

Integrated planning and scheduling at Manudem using PlannerOne® Production Scheduler



Jean-Marie FOUÉRÉ,
President of the company

Manudem

MANUDEM is a high-precision screw cutting and machining company whose professional know-how and expertise are recognized by customers in the aeronautical, space, connector, defence and medical industries. This SME decided to invest in powerful control and planning software. It implemented the Microsoft Dynamics NAV ERP and initially developed a production control tool on touch screen terminals. Then in 2012 and onward, MANUDEM launched the PlannerOne® project for constraint-based finite-capacity planning and scheduling. The Groupe Diagonal firm integrated and supported these various steps. The objectives of this project were to improve the reliability of customer lead-times and increase productivity. "This PlannerOne® project has enabled us to advance the manufacturing planning culture on the shop floor and to rethink our planning methods," said MANUDEM President Jean-Marie Fouéré.

The PlannerOne® project

The participants in this project at MANUDEM are Jean-Marie Fouéré, MANUDEM President and project sponsor; David Voisin, Methods Manager and specialist in Microsoft Dynamics NAV; and Ms. Faïza Guettir, a planner and main business user of PlannerOne®.

DIAGONAL, a Dynamics NAV system integrator and ORTEMS, the vendor of the PlannerOne® constraint-based finite-capacity planning and scheduling software component, worked together to implement this project.

"The PlannerOne® project implemented at MANUDEM is a concrete example of ORTEM's ERP component strategy. PlannerOne® provides SMEs with advanced planning and scheduling capabilities that fully integrated into their ERP's manufacturing process," said ORTEM's R&D Manager Arnaud Prorol.

In a Nutshell

Activity

high precision screw cutting and machining for the aeronautical, space, connector, defence and medical industries. The company is located in "Technic Valley," the Arve Valley in the Alps, the worldwide capital of precision engineering

Objectives

improve the reliability of customer lead-times and increase productivity.

Benefits

- advancing the manufacturing planning culture on the shop floor
- increasing our OEE by 10-15%

Solution

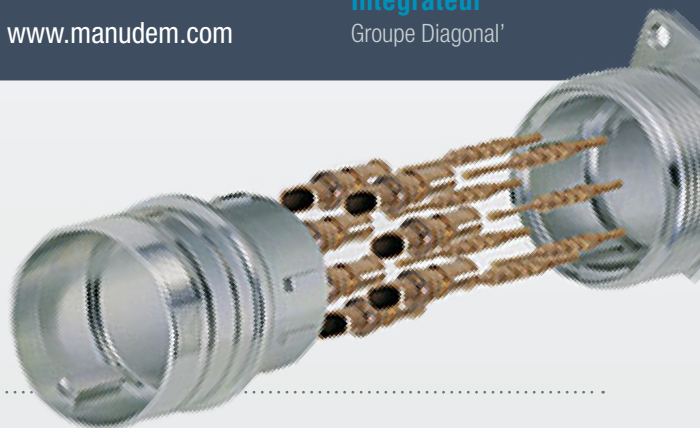
PlannerOne Production Scheduler for Microsoft NAV

Intégrateur

Groupe Diagonal'

For more information:

www.manudem.com



The planning and scheduling process with PlannerOne®

PlannerOne® optimizes the scheduling for more than 100 work centres and a substantial volume of work orders (1,100 WOs and 13,000 operations). Furthermore, MANUDEM's manufacturing operations are characterized by the broad diversity of work orders, lasting a few hours to more than 6 months.

Before, planning was done using an MS Excel spreadsheet, with lots of manual entries and manipulations, which created risks of errors and lost time. Dates were updated manually in the Dynamics NAV ERP, with risks of a loss of synchronization between the Excel file and the ERP.

At present, Ms. Guettir uses the PlannerOne® module integrated into the Dynamics NAV ERP. She constantly has the Dynamics NAV ERP on

her main screen and PlannerOne® on a second screen, accessing the PlannerOne® web module directly via Internet Explorer.

The planner has configured the Resources Gantt Chart views for each shop sector and schedules the machining tools' work orders for all of these sectors. The calendars and lack of resources (start-up, breakdown and preventative maintenance) are taken into account in optimizing the scheduling. For each new manufacturing process, she creates new WOs in the Dynamics NAV ERP and then continually plans them in PlannerOne® (10 to 20 new WOs per day). Publishing the schedule synchronizes the new schedule in the ERP. This is made possible by the real-time integration between Microsoft Dynamics NAV and PlannerOne® via web services, supporting Lean



Manufacturing capabilities across this powerful control and planning software.

To respond to some customer RFQs, detailed workload analysis lets the planner identify resource availability and provide customers with reliable provisional lead-times. A capacity reservation is then entered into PlannerOne® by creating a scheduled WO in the Dynamics NAV ERP. This planned WO can then be confirmed as a firm scheduled WO if the customer accepts the quotation.

As part of the monthly medium-term planning process or at Jean-Marie Fouéré's request, David Voisin analyses the provisional workload by work centre in PlannerOne®. When PlannerOne® is launched on a sector, the Overall Equipment Effectiveness (OEE) targets can be set for each work centre and a medium-term, detailed

analysis of the capacity to implement can be performed. "Better resource optimization can sometimes avoid making costly investments in other machines."

The solution was rolled out in stages across the different shops. "The deployment of PlannerOne® in the first sector helped increase our OEE by 10-15%," David Voisin said.

The machine setters understood and assimilated the PlannerOne® planning solution very quickly. For David Voisin, "PlannerOne® lets setters know the priorities and increase their autonomy, since the priorities stand out clearly in colour on the Gantt chart."

The involvement of all production personnel in this project has also improved reporting on the production control touch screen terminals and increased the reliability of all data in the ERP.

In conclusion

Jean-Marie Fouéré presents Manudem's information system as a key component in the company's service offer, which is used to manage manufacturing operations in a fast and responsive manner. "When we approach a customer, PlannerOne® is a sales argument," added MANUDEM President Jean-Marie Fouéré. This lets MANUDEM increase its customer service level and represents an important competitive advantage.

About ...

Manudem

Since 1982, MANUDEM has specialized in high precision screw cutting and machining for the aeronautical, space, connector, defence and medical industries. The company is located in "Technic Valley," the Arve Valley in the Alps, the worldwide capital of precision engineering.

MANUDEM's strong points are know-how, experience and the ability to work noble materials, as well as its responsiveness and adaptability.

For more information: www.manudem.com

Groupe Diagonal'

Since its founding in 1993, GROUPE DIAGONAL has assisted more than 500 business leaders implement their information systems.

The leading system integrator of Microsoft Dynamics solutions in the Rhone-Alpes and Provence regions, Groupe Diagonal's know-how is based on business and technical expertise that lets it design customized solutions for its customers based on reliable and proven management solutions completed by a broad range of services related to the hardware infrastructure.

Above all, GROUPE DIAGONAL is a corporate philosophy based on strong values shared with its customers, employees and partners.

For more information:
www.groupediagonal.com



Ortems

ORTEMS is Number 1 Advanced Planning and Scheduling vendor. Major international companies and SMES throughout discrete and process industries turn to ORTEMS to improve their manufacturing performance and operational excellence. Backed by 24 years of experience and on going research program, ORTEMS brings Agile Manufacturing solutions to companies throughout the world. ORTEMS solutions improve service level, increase On-Time Delivery, reduce stock, throughput time (Lead Time), and production costs.

More about PlannerOne® for Microsoft Dynamics NAV www.plannerone.com
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