arvato
BERTELSMANN

streamworks
Workload Automation

„streamworks" Controls Global SAP Processes

SICK AG transfers the automation, control, and monitoring of all data center processes around the world to „streamworks".

The 'SAP Global' project is providing all of our subsidiaries around the world with a powerful tool that organizes their processes more efficiently and strengthens our position as the leading provider of sensors and solutions.

Markus Vatter
Head of Finance and IT at SICK AG

Background Situation

SICK AG has been experiencing continuous annual growth in the near double-digit range for several years. This enormous growth has placed extreme requirements on operational IT systems. The automation of regularly recurring tasks is of crucial importance in ensuring that the IT landscape can still be managed in an effective, efficient manner in view of the fact that number of tasks has also doubled in the past five years. Furthermore, the security of the closely integrated processes must be guaranteed. It is also necessary to relieve the IT teams of redundant tasks and create space for the further IT upgrades. SICK AG is currently operating 38 SAP systems, eight of which are relevant to the production unit. Multiple schedulers that had been developed over the years were in use to automate processes in individual systems. The central SAP ERP system controls the entire production planning, analysis, day-ending and month-ending closing statements, material planning, logistics processes, and much more. Many solutions for system data exchange, some of which were not monitored, time and again resulted in problems as it was not possible to map the entire workflow. In some instances up to three internal schedulers were in use (SQL, OS, and SAP) that moved onto the next networked process in the sequence in a workflow controlled exclusively by the time of day.

SICK
Sensor Intelligence.

The Customer

– As a technology and market leader, SICK's sensors and application solutions for industrial use create the perfect basis for reliable and efficient control of processes, protecting people from accidents and preventing environmental damage.

– With nearly 50 national and international subsidiaries and more than 7,000 employees, SICK AG is one of the leading manufacturers of sensors, from factory and logistics automation right through to process automation.

Industry

– Electrical engineering/electronics

Furthermore, it was not possible to provide users in specialist departments with an interface that they could use to independently launch certain workflows. The month-ending closing date could therefore not be calculated nor could the month-end closing be started in the ERP without completing certain activities first. This was manually requested via e-mail from the relevant department. The rapid growth of the system landscape also required a model that could be used to store standard tasks on the basis of templates. It therefore became necessary to develop a job chain for standardized re-organization tasks that could be connected to a new system in a matter of minutes.

Solution

At the launch of the 'SAP Global' project, the IT team at SICK AG discovered it would not be possible to guarantee smooth job processing using standard SAP software. The users therefore often worked in variables with 'today's date.' However, this depends on the system time in the SAP systems, which is set to UTC at SICK AG. A job that is executed on the first day of the month at 12:01 a.m. in the Singapore time zone (UTC+8h) and uses the variable 'today's date' currently has the 30th or 31st day of the month as the variable value, which is incorrect in most cases. It was therefore decided to implement a Workload Automation solution that is managed from the central data center in Waldkirch, Germany. This provides complete control over all job processes in all SAP systems around the world, which is a basic prerequisite for the secure operation of mission-critical processes. The company chose „streamworks" after testing several systems. Key factors in the decision were the modern, open architecture based on .NET 4.5 and SQL Server 2012 and the straight-forward database layout. Another advantage was that „streamworks" is a genuine Microsoft application. SICK AG could make use of its existing expertise as it uses both Microsoft operating systems and databases. A secondary factor was that Arvato Systems itself installs „streamworks" at its own data center and does not approve new releases for customers until they have proved themselves in practical testing. In this context the team was especially impressed by the extremely short downtimes during the version changeover.

Vision

The employees at SICK AG have been working increasingly intensively with their colleagues in other countries to achieve the ambitious targets for medium-term turnover. The new tasks such as systems business increased the complexity of workflows and the number of interfaces in the company. This meant a globally standardized, scalable ERP infrastructure that previously comprised more than a dozen different systems, an environment which was costly and resource-intensive to operate, would be required. The homogenization process was carried out as part of the group-wide 'SAP Global' project. It includes the automation of processes across multiple systems and time zones via a single point of control (SPOC). Subsequently, the close networking of SAP ERP, SAP HR, SAP GTS, SAP Global ERP, SAP SRM, SAP EWM, MS BI, MS CRM, MS Navision, and many more means that processes can no longer be considered separately.

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Case Overview

Task

– Implementation of a Workload Automation Solution for the secure, efficient management and monitoring of global SAP process technology

Technology

– „streamworks" - Workload Automation

Result

– Employees are relieved of having to perform routine tasks

– Increase in quality thanks to elimination of manual routine tasks

– High, verifiable process quality

– Provision of clear, tamper-proof reports

– Scaling of resources based on demand

– Personalized support from specialists experienced in production

– Short familiarization period, high level of user acceptance, and intuitive operation

We can't imagine operating our highly complex global infrastructure without a reliable workload automation solution.

Olaf Risse
Manager IT Infrastructure and Application Services at SICK AG

Customer Benefits

The IT team at SICK AG was already able to carry out a range of crucial improvements shortly after implementation:

— Single point of control for all SAP jobs.
— Fully automated month-ending closings.
— Reliable planning across several time zones, something which is not possible with SAP standard software.
— Fully-automated patching of Windows systems, ensuring that applications that are running are stopped in a controlled manner (first the SAP system, then the database.) Multiple reboots are carried out if necessary after patching the operating system. The applications are subsequently restarted in a controlled process (for example, first the database, then SAP ASCS, and finally the application server).
— Configuring all of the required re-organization jobs in new SAP systems completed in a matter of minutes.
— Generic auto-population of fields in versions of SAP software from „streamworks" (for example, date calculation) or the complete generation of temporary variables with values that are calculated in „streamworks" via the PSL. This ensures that the value is always correct based on the plan date, no matter when the job is carried out.
— Simple creation of job chains across multiple systems.
— Management of multiple export and import jobs using logical resources to ensure that only one import job is running at one time.
— Self service portal at the start of month-ending closings in ERP as well as settlement runs in the HR department in the SAP HR system by the relevant department.

At the time this article was published, 100,000 jobs per day, or one every 0.9 seconds, were being launched. There are approximately 100 agents in use, 38 of which are for SAP applications. The long-term objective is to manage all background jobs in all SAP systems using „streamworks". New incoming job requests are immediately handled using „streamworks". Existing jobs that are still scheduled in the standard system are gradually being migrated to „streamworks".

The final major project in this area will be replacing the existing solution for Workload Automation. The IT team from SICK AG found that „streamworks" delivers added value for automatic error response in particular.

About Arvato Systems

As global next generation IT systems integrator Arvato Systems focuses on „Digital Transformation Solutions".

We use the technology talent and expertise of over 3,000 people at more than 25 sites throughout the world. Being a part of the Arvato network and belonging to Bertelsmann, we have the unique capability to create entire value chains. Our team creates integrated, future-proof business infrastructures that help make our customers more agile and competitive, and enable them to deliver new standards of service to their customers. We create streamlined digital processes that support innovative business models. Moreover we provide operation and support services.

Arvato Systems offers an exceptional combination of international IT engineering excellence, the open mindset of a global player, and the dedication of employees. We also ensure that all our customer relationships are as personally rewarding and long-lasting as they are successful.

You have questions, need information or a contact?
Get in touch with us.

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