

MANGAR INDUSTRIES TRANSFORMS ITS MANUFACTURING PLANNING PROCESS USING QLIKVIEW

"With users accessing data in QlikView by the minute and our manufacturing tied to that data, QlikView is now embedded into the planning operations of Mangar Industries."

— Jim Cimbalista, Director of Business Operations, Mangar Industries



Mangar Industries is a leading supplier of sterile barrier solutions for the top medical device manufacturers in the world. With over 200 employees, 4 facilities, customers in over 21 countries, and production lines that operate 24x7, Mangar's very short lead times, cost effective pricing and attention to detail are why Mangar has become one of the most reliable and respected suppliers in the design and manufacture of sterile barrier solutions.

Real-time business visibility across manufacturing value chain

With a growing volume of orders annually, Mangar identified the increasing need to improve visibility into its manufacturing process, in order to help the planning and manufacturing teams make better decisions for resourcing and scheduling. They needed a solution that would automate current paper-intensive processes, which involved the physical delivery of orders or "job jackets" to the production team located in a different building. The scheduling solution within Mangar's ERP system did not have the flexibility to meet the dynamic requirements of its manufacturing process, which could require jockeying around orders at a moment's notice or grouping similar runs together.

According to Mangar's Director of Business Operations, Jim Cimbalista, "There are so many variables that go into our manufacturing process. Our business is high volume and fast turn and a key way to drive revenue is to make sure every physical resource is running as often and as efficiently as possible." Says Cimbalista, "With 5 main assembly lines, running scheduling is almost like being an air traffic controller. Situations can change last minute and you have to understand the ripple effects of your decisions while making sure you are getting all jobs completed on time." Having used QlikView before, Cimbalista knew the value it would bring to Mangar's manufacturing process and worked with partner Business & Decision to deliver two key applications over a ten week timeframe.

Sales & inventory planning

Using QlikView, System Integrator Business & Decision developed the "Sales and Inventory Application" for the Planning team (consisting of representatives from the customer service, materials resource planning and product engineering teams), which provides a view of Mangar's future manufacturing capacity and the manufacturing demand based on work orders in the system.

SOLUTION OVERVIEW

Mangar Industries

Leading supplier of sterile barrier solutions for medical device manufacturers

Industry

Manufacturing

Function

Executive, Service, Operations, Supply Chain, Finance

Geography

North America

Challenges

- Automate paper-intensive scheduling process
- Introduce flexible planning solution to meet Mangar's high volume, high fast turn needs
- Gain real-time visibility into manufacturing value chain for better resource planning

Solution

Mangar Industries deployed two QlikView applications to 40 employees in planning and manufacturing, over 10 weeks. QlikView has become a core application for manufacturing, with users accessing data by the minute and much of Mangar's business operations tied to using QlikView.

Benefits

- Gained real time business visibility across manufacturing
- Improved labor force planning drove 50% reduction in OT
- Increased efficiencies led to the ability to recoup lost margins

Data Source Systems

Application: Visual ERP

Database: Home-grown operations database

QlikTech Partner

Business & Decision

QlikView

Charts detail critical data on resource capacity and requirements for each job, in order make the best planning and scheduling decisions. In situations where there is more work than capacity, resources can then be added and jobs can be jockeyed to accommodate requirements.

Jobs with similar materials or die cuts or tooling can be grouped together for improved efficiencies. Late order requests can now usually be accommodated with the flexibility to adjust schedules and jockey orders when required. Customer queries on the status of orders can be easily and accurately responded to, accessing data in QlikView.

Production scheduling

"The Production Scheduling" application was developed for the manufacturing team responsible for the final day-to-day hourly schedule that the manufacturing floor follows. With QlikView, this team now has real-time visibility into each work order in the system. They can accurately identify key requirements for each order including number of hours, critical dates, priority levels and resources required such as labor, machinery, dies, and tools. Sequence planning provides users with real-time visibility into where orders are in the system and what operations need to take place before and after. Users are now alerted when processes have been missed or if materials haven't arrived, and they now have the ability to "placeholder" orders that are delayed due to material shortages or tooling issues so they can get complete as soon as the issue is resolved. With this real-time visibility into critical data, manufacturing can more efficiently plan and schedule equipment and labor resources, to ensure that all machines are optimized for the least amount of downtime and labor force overtime.

QlikView as core application

In order to maintain consistent data between the planning and manufacturing team that makes the final scheduling decisions, Business & Decision leveraged their deep ERP expertise to create a write-back solution for Mangar.

Final scheduling changes made by manufacturing are now uploaded immediately to a separate database which gets refreshed in QlikView so that all users have access to the same, most accurate information at all times. This solution was essentially the final step in transforming QlikView into Mangar's core scheduling application for manufacturing operations.

Real-time visibility drives significant efficiencies

Huge efficiencies have been gained with the increased visibility of data across the organization. Labor force planning has improved significantly, contributing to a 50% reduction in overtime. Says Cimbalista, "With QlikView, we understand our true costs better. The data gives us clarity we did not have before."

Customer satisfaction levels have improved. According to Mangar Customer Service Manager Denise Lynch, who also leads the planning team using the Sales & Inventory application hourly, "There is a general sense of overall improvement in customer satisfaction. We can now answer customer queries quicker and more accurately. We feel more confident in our ability to meet our commitments, and we can even accommodate last minute order requests more effectively. We can make better business decisions for both the customer and Mangar when we have detailed information at our fingertips."

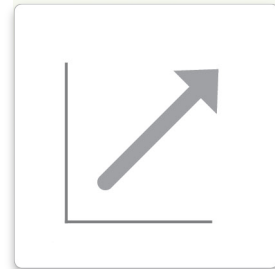
Mangar has also seen monthly decreases in machine set-up times as a result of being able plan more effectively and group similar jobs together. Materials management has improved as a result of manufacturing's visibility of work orders in the system, which has allowed for better planning and prioritization based on material requirements and availability.

Moving forward, Mangar plans to leverage the valuable data they are gathering from QlikView and incorporate it into Key Performance Indicators (KPIs) for manufacturing, such as OTD, inventory levels, overtime, set-up time and downtime; that they will monitor and measure at the corporate level.

RETURN ON INVESTMENT

10 weeks

to develop 2 applications



TIME TO VALUE

50%

reduction in overtime hours

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