Manufacturer Sign-Zone boosts shop floor productivity using Insight Works' ERP add-ons

Summary

Customer
Sign-Zone

Industry
Visual communication and display manufacturing

Location
Brooklyn Center, Minnesota, United States

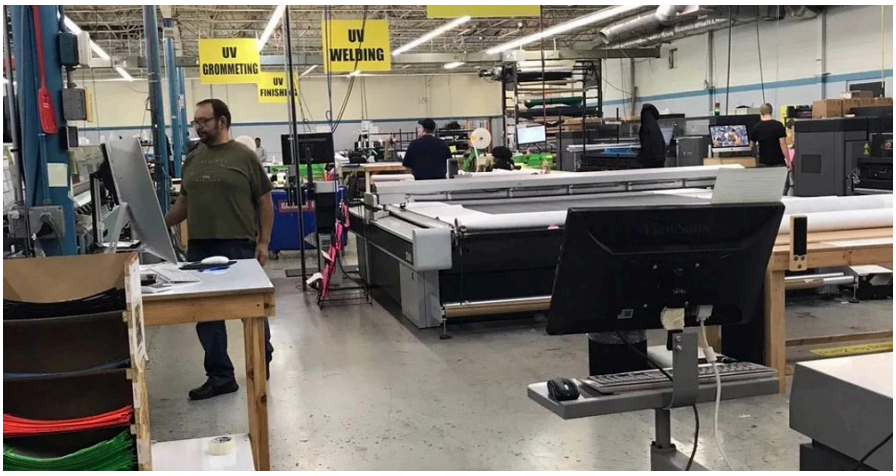
Employees
Over 400

Business Central Version
Microsoft Dynamics NAV (now Dynamics 365 Business Central)

Partners
Insight Works (ISV)

Solution
- Microsoft Dynamics 365 Business Central
- MxAPS
- Shop Floor Insight
- Warehouse Insight

Results
- Reduced scrap and re-work
- Items produced on time with prioritized schedules
- New staff more productive with clearly defined tasks
- Materials available through accurate inventory tracking
- Better management decisions from shop floor visibility
- Less manual effort through automated scheduling



Note: This case study reflects Sign-Zone's operations and ERP environment as of 2018, and the company's systems and processes may have changed since that time.

ABOUT SIGN-ZONE

Sign-Zone is a manufacturer of visual communication, event and promotional display merchandise, headquartered in Brooklyn Center, Minnesota. They maintain a production facility in the Twin Cities region along with eight remote distribution facilities across the United States.

THE CHALLENGE

Sign-Zone's 100,000 square foot production facility is made up of seven value streams that are managed by about 150 staff.

As of this project in 2018, Sign-Zone was processing between 600 and 1,200 production orders per day.

The following deficiencies were identified:

Manufacturer Sign-Zone had been using the basic inventory functionality offered in Business Central. As such, Sign Zone's visibility was limited to what warehouse an item was located in.

Sales orders lacked a detailed material list and production orders. As such, workers had to rely on tribal knowledge to manufacturer items.

There was no structure in scheduling which items should be produced.

All sales orders maintained the same level of priority regardless of delivery dates.

An internal Sign-Zone team came together to lead a plan for improvement. The team identified three primary objectives: clearly identify production orders and communicate these orders to workers; workers need to know what their specific task is and when it needs to be done; and identify the priority of each production order.

THE SOLUTION

Manufacturer Sign-Zone accepted the following solution proposed by their Microsoft partner:

1. Turn on advanced warehousing in Business Central: By enabling and configuring the advanced warehouse features in Business Central, Sign-Zone can accurately manage and track the inventory needed for production orders. The specific location and quantity of each item can be easily identified.

2. Implement barcode scanning: Warehouse Insight combined with 15 Datalogic Falcon X3+ handheld computers with scanning capabilities enabled Sign-Zone to process receipts, put-aways, picks, movements and perform inventory and cycle counts.

3. Integrate the shop floor data collection add-on for Business Central: Shop Floor Insight from Insight Works is a comprehensive solution to capture employee and production time. Sign Zone leverages Shop Floor Insight to support four key components in their production process: assign specific tasks to workers; identify when a task was complete and can be moved onto the next stage; measure scrap and defects; and display operation, part, and order specific work instructions.

4. Integrate advanced planning and scheduling: MxAPS from Insight Works works together with Business Central and Shop Floor Insight to create a responsive, repeatable and highly accurate production schedule.

Every hour MxAPS will automatically generate a new schedule to account for new orders, rework and time remaining on existing orders. Each new schedule will generate a status report so supervisors can easily identify if any orders are in jeopardy of missing their shipping deadline.

When generating a schedule, MxAPS will group similar production materials together to reduce machine changeover time.

MxAPS automatically breaks larger orders into multiple smaller orders and includes them in the daily schedule.

CONFIGURE BUSINESS CENTRAL AND TRAIN STAFF

Sign-Zone's Business Central partner employed their team of professionals to configure Business Central and the other components of the solution.

The adoption of the new processes and software tools by production workers was, for the most part, seamless. Within a couple of days, staff adapted to the new process.

THE RESULT

The Business Central customizations and add-ons delivered numerous positive results including:

- Reduced scrap and re-work due to more clearly defined tasks.
- Items are produced on time because of clearly defined and prioritized schedules.
- New staff is more productive as their tasks are clearly defined.
- Materials are available when needed because of inventory is accurately tracked and maintained.
- Better decision making at the management level due to increased shop floor visibility.
- Significantly reducing the manual effort previously required as a result of automated scheduling.

KEY TAKEAWAY

This project was a culmination of efforts between Sign-Zone, their Microsoft partner, and Insight Works. Transparent communication between all parties involved paved the way for a successful integration.

About Insight Works

Insight Works is a Microsoft Dynamics 365 Business Central ISV (independent software vendor) specializing in warehouse management, manufacturing, and productivity solutions. With a portfolio of apps available on Microsoft Marketplace, Insight Works helps distributors, manufacturers, and wholesalers extend Business Central to fit the way they actually work. Learn more at insight-works.com.

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