

Performance Made Efficient: Leading German Electronics Manufacturer Leverages QAD to Transform its Business

The Company: PCB Manufacturer With 50-Year History

KSG Leiterplatten GmbH (KSG) is one of Germany's leading manufacturers of printed circuit boards, or PCBs. Its customers include companies from the industrial electronics, automotive, medical technology and communications technology industries as well as the entertainment electronics industry.

The company, formed as Elektrogerätewerk Gornsdorf in 1956, was run as a state-owned company until being re-privatized in 1993. Headquartered in Gornsdorf, Germany, KSG currently employs around 360 people.

The Challenge: Shifting Political and Economic Structures

In order to keep up with global competition after the German reunification, the company had to completely realign its organizational structure in 1990. In the course of this process, all manufacturing areas were to be mapped via an enterprise solution. Not only were the existing programs designed for the controlled economy, but also it was obvious that the existing infrastructure would have to be replaced by an integrated solution for all the relevant business workflows.

The Solution: A System for Today's Global Manufacturing Enterprise

Working with a third-party consultant, KSG drafted a requirements profile that formed the basis for the evaluation process. It soon was clear that QAD Enterprise Applications fulfilled all the core requirements:

- Very good coverage of materials management and purchasing, sales and logistics, production planning and control as well as the associated master data maintenance
- The existence of all required functions in terms of single-unit production and serial production
- Exact mapping of work schedules and bills of material
- Good price-performance ratio
- Modular integration of the solution
- Transfer of data from the legacy systems via ASCII interfaces

"In our search for an ERP solution, the price-performance ratio naturally played a major role. In addition, our ideal product was to be based on standards, so that we could connect and extend other solutions as required," says Jens Griger, Head of Technical Services at KSG.

"The most practical aspect of working with QAD Enterprise Applications is that we can store all data in the same system and access it any time we want. We can also adapt, sort and filter data and export it to Excel."

An internal project team from KSG worked alongside the external consulting team to implement the QAD system. The modules for purchasing, selling, material master maintenance and inventory management were taken from the standard offering, and various adaptations were added for the implementation and maintenance of work schedules and bill of materials. In these cases, the variables of the individual process steps had to be mapped exactly and integrated into the calculation of the processing times for each stage of the work. The QAD solution was complemented in the commercial area with third-party software for financial accounting, payroll, asset accounting and cost accounting, processed via a separate database.

The Benefits: Unifying the Operation

Over the years, KSG has created additional interfaces to its computer aided manufacturing systems, as well as those for quote processing, time recording (holiday database) and reporting.

"We began in 1991 with QAD Enterprise Applications version MFG/PRO 5.6 and since then we have consistently migrated every two or three years to the latest version of QAD Enterprise Applications," says Griger, describing the historical development of KSG's QAD solution.

Today, different production stages are also mapped by the QAD system – the standard solution was supplemented with in-house programming for this process.

“Thanks to QAD we have been able to reduce our production times significantly. Ten years ago we needed 20 man-days on average to process an order, but now we just need six days for an internal order. The savings that we achieve through this are enormous. Yet just as important is the fact that this also enables us to respond to our customers’ requests very quickly,” says Griger.

KSG can carry out extensions in the area of work schedules and bills of materials itself through individual programming or by having this programmed. This especially concerns additional parameters in the material master which are required to calculate the production times on the basis of variables. In this way, the company can very accurately calculate capacity utilization of the production facilities and improve costing. And, all data relevant to production is stored when the work stages are reported back to the QAD system without the use of an additional BDE system.

“Thanks to QAD we have been able to reduce our production times significantly... The savings that we achieve through this are enormous.”

Jens Griger, Head of Technical Services, KSG Leiterplatten

“The most practical aspect of working with QAD Enterprise Applications is that we can store all data in the same system and access it any time we want. We can also adapt, sort and filter data and export it to Excel,” says Griger

The Future: The System Evolves with the Business

At the end of 2006, the KSG project team finalized the migration to QAD Enterprise Applications version MFG/PRO eB2.1. For the version changeover, a time window of three months was needed to adapt all the individual programs to suit the domain concept. A Web-based graphical user interface was integrated into the overall solution, making it simple to transfer Microsoft Excel files directly from the QAD system.

Highlights

Company

| | |
|---------------------|-------------------------------|
| Company Name | KSG Leiterplatten GmbH |
| Industry | Electronics / Industrial |
| Products | Printed circuit boards (PCBs) |

Solutions

| | |
|------------------------------------|---|
| QAD Enterprise Applications | QAD MFG/PRO eB2 .1 QAD EDI eCommerce QAD Release Management QAD QXtend |
| Hardware | HP9000 RP3440 |
| Environment | HP-Unix 11.0 |
| Languages | German |
| Number of Sites | 1 |
| Time-to-Benefit | Immediate |

Results

- Significant reduction in production times
- Standards-based, integrated ERP solution
- Quick response to customer requests
- Improved coverage of materials management and purchasing, sales and logistics, production planning and control as well as the associated master data maintenance
- Ability to handle both single-unit and serial production
- Exact mapping of work schedules and bills of material
- Data consolidated in one system
- Fast, easy access to data
- Ability to quickly adapt, sort and filter data and export it to Microsoft Excel

“In the future, we will also examine the possibility of using the financial modules of QAD Enterprise Applications and the standard programs to process consignment warehouses. The interfaces and in-house extensions we used in the past for this would no longer be needed. We could also achieve a higher level of integration of company data and, at the same time, reduce our expenditure with the next release change,” says Griger.