

Increased capacity using identical equipment

Optimized task fine-tuning using GANTTPLAN in the area of production planning for commercial vehicle parts at Frauenthal Automotive Elterlein GmbH



Significantly increased efficiency

The company

Frauenthal Automotive Elterlein GmbH is a part of the Frauenthal Automotive Group, a European market leader in the area of chassis and pressurized air systems components for the commercial vehicle industry (see overleaf).

Frauenthal Automotive supplies all leading commercial vehicle manufacturers in Europe. At the Elterlein location, approx. 200 employees produce pressurized air containers, primarily consisting of steel, but also made of aluminium.

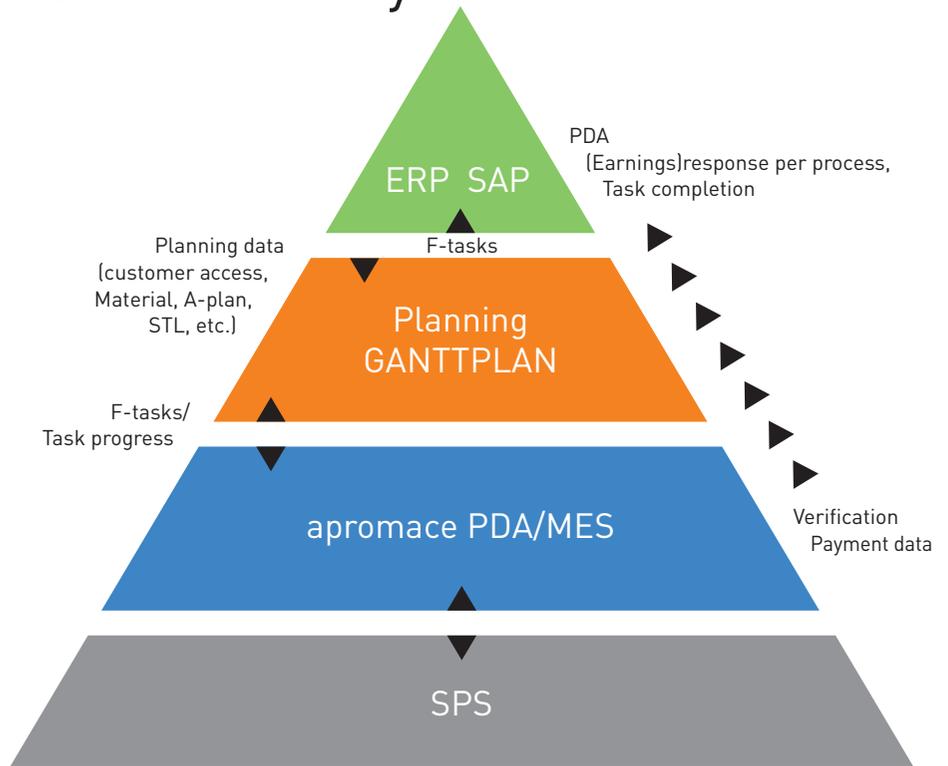
These pressurized air containers are used by five OEMs, who also produce commercial vehicles, for their own brake systems, lifting axles, and transmission systems.

The facts speak for GANTTPLAN

In 2009, a comparison of MES' (Manufacturing Execution Systems) featuring integrated planning systems was carried out within the scope of a graduate thesis, and a related request for proposals was prepared. The offers submitted by three companies were finally selected. According to a statement from Frauenthal Automotive Elterlein, two criteria were decisive:

GANTTPLAN is simulation-based and therefore offers the option to create a nearly perfect plan for a short period of time independently and automatically using iterative methods. For this purpose, GANTTPLAN includes its own material resource planning run (MRP run). The second most important advantage of GANTTPLAN is its ability to optimize lot sizes during planning.

Production Manager Daniel Kratzsch: „We use GANTTPLAN to fine-tune our task planning. Most systems on the market work with the



SAP-GANTTPLAN-apromace flowchart

planned tasks recommended by the ERP system. In contrast to this, GANTTPLAN is special because it is able to import customer tasks and then use these to generate individual, single lots of production tasks that ideally match each other independently, therefore reducing equipment fitting times.

The ability to optimize lot sizes during planning is an important unique feature of GANTTPLAN. The price and regional proximity were also attractive, as well as the references given by the provider, DUALIS IT Solution. Furthermore, GANTTPLAN's option to connect the APS (Advanced Planning and Scheduling) system to the PDA (Production Data Acquisition) system using an individually developed solution ultimately convinced us."

Application

At Frauenthal Automotive Elterlein GmbH, multiple alternative production lines are used for manufacturing. The ability to place the components onto

the correct lines at the right moment plays a decisive role in production efficiency. This is the core of fine-tuning tasks using GANTTPLAN in Elterlein, and that's exactly what the software is able to do, even though production volume has increased significantly since it has been introduced.

Since 2008, prior to the introduction of GANTTPLAN, the number of customers, different lots, and components that need to be coordinated has seriously increased.

While the scope and complexity of production clearly increased, the former task planner of many years was retired. Due to this fact, additional new employees were required in the planning department, and tolerances and planning errors needed to be considered in spite of this. The use of this tailor-made, customized program now makes planning continuous, independent, and nearly perfect.

„GANTTPLAN clears up capacity bottlenecks. Where other systems plan in a way that overloaded machines only become apparent after the fact, GANTTPLAN already creates a realistic production plan during the optimization process independently.“

Daniel Kratzsch, Production Manager

IndiviDUALIS solution for Frauenthal Automotive

The implementation project started in 2010. After extensive coordination, GANTTPLAN Standard was customized to match the requirements of the production processes in Elterlein. The complete solution has been operating successfully since 2012. While customizing the software, cooperation between DUALIS IT and apromace data systems in Freiberg, Germany, also played an important role.

The upstream program for production data acquisition is connected with GANTTPLAN. This makes weaknesses in the production data acquisition system easier to recognize. The production process is mainly controlled by SAP, which is also the location of the master data. Customer task data moves from production data acquisition to the task fine-tuning in GANTTPLAN, and then it is transferred back to SAP and the production data acquisition system.

Benefit and results from using GANTTPLAN

The growing product range has resulted in a lack of planning-relevant reference values from the past. Nevertheless, it is clear that in spite of nearly five times the level of complexity, equipment fitting times have remained consistent and are even dropping. According to Manager Detlef Schubert:

„Prior to installation, there were 75 final products that required six production lines. Today, we are able

to produce 350 final products on only seven production lines. In addition to this, production costs have been halved; where full-time 1.5 planners used to be required, now only 1 employee is required for 6 hours.“

The cause of this is apparent in the dynamic nature of GANTTPLAN's optimization of equipment fitting times. In terms of fitting time optimization, it is clearly superior to other software.

„2011 was the year with highest level of production quantities to date. Two years ago, we would not have been able to produce at this level with our capacity at that time.“

Detlef Schubert, Manager

A good example is how they now combine article groups featuring the same diameter when welding the casings of pressurized containers optimally in advance, which saves repeatedly refitting machine equipment.

Outlook

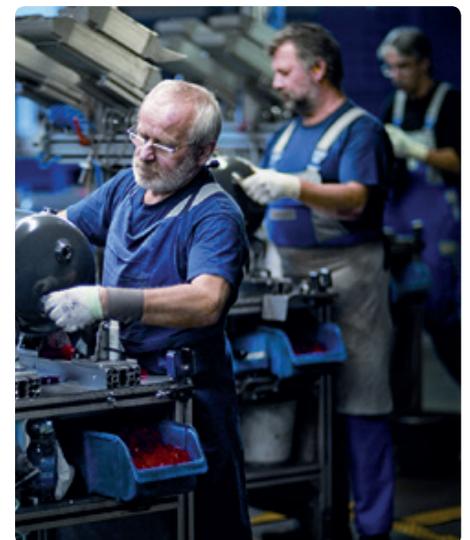
Production Manager Daniel Kratzsch is excited with the cooperation with DUALIS IT Solution:

„GANTTPLAN has been running independently and stably for some time now. Our requests and suggestions flow into upcoming further developments.“ The success of GANTTPLAN implementation is being observed closely

at Frauenthal Automotive. Manager Detlef Schubert: „By complementing the production data acquisition service and SAP with an APS program, we became the leader in our group. Implementation was a long process, but it quickly paid off. For this reason, GANTTPLAN will now also be introduced to a second Frauenthal Automotive location in Sibiu/Romania, specifically for planning the production of commercial vehicle leaf springs.“

A new request for proposals was announced for this purpose, and the cooperation between DUALIS IT Solution and apromace data systems was successful in this case as well.

The previously completed introduction at two of the group's plants gave DUALIS an advantage during the selection of detailed planning software for additional Frauenthal Automotive locations, chuckles Schubert.



Final assembly of pressurized air containers

At Frauenthal Automotive Elterlein GmbH

Frauenthal Automotive Elterlein GmbH is a part of Frauenthal Automotive Group, one of Europe's market leaders in the commercial vehicle supplier industry. Nine production locations in seven European countries develop and produce Frauenthal Automotive chassis and pressurized air systems components for every leading European commercial vehicle manufacturer. This includes, in a market-leading position for each category, leaf springs, stabilizers, brackets, steel pressurized air containers, and speciality aluminium and stainless steel pressurized air containers for braking systems. In addition to years of know-how and a partner-focused relationship

with customers and suppliers, consistent customer and quality orientation and a dedicated philosophy of continuous improvement in the Frauenthal Automotive team form the basis for a high level of skill in development and innovation.

This international company is headquartered in Vienna, Austria, and it represents one of two business areas of Frauenthal Holding AG. Frauenthal Holding AG's publicly traded shares and bonds trade on the Vienna Stock Exchange.



Katrin Gross, Aluminium Production



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The DUALIS GmbH IT Solution

DUALIS GmbH IT Solution specializes in the development of simulation and planning software. The Dresden-based company was founded in 1990 to deliver services and innovative solutions to companies in the manufacturing sector. The company's steady growth is based on successful projects with well-known European enterprises with resulting technology and service refinements that continue to contribute to today's success and widespread use of the product range.

GANTTPLAN and the ISSOP are used for detailed planning and optimization of manufacturing processes. SPEEDSIM and 3DCreate, deliver 2D and 3D planning and optimization of production and logistics facilities. The



user profits in many ways from the application of these tools. Software based planning optimizes material stocks based on customer orders, and order can be more precisely planned for on-time delivery. A plant design supported by simulation technology cuts costs throughout the system's lifecycle, increases confidence, reduces operational costs, and is a very compelling sales tool.



Your way to
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