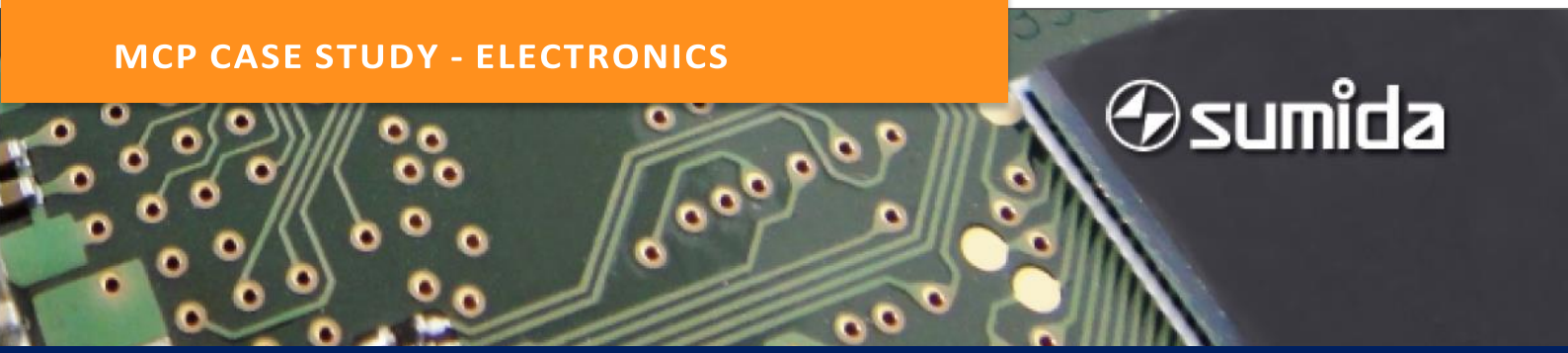
management consulting partners

MCP CASE STUDY - ELECTRONICS



Sumida AG:
Global electronics producer improves key performance indicators by use of Preactor

The Sumida AG is a leading company in the electronic sector. It develops, manufactures and sells inductive components, modules, assemblies and complete systems. With development, production and sales locations in China, Germany, France, the United Kingdom, Eastern Europe, Mexico and the USA, Sumida AG is a globally competent partner for all services relating to electronic production.

Sumida AG focuses on three different markets: automotive, industrial and consumer electronics.

From individual problem definitions to standardization – many of the trend-setting inventions came from SUMIDA AG, for example, today's customary high-voltage igniters for Xenon headlights in automobiles.

At the Sumida-site in Lehesten between 150 and 200 employees are working in the production department. The site's main business is the production of small- to medium-numbered batches of special electronic parts for automotive, industrial and consumer use. The factory is confronted with production orders of long-term contracts as well as production orders which arrive on short notice.

Missing overview, high manual effort in planning and an only very basic planning logic within the existing system call for an improved planning software solution

The existing planning software for production planning and scheduling was set up in two systems: the ERP-system and a basic version of Preactor. Planning Results of the Preactor solution were sent to the ERP, but manually changed within the ERP. In addition, all changes done in Preactor were deleted each day when planning data from the ERP-system was re-loaded.

Several other aspects had severe effects on the shop-floor:

- Due to the manual changes of the production schedule in the ERP, the shop floor didn't work with the planning results of Preactor but with the ERP
- Due to the lack of planning logic – e.g. rules for automatic priorization of production orders - the planning department was often

Company and product

Sumida AG at Lehesten (Germany) produces electronics for Automotive, industrial and consumer use

Key challenges

- Missing overview and transperency
- Broad variety in products and small- to medium sized batches
- High manual effort in planning

Solution

Preactor was implemented with a full interface to the AS400 ERP – system. Continuous improvement of planning logic to improve KPIs.

Key Benefits

- Advanced sheduling logic significantly improves KPIs
- Automated communication between ERP – APS – shopfloor enables short reaction cycles and reduces need for

System architecture

AS400

overstrained to set up a correct schedule - delays of important production orders were the result.

- There was no feedback from the PDA (production-data acquisition), which let to wrong scheduling orders in Preactor since it didn't know which orders already started

Together with the consulting partner MCP in Vienna, a project was set up to find innovative solutions to solve these problems and to improve KPIs. New planning logic radically improves the result and reduces the amount of work for the planning department.

A new scheduling logic has been introduced

Instead of considering the production order as a whole, every single process step is now considered in the production schedule of the planning software: start- and end-time and the processing time (the correct time per unit is calculated depending on lot size by Preactor) are now taken into account on a process step basis. In addition the planner can still overrule the schedule manually if needed.

A link between the shop-floor and Preactor was established

The start and end of a production order is now visible for the planning department. This has dramatically reduced the workload of the planning department, since a check-up on the shop-floor is no longer necessary.

The lot size is optimized by Preactor

To better utilize the capacity, an automatic adjustment of the lot size - based on the availability of staff and equipment - was implemented. This complex set of rules improved the overall equipment efficiency of the site.

To communicate the schedule to the shop-floor an automatic report and print-job was created. On a daily basis all machines and equipment are listed - separated by early, late- and night-shift - including the scheduled production orders and all additional information that is needed on the shop floor.

All these improvements dramatically enhanced the trust and satisfaction of the employees in the new planning solution. Instead of working in two systems all scheduling work is now done in Preactor. It also led to a considerable improvement of the relevant KPIs such as Working Capital and WIP. Mister Hans Franz, head of the planning department at Sumida Lehesten: "Preactor helped us to improve our on-time delivery rate and our productivity significantly. This strengthens our position in the market and our competitiveness."

The future: continuous improvement of the system and the planning logic

The current level is not the end of the road: The successful implementation by MCP GmbH and the positive impact of Preactor convinced the management of Sumida Lehesten to set up a process of continuous new developments within the tool.

Key Benefit

On-time-delivery rate moved up from 45% to 98%.

Key Benefit

Average make span was reduced from 13 to 5 business days – an equivalent of 60%

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>
> *Hans Franz, head of planning, Sumida Lehesten*

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