

HAI: Migration of HAI*QPM solutions to SAP NetWeaver platform

Be powered by SAP NetWeaver



HAI, the Dutch supplier of Real-Time Enterprise Manufacturing Intelligence (EMI) solutions, is strengthening its market standing thanks to its cooperation with BCC. The development of the HAI*QPM software by BCC in the SAP NetWeaver technology was successfully completed by a 'Powered by SAP NetWeaver' certification by SAP AG.

HAI has been operating since 2001 in the Netherlands as a leading provider of Real-Time Enterprise Manufacturing Intelligence (EMI) solutions. The solutions are used by manufacturers worldwide especially to achieve Operational Excellence through Continuous Improvement, Six Sigma, Lean Manufacturing and Total Productive Maintenance (TPM) initiatives. HAI offers a complete set of solutions to help manufacturers achieve and sustain an increased level of performance through Enterprise Manufacturing Intelligence solutions. More information on: www.hai.nl

SAP is the biggest and the most popular ERP system on the market. Most big and middle-sized businesses choose that system to support a wide range of business operations. Therefore there is nothing strange that suppliers of other applications strive for making their solutions compatible with SAP technologies.

That's why HAI decided to commission BCC to develop the HAI*QPM application on the SAP NetWeaver platform.

The application HAI*QPM (Quality & Performance Management) offered by HAI helps improve the product quality and efficiency of production lines on the basis of regular monitoring and data reporting in real time.

It is used by Dutch and international industrial companies aiming at optimizing manufacturing processes.

A great deal of HAI clients use the SAP system, particularly the production planning module (PP).

Peter de Haer, HAI Director, says: "Seeing that most of our customers are already using SAP ERP software, it became obvious that they would expect to get tools complying with their existing IT environments. This led us to running a new software development project, whose main goal was to deliver our tools, knowledge and expertise in a form that was fully integrated with the SAP environment. We were certain that we also needed to plan and execute the application certification process, to make sure that the implemented application would fulfill SAP standards before it was implemented in a demanding environment of a production company.

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We have decided to commission BCC to create the HAI*QPM application in a completely new technology, namely SAP NetWeaver, with the use of Java and the WebDynpro technologies. We also entrusted BCC with preparing our solutions to be certified by SAP AG".

"NetWeaverising" HAI*QPM

This development was a complex project during which the application needed to be built from the ground-up in a new technology. The first phase of the project was a knowledge transfer session. HAI presented a functional design and explained the way the software would be used. The main functions of the application are data collection, recording and reporting.

The recording functions consist of a real-time logsheet screen used by operators on the production line to enter production data and by laboratory employees to enter quality test results. Besides there is data collection software responsible for automatic process data collection from production units and product quality testing equipment.

Reporting functions allow the management to analyze and tune the production line performance and improve product quality, thanks to HAI expertise implemented in out-of-the-box SPC (Statistical Process Control) and other relevant statistical and analytical instruments.

As a basis for the solution, the SAP NetWeaver Java Web Application Server was chosen. The main idea was to provide a web-based environment, that runs on the SAP technology platform, yet kept aside of the main ERP system, as a separate software.

The application was implemented using Java as a programming language. In addition, standard SAP technologies for web applications were used to assure that the user had exactly the same look-and-feel as with SAP products. WebDynpro framework and HTMLB, besides being de-facto the SAP standard for the web, easily fit into the SAP NetWeaver Portal environment, by automatically using look-and-feel settings, which can be different for each company, and even each user.

The application uses now WebServices, to enable interfacing with SAP products and with external tools which provide data from production process equipment or product quality testing devices.

The most time consuming phases of the project were implementation and preparation for the certification. BCC had to make sure that all criteria for the certification were met, to maximally reduce the risk of failing certification test runs of the application. Both Portal Integration and J2EE Deployment certifications succeeded in the first approach.

During the project Mr. Kees Dekker from HAI was responsible for testing and providing specifications for the development. From BCC there two programmers engaged. In this Polish-Dutch cooperation, the communication language was English, and as it can be said now, there were no problems caused by the international nature of the project. All of the programming work was done remotely from Poland. Some sessions were also held in Poland with a HAI representative on-site.

Result: HAI*QPM for SAP

At the moment HAI has a completely new product available for its customers. The project, besides providing an application in a new technology, has a very flexible data structure that allows storing and analyzing just any type of data that could be imagined at the moment.

Thanks to integration with SAP solutions, it is now very easy to provide additional reports using SAP Business Warehouse or integrate application features into other products – such as SAP xApp – xMII. The project was also an opportunity for HAI specialists to gain knowledge about SAP solutions in general and about the SAP NetWeaver technology.

Powered by SAP NetWeaver

HAI's ambition was not only to build an application compatible with the SAP environment, but also to assure its customers that the compatibility was guaranteed by an independent party – thus the need for certification. The certificate 'Powered by SAP NetWeaver' is granted by SAP AG only to top-class applications complementary to SAP solutions and based on the SAP NetWeaver technology.

In July 2007 and January 2008 certification sessions were held; then BCC presented the process of installation and starting the QPM application and test scripts to show its functions and integration with the SAP NetWeaver Portal.

To guarantee impartial evaluation of the application in the certification process SAP employed an external company – VeriTest. The first step of certification was a verification of the application documentation.

Then a VeriTest representative, using on-line meeting software, monitored the deployment and test runs of the application in a SAP NetWeaver environment. The newly developed QPM application met all conditions of a SAP NetWeaver-compatible application.

HAI received two certificates from SAP AG:

- J2EE-DEP certificate, which ensures that the solution installs and works on the SAP NetWeaver Java Web Application Server,
- EP-BP certificate, which confirms that the solution integrates the application correctly with the SAP NetWeaver Portal.

HAI also obtained the right to apply for the logo of the program 'Powered by SAP NetWeaver' in a promotion of the QPM solution.

Peter de Haer: "The gained certificates confirm that our product is fully integrated with the SAP system. It is a guarantee for our customers that our product will fit perfectly into their IT environments and business operations. Therefore the 'Powered by NetWeaver' logo is an important value added to this project".



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