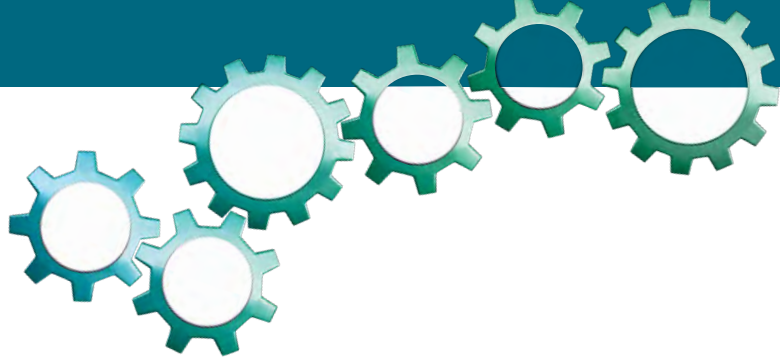# Chromeleon CDS
Instruments, Intelligence, Insight

Thermo Fisher
SCIENTIFIC

One CDS for your chromatography and routine mass spectroscopy instruments

Our chromatography and mass spectroscopy instruments are intuitive and innovative—ensuring simple operation while achieving better separations and higher sensitivity than ever before.

Thermo Scientific™ Chromeleon™ Chromatography Data System (CDS) is built on the same principles—simplifying your workflow and giving you superior insights into your data, delivering ease of use, comprehensive instrument control, automated data analysis and flexible reporting.

A CDS is vital for efficient and reliable handling of today's chromatographic data and managing the entire analytical process. From routine quality testing to constantly changing research methods and anything in between, Chromeleon CDS streamlines your entire workflow, delivering better results, faster.

⟩⟩⟩ Chromeleon CDS helps you to…

⟩⟩⟩ …increase productivity

- Reduce errors in sequence setup using eWorkflows
- More "right first-time" analyses using Smart Startup and Intelligent Run Control
- Faster data processing, reviewing and reporting with dynamic updating and smart tools built in

> "With the fully automated workflow provided by Chromeleon CDS, we are now able to run analyses over lunch, evenings, and weekends, so we can analyze more samples with the same number of technicians."
>
> Rene Spang, Head of Laboratory Mass Spectrometry Service, Bayer Pharmaceuticals

…control all your instrumentation

- Native control for Thermo Fisher Scientific IC, GC, LC and MS instruments
- Comprehensive control for more than 300 instruments from other manufacturers
- Customizable ePanels provide a consistent look and feel for all instruments

…get the most out of your data

- Deliver accurate and reliable results with built-in reporting tools
- Create any report you need using the spreadsheet-based report designer
- Find, collate and report results across multiple sequences using powerful data mining tools

…connect your laboratory

- Network existing Chromeleon CDS stations to create a compliant laboratory-wide solution with no additional licenses
- Utilize network resources and centralize administration of your Chromeleon CDS stations
- Easily interface with other laboratory software

Meet Chromeleon CDS

Chromeleon CDS Console: Instruments, Data and eWorkflows

Easy data organization
Folder structure can be arranged to fit with any workflow.

Instant data access
Patented Chromatogram MiniPlots and Custom Report Columns give immediate feedback on injection quality and results.

Convenient categories
For easy navigation between instruments, data and eWorkflows.

Associated items
All files required to run, process and report the data are included. Also attach external files, e.g., a standard operating procedure (SOP) for direct access.

eWorkflows – fastest way from samples to reliable results

Customizable ePanels for instrument control
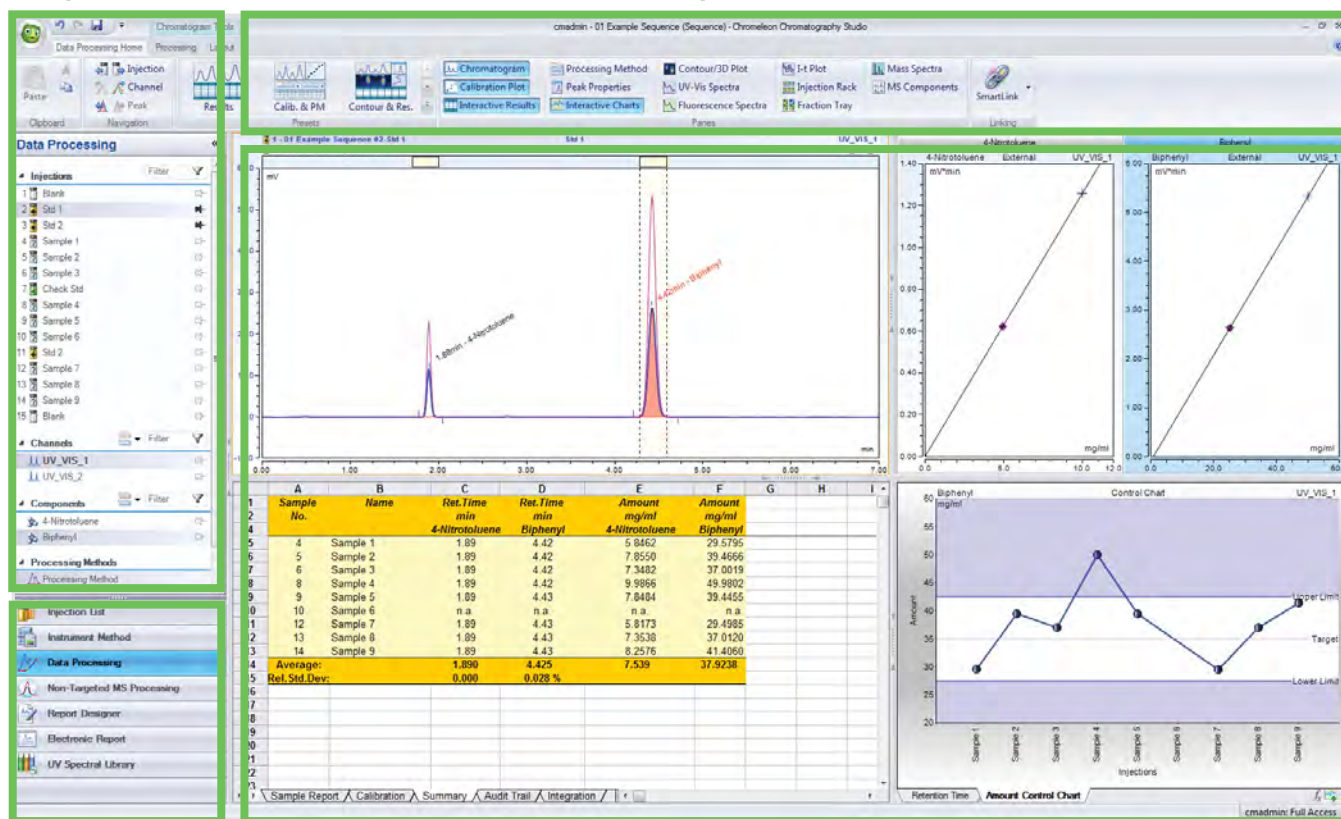
Chromatography Studio: Data Processing and Reporting

Easy sample navigation
Quickly switch between injections and pin to overlay.

Interactive ribbon
Easily find all relevant tools and functions for the current activity.

Convenient categories
Access everything needed to process, review and report the entire sequence.

Processing method, calibration/spectra plots, interactive results/charts and more

Broad working area
View all required information in one location for fast, easy data review.
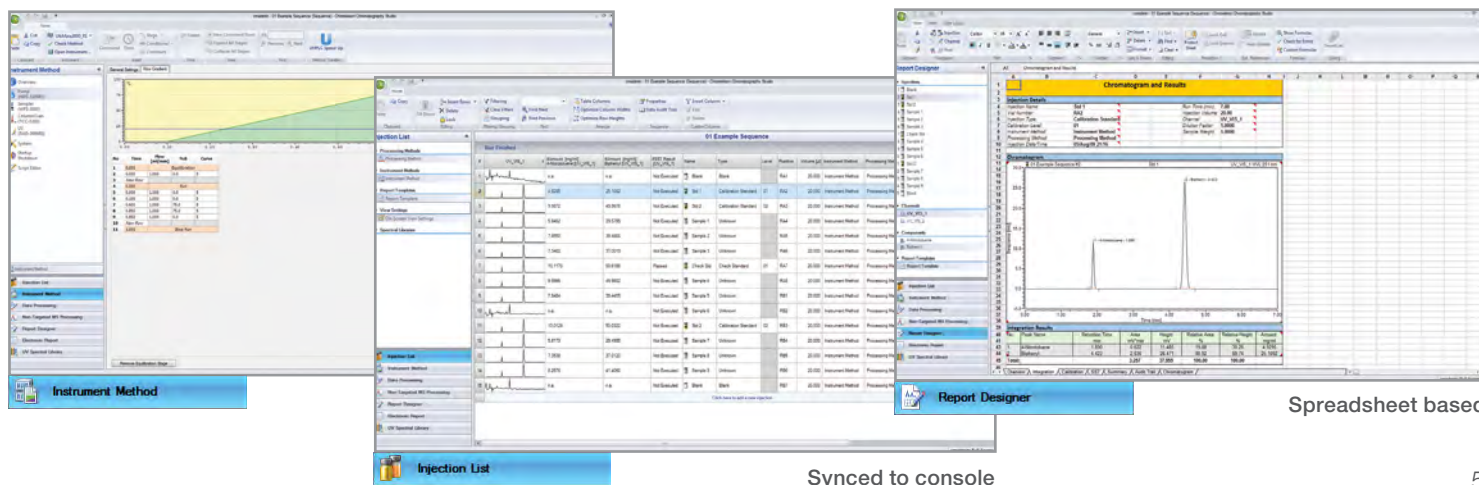
Instrument Method

Injection List

Synced to console

Report Designer

Spreadsheet based

Increase productivity

Boost laboratory efficiency with operational simplicity and intelligent functionality

Chromeleon CDS was designed with scientists and technicians in mind. It simplifies repetitive tasks, reduces errors and helps you to achieve more 'right first-time' analyses. These smart tools make your work faster and easier while ensuring reproducible, quality results:

- **eWorkflows** – error-free execution of each analysis to meet SOP requirements. Create complete, correct sequences with all required elements (methods, reports, structure and other files such as the SOP)

- **Smart Startup and Sequence Ready Check** – worry-free analytical runs by ensuring everything is equilibrated and ready to run

- **System Suitability Tests (SST) with Intelligent Run Control (IRC)** – automated checks for in-run pass/fail limits that can be configured to reinject samples or even abort the run and shut down the instrument based on the result

- **Report Designer** – powerful, spreadsheet-based templates simplify report creation and meet all of your reporting and charting requirements

Streamline your workflows

Sequence creation
eWorkflows create complete, correct sequences

Instrument preparation
Smart Startup ensures proper instrument equilibration

Increased productivity

Data reporting
Fully traceable **Report Designer** with built-in **Report Check**

Data reviewing
SmartLink for easy data evaluation and **Electronic Reports** for controlled result sharing

Data processing
Dynamic Data Processing, SmartPeaks and Cobra Wizard for fast data processing

Sample analysis
Ready Check finds sequence issues. **SST and IRC** monitor in-run injection quality

Faster data processing

Batch review and reprocessing of data can be very time consuming, subjective and error-prone. The Chromeleon CDS smart tools increase laboratory productivity by simplifying and controlling this process, reducing errors and time spent processing, checking and reporting results.

- **MiniPlots™ and Result Columns** – immediate, in-sequence overview of data and results

- **Dynamic Data Processing** – all selections and changes are instantly reflected in the data and results, for all injections in the sequence, saving time

- **SmartLink** – visualize all the information needed for fast, easy data evaluation

- **Cobra™ Wizard** – quickly set optimal detection settings for each analysis in just a few steps

- **SmartPeaks™ Integration Assistant** – consistently integrate peaks with just a few clicks

AppsLab Library: Jump start your Method Development
Find applications and download ready-to-use eWorkflows from Thermo Scientific™ AppsLab Library of Analytical Applications right into Chromeleon CDS where they can be directly executed.

Control all your instrumentation

Chromeleon CDS is the only CDS providing full control of chromatography instrumentation from Thermo Fisher Scientific and many other vendors, including support for quantitative mass spectrometry workflows for all separation techniques and MS variants, all using the same intuitive user interface.

Full control of LC, IC and GC Instruments

- Superior control of Thermo Fisher GC, IC, LC and MS instrumentation for all functions

- Comprehensive, reliable control for over 450 different instrument modules, including over 300 chromatography instruments from other LC and GC vendors

- Native drivers either provided directly by, or created in cooperation with, the original equipment manufacturer

Intuitive instrument interface

- Intuitive ePanels to control your instrument and sequence

- See the status and audit trail, and easily monitor detector baselines

Integrated control of mass spectrometry instruments

- A single software to streamline your chromatography and MS quantitation workflows

- Full integration of Thermo Fisher MS instruments using native control drivers

- Powerful features bring unrivalled usability, scalability and compliance benefits to MS users

- Use your MS like any other routine detector

LC – Separate your science with our revolutionary LC technology.

- Increased uptime with predictive wellness and service monitoring
- Intelligent instrument control with Smart Startup, Standby and Shutdown
- Advanced programming, e.g., application switching and fractionation

LC-MS(MS) – A single solution for your quantitative workflows.

- Full control of single/triple quadrupole and high resolution accurate mass (HR/AM) systems
- Data processing per component using MS-specific detection algorithms
- MS-specific views including TIC, XIC, Mass Spectra, quantitation channel, and MS component traces

"Chromeleon CDS offers the best support for third-party instruments. Competitors' software provided only limited support for far fewer third-party instruments."

Bernd Boscolo,
QC Improvement Projects Team Leader and CDS Administrator
Douglas Manufacturing Ltd.

IC – Get more from our world-leading IC and IC-MS instrumentation.

- Only CDS with complete control of all current IC and IC-MS systems
- Intelligent instrument control with Smart Startup, Standby and Shutdown
- Autodilution and re-injection of out-of-range samples

GC and GC-MS(MS) – Chromeleon CDS gives you superior control.

- All GC and MS functions including tuning and instrument calibration
- AutoSIM/AutoSRM for automated SIM/ SRM method development
- Advanced injection and sample preparation modes for increased productivity
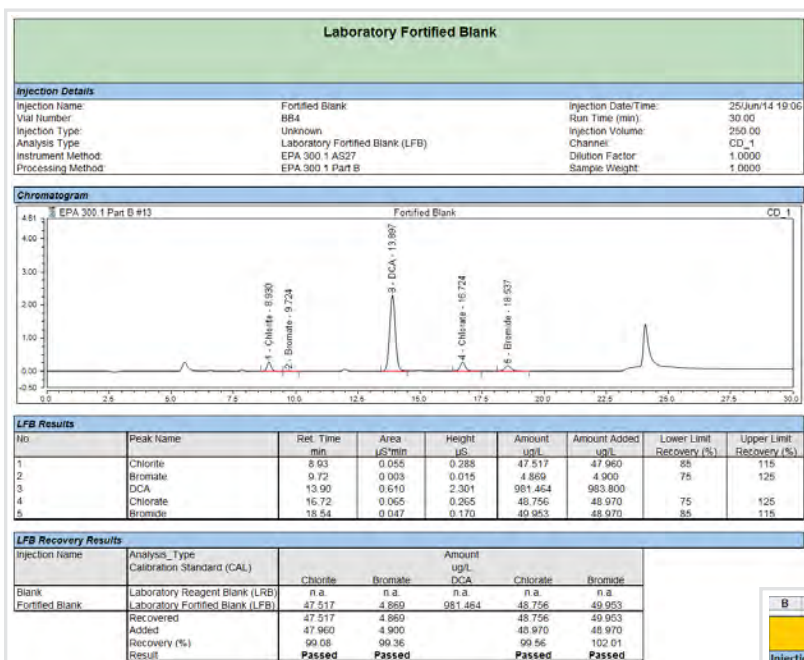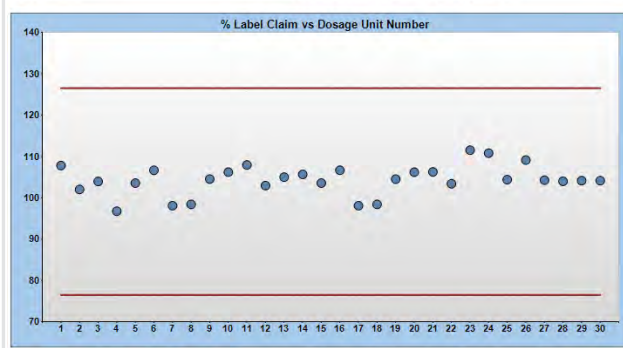
Get the most out of your data

The Chromeleon CDS flexible spreadsheet-based Report Designer provides a familiar interface simplifying the creation of user-defined report templates and eliminating data export to external spreadsheets, reducing errors.

- Produce any report you need, replacing external spreadsheets
- Deliver correct and reliable results with built-in reporting tools

- Find, collate and report results across multiple sequences using powerful data mining tools

"The Chromeleon CDS Report Designer is a mighty tool to calculate and present data, and to our understanding is far better than any other software package. With the Chromeleon CDS Reports, we are seeing time and cost savings equivalent to four to five full-time employees depending on the workload in each month."

Bernd Boscolo,
QC Improvement Projects Team Leader and CDS Administrator,
Douglas Manufacturing Ltd.
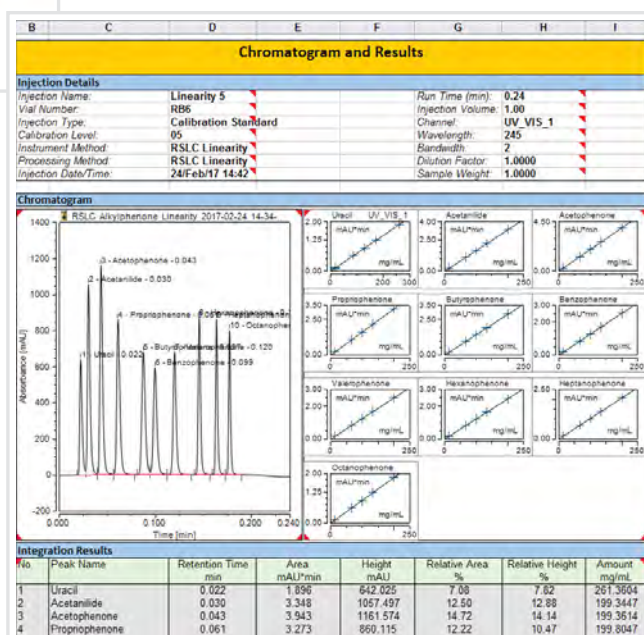
Connect your laboratory

Utilizing the Chromeleon CDS client-server capabilities is your next step in achieving the highest levels of compliance, data integrity and data security, and to realize further efficiency gains.

- Scale seamlessly from a single workstation to a laboratory network, right up to a global multi-site deployment.

- Be compliant with regulatory, 21 CFR Part 11 and GxP requirements and the latest data integrity guidelines.

- Get 24/7 laboratory uptime with intelligent Network Failure Protection (NFP) keeping instruments running, data accessible and allowing new sequences to run.

- Easily manage data, users and resources across laboratories while retaining central control.

As part of the Thermo Scientific™ Integrated Informatics software portfolio, Chromeleon CDS integrates seamlessly with Thermo Scientific™ SampleManager™ to streamline laboratory processes and eliminate manual steps related to sample testing, results capture and analysis.

SampleManager is a single solution for laboratory information management (LIMS), scientific data management (SDMS) and procedural electronic laboratory notebook (ELN)/laboratory execution system (LES).

INTEGRATED INFORMATICS
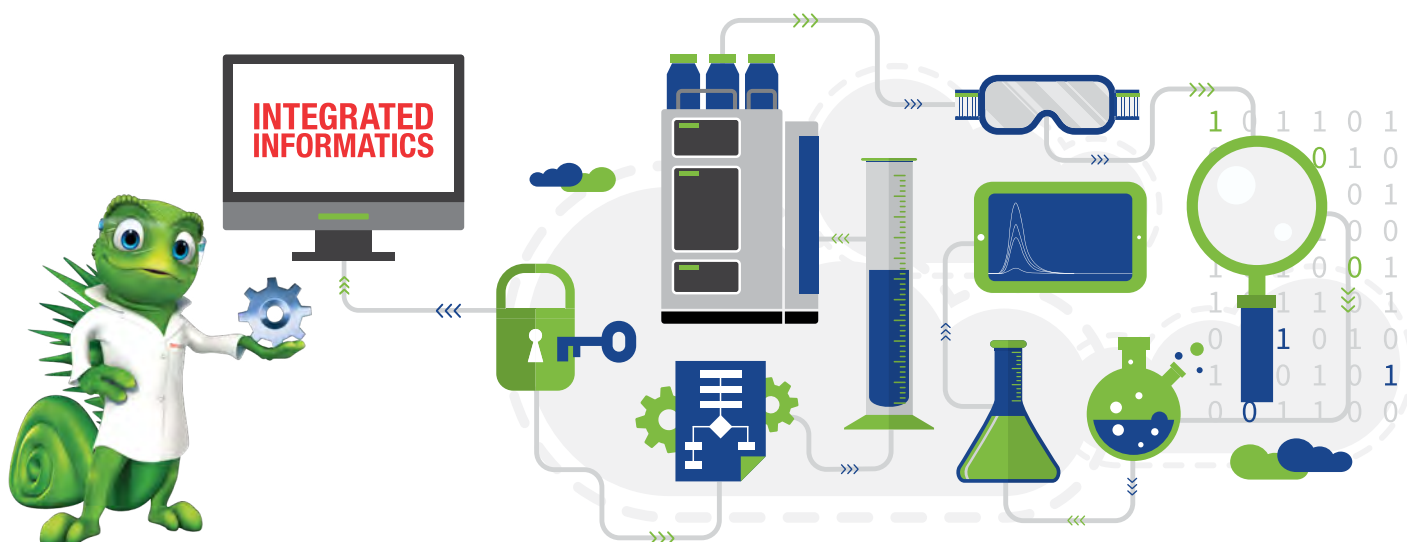
Interested in our complete data management solution?
Learn more about the entire Thermo Scientific Integrated Informatics
portfolio at **thermofisher.com/integratedinformatics**

Like Charlie Chromeleon on Facebook to follow his travels and get
important updates on chromatography software!
facebook.com/CharlieLovesChromatography

Visit AppsLab Library for online access to applications for GC, IC, LC,
MS and more. **thermofisher.com/AppsLab**

Find out more at **thermofisher.com/chromeleon**

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