Enjoy operational simplicity

The Thermo Scientific Chromeleon Chromatography Data System (CDS) delivers rich, intelligent functionality with Operational Simplicity™. See how the thoughtfully designed user interface and visual cues guide you naturally through your chromatography, getting you from samples to results quickly and easily—boosting your overall lab productivity.

Console and Studio: Tools for accessing and managing instruments and data

The Chromeleon CDS user interface achieves Operational Simplicity by following specific design principles:

- Minimize the steps needed to perform any task

- Make all steps easy to understand and easy-to-use

- Minimize the time it takes to perform any task

By adhering to these principles, all actions become fast and intuitive. The software provides a balance between mainstream capabilities and specialized functions, and between focusing on the immediate task and creating awareness of greater possibilities.

The system's top-level user interface—the Console—provides direct access to instruments, data, and eWorkflow™ procedures.

Figure 1. Category bars in the Console provide instant access with easy navigation

The instruments category bar displays all instruments accessible to the user, and automatically generates a set of live control panels (ePanels) for the selected instrument. This provides direct control with means to easily monitor operations. Uniquely, these ePanels can be user-customized based on their company requirements and access level, providing a consistent look and feel.
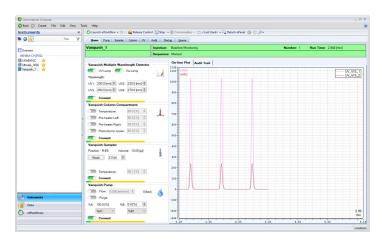

Figure 2. The Chromeleon CDS Console: Instrument category and autogenerated ePanel

Dedicated ePanel tabset pages provide instant access to each module configured in the instrument, the Queue of injection sequences and to an Audit Trail listing the complete event history for the instrument. The ePanels can also be detached from the Console to facilitate monitoring and control of instruments while using other areas of Chromeleon CDS.
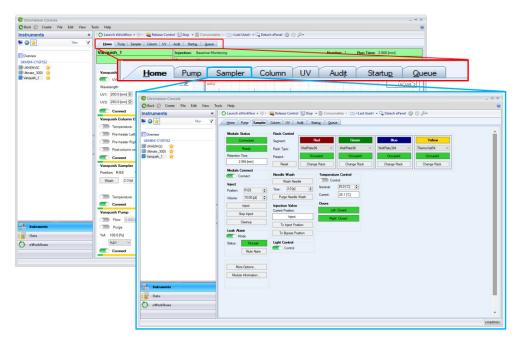
Figure 3. ePanel tabs give access to all controls per module, the instrument audit trail and sequence queue

The Data category of the Console displays a standard navigation tree. Data management tasks can be privilege controlled allowing folders to be easily organized and rearranged to fit project needs. Special icons in the tree indicate injection sequences—when one of these is selected, the full contents of the sequence are shown in the integrated Sequence Editor. All files required to run, process and report the data are accessible in the associated items. This also allows for external files such as standard operating procedures (SOP's) to be included.

MiniPlot™ thumbnail images next to the injections provide an instant visualization of the actual acquired chromatograms, and Custom Report Columns can provide result-based information that enables analysts to evaluate data at a glance. For example, QC analysts can spot anomalies, method developers can see which injections have well-resolved peaks, and researchers can check if target compounds are present in samples without opening a single chromatogram!
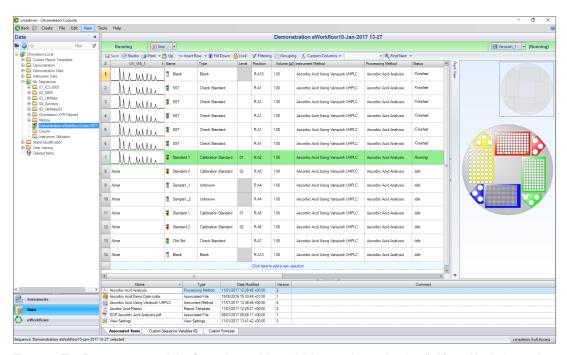

Figure 4. The Data category of the Console provides a folder tree for navigation (left), and includes an integrated Sequence Editor that displays thumbnail MiniPlots of acquired chromatograms

The final Console category is **eWorkflows**. An eWorkflow procedure is a set of rules that capture all the unique aspects of an analytical workflow, and guides the operator through a minimal number of choices needed to run it. The software then runs the analysis, processes the data, and produces final results, getting you from samples to results quickly and easily. For more information on eWorkflow procedures, see the **Streamline Your Workflow product spotlight**.

Of course, chromatographers often need more than a cursory look at the data, and sometimes need to make adjustments. For these tasks, Chromeleon CDS provides the **Chromatography Studio**, an information-rich data viewer providing immediate access to key items associated with the data set, such as the instrument methods, the processing parameters, and the report. The Chromatography Studio's customizable contextual interface (ribbon) provides easy access to features most relevant to the user, data type or current workflow, and keeps secondary features out of the way (but within easy reach when needed).
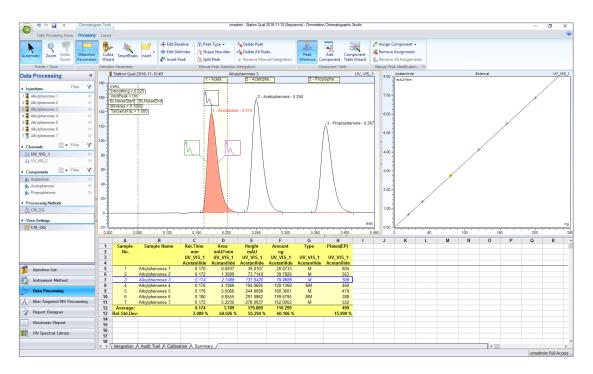

Figure 5. The Chromatography Studio provides easy and efficient access to all aspects of an injection sequence within a single window frame. The integrated design eliminates the need to launch and manage different windows when working with a data set allowing for fast, easy data review.

The Chromatography Studio provides access to many unique time-saving tools for processing, reviewing and reporting data including the Cobra™ Peak Detection algorithm and wizard, SmartPeaks™ Integration Assistant, and SmartLink.

The Cobra Wizard, algorithm and SmartPeaks help user's process chromatograms with minimal effort: The Cobra Wizard aids the setting of a few simple parameters to fine tune the Cobra algorithm, which uses advanced signal processing to determine the true underlying baseline of the chromatogram. This ensures accurate and consistent integration, while the unique SmartPeaks gives you the baselines you want quickly, easily, and intuitively when special peak treatment is needed. To learn more see the **Speed Up Data Evaluation product spotlight**.

For a demonstration on how SmartLink aids data review and reporting by giving the operator the information they need to process data faster than ever see the **Simplified Data Evaluation product spotlight**.

To further assist with Operational Simplicity, Thermo Scientific™ Chromeleon™ XPS Open Access software lets non-analytical users run samples on their own by delivering a clean, streamlined walk-up interface that utilizes the full power of Chromeleon CDS, with minimal training. Learn more in the **Walk up and Run product spotlight**.

Learn more at **thermofisher.com/chromeleon**

thermo scientific