



Attracting Tomorrow

www.tdk-electronics.tdk.com

ELECTRONICS INDUSTRY

SUCCESS STORY

Customer information

TDK Electronics, a subsidiary of the TDK Group, is a leading global supplier of electronic components and systems with around 20 development and production sites in Asia, Europe, North and South America, focussing on technologically demanding growth markets in automotive, industrial and consumer electronics, as well as information and telecommunications technology. Based on comprehensive materials expertise, TDK Electronics promotes the transformation to a smart society under the motto "Attracting Tomorrow".

MCP is a management consultancy specialising in supply chain planning and production planning. We support our customers as process consultants and as a software implementation partner of Siemens Digital Industries Software. Siemens Digital Industries Software is one of the largest software providers specialising in production-related software solutions such as PLM, MES, QMS and APS. The software solutions include the Opcenter APS for Advanced Scheduling used here.

Problem definition

With the existing detailed planning based on SAP, specific solutions or Excel lists, the increasing requirements can no longer be covered in the long term due to the high number of variants and several capacity restrictions (man, machine, material, production resources). This is aggravated by the fact that short-term customer enquiries and the production of prototypes with planning times that are difficult to estimate repeatedly cause changes in the short-term planning horizon. Further automation of planning should increasingly replace manual work steps.

A new approach should also lead to overall transparency and further increase the ability to react in production, as well as improve the capacity view in detailed planning. As a result, manual effort in planning can be reduced and the results for production-relevant KPIs can be improved.

In order to realise potential for improvement, TDK Electronics decided to optimise production planning in its plants through a holistic approach and the introduction of software specialising in rough and detailed planning. As part of an evaluation, the Opcenter APS software from Siemens Digital Industries Software and the appropriate software implementation partner were selected.



mcp
ALGORITHM FACTORY



Decision factors for MCP

1. Industry know-how for CIP consulting and process optimisation
2. Experienced consultant for Opcenter APS
3. Project methodology with a focus on standardisation and synergies
4. Expertise in algorithmics through collaboration in a renowned research laboratory
5. Process optimisation, implementation and maintenance from a single source

MCP ALGORITHM FACTORY

Production without waste

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Decision factors for Opcenter APS

1. Powerful out-of-the-box functionality
2. Flexible, highly configurable and expandable
3. Traceability of the planning results by the user
4. Reliable tool fit for very different factories thanks to use in all branches of industry



Starting point for process analysis

Previous processes were analysed in analysis workshops and later digitised in Opcenter APS.

Goals

1. Improvement of key figures
2. Independence from individuals
3. Standardisation of working methods and evaluations, intuitive working with the software
4. Reduction of planning effort through automation
5. Elimination of sources of error in the manual planning process
6. Reusable modules
7. Facilitated transfer of expertise between plants through the implementation of standards

Solution

Opcenter APS is already being used successfully at two TDK Electronics sites in Austria and Hungary. TDK Electronics has now commissioned the planning specialists at MCP to provide tool and process consulting for two further sites in Germany and Indonesia. The resulting solution should be easily transferable to other locations and always remain adaptable to local requirements. At the same time, TDK Electronics is creating a standardised SAP interface for Opcenter APS and other third-party systems (such as MES).

APS - TOOL

✓ Opcenter APS Ultimate Advanced Scheduling

Course of the project

Firstly, a process analysis was carried out with the TDK Electronics sites in Batam (Indonesia) and Berlin (Germany) in order to define the target processes based on the actual processes. The specific requirements for the planning logic were then defined and the design of the solution developed. Opcenter APS Advanced Scheduling in the most powerful Ultimate version was selected for the implementation.

An initial data extract from SAP was quickly imported for testing purposes. This allowed many functionalities and processes to be simulated and analysed using known resources and order information.

An agile project approach made it possible to divide the various modules into sprints. This method, which has proved very successful for APS projects, allows content to be prioritised very flexibly. New findings and unplanned obstacles are also dealt with very quickly. With the help of accompanying release tests at the customer's premises and detailed user documentation, key users are able to operate the software within a few days.

In addition, it became clear at an early stage of the projects what tasks the respective plants have in optimising their data quality and processes. These measures not only benefit planning, but also other business processes.

Parallel to the implementation of the production planning software, experienced process consultants gather the necessary information on all production processes. This allows the company to be supported in a continuous improvement process over many years.

Conclusion

With four plants already using and planning Opcenter APS, TDK Electronics is laying a solid foundation for the global and homogeneous digitalisation of production planning. Each additional plant will benefit from the experience gained from the projects already completed and from the existing solutions.

Plans for projects and rollouts at other TDK Electronics plants are already underway.

PROGRAMME MANAGER



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