

Success story
Koller Formenbau GmbH

Koller Formenbau enjoys the reliable and transparent planning of ProLeiS



ProLeiS permits manufacturing planners to efficiently schedule their valuable machine capacity. You can immediately see and verify with data whether capacity is still free to accept contract work, or whether it's advisable to outsource partial orders on „extended workbenches.“ This gives the company “room to breathe.”

Any company that wishes to be accountable about deadlines, availability and prices must have their numbers, data and facts up to date. At Koller Formenbau in Oberbürg, Germany, the ProLeiS organization and planning system from Tebis delivers compelling results with a high degree of adaptability and transparency.

Until just a few years ago, all of the data and processes at die manufacturer Koller in Oberbürg were “stored” mostly in the minds of the planners. Coordination between planners and the actual production was ad hoc. Even today, this still isn't an unusual situation in die manufacturing.

“It even worked surprisingly well. But this system kept hitting its limits,” explains Fabian Schmittlein, one of the employees responsible for manufacturing and production planning at Koller. “Coordination was a time-consuming process in meetings or ‘on the fly,’ you could never be completely sure you had the current data status, and it was anything but transparent for our colleagues in production.”

Excel spreadsheets were implemented as a stopgap, but they quickly became confusing as projects progressed. That's because die projects continue to become increasingly extensive and complex.



Thanks to ProLeiS, employees in assembly and try-out also have a clear overview of their upcoming tasks, and they can plan optimally.

Networking and reducing workload through digital solutions

Those responsible started to search for a software solution that would support their planning capacities and processes in production, always provide the latest data status and ensure transparency all the way to the machine operator. And because Koller's accounting and ordering uses SAP, a real-time interface to the world of this standard business software was also a must.

At the AMB industry trade show in Stuttgart in 2018, a team with production manager Ferstl, Georg Sippl, the head of the work scheduling and workbench department, and die manufacturing sales and production planner Schmittlein got a comprehensive overview of all the relevant systems on offer there.

ProLeiS integrates processes from real production

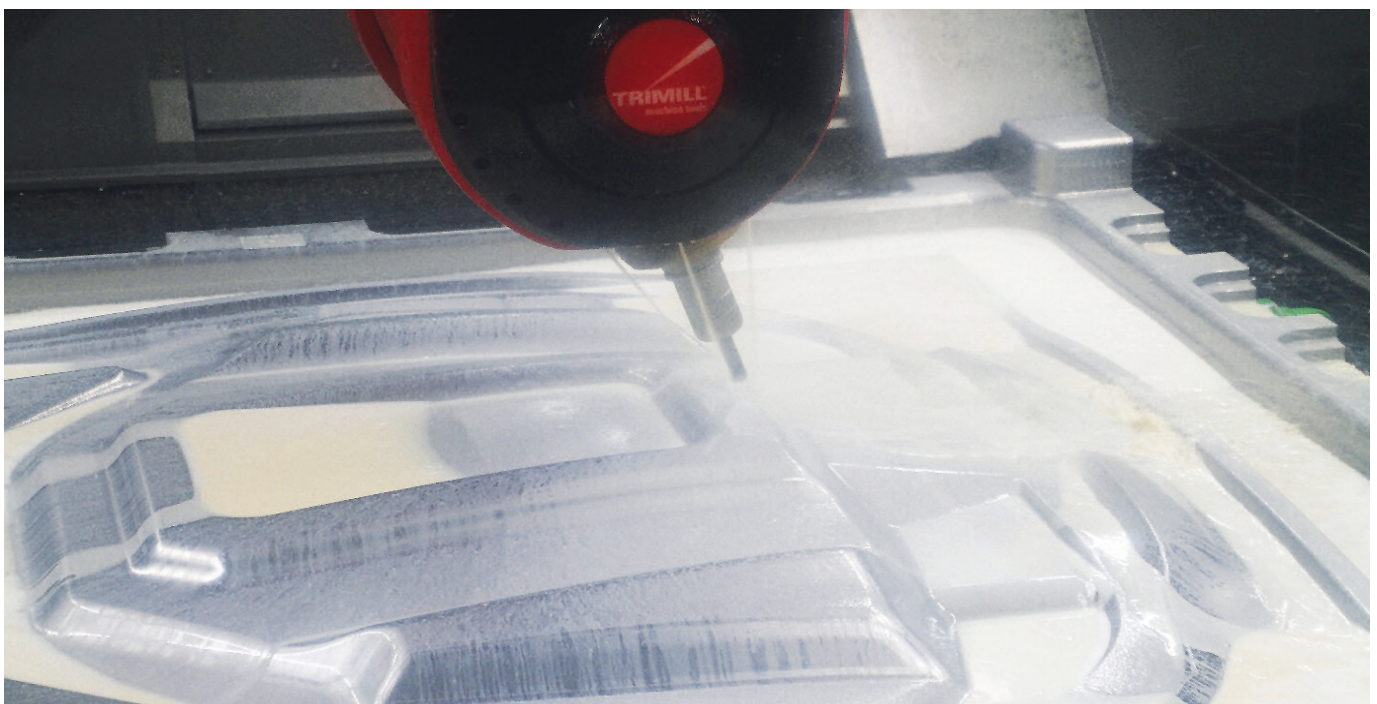
There were ultimately two solution packages that met their specifications. "One of them was presented as a standard system with a relatively rigid framework," Schmittlein explains. "It was admittedly the much cheaper of the two options." Nevertheless, the decision was made in favor of the other option: ProLeiS MES software from Tebis. And with good reason.

"With the system that initially appeared to be less expensive, we would have had to completely modify our processes and procedures to fit the system's structures," Schmittlein says. "It was different with ProLeiS: The system accepted and integrated our existing processes that we had coordinated over many years of practice."

Adjustments were only made in a few places: "We analyzed our processes along with the experts from Tebis Consulting," the manufacturing planner reports. "Where we needed to make changes, the specialists transparently determined the added value for us and recommended optimized solutions."



Fabian Schmittlein, process planner at Koller Formenbau: „We always find that ProLeiS has an open mind for improvements. Anything reasonable and feasible is quickly implemented.“



Die manufacturers get access to a high-performance machine pool that includes two state-of-the-art Trimill VF 3021 machines working alongside other large machines. ProLeiS helps ensure optimal utilization of this investment.

Success story
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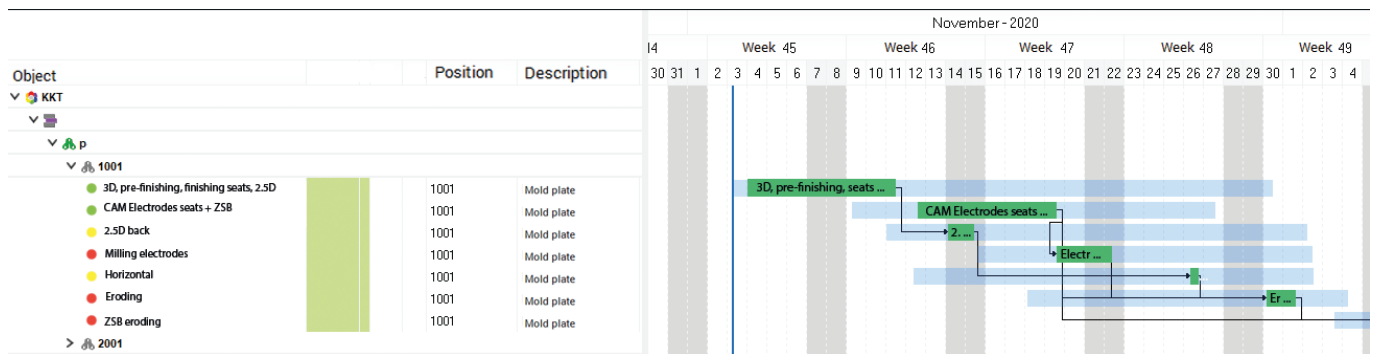
Optimized processes through transparency

For example, each department was already optimized on an individual basis, but the overall picture was lacking. “Every department head was interested in optimal utilization of their machines,” Schmittlein recalls. “And because it was difficult to coordinate, it was typical for some parts of a die to be finished and getting in the way, while other necessary components in another area of responsibility weren’t even

on the machine yet.” This was the result of prioritization differences by those responsible.

Now the situation is completely different. ProLeiS ensured optimization across the entire process chain: other department’s circumstances become transparent. This gives an overview of the process chains and the current status of all projects, including all the individual components. Armed with this data, planners at Koller can

now define the optimal solution for entire processes and ultimately for the entire company – essentially with the click of a mouse.



No more guesswork: A traffic light system visualizes whether everything needed to start an order is available and how far the individual work steps have progressed. Individual employees can instantly see where they can continue working.

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Revealing effects of deadline changes by simulation

“The biggest advantage from our perspective is the ability to simulate processes and changes,” Schmittlein emphasizes. “If the customer needs a die two weeks earlier than agreed, can we manage it, and what will it cost us? In the past, this was a question we couldn’t answer conclusively. Of course, everyone had their gut feeling and a rough idea of the effects of the changes, and what could be done in terms of

scheduling. But ‘rough’ also means that in some cases you’ll be off by just one critical step. And then there’s sure to be trouble.”

This has changed fundamentally with ProLeiS. “Whether it’s a deadline change, a last-minute order or the failure of a machine or supplier: Just a few mouse clicks in the system gives us a transparent overview and we can give the customer a clear answer,” says Schmittlein. “And internally, we also have a very precise

picture of what we can ask of our machine operators – and whether it might make sense to outsource partial contracts to reliable partners. Or conversely, whether our capacity situation would allow us to take on subcontracted jobs on our machines.”

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Cost planning and documentation

Even better: "All decisions are based on facts. They can be transparently tracked and documented," Schmittlein affirms. "This doesn't just apply to changes and other events, by the way." In addition to time scheduling and capacity planning, cost planning is also transparent: "You can immediately see in Euros and cents where a project stands in terms of costs, and also the effects of any changes. This means reliable long term planning as well. It also strengthens our role over the long term as a reliable partner for our customers."

In the past, Schmittlein recalls, the customer's schedule often had very little impact on the agenda that die manufacturers followed internally. "We decided to implement a milestone system with ProLeiS," the manufacturing planner explains. "With transparent controlling mechanisms, we can now very easily determine just how far a project has progressed at this instant, for example. And how costs are developing, among other things. This also gives us confidence in our discussions with our customers."

Flexible processes and reasonable adjustments

Of course, the system wasn't running this smoothly from day one. "In the triangle of costs, time and quality, ProLeiS weights the delivery



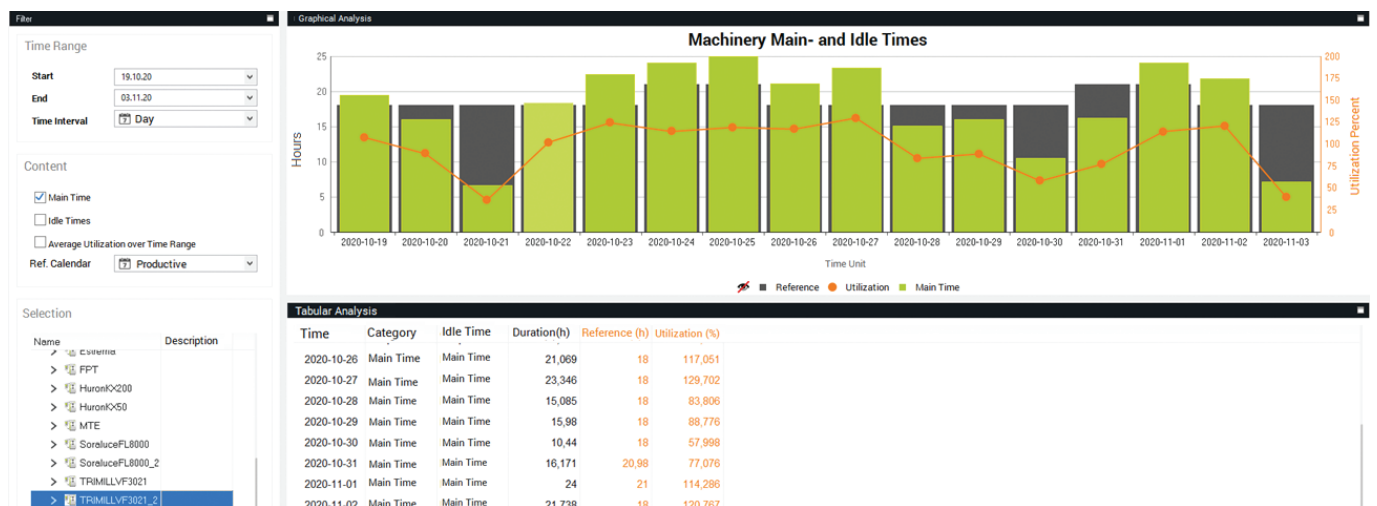
Optical instrumentation for quality assurance is now a part of daily life for large die manufacturers. The data are carefully recorded, and not just for the customer.

date heavily and tries to match all processes to this parameter," says the production planner. "Machining sequences were initially adopted rather rigidly. However, we view it as a more 'fluid' process: We need a little flexibility in order to optimally utilize our machines while still focusing on the delivery date. The ProLeiS team has developed extended options for us so we can provide alternatives in the processing sequence and integrate them as needed."

Overall, those responsible in Oberbürg are very pleased with the flexibility of their

ProLeiS partners. "We find that they always have an open mind for improvements," Schmittlein says. "Anything reasonable and feasible is quickly implemented."

Employees in production were also included in the process from the start and could contribute their ideas. "Of course, some had initial reservations and fears," Schmittlein remembers. "But the benefits quickly became clear, and now no one wants to work without ProLeiS."



The planner can now evaluate immediately the precise utilization of a machine and where there's potential for optimization. Trusting your gut feeling is okay. But facts are simply better.

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Up-to-date data and paperless manufacturing

Manufacturing at Koller had already reduced its use of paper even before ProLeiS. Now, no paper whatsoever is used. “Of course, we initially had some veteran machine operators who preferred to check off their bills of materials on paper, and who didn’t want to place their full trust in the software,” the manufacturing planner reports. “That has since changed, and parallel lists made by hand have largely disappeared. The benefits of ProLeiS are finally completely apparent to employees.”

Individual planning view

The machine operator can now see exactly what’s waiting in the queue for processing on their machine in the near future. It’s shown transparently if all the required material is available, if the programs are ready and much more. “In the past, you had to go to the boss for this information – and if he wasn’t there, you were out of luck,” Schmittlein explains. “ProLeiS has all the relevant information available by just glancing at the viewer. And it’s always up to date.”

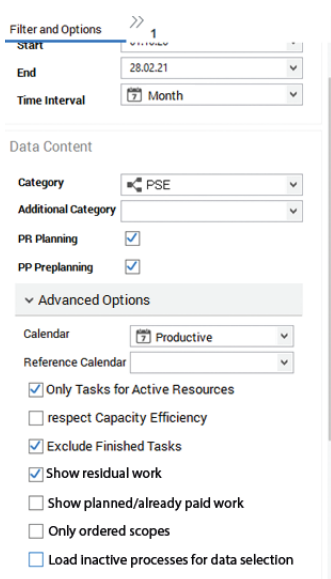
A traffic light system displays the status immediately. Red means that nothing is available for the order yet. Green means that the order can be processed, and yellow means that something is missing – and you can see exactly what it is and who to ask about it. “This gives employees all the information they need to act independently based on a comprehensive overview of the company,” explains Schmittlein.

Automatic data transfer into ERP system

The connection to SAP has also been implemented. “We have series production in our corporate group, and SAP is in effect mandatory in the automotive sector. Of course, we also wanted to integrate information like die manufacturing times into the overall company-wide system. And in the past, one person was busy manually entering this information in SAP. Not exactly a fun job,” Schmittlein admits. “ProLeiS has created a solution that enables this data to be transferred automatically. And I have to say that this makes a lot of things easier here.”

Reliable order planning

Overall, those responsible at Koller along with their contacts at ProLeiS have achieved a lot over the past two years. “Our project processes have become much smoother,” Schmittlein sums up. “Our cost and problem analysis has also become transparent for every item. This allows us to approach optimization in a very precise and targeted manner. With the newly acquired transparency and the comprehensive options for quickly implementing changes, we’ve acquired significant flexibility with ProLeiS and are now much more reliable, more precise, and faster when it comes to quoting prices, deadlines and availability. The value of this can not be underestimated, because this is the final measure of a die manufacturing company. Both internally and externally.



Filter and Options

Start: 1

End: 28.02.21

Time Interval: Month

Data Content

Category: PSE

Additional Category:

PR Planning:

PP Preplanning:

Advanced Options

Calendar: Productive

Reference Calendar:

Only Tasks for Active Resources

respect Capacity Efficiency

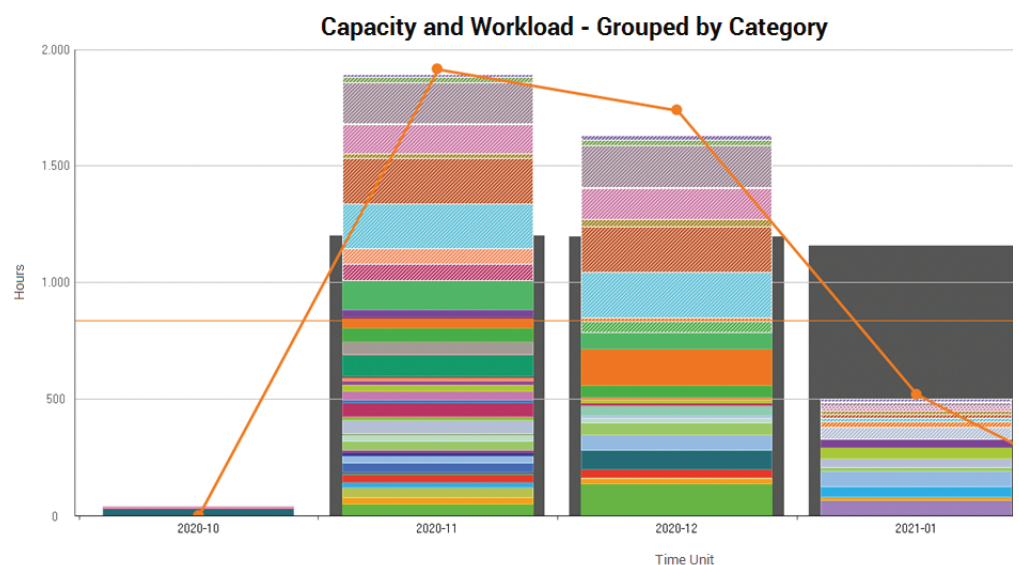
Exclude Finished Tasks

Show residual work

Show planned/already paid work

Only ordered scopes

Load inactive processes for data selection



The manufacturing planner can also clearly see the utilization of available capacities. Changes can be made with a few mouse clicks – and the results are shown in real time.

Profile

Koller Group

This globally active technology company has its headquarters in Oberbürg above the Altmühl Valley in Germany. It manufactures custom injection molding dies, composite dies, equipment and fixtures in its own die manufacturing facility for both its own customers and the needs of its sister companies. The Group benefits from combining its solution expertise in die manufacturing with many years of experience in series production. Koller can cover the entire value chain, from the initial concept and component development to industrial series production – worldwide.



Large dies for well-known automotive manufacturers: Koller is a specialist in injection molding dies, multi-component technology and RTM molds in XXL.

Focus

MES ProLeiS

ProLeiS MES (manufacturing execution system) digitally represents the entire order flow for manufacturing companies. This includes all economic, technical and organizational processes. Employees, machines and other participants in manufacturing such as suppliers need to tightly coordinate their work. MES software like ProLeiS provides a platform for registering and coordinating all of these required activities. Among other things, it enables optimal fact-based planning, which can ensure smooth processing. But an MES like ProLeiS can do much more. It provides conclusive data for costing, and therefore, for making informed, competitive offers.

Position

A necessary investment in reliability

For the planner who traditionally has done this work in their head, possibly with the help of a few Excel spreadsheets, it's a real challenge to stay within budget, ensure quality and last but not least guarantee that the delivery deadline is met. Die manufacturing projects are becoming more complex, tolerances for costs and deadlines are shrinking – and it's time to relieve and support the planner. An MES doesn't just offer benefits for planning: The entire manufacturing chain becomes more transparent, and employees get all the information they need to take independent action in the interests of their company. In addition, all the necessary data are available to answer customers' questions with a few mouse clicks: for example, whether an earlier delivery date is possible, or what changes will cost. This puts companies ahead of the competition for lucrative orders.