

Laboratory software

SampleManager software 21.0

Next generation software to connect your organization to the future

Transformational lab management with hands-free interaction using extended reality (XR) technology

Thermo Scientific™ SampleManager™ LIMS software 21.0 connects to industry-leading statistical and calculation engines, allowing scientists to derive more insights from their data and make informed decisions. This release focuses on the needs of the user – strengthening existing capabilities to speed up instrument connectivity and make the information you need even easier to find.

For customers who need to be able to access SampleManager software hands-free, SampleManager XR software uses extended reality for hands-free interaction, further securing process compliance and data integrity while improving the scientific experience.

Enhancements to existing features

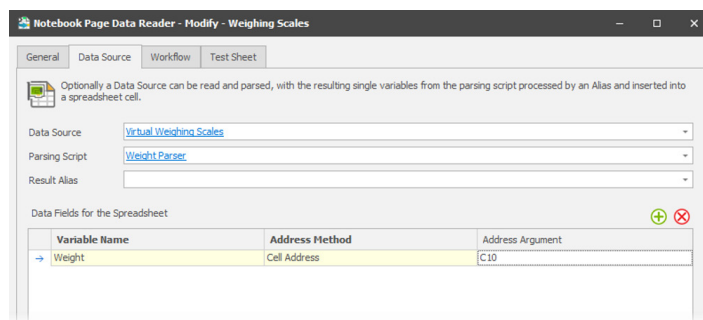
Customer Portal

The SampleManager LIMS customer portal now supports ad-hoc sample login, enabling the user to log in samples and add tests that are not part of a Statement of Work. A new sample management menu section is included out the box, providing:

- Sample workflow login
- The ability to add tests by analysis or test schedule
- An option to view results

Electronic Lab Notebook

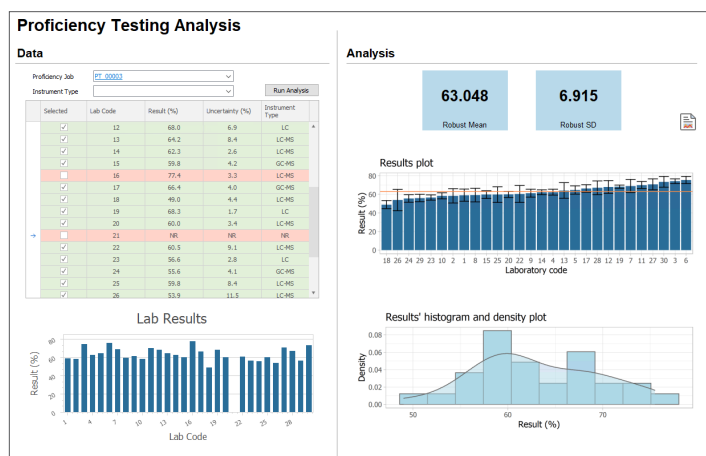
As well as a full text search of all Lab Notebook entries, pages can be linked to any entity within the system to enable relevant items to be located more easily. SampleManager LIMS 21.0 also makes it possible to pull values out of instrument files and enter them into spreadsheet cells - a notebook page data reader pulls data from a data source or workflow, and posts to spreadsheet page cells. They can then either become calculation parameters or results.



The Lab Notebook pulls data values from a source such as weighing scales, and uses the value as a result or calculation

New capabilities in SampleManager LIMS 21.0 Improved charting and statistical calculations

Statistical scripting capabilities allow SampleManager LIMS to use R script to return calculated data, statistics and charts that can be included in dashboards, charts or reports. A new workflow node can be used to initiate the statistical script. New charting widgets enable returned data sets to be represented graphically on dashboards.



A dashboard created using the R script integration

- The sweeper service communicates with the application server via the REST API
- Reuses existing native integration configurations such as data sources, parsing scripts, mapping scripts and aliasing
- A new workflow node 'Get Sweep Data' allows workflow to be directly invoked by the sweeper
- Draws from the same pool of instrument connection licenses as the SampleManager SDMS (Scientific Data Management System) sweeper



Improved authentication

Single sign on support has been added for use by both the web and desktop clients. SampleManager LIMS 21.0 can connect to industry standard identity and access management systems including OAuth (Open Authorization) 2.0 and OpenID Connect protocols, and can also be set up for multi-factor authentication (MFA) through a third-party Identity Provider (IdP). This allows a user to login to SampleManager LIMS without specifying operator credentials.

Easy instrument connection

A simple lite instrument PC sweeper talks directly to the Rest API in SampleManager LIMS to perform result entry. The easy to set up service can also be used to trigger a workflow in SampleManager LIMS and to perform actions such as sample login. A small msi installer creates a service running on the instrument PC, so a SampleManager LIMS client install is not required.

Hands-free interaction to strengthen compliance

SampleManager XR software enables scientists to work while using extended reality technology to interact with SampleManager LIMS hands free, driving process compliance, repeatability and integrity. Scientists can access lab execution functionality, capturing pertinent data in real time as they follow working instructions presented in line of sight.

Using iris recognition technology to authenticate to the system, the analyst is presented with a personalized to-do list of work for the day that they can perform using voice and gaze activation to navigate the system. SampleManager XR software is a dedicated Microsoft HoloLens device app which can be downloaded from the Microsoft store, providing a new interface to SampleManager software features.

Faster review and approval process

A specially designed result review screen eases the QC sample review and approval process. The solution provides authorized

users with a clear overview of all samples awaiting review and leverages review by exception.



Overview:
Overview of key important values for jobs, samples, tests and results.



Item colors:
Color coded MLP levels to indicate items in and out of spec. Status colors honored replicating result entry.



Hierarchical display:
Data displayed in logical hierarchy to find items quickly.



Comments:
Comments against items visible in the grid as a tooltip.



MLPs, audits and incidents:
MLPs, audits and incidents displayed when focusing on items.



Configurable:
Data driven configuration to allow for colors, icons and fields to be shown. Can be configured for other auxiliary actions.

Simple localization for global systems

SampleManager LIMS 21.0 connects to Google Translate or equivalent services to translate system messages and static data, making global installations faster and easier.