

Real-Time Scheduling



The next generation of planning for biomanufacturing

“I used to spend 80% of my time trying to change a schedule to make it feasible. Now, it’s 2 minutes a day.”

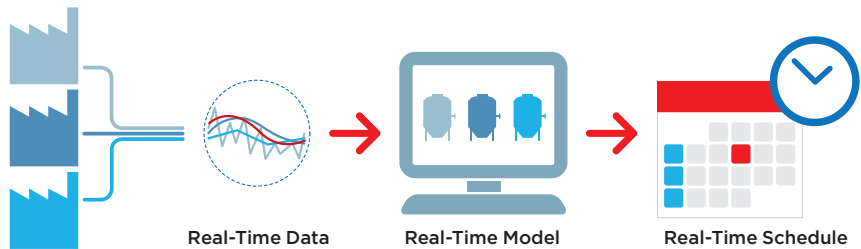
Master Scheduler, Bulk Manufacturing

“Biomanufacturing supply chains are complex and highly variable. That’s why we chose a toolset that incorporates data and variability in its design.”

Supply Chain Planner, Top 10 Biopharmaceutical Manufacturer

“In clinical manufacturing, we’re always getting batches swapped around by development. This toolset allows us to replan up to the second we actually inoculate the bioreactor.”

Clinical Supply Scheduler, Global Biotechnology Manufacturer



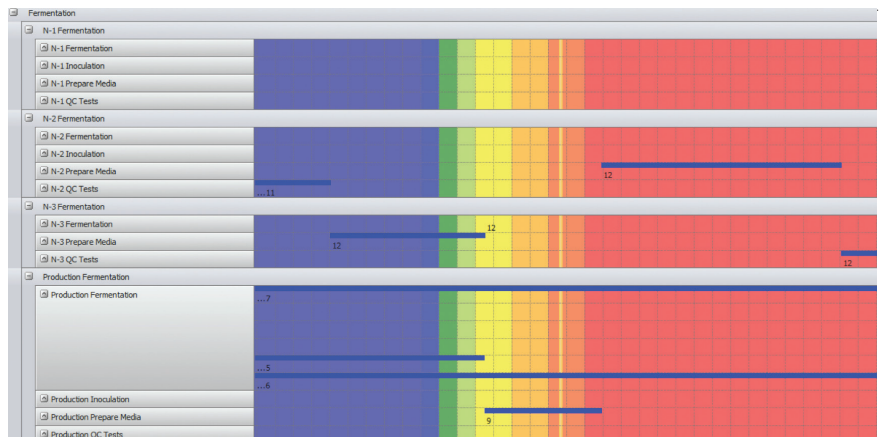
MANAGING COMPLEXITY

Biomanufacturing professionals are required to produce complex molecules in volume, while maintaining the highest possible quality standards. The only way to do this is to orchestrate and optimize a complex series of manufacturing processes, using specialized labor and other finite and often inter-dependent manufacturing resources. The scheduling of this whole, complex process is informed by enormous volumes of production and supply chain data, which is digested and used by planners with the assistance of process experts and others with deep, “tribal knowledge”.

Schedulers have an enormously complex task and it is not surprising that at most biomanufacturers, a number of planners are needed. They meet frequently and when they do, they find it challenging to satisfy all the competing manufacturing requirements. Schedulers are often required to deal with unexpected events and their consequent impact on schedules and production. There is rarely enough time to run “what if” scenarios, let alone optimize the whole biomanufacturing process. There has got to be a better way, and now there is with Bio-G’s Real-Time Modeling System (RTMS).

SCHEDULING IN REAL-TIME

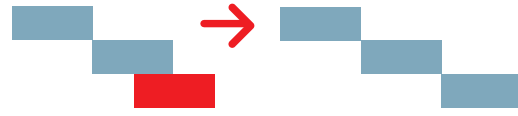
Biomanufacturing is characterized by significant complexity, from the intricacies of the technology itself to the need to understand many interacting processes and systems. Small process changes have big impacts. Modeling needs to envisage complexity, be highly accurate and yet be small enough to be manageable.



BIO-G

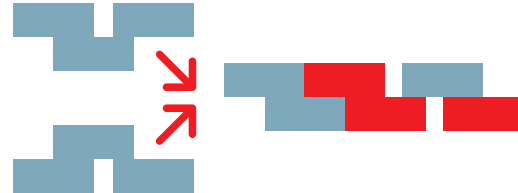
'ALWAYS FEASIBLE' PLANS

Bio-G's RTMS automatically generates plans that are feasible for all the resources and constraints in your organization. That means no more moving around resources, trying to fix conflicting priorities. RTMS means you can focus on the effect of what-ifs, not trying to make scenarios feasible.



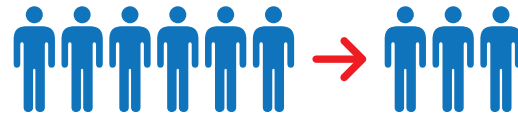
LOWER SCHEDULING COSTS

Bio-G's RTMS encapsulates the knowledge of subject matter experts and planners in one system, so customers are able to use a smaller number of planners than they have today. These experts can be re-deployed to other challenging tasks within the enterprise.



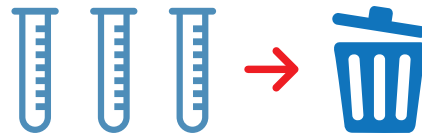
OPTIMIZE PRODUCTIVITY

In a facility running 24x7 operations, downtime causes reduced product throughput. Time spent re-scheduling in response to this unexpected downtime, means even more time spent before production can be resumed. That additional planning time and the impact on production in a 24x7 manufacturing operation, costs the enterprise dearly in actual lost production. Even in facilities running below 24x7 capacity, FTE hours taken to "catch-up" and re-schedule in response to unexpected events means additional expense to the business.



CUT RAW MATERIALS CONSUMPTION AND WASTE

If rescheduling today takes more than a few seconds or minutes, and there is a consequent delay in bringing production back online, then there may be a risk that products in production have to be dumped. RTMS reduces and potentially eliminates the risk of product dumps, ensuring a more consistent flow of bulk material into the supply chain.



A PROVEN TRACK RECORD

Bioproduction Group's data consolidation, visualization and real-time modeling tools and services are used by the world's largest, global biomanufacturing firms. We deliver to these clients millions of dollars in savings, every year. We can do the same for you.

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