



ORSOFT LabScheduling

Laboratory and Production Planning

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Planning of Quality Control in Laboratories

Planning supply chains in industries such as pharmaceuticals/life science, food or chemicals, quality control in laboratories is often a critical capacity constraint leading to production delays and even failure to meet delivery deadlines. For this reason, laboratory scheduling should be integrated into the overall supply chain planning. ORSOFT LabScheduling is designed to enhance existing ERP systems and LIMS to ensure end-to-end planning along the logistics chain.



Situation

QC labs have limited capacities and may represent a bottleneck in the overall production process of a company. ERP systems focus on production planning, but the functionalities for laboratory planning are very limited. As a result, laboratory planning often has to rely on disconnected solutions such as Excel sheets or other planning tools. Consequently, there is a system discontinuity, as an additional planning system exists in parallel to the ERP and LIMS. This means that data has to be stored multiple times, since all the systems involved need the information but rely on different data sources. For the companies, this does not only lead to considerable additional costs, but also to risks due to the asynchronous nature of the data.

Another problem arises the lack of capacity forecasting by the labs themselves. Although the production programs are usually already known in the mid to long term, the relevant inspection lots for laboratory planning are often only generated at short notice, namely by process or production orders as well as goods receipts. A reliable capacity forecast of laboratories is therefore almost impossible and bottlenecks are detected very late. In addition, the inspection sequence of the inspection lots is often based on the time of the occurrence of the demand element. Due to the lack of capacity utilization control, unanticipated capacity overloads may occur, delaying the production process or the delivery of goods.



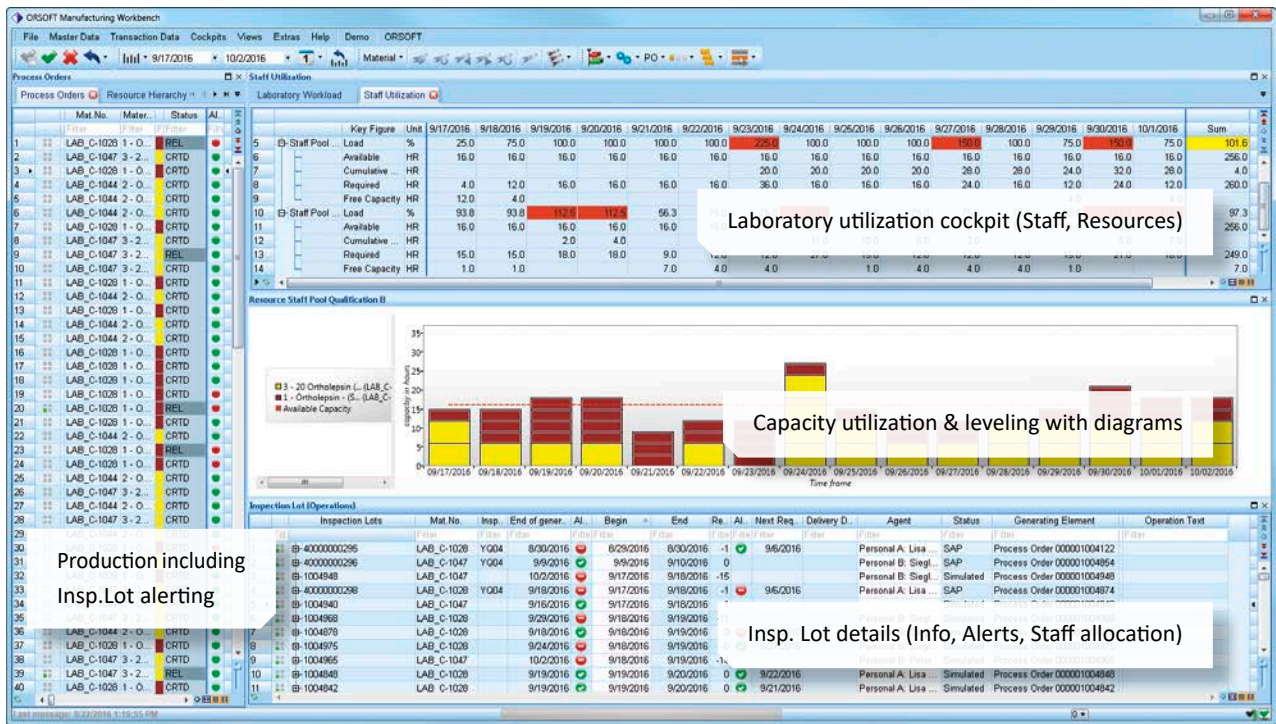
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ORSOFT LabScheduling

ORSOFT LabScheduling integrates laboratory planning into your supply chain management ensuring end-to-end planning from production and laboratory planning to the analytical laboratory. Due to the flexible interface connections, ERP systems, external databases and LIMS systems can be interconnected. Data is extracted from the ERP and LIMS via the interface. All necessary master and transaction data are available in LabScheduling. Data is stored centrally in ORSOFT's own namespace within the existing ERP system. Multiple data storage is overcome and all information from the ERP and LIMS is available in LabScheduling in real time. This means that all entries made in ORSOFT LabScheduling are immediately visible in the ERP and LIMS.

Linking information from the ERP as well as the LIMS and the central data storage considers the horizontal and vertical planning levels. On the one hand, all levels from production planning to the quality control processes are included. On the other hand, capacities, material flows or personnel requirements are taken into account via the imported master and transaction data within laboratory planning. The planning horizon of laboratory planning is synchronized with production planning in terms of processes and time. Transparency is achieved along the logistics chain creating all the preconditions for accurate and efficient planning.



ORSOFT LabScheduling – User Interface

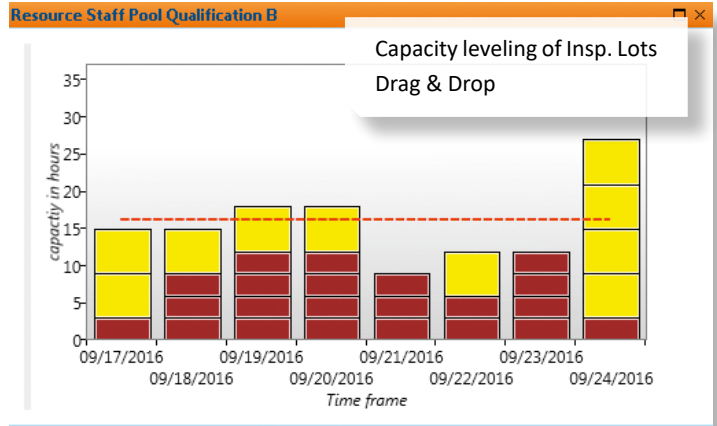
Simultaneous Laboratory and Production Planning

Using the same database as production planning and the analytical laboratory, lab planning has all the information in the form of master and transaction data to perform simultaneous laboratory and production planning. This is made possible by simulated inspection lots, which represent ORSOFT's own data objects. Based on the master and transaction data created in the ERP system, the simulated inspection lots are created in advance as

planned inspection lots based on the existing purchase requisitions and planned orders. If the initially triggering elements are then replaced by goods receipts or process orders at a later point in time, they are automatically converted into real inspection lots. Simulated inspection lots thus serve as a supplement to the original inspection lots and enable a long-, medium- and short-term capacity forecast of the laboratories.

Gaining Overview

LabScheduling displays the acquired information in clearly arranged browsers and planning folders. While browsers offer a tabular data visualization with various filtering and sorting options, planning folders are used to display key figures and business data with time reference across several hierarchical aggregation levels. The two data views are complemented by pre-configured alarms to identify potential planning conflicts immediately. In addition to spreadsheet-like data displays, graphical views such as Gantt charts or histograms can be generated for time-related background information. Furthermore, individual data series can be selected and visualized in various charts and dashboards.



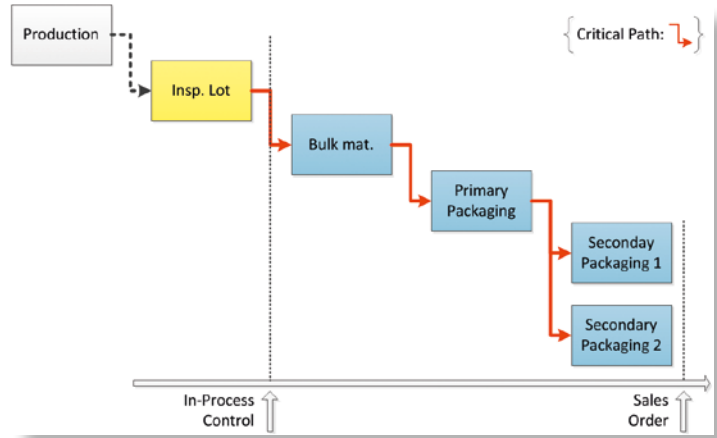
Capacity levelling with interactive stack diagrams

LabScheduling Planning Features

ORSOFT LabScheduling is not limited to the early identification of possible scheduling conflicts, but also offers a variety of options to resolve them. In the long-term area, capacity overloads can be simulatively eliminated by adjusting shift profiles or working hours. Furthermore, alternative labor stations or equipment can be used when assigning multiple inspection plans and recipes. Additionally, activities can even be relocated to other laboratories on a trial basis.

In detailed planning there are supporting functions such as dynamic pegging or leveling. In leveling, capacity requirements can be moved to free slots using drag and drop. The allowed time ranges are displayed with color indicators and symbols. Instead of static goods receipt processing times, dynamic pegging allows the corner start and end to be calculated by a dynamic first-come-first-served principle.

All changes are simulated at first, effects are immediately visible. If the result is satisfactory, the planning can be saved in the ERP system.



External prioritization via pegging functionality

Communication tool

The use of ORSOFT LabScheduling significantly reduces expenses for manual coordination processes via e-mail or telephone. It is possible to assign inspection lots directly to employees and to store prioritization. In addition, cross-departmental information can be exchanged via comment fields. The planning results can be accessed via a web frontend or forwarded to the relevant departments as an Excel export.

Seamless Integration into SAP

ORSOFT LabScheduling has a certified interface for SAP ERP and SAP S/4HANA and can be connected to an SAP Q-system without any additional adaptation effort. The interface reads all necessary master and transaction data directly from the SAP ERP modules PP, PP-PI and QM. Laboratory planning thus seamlessly builds on production and procurement planning.



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About ORSOFT

ORSOFT GmbH is one of the leading software and consultancy companies for advanced planning and supply chain management in Europe. ORSOFT employs more than 90 experts, has an annual turnover of about EUR 10 million and has been continually profitable since its founding in 1990.

ORSOFT supplies high-quality solutions and consultancy services to optimize processes and is an SAP Services Partner of SAP Deutschland.



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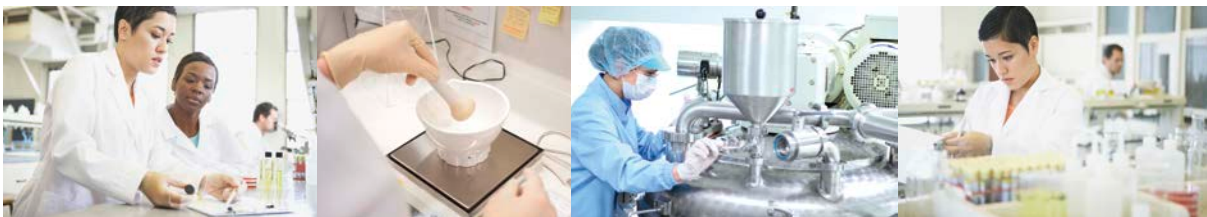
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Conclusion

ORSOFT LabScheduling provides integrated planning of production and laboratories and ensures end-to-end supply chain planning. Various ERP systems or LIMS can be connected via the dynamic interface. The harmonization of production and laboratory planning enables accurate capacity forecasting. Due to the real-time data processing and the complex simulation options, it is possible to react quickly to changing conditions. Planning conflicts are detected at an early stage and can be resolved tool-supported by out-of-the-box functionalities. This leads to an increase in the service level and delivery reliability, as well as a cost reduction through precise control of capacity utilization.



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For further information please visit our website at:

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