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# Reference Report



MES software cronetwork  
at Karsten Daedler e. K.

Industrie Informatik enables tarpaulin customizer  
DAEDLER an overview of production:  
“Now we have optimum planning security.”

# DAEDLER

## optimized planning security with cronetwork

"I like to compare this to a game of cards. If I have five cards in my hand, then I have an overview. If I have ten cards in my hand, I still do. It becomes intense with 20 or more cards. Not later than 30 cards, the system breaks down and I lose my overview. This almost happened to our shop foreman and the production orders," explains Karsten Daedler, owner and CEO of DAEDLER, a family company 30 employees in Trittau near Hamburg, specializing in the production and customizing of classical pond liners, sun sails, protective covers, textile architecture and robust flood-protection systems. To avoid the scenario that he describes, Karsten Daedler decided to introduce a Manufacturing Execution System (MES). In the future

*"For us a small enterprise, acquiring the MES was a huge investment, but it ensures our future and also has more than paid off in a short time"*

Karsten Daedler, CEO

he intends to continue to keep what he promises his customers – for every order and every deadline. To achieve this and ensure reliability of delivery dates,

the company introduced cronetwork by Industrie Informatik, a modern, innovative and reliable support.

### ONE SYSTEM DELIVERS ALL OUR DATA

After a market study, the son of a renowned sail maker decided on this software solution, because all requirements posed for the tool regarding functionality, release-readiness and web capability were totally fulfilled. Likewise, connection to the ERP system was realized with no problems. Karsten Daedler explains his decision for Industrie Informatik: "This MES solution is a SINGLE system that delivers all the data we need regarding orders and personnel. As a customer of Industrie Informatik I feel that I am in good hands, because every question is answered and every wish fulfilled." Today, alongside financial accounting, materials management and merchandising

management of the ERP system, the cronetwork modules scheduling board, plant data collection (PDC) and time & attendance (T&A) compose the IT environment at DAEDLER. "However," says Karsten Daedler, "for us as a small company, acquiring the MES was a huge investment, but it ensures our future and has also more than paid off in a short time."

The heart of the production at DAEDLER is a group of three high-frequency welding machines; with a length of 66 meters, these machines are quite unique in Germany. The welding machines enable handling very long seams with extreme precision, quickly and efficiently. Additionally, these machines record each cycle of the welding and document their correct work in inspection protocols. This machinery group is complemented by additional welding stations, cutters, a tensile testing machine and numerous sewing machines. Fine-meshed quality assurance – inspection of each individual seam and all sewed materials, e.g., for a tarpaulin or a complete circus tent, for tear strength – insures utmost product quality and safety.

In this special production environment, four cronetwork terminals for PDC and T&A are at two locations for employee identification order feedback via barcode. Employees can invoke an additional function at these terminals to display important material-specific documents. The cronetwork production info viewer provides all information about the jobs to be produced. Discoverer reports enable additional evaluations that are available to all authorized personnel in graphical form. Individual evaluations are automatically generated daily on the server. These analyses can depict, e.g., all completed orders of the previous day with corresponding target/actual comparison figures.

### ALL CUSTOMER ORDERS UP-TO-DATE AND AT A GLANCE

Karsten Daedler describes the strengths of the system: "Our plant data collection has given us an in-house quality control system that also benefits our customers." On the one hand the system permanently computes – like a GPS device – production, personnel and machine data such as processing times, piece counts, order status and throughput times. On the other hand, the PDC solution documents each job step down to the smallest grommet and automatically displays interim messages. This enables the company to tell their customers the current status of their orders at any time.

- 1 cronetwork plant data collection in service at Daedler
- 2 Welding machine in tarpaulin production
- 3 Karsten Daedler, CEO
- 4 Produced in only 10 days: 17,300 m<sup>2</sup> blowup for World Trade Center in Dubai



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Today cronetwork virtualizes all tasks and decomposes every order into individual operations. A new order is immediately, automatically and optimally integrated into the job flows – from the start date to the end date and from exploration to shipment. “Likewise, finding a qualified employee for a certain order and the best possible utilization of our machines and personnel are considered as well,” explains Daedler.

Integration of orders into job flows affects forward scheduling based on the start of an order, as well as backward scheduling based on the delivery deadline.

#### HOW DAEDLER BENEFITS FROM CRONETWORK

- :: comfortable support in production planning
- :: optimal planning security
- :: clear reduction of throughput times
- :: high transparency in production
- :: optimized reliable delivery schedule, which is essential for us

In the situation before the introduction of cronetwork, the ERP system delivered the orders in a way that encumbered the scheduling board in visualizing work progress. Mid-2011 the order structure in the ERP system was changed and the interface to the Manufacturing Execution System was adapted. Karsten Daedler reports: “The ERP system now also delivers the operation relationships between the orders, so that scheduling board can display and consider dependencies between orders. Now we can better see the progress of a customer order in scheduling board.” This was the case with blowUP media project GmbH.

For this job, DAEDLER as partner of the print and media service provider Kleinhempel (Hamburg), set a spectacular production record. The task was to produce a huge 17,300 m<sup>3</sup> monster placard, a blow-up, for the World Trade Center in Dubai in only two weeks – where Karsten Daedler had initially calculated ten weeks. Karsten Daedler outstripped even this tight timing and with his team produced the huge textile in only ten days from 164 rolls of 130 meters length and 8 meters width. The gigantic placard was produced especially for den Sheik Mohammed Bin Rashid Al Maktoum for the first anniversary of his taking office and depicted a huge special-issue postal stamp with a portrait of the Arabian statesman. “The whole project was a fantastic human achievement right up to the Just-In-Time delivery,” reflects Karsten Daedler, “but without MES with its planning strengths, it would not have been possible.”

#### SIGNIFICANT SAVINGS IN TIME AND COSTS

At DAEDLER, planning is (almost) everything, or, as Karsten Daedler formulates: “The electronic scheduling board and T&A

are our main arteries.” Decisions regarding when shift work is used, which shift patterns are worth considering, or how many shifts need to be engaged are crucial to the make-to-order manufacturer DAEDLER. Precisely this important information emerges from the MES, so that the high-risk and person-dependent gut decisions are a thing of the past. The positive result for Karsten Daedler and his team: “Thanks to the exact data from cronetwork, in addition to significant time savings, we also have an immense reduction of costs, for over and over again we had seriously bad decisions that really ran into lost money. With MES, we now have a handle on that.” In T&A the times are entered at the online terminals, which are also used for PDC. The current schedule overview – who is working in which shift pattern, who is on vacation and who is sick – is at a central location on a TFT monitor for all employees to see. Karsten Daedler says, “Today we have an optimal planning security due to significantly better detailed and shift scheduling – and no more dead shifts.” Indeed with the MES solution DAEDLER elevated the entire issue of work time to a new, higher quality level. In addition to individual time accounts and vacation planning, the system also contains complex overtime rules with the individual overtime bonuses as well as eight work time models, so that today with little effort every employee “receives correct pay punctually and error-free for the time that they work” (Daedler).

In 2011 DAEDLER processed 1.5 million square meters of material, a large part of which was for textile roofs for biogas plants. The CEO reports: “The volume of orders in the field of biogas plants in 2011 would have been impossible without the MES. 2011 was the best year of our company history.” The company managed its record year nearly stress-free. The reason can be found in the user-friendly MES: DAEDLER was able to schedule three shifts and at peak times could arrange temporary workers. nothing stands in the way of additional record years at DAEDLER.

Products: Tarpaulins and foils (classical pond liners, sun sails, protective covers, textile architecture, flood protection systems)

Employees: 30

cronetwork modules: scheduling board, plant data collection, production info, time & attendance, work center monitor



Additional information online at:

[www.daedler.de](http://www.daedler.de)  
[www.industrieminformatik.com](http://www.industrieminformatik.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



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