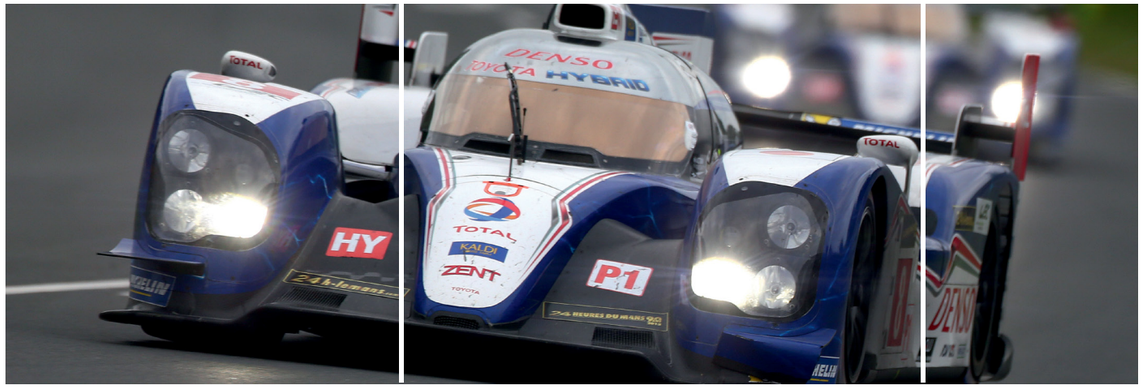
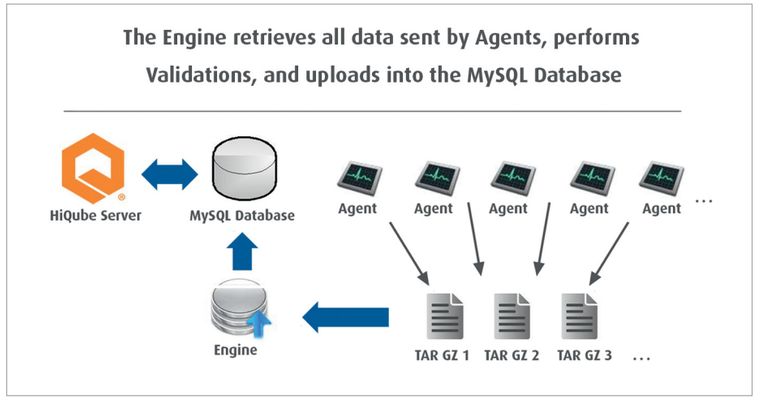
Toyota Motorsport GmbH uses Altair's SAO System to better control software costs in its commercial Software tools



Data Collection

There is one Engine, one MySQL database and one HiQube App Server installed on the system. Agents send data packets to a directory on the network accessible to the engine at a preconfigured frequency. The engine is launched at a preconfigured frequency and retrieves the data sent by various agents. The Engine parses this data and uploads it into the MySQL database. HiQube imports data incrementally from the MySQL database into various Qubes designed for different types of reports and analysis. HiQube reports are accessed by end users through a web portal.



to be faced – TMG does have a customer specific solution for FlexLM, which means that one license server node runs a single combined license file for multiple vendors. "The implementation of custom FlexLM was a bit of a challenge for Altair, but within two or three weeks they came up with a solution and now we have a full fledged implementation installed on site," said Per Nordqvist. "Since then, the system is running without any problems and we never needed to interfere in any way. To date, there have been no errors reported."

Future Development

As of now, Mr. Nordqvist is the only person at TMG, who actively uses SAO. Whenever he receives a request he provides the management with the needed reports. For the future it is planned to create different user profiles for SAO. With these specific user profiles. The management or group leaders of the technical departments will be able to access SAO, receive the needed information for the software that is used in their departments and they will be able to create their own reports."

"Once in a while a requested license is already in use by another engineer and access is denied. If that happens the engineer contacts IT. For IT it would be very helpful if the user could directly check who is using the software he needs. Then he could simply call his colleague and ask him to release the needed feature – if not needed by him anymore. In cases like this SAO could offer more transparency and would also help to create higher cost awareness within the departments," Per Nordqvist explains. The implementation has been added to the next steps of TMG's implementation.. It would lead to a more intensive use of SAO and would bring some relieve to the IT department.

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To conclude Mr. Häbich explains: "One of the biggest highlights of SAO is how stable it runs, plus it is easy and intuitive to use – one really doesn't need any training. In addition it offers broad reporting options, some of which we don't even use yet, but will be interesting for the future. For example with the efficiency-monitoring function and the simulation possibilities we have discovered functionality options we didn't expect and which impress us very positively."

TOYOTA MOTORSPORT GMBH

Key Highlights

Industry
Motorsports/Automotive

Challenge
Need to handle and monitor a very large variety of commercial software licenses.

Altair Solution
License monitoring delivering information about the actual scope of software usage with Altair's SAO solution, improving decisions on software renewal and acquisition.

Benefits
- Easy access to important information
- Early and reasonable decisions on software renewal and acquisition, better budget planning
- Possible savings on software expense
- Precise knowledge of software usage throughout the company

Introduction

Toyota Motorsport GmbH (TMG) was founded in 1979 by Ove Andersson to run the Toyota Team Europe (TTE) entry in the World Rally Championship. TMG won a total of seven world championships during that time but in 1997 the company's activities broadened with Toyota's entry into the Le Mans 24 Hours in 1998 and 1999.
In 2002, TMG made its debut in Formula 1, a discipline in which TMG was working until 2009. In 2009 a new era started for TMG. The company is now mainly a competence and high performance center for design, development and production. TMG is owned by Toyota Motor Corporation and therefore provides engineering services to its mother company. TMG also offers its services outside of the Toyota world, with third-party companies from the automotive and motorsport sectors particularly making use of the Cologne facility.

That business mix is made up of three pillars. A significant percentage of capacity goes to third-party business, which brings in external revenue in exchange for sharing the expertise and facilities built up over years of competition at the highest level in motorsport. Work for Toyota Motor Corporation plays a significant part in TMG's new business via projects to continuously improve Toyota road cars. The third pillar is a traditional one for TMG: motorsport.
As home to Toyota's global work motorsport programmes, TMG currently operates the TOYOTA Racing team in the FIA World Endurance Championship.

a division of Altair

Keywords: SAO, HiQube, Software Asset Optimization, license management, cost saving

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Effective Cost Control at Toyota Motorsport

TMG uses CAE, CAD and other commercial development software in all of its development departments. The engineers deploy the software to create models, to mesh them and to answer questions regarding combustion calculations, fuel injection, stiffness, crank shaft design and much more.

Keeping an eye on software use – always know what is needed

The software the engineers use in their daily work is usually available within TMG and can be retrieved from a big software license pool. To efficiently handle this process the TMG IT department started to look at license monitoring options. Via license monitoring it can be seen which licenses are used when and how often. In addition to that, the management team needs to understand the actual demand of software within the company to make sure that it is known in which area licenses are needed or if the company owns more licenses of a certain software type than actually needed. To better control the entire license pool TMG introduced a software system for license monitoring in March 2013.

The chosen solution was Altair's Software Asset Optimization (SAO) system.
"We had many requests from our management. For example they wanted to know why more licenses of a certain software type were needed and whether or not all licenses were actually fully used. Before the implementation of Altair's SAO it was very difficult to answer those questions precisely since we did not have detailed insights into the actual license usage. The only argument to buy a license was usually that one of the technical departments had requested it. Of course we checked the need of the departments and we do trust our engineers, but in the end – we just didn't have a full reporting about all licenses since there was no centralized license monitoring for all used licensing procedures in place. To organize this better and more transparently we implemented SAO with which we can now handle these types of requests. If the management comes to us now, requesting a detailed usage report, we can give it to them – and based on this information, the management can now make sound buying decisions," said Jürgen Häbich, head of the IT Infrastructure at TMG.

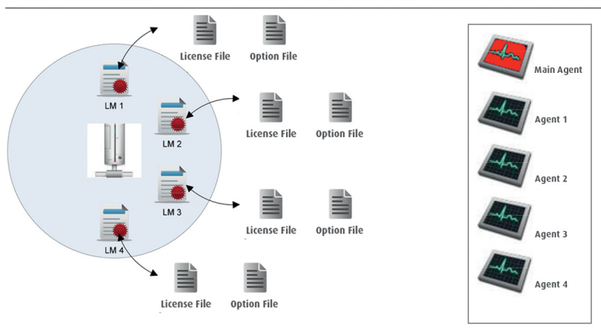
Altair SAO – what is SAO and which benefits does it offer?

SAO (Software Asset Optimization) enables the user easy and efficient access of the actual software usage of existing licenses in his company. He can analyze the software usage and based on this information make appropriate decisions concerning the acquisitions of new licenses and the extension of existing contracts. Altair SAO is based on Altair's business analytics solution HiQube and works license server independent with many different vendor license servers such as FlexLM, FlexNet, LUM, LM-X, and many more. Altair SAO creates, based on the information coming from the vendor license server, consistent reports about the software usage across the entire company. With SAO, the user can create alert dashboards/notifications and simple as well as detailed user reports. Questions such as: "Why/What for is a certain software used?", "Who uses it?", "Where is the software used?", "How much is paid for the usage?", "Who should be charged for it?", can be answered. Access rights can be set up easily within the system to define which user has the right to access which information.

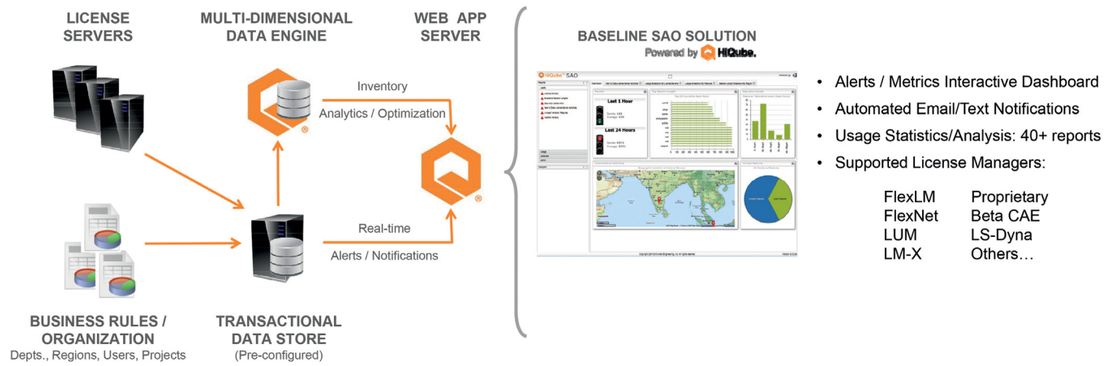
License Managers

There can be multiple license managers installed on a server. Each licence manager using a license file, could have an option file and maintains a log file. These files could be located on local or network drives. Each license manager application is monitored by its own agent. There are as many agents as license managers. The main agent launches agent(s) configured to monitor the License Manager Application on the server. Main agent can launch agents sequentially or in parallel. Agents connect to the license manager to get current status. All agents use one polling frequency across the network.

License Managers and Data Collection Agents



Use-case Solution: Software Asset Optimization



SAO at TMG

With its new Altair SAO system, TMG is now able to answer all management requests regarding the usage and need of software precisely. The usual workflow to handle these requests is as follows: Whenever existing license agreements have to be extended, the management approaches the IT department to receive detailed information about the actual usage of the software. Within the IT department Per Nordqvist is the person that handles these requests. With SAO he can create a detailed report of the software usage for the management. Based on this report, the management can then come to sound decisions regarding how many licenses of a certain software type should be acquired or extended. Additionally the management will know when a new investment in a certain software type is not profitable. This approach enables the company to consolidate its software expenses since it is clearly documented how often and by how many users the software is actually used.

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"Without the information we receive from SAO we would basically be blind concerning questions about the software usage within the company," said Per Nordqvist from the IT department at TMG. "With Altair SAO this is now different. For this reason we immediately realized the potential of the software solution regarding the ROI. I think that we will be able to save a lot of money with this solution, especially within the first one or two years. Precise numbers for the current software usage should be available by the end of the year, but already we know a lot more about which software is actually needed and which is not used. This information is available via a special SAO report."

How does SAO work?

Each license server collects the individual software information locally. All in all TMG uses more than 100 commercial software types from 30 vendors, with more than 1000 features. For each vendor a vendor agent is set up that monitors the license managers of that vendor. The information from each software license server is then transferred to the SAO server and imported into a data base. Based on this data, SAO creates the requested reports.
"We implemented the system together with Altair. Altair installed the system and implemented the first five vendor agents. Following this example we then set up every other needed agent ourselves. You don't need a specific training to do that – the system is really very easy to use and well documented," said Per Nordqvist.

Prior to the installation of SAO the engineers made a requirement analysis, defining for which type of license server the monitoring was needed to be made. Once the software that had to be monitored was defined the rest of the process was very easy. TMG received a VM-ware image with an already pre-installed SAO. Then the VM-ware image was installed and the SAO was ready to be used.

To handle the needs assessment, TMG provided Altair with a list of all used clients respectively and all vendor daemons. Based on this information Altair prepared the usage of SAO. During the initial implementation process one challenge had