Streamline your Workflows

Introduction
The Thermo Scientific™ Chromeleon™ Chromatography Data System (CDS) simplifies your analysis without sacrificing flexibility, using innovative eWorkflow™ procedures.

Chromeleon CDS streamlines your workflows and gets you from samples to results quickly and easily, boosting your overall lab productivity.

The tools for streamlining your chromatography processes
Fundamentally, all chromatography and mass spectrometry (MS) workflows are similar: samples are injected, separations are performed, signals are captured, and results are generated. Where workflows differ is in the details, such as the instrument conditions, injection sequence requirements, and the techniques by which results are calculated. These differences create complexity for operators, reducing their efficiency and increasing the risk of errors.

Chromeleon CDS solves these problems using eWorkflow procedures. An eWorkflow procedure is a set of rules that captures all the unique aspects of a chromatography or MS workflow and guides the operator through a minimal number of choices needed to create a complete, correct sequence with predefined files and a well-defined structure.
Using an eWorkflow procedure drastically simplifies correct sequence creation—the operator just selects an instrument, specifies the number of samples, the starting vial position in the autosampler, and begins the analysis. The software then runs the analysis, processes the data, and produces final results.

eWorkflow templates take you from samples to reliable results in as little as two clicks, minimizing the amount of training required and delivering ease of use. Users can create and start a run, process the data, and generate results very quickly and intuitively.

eWorkflow procedures can be launched from multiple locations in the Chromeleon Console:

1. The eWorkflows Category
   - Select an eWorkflow template, select an instrument and press the Launch button

2. The Overview pane in the Instruments category
   - Select an Instrument and launch via an automatically filtered (to the selected instrument) drop down list

3. The Instrument ePanel in the Instruments category
   - Launch via a drop down list automatically filtered to the selected instrument
Only one eWorkflow procedure is required per analysis method. Each can support multiple instruments, even with differing configurations, with Default Assignments ensuring automatic selection of the correct methods, reports and channels delivering more ‘right first time’ sample analysis.

Intelligent instrument recognition in the eWorkflow Editor ensures correct linkage between instruments and methods, eliminating failed sequences.

eWorkflow procedures can also be configured to create and start sequences on two linked instruments at the same time (for example, the front and back flow paths of a dual inlet GC). As samples are added, the correct methods for each linked instrument are automatically assigned along with vial positions according to the autosampler tray sharing configuration set in the eWorkflow Editor.

A new user privilege enables the ability to edit the sequence table when running the eWorkflow Wizard, for example, to add sample names or weights, and even edit custom injection variables. Any changes are fully tracked and recorded in the Sequence Data Audit Trail.

Default Assignments in the eWorkflow Editor ensure correct method, report and channel selection for each instrument. Where instruments are linked, the autosampler tray sharing can be defined.

The eWorkflow Wizard shows a sequence and autosampler rack preview with easy selection of the number and positions of samples. Edits are also possible in this window, if enabled.

The eWorkflow Wizard supports zooming into the rack display to graphically select the starting vial position.
Upon completion of the wizard, the sequence is automatically created and can be immediately started. All relevant files are incorporated for a complete solution. You can even include other external documents in the eWorkflow procedure, such as the SOP, so the analyst always has them to hand.

eWorkflow templates are also available for numerous applications in the Thermo Scientific™ AppsLab Library of Analytical Applications and Chromeleon Extension Packs. All the information needed to run, process and report the analysis is available in ready-to-use eWorkflow procedures.

Conclusion
Chromeleon eWorkflow procedures deliver Operational Simplicity™, reducing the number of steps needed to perform chromatography and MS workflows, ensuring that procedural rules and guidelines are followed accurately. Simplifying sequence creation and instrument operation eWorkflow templates minimize training requirements and support specific dual instrument applications, enabling you to generate results quicker and more efficiently.

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