

BROCHURE

Algorithmic Production Scheduling Powered by TrakSYS™



PARSEC™

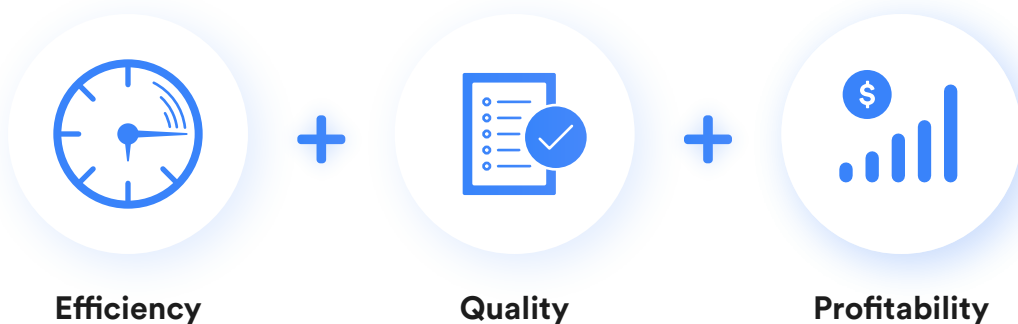
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Algorithmic Production Scheduling

The advent of digitalization has given rise to increased expectations for significantly more efficient operations throughout the entire supply chain and certainly within manufacturing value streams. In short, customers – both business and consumers – expect quality products at best prices with the shortest lead time possible.

Manufacturers with consistent on-time delivery of higher quality products at lower costs will prosper while others increasingly face challenges to remain relevant and prosperous. We've designed the TrakSYS Manufacturing Operations Management (MOM) solution platforms to help meet these challenges heads on.



There are many complexities involved in managing manufacturing processes effectively. There are many moving parts and variables that impact even the best run factories. How do you manage variability in nearly all aspects of your operations?

Imagine having a solution that, in real-time, helps you optimize your production by taking into consideration customer demand, inventory levels, asset capacity, historical output, commit dates, and unexpected events.

Using the TrakSYS algorithmic production scheduling (APS), you'll be able to meet your production commitments, on time, by factoring in:

- Availability of personnel and assets
- Inventory levels and order volumes
- Historical performance and yield sorted by assets and products
- Equipment breakdown and unscheduled events
- Material shortages
- Changes in production plan
- And more...

Regardless of whether your operation is discrete, continuous, or batch, the TrakSYS APS can significantly improve your schedule attainment.

So, how exactly does it work?

Follow along with the diagram below as we detail out how TrakSYS APS would work - in this example for a brewery.


Step 1. Getting the Orders

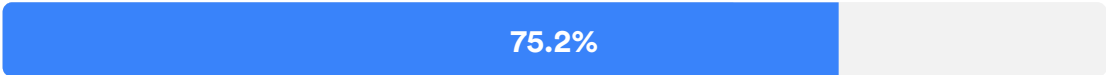
TrakSYS interfaces with your ERP via standard protocols to obtain details on upcoming orders. Today's orders call for 5000 cases of "Pilsner," 3500 cases of "IPA," and 1000 cases of "Porter."

Orders from ERP			
Job	Product	Ordered	Delivery
[5824] Dram	Porter	9-17	10-24 ↓ import
[5837] GrocerJar	Porter	9-18	10-26 ↓ import
[5849] Druze	IPA	9-18	10-26 ↓ import
[5867] Vinure	Porter	9-19	10-27 ↓ import
[5801] PintLounge	IPA	9-19	10-27 ↓ import

Step 2. The Algorithm in Action

After receiving the orders, TrakSYS will algorithmically create the most optimal production schedule based on defined priorities. The algorithm considers total order volume, unique item volume, inventory, asset (machine and human) availability, real-time asset (machine) trends and historical performance, capacity, production-specific goals (limit changeovers, continuous production, etc.), and an array of other factors.

 Attempting to Schedule Bulk Packaging Lines



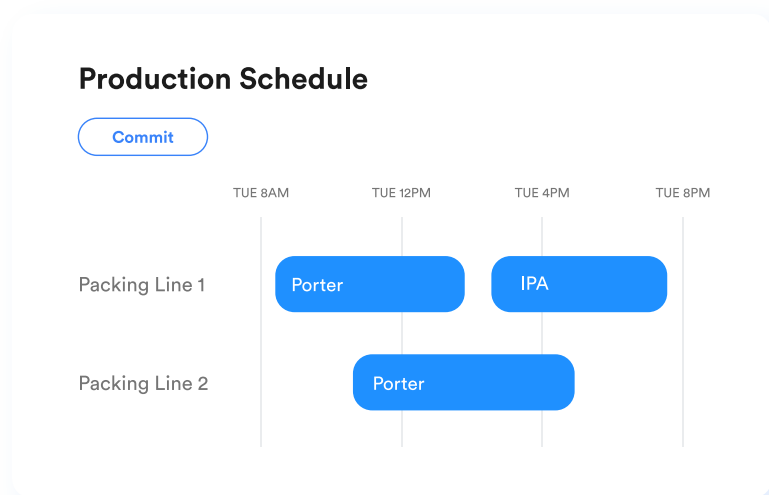
Attempting to Schedule Bulk Packaging Lines...

Loading Data for Bulk Packaging Lines...

Preparing New Earliest Times for Packaging Lines...

Step 3. Go Time

Upon reviewing and approving the TrakSYS suggested plan, planners or operators may initiate production from any web-enabled device. Or, alternatively, TrakSYS can automatically start the production process.



Step 4. The Result

The goal (and subsequent result) of the TrakSYS algorithmic production scheduling tool is to execute production in the most efficient and effective way possible. By managing the planning and production activities using the TrakSYS APS, manufacturers will see improved asset utilization, reduced production times, diminished costs. By hitting the on-time/in-full commitments, both customer delight and profitability will soar.

Decreased

- > Production Times
- > Production Costs

Increased

- > Profit Margins
- > On-Time/In-Full Deliveries
- > Customer Delight

By using the TrakSYS algorithmic production scheduling, you'll take a major step toward eliminating guesswork in your planning activities.