One of the biggest challenges faced by laboratories is maintaining data integrity throughout all processes to guarantee delivering reliable, unquestionable results. Regulated industries require compliance to regulations such as ISO 17025, GMP and 21 CFR Part 11. Compliance is achieved and maintained by putting processes in place to ensure consistent test execution and a complete, uninterrupted data lifecycle from sample receipt through to data reporting and archiving.

A typical lab will utilize multiple disparate informatics systems, such as Laboratory Information Management Systems (LIMS), Chromatography Data Systems (CDS), Lab Execution System (LES), Electronic Lab Notebook (ELN) and Scientific Data Management System (SDMS), in addition to spreadsheets and paper-based methods. In this non-integrated environment, multiple manual steps must be taken to accomplish any given task, from pulling sample information, entering sample lists and analysis in the lab notebook, updating the CDS log, manually transferring results to a spreadsheet to do further calculations, approving those calculations and re-entering them in a lab notebook or into the LIMS.

The link between Thermo Scientific™ SampleManager™ LIMS and Thermo Scientific™ Chromeleon™ CDS:

- Provides a dedicated interface, designed and supported by Thermo Fisher Scientific
- Brings together LIMS and CDS workflows into a single, streamlined process
- Eliminates manual steps related to sample testing, results capture and analysis
- Enables access to all chromatography and mass spectrometry data within the same environment, simplifying training of personnel and reducing operating costs.

SampleManager LIMS software is one of the most widely deployed LIMS in the world, applying the latest technologies to support customers for over 30 years.
The workflow capabilities in both SampleManager LIMS and Chromeleon CDS provide an easy way to map the systems to lab processes. The clear and intuitive user interface enables easy workflow adjustment when SOPs are updated, without the need for external IT or programming resources. Workflow capabilities include exchange of information between the LIMS and CDS at user decision points. The link provides the ability to determine the point at which data automatically transfers from Chromeleon CDS to SampleManager LIMS, ranging from immediately after a sample has acquired, to the end of a full review and approval cycle in Chromeleon software.

The link enables the user to drive the process using their preferred solution. Experienced SampleManager LIMS users can drive the whole process without having to use the Chromeleon software interface. Authorised users can assign samples to a range of instruments and sequences in a single process, and the link will automatically create all the sequences required to perform these analyses with the correct methods, sequence layouts and reports. Experienced users of Chromeleon CDS can also drive their mass spectrometry and chromatography analyses, pulling samples and automatically returning results, without having to run SampleManager software.

A dedicated interface supported by Thermo Fisher eliminates manual steps and provides users with increased confidence in the data and process integrity of their chromatography and mass spectrometry workflows.

Chromeleon CDS is a leading chromatography data system, unifying workflows for LC, GC, IC and MS analysis.