

# Case Study | Belsim

CodeMeter protects Belsim's VALI software

## Piracy doesn't stand a chance

### The Challenge

All industrial measurements are inaccurate and uncertain. As a consequence, a company never has rigorous information about its processes. What's more, the real numbers about process performance may very well remain hidden in measurement noise. Belsim develops Data Validation & Reconciliation software that automatically corrects measurements in industrial processes. The VALI-suite is the result of many years of R&D and it represents the centerpiece of Belsim's intellectual property. This led Belsim's search for a robust yet flexible solution for software protection and license management.

### The solution

"When we decided to develop VALI's newest version in Microsoft .NET, it was clear that we also needed a partner to support the solution's license management and to protect it against software piracy." Belsim analyzed proposals from three suppliers. CodeMeter from Wibu-Systems – including AxProtector - proved to be the most suitable solution. "The high level of protection in the .NET environment made the difference", says Christophe Pirnay.

### The results

"We ran tests and tried to hack into our own software, using debugging tools among other things. All attempts failed. Thanks to Wibu-Systems, we don't have to worry about license management or protection and we can continue to fully focus on further development of our core business", says Christophe.



**Christophe Pirnay,**  
Development Manager at  
Belsim

"We focus on the development and implementation of our DVR software. Thanks to Wibu-Systems, we don't have to worry about license management and protection."



## The Company

Belsim is a spin-off company of Université de Liège in Belgium. Today, VALI Suite is the leading solution in the worldwide market for DVR software. Belsim's solutions are based on advanced data validation and reconciliation technology for enhanced data quality. It is a model-based approach using raw process data, statistical methods, process knowledge and thermodynamic constraints, providing error free, reliable data. Belsim delivers solutions based on software and consulting for energy management, production management, performance management and process optimization. Belsim's engineers travel around the world to implement the solution, not only in Europe, but also in the Middle-East, the US and Africa.

# CodeMeter protects Belsim's VALI software



Piracy doesn't stand a chance



## Improving processes

"VALI measures values coming from sensors used in industrial processes", says Christophe Pirnay, Development Manager at Belsim. "We measure different parameters, such as temperature, volume and pressure. Once the data is captured, VALI manages its validation and reconciliation." In other words: Belsim's solutions are based on advanced data validation and reconciliation technology for enhanced data quality. VALI has been implemented in over 120 plants ranging from upstream oil and gas, refining, petrochemical industry, and power generation and utilities, including nuclear power plants. "The use of accurate data allows these companies to fine-tune their processes", Christophe explains. "This leads - in all safety - to significant performance improvement. In the field, we often see that metering is far from accurate, among other things because measurement tool vendors apply safety margins that are all too wide. This way, it becomes very hard to measure small adjustments applied to improve process performance. VALI allows to accurately measure these small adjustments, resulting in the targeted process optimization.", minimize losses, and enhance yields.

## Local support

Belsim solutions are used to monitor and increase plant efficiency, improve energy integration, reduce impact on the environment, increase production, minimize losses and enhance yields. VALI consists of several modules, built around a central engine. "It is very important to us to protect the intellectual property of the software suite", Christophe continues. "When we decided to develop VALI's newest version in Microsoft .NET, it was clear that we also needed a partner to support the solution's license management and to protect it against software piracy." Belsim analyzed proposals from three suppliers. CodeMeter from Wibu-Systems – including AxProtector - proved to be the most suitable solution. "The high level of protection in the .NET environment made the difference", says Christophe Pirnay. "A big advantage was the fact that Wibu-

Systems has employees in Belgium. Getting training from local people - and not in a foreign language, using a video link to a different continent - was a big plus.

## At a safe distance

Belsim's customers are all decent, professional companies. At least that's what one expects of the operators of nuclear power plants and oil rigs. "We never really knew if our software was copied or used illegally", says Christophe. "We were a bit suspicious at times, but we never were sure if it was really happening. In those days, we were handling license management and software protection ourselves."

Belsim had to admit that these activities aren't part of its core business. That's why the company decided to call in the assistance of a specialist. "It's not really possible to start using an illegal copy of our software without any consulting or training. But then again, it's only thanks to Wibu-Systems that now we are really sure of the protection of our intellectual property." CodeMeter protects VALI against unauthorized use, but also against anyone who tries to take a peek at the code. This way, CodeMeter also keeps Belsim's competitors at a safe distance, as well as customers who can't withstand the temptation of trying to build their own solution based on Belsim's code.



## Worry-free solution

For Belsim, it is important to know that CodeMeter works with an automated build, automating protection at the same time. "Also, there is a distinct link between the protection and the customer's machine", Christophe concludes. "When something changes on that machine - for example the installation of a new hard drive - CodeMeter takes notice of the risk and automatically blocks the software license. Using CodeMeter's centralized management tool License Central, it is possible to remotely activate the license if necessary." Belsim doesn't need to worry. The company can fully concentrate on its core business - the development and implementation of software - while Wibu-Systems guarantees the protection that is needed at the heart of the solution.

## About Wibu-Systems:

WIBU-SYSTEMS AG (WIBU®), a privately held company founded by Oliver Winzenried and Marcellus Buchheit in 1989, is an innovative security technology leader in the global software licensing market. Wibu-Systems' comprehensive and award winning solutions offer

unique and internationally patented processes for protection, licensing and security of digital assets and know-how to software publishers and industrial manufacturers who distribute their applications through PC-, embedded-, mobile- and cloud-based models.



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