DIGITAL SUCCESS STORIES - CELEBRATE WITH AXSOS
RE-DESIGN AND FUNCTIONAL EXPANSION OF AN APPLICATION FOR THE PRODUCTION OF RAW LEATHER

In 1872 the Rosslederfabrik Otto Bader was founded in Göppingen as a tannery for shoe leather. Later it specialized in the production of upholstery leather - the origin of today's leading leather manufacturer for the global automotive market. Precision and highest material and manufacturing standards have a long tradition at BADER. At the same time, those represent models for the modern self-conception of the Bader family, who today manages the company jointly in the fourth and fifth generation.

More than 12,100 employees work for BADER on five continents. Every day, over 16,750 cattle skins are processed into automotive leather. Leather cuts and seat covers are produced at eleven locations, new products and processes are developed and trendsetting designs and ideas are created. Many things have changed at BADER over the years, but the passion for leather is still the same as it was in 1872.

THE GOAL: THE WORLDWIDE USE OF A PAPERLESS PRODUCTION PROCESS

For central control over the raw leather goods production at the production site in Ichenhausen (Bavaria), a redesign of the application named 'Cowboy' has been realized. The goal was to create a technologically new approach and a new database design to develop an application that can be used on mobile devices, thus enabling a paperless production process. With the open interfaces of the technology, data is not only collected and processed, but also provided for upstream or downstream systems. The multi-client capability of the web application and the flexible master data management also enable the rollout to all global production sites.

INTEGRATED DIGITAL CONTROL WORLDWIDE

FACTS AND FIGURES OF THE PROJECT

Cowboy is a web application with several technological approaches. The main application is realized with the digitization platform AXON Ivy and the frontend with Java Script, which application for sorting with HTML with Java Script. The technology stack consists of:

· Digitization platform AXON Ivy
· HTML with Java Script (RE:DOM and JQuery)
· MariaDB database
· OpenHab
· Siemens LOGO! PLC
· Javalin for Hardware Proxy

INITIAL SITUATION

The previous production control of the tanning process is done by the Cowboy application, with which a purely digital handling was not possible. The control of the process from the delivery announcement of raw materials up to the sorting of raw leather were processed with Excel tables and from these the resulting slips of paper were organized - handwritten additions were made, signed off and manually entered into the application transferred. Data from production machines was handled in the same way, but provision to third-party systems, such as SAP, was only possible manually. This procedure had the disadvantage that quality assurance was equally complex.

SOLUTIONS APPROACH

The re-design was not only developed to improve user-friendliness and meet security aspects, but also to provide an extension to the holistic digital control over the production process for global roll-out. The core of the application was developed with the AXON Ivy digitization platform, which enables end-to-end process modeling of production and enables the connectivity with to third party systems. The central storage of all production data means that all data is available in real time in the various production steps and that various reports can be generated as required. Further process automations are triggered on an event-based basis. The newly developed application for the sorting of raw leather is designed to enable fast and error-free work.