

From Scheduling to Planning
for complete APS solution



LSI's Lab Scheduling and Planning solution

Introduction

Efficient drug manufacturing and managing expenses is today a guideline for management of pharmaceutical company. The labs are a critical component of any drug manufacturing and can have a major impact on the overall supply chain service. One of the means for achieving wanted cycle times and on-time deliveries is **scheduling and planning of labs with advanced concept**, introduced in this document.

Challenges of Pharma and Medical devices Quality Control (QC) Labs

QC Laboratory managers and planners are challenged by **growing expectations** to react quicker with analyses findings, to support approaches like continuous flow manufacturing and lean internal supply chains. As they represent first link of the chain to analyse the raw material and last link to release the product, they are **constantly under enormous time pressure.**

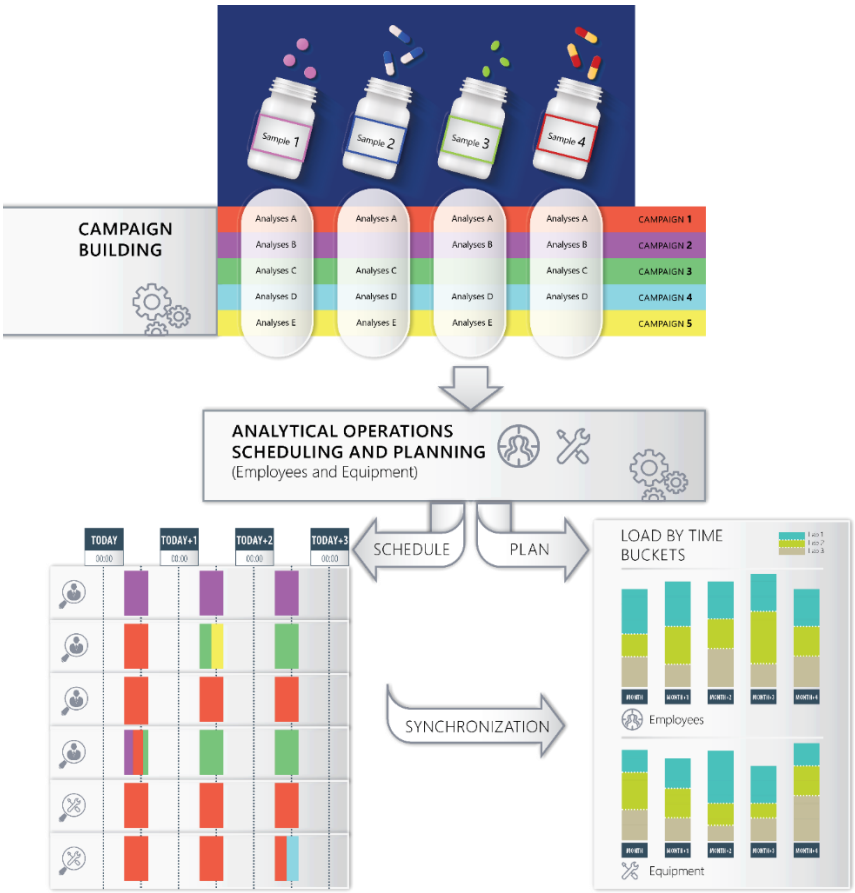
The problem

Lab scheduling performed with inappropriate tool is **time consuming** and as such **doesn't support change management,** although with perfect model of combining specific analytical methods, grouped to be executed efficiently according to attributes of products and materials. And **change could be anything from deviations, urgent analyses, unexpected absence, equipment breakdown etc.** Besides that, with poor lab scheduling capabilities, it's impossible to systematically answer the questions like: "When particular Sample will be released?" or "What are the trade-offs some change brings to the company?"



The Solution

Lab Scheduling and Planning solution from Lean Scheduling International (LSI) is **a state-of-the-art integrated solution,** used to make decisions about new **release of schedule or plan quickly and in timely manner**. To do that, the solution firstly creates **analytical campaigns for one or more samples,** taking into consideration attributes of samples. And secondly, solution **supports testing of schedule or plan what-ifs in minutes** rather than in hours, **taking into consideration efficiency of employees and equipment, and promised release dates of samples.** Schedule data is calculated to adequate time buckets and synchronized to mid and long-term plans. Different scenarios of schedule and plan can be presented to all stakeholders for **relieving the pressure before final decision**, because the solution enables fair evaluation of the employees load and the processes.



Benefits

Usage of Lab Scheduling and Planning solution can have **profound impact on internal supply chain management** of pharmaceutical company by **reducing time needed to perform quality analyses**, with:

Precise testing timelines which can be predicted and communicated to other departments and 3rd party contract labs.

Better utilization of technicians by applying analyses standards.

Capacity load calculation against alternative production plan/forecast **in minutes,** possibility to upload results to external analytical toll for comparison.

Staffing and equipping up or down in timely manner, supported with Gantt chart visualization of bottlenecks and availability.

Sequencing automation.

Evaluation of **'what-if' scenarios** before schedule release.

Reducing of time needed to update and publish the schedule.

Replacement of spreadsheet-based planning and scheduling, when updating and reaction to change becomes an obstacle for the process.

Data and process centralization - SPOT (Single Point of Truth), if more stakeholders compete for the same lab resources.

Opportunity for optimization of analyses standards **– data quality improvement.**

Elimination of uncertainty about fair resources load through usage of transparent finite capacity scheduling models.

Usage of short term analyses standards for calculating long-term load in time buckets.

Visibility of scheduled samples for all stakeholders, for a few days/weeks ahead, and ability to answer the question: when particular Sample will be released?

Ability to measure and promote schedule adherence while positively affecting supply reliability.

Possibility of adapting time dependent analyses standards for long-term planning, if more efficient/faster analysis operations can be predicted.

Possibility for multi-lab environments to find 'common denominator' and share 'tribal knowledge', using **the same integrated platform**.

Alternative for environments without Lab Management modules on place

For environments where ERP/Quality Management module or LIMS do not include features for Samples Management, Analysis Standard Data editing and Execution Data collection, the solution can be complemented with web applications from the LSI's LabFloor line of products.

LabFloor Middleware:

- System management (users, master data)
- Analyses standards data management (Technician and Equipment operations)
- Sample, Deviation and Determination management
- Used by planners and administrators

LabFloor Data Collection:

- Published schedule (Analytical Operations, Samples by Analysis Operation)
- Used by technicians
- Execution Data collection
- Traceability of samples
- Data collection on number of determinations executed and real occupation of instruments

LabFloor line of products supports usage across multiple geographically dispersed lab operations.

LSI's Pharmaceutical APS Team

1. Pharma APS Leader
2. QA representative
3. Pharma Senior APS Consultant 1
4. Pharma Senior APS Consultant 2

Ask for us

- Personalized Lab Scheduling and Planning solution Demo
- Time Zone / Regional availability of LSI's APS Consultants

Find out more

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