THE PLEX SMART MANUFACTURING PLATFORM™

BATCH MANAGEMENT

for Process Manufacturers

In process manufacturing, batch management represents the execution of a particular job operation in small quantities called "batches" that will meet the overall job operation quantity.

Generally, batch scheduling and production applies when the workcenter is a cooking or mixing vessel that has a maximum capacity, like a 500-pound tumbler, a 1,000-gallon blender, or a 100-liter cooking pot. All ingredients are scaled to the size of the batch, and when the process has completed, the final product and the full batch is discharged at the end.





Plex's Batch Management capability enables flexible scheduling of production runs using kettles, mixers, or other equipment with fixed capacities. Additionally, Batch Management in Plex allows for:

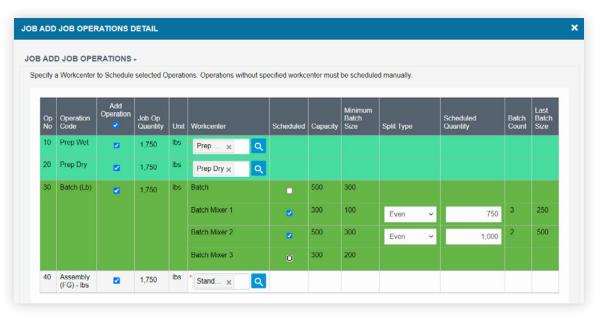
- Optimization of equipment utilization via parallel scheduling and execution of batches (and associated pre-process batches), which can be scheduled to maximize capacity utilization and/or minimize WIP inventory
- Coordination of scheduling and execution of pre-process operations such as spice mixes, wet ingredients, dry ingredients, and prepped vegetables
- Reduction of material and yield losses through control of pre-process containers and ingredients as they are added to the batch, with upper and lower tolerance limits
- Yield reporting by batch
- Consolidation of multiple jobs by offering the ability to create one single job containing all pre-process and packaging operations



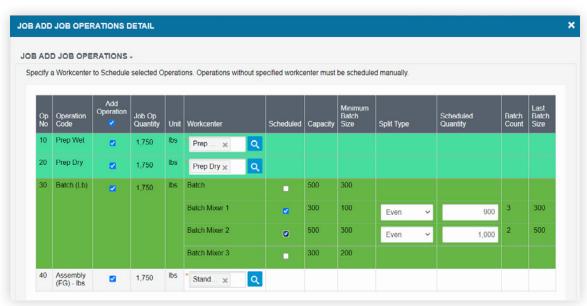
Let's break it down.

Bernie's Brownie Company needs to fulfill an order for 500 cases of brownies which requires 1,750 pounds of brownie mix to be produced. The production facility features several mixers with different capacities: two 300-pound mixers and two 500-pound mixers. The requirement for 1,750 pounds of brownie mix can be fulfilled in a variety of ways using Batch Management in Plex.

Option 1: Produce the exact quantity needed for the order using five batches on Batch Mixer 1 and Batch Mixer 2 working in parallel.

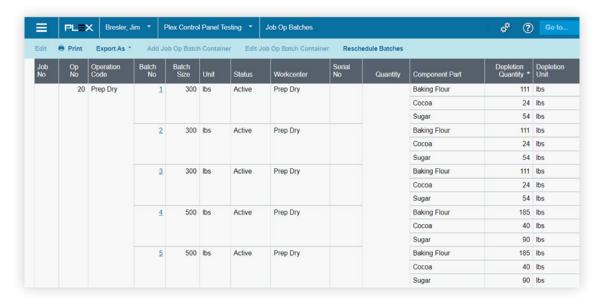


Option 2: Fully utilize the capacity of the 300-pound mixer by increasing the scheduled quantity to 1,900 pounds and packing off the excess 150 pounds as WIP against future requirements.

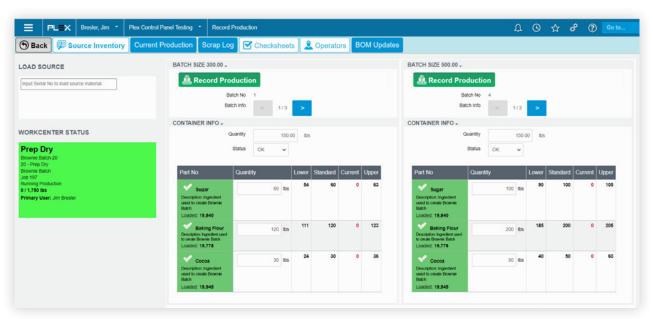




Based on the exact scheduled quantity for each mixer, Plex Batch Management automatically scales ingredients for pre-process operations to the size of each batch, making execution of batches foolproof for operators.



Operator control panel view: A simple display with sections for each batch size that is to be produced, allowing for entry of actual component and output quantities to support yield management.



"With Plex Batch Management, it is all about scheduling optimization. The more that we can schedule, the more efficiently we can run the lines. With Plex Batch Management, we have total productivity, efficiency, and scaling capabilities."

- Christopher Marks, ERP Manager at Old World Spices

Watch the video here



