Using OpenTAS as a standard also means that finding a solution to an error message at one site automatically provides a solution to potential problems at all the other sites.

Rapid integration of new transport legislation

The first test for the new centralized administration came early in 2011. At around this time, new customs regulations came into force requiring an electronic customs clearance for excisable goods being transported across EU borders. Implico has made provision for these mandatory Excise Movement and Control Systems (EMCS) processes. The electronic customs procedure – from login to validation to logout – is integrated in the loading and shipping process and runs completely automatically in the background.

Thanks to its extensive use of OpenTAS, TanQuid was able to introduce the EMCS functions centrally in a single step. There were only a few exceptions where separate integration was necessary due to local conditions. "We are very pleased with the quick and painless integration of EMCS. The previous TanQuid environment would have required solutions for three different systems," says Thomas Knutzen. Here too, Implico offers impressive time and cost benefits. Since the beginning of 2012, the transportation of excisable goods within Germany has been subject to the EMCS regulations. Implico has also integrated the necessary EMCS processes in OpenTAS for the TanQuid tank terminals.

TanQuid to use OpenTAS internationally

The first migration that took place outside Germany was in the TanQuid subsidiary, the Radzionkow tank farm, in Poland. It still worked with a separate database and an older version of OpenTAS. The project for switching to Release 5.0 of OpenTAS, which has been available since January 2012, has successfully been completed since April 2012.

In Germany, Speyer is the only terminal not yet linked to OpenTAS and it is expected to make the switch in 2012/13. The new

release will be integrated over the medium to long term into the three tank terminals with interface functions in Koblenz, Plochingen and Neuss 2.

Summary

Together, Implico and TanQuid have achieved their goal and turned three companies with different systems into a single group with a coherent terminal management and automation system. The successful changeover has brought two key benefits: The data at the different storage terminals is comparable and can be managed centrally, and each individual site



About TanQuid

TanQuid is the leading independent tank farm operator in Germany. The 15 tank farms (12 owned and 2 operated in Germany, 1 owned in Poland) with a capacity of around 4 million m³ make TanQuid the market leader in the storage and handling of mineral oil and chemicals in Germany. TanQuid's principal customers are the chemical and petrochemical industries. The company also offers comprehensive engineering services for external customers. TanQuid is based in Duisburg and has around 400 employees.





has gained from having the fully automated OpenTAS solution. One of the key reasons for this success was the way the team members from two different companies were able to build a capable project team. Project and IT Manager Thomas Knutzen from TanQuid summed up his three years

working on the project: "I must admit that we were surprised by the complexity of the project at first. But we grew into a great team, learning something new each time we tackled a different site. The final migrations went like clockwork and I look forward to working with Implico again in the future."

About Implico



The Implico Group optimizes logistics and business processes for oil and gas downstream companies. The international consulting and software company with its headquarters in Hamburg, Germany, has subsidiaries in North America, Europe and Asia. Founded in 1983, the company today employs around 220 staff.

Implico provides consulting services, data services and software solutions for the entire supply chain – from forecasting and dispatching to data collation. Leading oil and gas companies all over the world trust in Implico's industry expertise and high-performance IT solutions.



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