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industrie informatik

Reference Report

MES software cronetwork
at Multivac GmbH & Co. KG

"cronetwork demonstrates the potential for
improving default values and operational processes."

Multivac
Better packaging

We all know products of the numerous Multivac customers, whether blue cheese from Aldi/Hofer, fine Rügenwaelder liverwurst, fresh strawberries or printer cartridges from an electronics shop. With production locations in Wolfertschwenden (Bavaria) and Lechaschau (Austria), Multivac Sepp Haggenmüller GmbH & Co. KG is a leading provider of innovative and customized packaging solutions. Their customers include industrial producers and global concerns as well as medium-sized enterprises and artisan enterprises from various branches such as foods (fresh or processed), sterile goods and other medical products as well as consumer and industrial articles. Founded in 1961 by Sepp Haggenmüller in a garage, today the company employs 3000 people worldwide in development, production, marketing and service.

"cronetwork makes our capacity scheduling better and more precise and also improves default times and optimizes process monitoring."
Gerhard Hein, IT staff member and cronetwork project leader, Multivac GmbH & Co. KG

PRECISE AND SIMPLER RECALCULATION AS MAIN BENEFIT
The worldwide Multivac organization delivers automatic packaging machines and vacuum chamber machines to customers in over 100 nations. Multivac accompanies its customers from initial consulting to development of a technically and economically optimum packaging process to the packaging design.

In addition to Multivac's associated unique know-how, since 2008 the MES software (Manufacturing Execution System) cronetwork by Industrie Informatik, which is connected to the SAP system, provides for high-quality, transparent and on-time production of their custom packaging solutions.

"cronetwork is the Aktions potential for improving our default values and thus visualizing our operational job flows and we can achieve more precise and simpler recalculation," summarizes Multivac IT production manager Wilfried Grewe regarding the main benefits of cronetwork for the production of packaging machines. Today Multivac delivers more than 1100 industrial thermoformers and tray sealers and more than 3200 vacuum chamber machines to customers all over the world and to operationalize these machines.

SELECTION PHASE, PILOT PROJECT AND IMPLEMENTATION
The location in Bavaria completely re-introduced cronetwork plant and machine data collection without needing to consider their installed legacy system. Gerhard Hein, IT staff member and cronetwork project manager for Multivac, regards the situation in Austria: "The existing PDC/MDC system at Lechaschau had fallen out of pace with modern approaches; plausibility checks were not possible at the terminal and the operator had no information available. The interfaces from and to the guiding SAP system were also no longer in sync with the times and always demanded high manual effort."

Especially controlling and production expressed the need for comprehensive and easy-to-use production costing analysis. "Thanks to cronetwork today we have improved and more exact capacity planning as well as better default times and optimized process monitoring," says Hein. The packaging specialists opted for cronetwork after a market study and a reference visit at an Industrie Informatik customer "primarily because of the Web interface, the simple and comprehensible parameterability, and the good references," notes IT manager Grewe). Additional arguments were the use of standard components such as the database Oracle MS Server and Java, the possibility to connect a control panel for production planning, support of network plans, and the certified SAP interfaces.

The complete implementation of the MES solution with the modules plant data, machine data, kpi, time & attendance, analysis, sysadmin, production info, project time [mdash] occurred in the realm of a six-month pilot project covering important areas of the company at both production sites with subsequent rapid introduction and changeover, again at both locations. "With only a few adaptations, defined by us and implemented by Industrie Informatik, in the areas SAP, labels and scales, we cover more than 90% of our requirements cronetwork-Standard ab," explains Hein.

1 Controlling and production at Multivac expressed the need vor MES
2 Multivac: innovative packaging solutions
3 Today Multivac knows exactly how much a project brings in and how much it costs.

VISUALIZATION OF THE COMPLETE PRODUCTION PROCESS

Thereby Multivac and Industrie Informatik realized process integration for secure parallel feedback in cronetwork and SAP based on the SAP interface in cronetwork: Today Multivac personnel report most operations at the 180 feedback terminals for cronetwork plant data collection and some in SAP. However, the latter operations are also passed to cronetwork so that the complete order is always visible there. To prevent erroneous feedback for these operations in cronetwork, an adaption added a lock. Additionally SAP also passes the current status of operations reported in SAP, so that cronetwork always shows order progress for all operations; in other words, the complete production process is shown in cronetwork even for operations that are reported in SAP.

Now the troublesome search for materials in their huge production halls (50,000 m²) is (almost) a thing of the past. Gerhard Hein comments, "Formerly we saw material search as a sort of black box, and sometimes valuable parts were not in their right place and so could not be found because nobody knew who put it where. Today we find parts easily via feedbacks in cronetwork because we know who last had the material in their hands and we can ask where they put it." This is a real advantage, especially considering that the largest machines are made of 10,000 components.

Today cronetwork plant data collection is utilized nearly everywhere in the Multivac production. The cronetwork module project time is available for reporting in programming and in the future also for design operations; the reporting tool production info (Oracle Discoverer) is available for internal evaluations. "The greatest benefit of this MES solution are the feedback of actual status/values as the basis for controlling, the overview of work in progress, the reduction of feedback errors via continuous plausibility control, and the transparency of feedback data," Grewe summarizes regarding cronetwork in production at Multivac.

For capacity scheduling, which is highly important for Multivac, space management in the assembly hall is an important instrument. Gerhard Hein says, "We know that we can produce only a certain number of machines per week, and we can plan on this basis. However, if we suddenly receive many orders for long machines, then we know that things will be tight. Even if we master this in terms of material management and production, then we lack enough space, but we know that also and can reschedule and production in harmony with assembly."

CONNECTION OF 200 PRODUCTION MACHINES

Concerning the functionality of cronetwork, in addition to its flexibility in parameterization and its user-friendly Web interface, Hein sees a particular strength in the automatic connection of over 200 production machines of various types:

HOW MULTIVAC BENEFITS FROM CRONETWORK

:: improved default values, better precision in final costing
:: quickly and easily find materials due to tracing in storage
:: significant reduction of feedback errors
:: targeted planning via storage location management in assembly hall
:: correct assignment of project times to orders replaces black box

"With cronetwork we now have an authentic automatismus that lets us quickly and easily allocate the resulting run times – which cost a lot of money – correctly to the proper orders and projects. Therefore we now know exactly which project brings in how much money and how much it costs us. The times of the black box are gone." This knowledge then directly impacts the area of process control and improvement, as Hein notes: "Based on this important knowledge, in the future we intend to improve our default values in scheduling and capacity planning by building on reliable default values. Today this is still vague and something of an assumption, and on production-to-order it is always more difficult. Using our MES solution gives us many benefits: we have reliable numbers that we can transfer onto projects."

COST REDUCTION

Hein is also satisfied regarding cost reduction: "Today we can see at a glance that a machine is down and can immediately trigger troubleshooting, in case this has not already been done. This might seem like a minor matter, but we did not have it before. Our employees have become more sensitive and are more active and direct in handling such problems. If the disruption is due to the program, it is referred directly to the programmers, who immediately know what needs to be corrected. All this in total leads to a reduction of costs because the entire process goes hand in hand, we are faster and forget less, and so we have shorter or no waiting and down time."

Products: Packaging machinery
Employees: 2500
cronetwork modules: plant data collection
                     machine data collection
                     time & attendance, project time collection
                     KPI, production info
                     sys admin

Additional information online at:
www.multivac.com
www.industrieinformatik.com

Scheduling Board 📅

Graphic scheduling for your production: live, fast and flexible

Plant Data 📋

Low feedback effort for a real-time view & traceability

Machine Data ⚙

Correct data & information automatically

Time & Attendance 🕐

Clear employee administration and flexible scheduling

Business Intelligence ◔

Analyses & evaluations with real-time information

Mobile Applications 📱

Enter and evaluate data from any location

Technology 🗄

Benefits for software owners and users

cronetwork MES:
The data hub for the Smart Factory

cronetwork ®
reliably productive

industrie informatik