

Plaid Creative Group – Paint Division

Since publishing its first macramé instructional book in 1976, Plaid Creative Group (Plaid) has become one of the world leaders in the creation, manufacture and distribution of craft and home décor products. Plaid now offers more than 5,000 products under 50 different brand names.

Plaid produces a variety of craft products which you can view on their website at:
<http://www.plaidonline.com>

With 200 employees, Plaid have been using Taylor Scheduler (TS) for 3 years. They have one full-time scheduler in their Paint Division who manages the entire paint production facility.

It took six months to implement TS, and the project was on time and on budget. The most complex part of implementation was creating accurate routings and integrating TS with their legacy system.

Manufacturing Process

When it comes to manufacturing paint for the craft industry, Plaid chemists first experiment with various formula(e)s to produce the highest quality paints and mediums.

After the chemist is satisfied with the formulation, Plaid staff grind the pigment and mix the colors with a computerized coloring system. Bottles are then filled and labeled and shipped to their customers from their distribution center in Stone Mountain, GA.

The manufacturing process is semi-automated using a mix of machines and labor. The plant handles from 3,000 – 6,000 shop orders per month, with 5 – 6 operation steps each. About 100 new shop orders get created each day.

Planning

Plaid Creative Group use a home-grown (legacy) ERP system that is integrated with TS. Updates to both their ERP and TS happen daily or when needed before re-scheduling.

Plaid use TS to do rough-cut capacity planning and finite capacity planning using fixed flow cycles. They use TS to schedule both shop orders and planned orders. In this scenario, shop orders often get re-prioritized to optimize the production schedule. Various what-if scenarios are used to create the best production plan.

Once satisfied, the completion dates from the production plan created by TS are sent back to the ERP system.

Highlights

- TS allows Plaid to schedule planned orders along with daily and weekly on-demand orders.
- TS gives Plaid the flexibility to change the schedule easily and quickly.
- TS allows the Plaid sales department to give customers accurate deliver dates with the assurance they will meet the date.
- TS is used for rough cut and finite capacity planning.

Scheduling

Originally Plaid used their ERP software for scheduling. This had some major weaknesses that were overcome with their TS implementation.

In particular: Using their ERP software to schedule took a full day. By the time it was done, it was already obsolete. In addition to the time required, it was paper-based exercise so any change required extensive hand work.

TS now schedules parallel operations along with machine availability. The schedule's priorities are:

- on-time delivery dates
- machine utilization

TS allows the scheduler to determine when machines are over or under utilized – allowing them therefore to react before bottlenecks occur.

Once the schedule has been completed, dispatch lists are generated and sent to the shop floor supervisors.

Results:

Plaid reports the following benefits from their TS implementation:

- WIP Reduced
- Overtime Reduced
- Productivity Improvements
- Fewer shortages
- Less inventory
- More On-Time Delivery