



CASE STUDY:

SAP Augmentation via LabWare Integration

Overview: Astrix LabWare Integration enabled a global company with operations across 54 countries to streamline their process for entering, documenting, and reporting their compliance with environmental regulations associated with water quality, including ISO/IEC 17025. In under six months, the client enjoyed measurably faster sample lifecycle with dramatically larger volume of samples analyzed.

Business Challenge: The company's primary challenge was the limiting factor of their manual sampling operations which created a processing bottleneck in their laboratory operations. The company needed to achieve and sustain their goals for growth and planned to optimize their laboratory processes via increased efficiency. Once the decision was made to implement LabWare LIMS to enable growth in testing volumes, reduce throughput interval, and enhance data integrity and reliability, the plan was made to initially implement and integrate LabWare across 3 different laboratories in South America. Documented success among the pilot group of South American labs, would mean the company could expand LabWare implementation across their entire global network.

Laboratory operations were effectively at maximum capacity in terms of the number of samples that they could process, making future company growth and expansion problematic.

Fortunately, they were using SAP Enterprise Resource Planning (ERP) software to manage multiple aspects of their business and were documenting their compliance with SAP's QM (Quality Management) module in their laboratories. The challenge, then, essentially involved automating performance, which had been relying on extensive calculations in Excel spreadsheets, and then entering the results into the SAP-QM system manually, which was time-consuming, cumbersome, and entailed a significant risk for error.

By implementing LabWare LIMS the company knew they could achieve greater efficiency and optimization in their laboratory processes IF it could be done efficiently and integrated smoothly into their operations. The perceived degree of difficulty was increased by the twin issues of time and money. Although the company felt an urgency to upgrade their laboratory informatics, they had a very tight budget for the LabWare implementation and a short timeline for its completion. The project team brought us their list of 4 key requirements which included:

- LabWare needed to be able to communicate with the SAP-QM system, without requiring any customizations on the SAP side.

- The LabWare system needed to assure complete accuracy in performing all calculations required by the ISO/IEC 17025 certification process, replacing over 100MB of Excel spreadsheets containing constants and calculations. These calculations included a complex uncertainty calculation of the levels of various organic and inorganic compounds found in water samples.
- The LabWare system needed to be integrated with several RS232 protocol instruments, among over a dozen other complex instruments.
- LabWare needed to be able to communicate with a legacy database containing R&D data on incoming materials worldwide, to receive certain header information for labeling and to return results. No changes in the legacy system could be performed.

How Astrix Enabled Success: The Astrix project team applied a best practices methodology comprised of:

- **Developing User Requirements:**
We began by develop the requirements for the implementation by meeting with end users, to ensure we understood their perspectives and could secure their buy-in to a substantial change in process.
- **Project Management:**
To ensure the implantation was successful from the earliest phases, and delivered on-time and on-budget, we managed all elements of the project so our client staff could remain focused on their own daily operations.
- **LabWare and SAP Interface:**
To ensure that there would be no need for SAP customization, and assistance of an SAP-QM specialist would be unnecessary, Astrix project managers employed the SAP QM-IDI and the LabWare native interface with SAP. The communication with the SAP system that LabWare facilitated enabled the creation of Inspection Lots, Specifications, Components and Analysis, as needed.
- **System Configuration:**
To perform all the required calculations and actions essential to meet the business needs, including the uncertainty calculation, Astrix project managers configured and tested the LabWare system for continuous, optimal performance.
- **Client Staff Training:**
Astrix conducted training workshops to educate key users on the client's staff on how to integrate the LabWare system with their instruments. These key users were able to train their colleagues, subsequently, which was essential to preserving the client company's modest implementation budget. Additionally, the Astrix team conducted workshops on the ELN functionality available in LabWare to train members of the companies' R&D team on its use.

The Astrix Impact: The project was completed in 5 months, on-time and on-budget—a success in the eyes of the client. Project results included:

- Company employees succeeded at integrating an impressive volume of RS232 instruments (such as scales) and complex instruments (such as HPLC).
- Data flow between the Laboratory and Quality Control functions is faster and more reliable as a result of the LabWare interface with SAP.
- Sample lifecycle is faster, with a dramatically increased volume of sample analysis, as a result of the rate of calculations performed by the LabWare system.

- The company was able to document compliance with governmental regulations and with ISO/IEC 17025 thanks to the LabWare audit and traceability features.

Where there was once a choke point on our client’s ability to grow and meet their objectives, Astrix is pleased to have enabled a global network of mission critical laboratories to meet—and document—a higher level of operational excellence.

ABOUT US:



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