

SUCCESS STORY

ASSA ABLOY (Switzerland) Moves to Industry 4.0 with Digitized Production Enabled by Magic xpi Integration Platform

ASSA ABLOY



The Project

Customer: ASSA ABLOY (Switzerland) AG - Security Systems Group

Industry: Locking systems, Security technology

Magic Solution: Magic xpi Integration Platform with Dynamics CRM connector

Connected Applications: ERP (Infor COM), Lock Management System (custom software), Production Information System based on Dynamics CRM

Objectives

- Develop a Production Information System based on Dynamics CRM
- Integrate data from ERP and home-grown Lock Management System
- Create machine-readable job files to be run by new digital drilling machines

Results

- Integrated Industry 4.0 data landscape
- Increased flexibility in range of locking systems offered
- Reduced Order to Delivery times for locking systems

ASSA ABLOY (Switzerland) AG wanted to digitize the production for its KESO brand keys to move toward Industry 4.0 efficiency. ASSA ABLOY previously employed up to 20 separate drilling machines to make its keys. As the first step in digitizing production, the company replaced its existing equipment with two new digital drilling machines.

To provide the new drilling machines with the necessary job data, data from the company's Infor ERP and its proprietary Lock Management System had to be merged, saved in a machine-readable form and communicated to the new drilling machines. Previously, data from both systems was merged on paper forms and entered manually by employees on the respective drilling machines using job boards.

In order to complete the automation, the company developed a Production Information System based

on MS Dynamics CRM. The Production Information System merges relevant data from the company's ERP – order data, BOMs, workpiece information – and permutation data from their Lock Management System into an XML job file that the drilling machine can read and run. The Magic xpi Integration Platform was chosen to be the central component of the overall solution connecting all three systems.

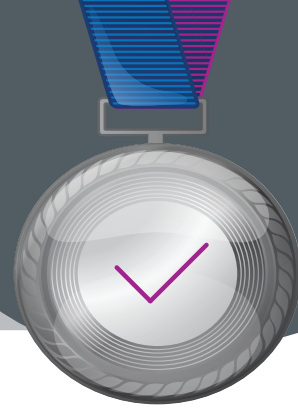


“For us, the Magic xpi integration solution stands in the center of our Industry 4.0 landscape, providing us with a sustainable competitive advantage that can be expanded in the future.”

Erwin Fuchs – Assa Abloy (Schweiz) AG



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The Business Processes

Prior to the introduction of ASSAABLOY's (Switzerland) new Production Information System and its new digital drilling machines, the manufacturing process for keys for its locking systems required twenty different machines. Necessary production information was transported on paper to the respective machines where it was read and inputted manually from job boards.

Today, the company's new digital machines receive production information for jobs in the form of XML files from the company's new Production Information System. ASSA ABLOY developed their Production Information System in-house based on MS Dynamics CRM. Relevant data from their ERP system and from their home-grown Lock Management System are fed into the Production Information System. Information from the ERP system includes data regarding the specific order, BOMs and work piece information while the Lock Management System is queried for data from its database which stores all the designs that have been developed in the last 40 years.

Bar codes on the containers enable the machines to recognize which order belongs to which blank container.

Results

With Magic xpi as a central data hub, ASSA ABLOY (Switzerland) AG has a fully integrated Industry 4.0 landscape that connects three central IT systems for the automation of production orders.

Today, ASSA ABLOY can process about 400 orders per day, an output of approximately 10,000 keys, using its two new digital drilling machines and automated processes.

With Magic xpi at the heart of the company's new fully automated and continuous information logistics system, turnaround time from the job placement to the delivery

of the locking system has shortened dramatically. By being able to deliver customized products faster and more reliably, Assa Abloy enjoys a significant competitive advantage.

Then the blanks for the end products are inserted in the drilling machines and processed automatically according to the data files. Magic xpi Integration Platform serves as the central data hub between the three systems: the ERP, the Lock Management System and the Production Information System. Magic xpi takes the data from the two upstream systems, integrates it in a job file and transfers it to the Production Information System in XML format. The Production Information System transfers the job file to the drilling machines that run it.

"Magic xpi has proved to be an ideal integration solution because its standard connector for MS Dynamics dramatically reduced development time, enabling us to complete the project quickly. It's code-free visual, drag and drop approach lets us see the all the objects and functions, and easily create the business processes we want," adds Erwin Fuchs, Business Development Manager, at Assa Abloy (Switzerland) AG.

Process optimization and the integration of new machines is much easier and faster in the company's new Magic xpi-based Industry 4.0 landscape. The company is now looking to duplicate its success with other product lines and processes.

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