Implementation of SampleManager™ LIMS v21 for a Multinational Chemical Company

CASE STUDY

PROJECT AT A GLANCE

Business Sector:
- Chemicals
- R&D

Informatics System:
- Thermo Scientific™ SampleManager™ LIMS version 21

Service Offering:
- Implementation
- Project Management
- Business Analyst
- Validation

Elements:
- 4 Sites
- 4 labs
- 6 Months
- 3 CSols Team Members

The specialty adhesives unit of a multinational chemical company selected CSols to perform a SampleManager LIMS version 21 implementation at four global R&D sites. The business driver for the project was to simplify the analysis request process for the R&D organization, keep the requestors informed about progress during the analytical steps, and create a single source of analytical reports to the requestor community.

Issues to solve were identified as:
- Manual submission of requests that was time consuming to manage.
- Paper-based analytical workflow that was hard to track—there were no lab or business metrics for management.
- Reports were in various network shares or legacy applications with no way to search metadata.

The broader organization decided to harmonize all laboratories on the existing SampleManager LIMS technology to improve processes and gain efficiencies. The client selected CSols to perform a SampleManager™ LIMS version 21 implementation at the four sites—one each in the United States, France, the United Kingdom, and China.

Objectives & Challenges

The client had defined goals for the project:

- Provide an efficient mechanism for R&D customers to submit samples and request analysis from the business unit's R&D labs.

- Provide easy-to-use tools to improve the efficiency and workflow of the sites' analytical operations by deploying SampleManager LIMS version 21.

- Provide storage of request reports available for review by the R&D customers on completion of analytical work.
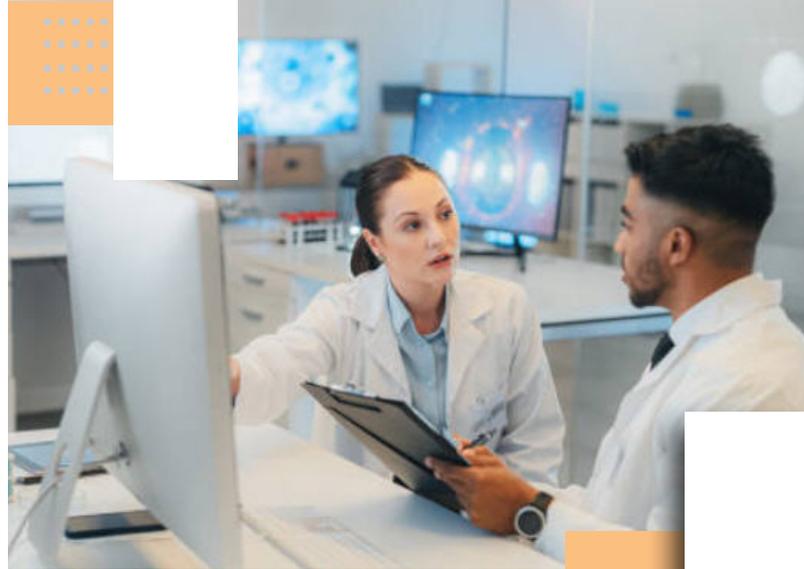
This implementation would give the four R&D sites access to the same LIMS technology that the rest of the organization was already using. The completed implementation would provide the client with automated request submission and reporting as well as a single storage repository for all reports going forward.

The client's team at the four new sites was not familiar with SampleManager, as this was their first experience with a LIMS. They also did not have much time to participate in the implementation, other than a few hours here and there for weekly meetings and test sessions. All the users needed guidance on how best to leverage the new features and adjust existing workflows. The team also wasn't always sure what they wanted from the new LIMS until they saw it in action. This was a fixed-price project, so it was important to plan our resources carefully to provide adequate support as the client's team learned the new system.

This project also required heavy use of C# to power the dashboards, which went into some challenging areas of code that we needed to work through. The client understandably does not have the C# experience or dedicated development environments to code in C# for their SampleManager LIMS.

CSols' Role in the Solution

For this fixed-price project, CSols monitored both the project budget and the scope of delivered functionality. Our careful stewardship of the budget produced a functional and efficient SampleManager LIMS instance that the client is very happy with. The system has been configured to be flexible and data-driven, minimizing the need for custom code; for example, by allowing the addition of more sites via data configuration and automated capture of results from laboratory instruments.

CSols created dashboards within SampleManager LIMS version 21 to meet the client's objective of a more efficient sample submission and analysis request process and to improve the user experience with the necessary forms. This involved prototyping over multiple rounds to identify and capture all the requirements. We knew generally what they wanted, but when they saw the screens that triggered more ideas. We provided guidance on configuring the appearance of the dashboard screens to reduce the need for customization. We were able to limit the options requested so we could still deliver the project on time and on budget.

The CSols team provided three key roles for this project:

The Project Manager

- Kept the overall project on time, on budget, and delivered the specified scope of work.
- Ensured the client's needs were met within the available budget

The Business Analyst

- Guided the client sites through the requirements gathering
- Assisted with the As-Is and To-Be workflow mapping
- Configured the system to meet client requirements

The Developer

- Used .Net forms and C# to create a simplified and efficient user interface to submit/create requests, monitor progress, and return reports to the requestor. The new tools to manage the request workflow delighted the client.

- Configured SampleManager LIMS workflows to support the request flow through the organization.

- Configured reports to support the processing of requests and the delivery of reports back to the requester.

- Consolidated analytical reports within SampleManager LIMS to make them available to the requesting team.

Benefits

The CSols planned the new SampleManager LIMS version 21 implementation to automate and consolidate the many parts of the existing legacy system setup. The completed implementation gave the client the ability to:

- Automate and control the request submission process

- Automate the delivery of reports back to the requester

- Store all reports as attachments in LIMS, creating a single source of reports for the future

- Use dashboards to simplify login functionality for the various user roles