



# Reference Guide

## Chromeleon 7 Chromatography Data System

Software Version 7.3.2 MUF • December 2025

### Chromeleon software components

Some Thermo Scientific™ Dionex™ Chromeleon™ 7 components are visible applications with which you interact directly. Other components run in the background as Windows Services and manage tasks, such as instrument control and secure data transfer.

#### Chromeleon Console

Start: Select **Start > Thermo Chromeleon 7 > Chromeleon 7**.

Chromeleon Console is your entry point to Chromeleon.

Select a category bar to:

- Control and monitor your instruments.
- Organize your data.
- Work with eWorkflows.

**TIP** The *Quick Start Guide* provides step-by-step explanations of the basic workflows. The *Glossary*, available in the online help, provides quick reference information.

#### Chromatography Studio

Start: Select **Studio** in the toolbar above the injection list.

Chromatography Studio allows you to process your data.

Select a category bar to:

- View and edit the injection list.
- View and edit the instrument method.
- Perform data processing, for example, integrate chromatograms, enter calibration data, and check calibration curves.
- Process MS data (Non-Targeted MS Processing).
- Perform intact protein deconvolution.
- Report results (Report Designer).
- Sign reports electronically (Electronic Report).
- Work with spectral libraries.










#### Services Manager

Start: Select **Start > Thermo Chromeleon 7 > Services Manager**.

Using the Services Manager, you can:

- Start and stop the Instrument Controller Service.
- Start the Instrument Configuration Manager.
- Show a list of all Chromeleon services.

## Chromeleon Objects

	Folder	A container for objects. Use folders to organize data in a data vault.
	Query	A data vault search to find injections that match certain criteria.
	Sequence	This is the basic unit of data in Chromeleon. It comprises a set of injections that belong together and contains all the data and meta-data necessary to recreate sample analysis results.
	Instrument Method	A set of timed commands for an instrument to be executed during chromatographic analysis.
	Processing Method	A collection of parameters (including parameters for peak detection and calibration) that are used for evaluating a chromatogram.
	Report Template	Spreadsheet file that defines how data that is related to a sequence is printed or exported.
	View Settings	These include settings for displaying the chromatogram, calibration curve, and interactive result tables.
	Electronic Report	An electronic version of the results of a sequence.
	UV Spectral Library	A collection of spectra used for peak identification.

## Generate and start sequence using eWorkflows

### Start an analysis using an eWorkflow

1. In the Chromeleon Console, select the **eWorkflows** category.
2. In the navigation pane, select the **eWorkflow** of your choice.
3. In the work area, select the instrument of your choice.
4. In the toolbar above the list of instruments, select **Launch**.
5. Follow the wizard and provide the necessary input.
6. Review and edit the generated sequence.
7. In the Sequence Control Bar (above the injection list), select **Start**.

### Start an analysis using an eWorkflow for a specific instrument

1. In the Chromeleon Console, select the **Instruments** category.
2. In the navigation pane, select your instrument.
3. In the toolbar above the ePanel, select **Launch eWorkflow**.
4. Select the **eWorkflow** of your choice.
5. Follow the wizard and provide the necessary input.
6. Review and edit the generated sequence.
7. In the Sequence Control Bar (above the injection list), select **Start**.

### Edit an eWorkflow

1. In the Chromeleon Console, select the **eWorkflows** category.
2. In the navigation pane, select the **eWorkflow** of your choice.
3. In the toolbar above the list of instruments, select **Edit**.
4. Modify the eWorkflow as needed.
5. Follow the wizard and provide the necessary input.
6. Review and edit the generated sequence.
7. In the Sequence Control Bar (above the injection list), select **Start**.

**NOTE** You can now monitor the running sequence from the Instruments category bar.

## Generate methods and sequence directly

### Create methods

1. In the Chromeleon Console, select the **Data** category.
2. In the main menu, select **Create**.
3. Select **Instrument Method**, **Processing Method**, **Report Template**, or **View Settings**.
4. Follow the respective wizards and provide the necessary input.

### Create and start sequence

1. In the Chromeleon Console, select the **Data** category.
2. In the main menu, select **Create**.
3. Select **Sequence**.
4. Follow the wizard and provide the necessary input.
5. Review and edit the generated sequence.
6. In the Sequence Control Bar (above the injection list), select **Start**.

## Control instruments

### Directly control and monitor via ePanels

1. In the Chromeleon Console, select the **Instruments** category.
2. In the navigation pane, select the instrument of your choice.
3. In the work area, select the relevant tab to see the corresponding ePanels.
4. Use the controls on the ePanels to monitor and control the instrument.

### Control the queue

1. In the Chromeleon Console, select the **Instruments** category.
2. In the navigation pane, select the instrument of your choice.
3. In the work area, select the **Queue** tab to see the list of sequences currently waiting for analysis.  
You can now add, remove, and sort sequences, and start and stop the queue.

### Check instrument audit trails

1. In the Chromeleon Console, select the **Instruments** category.
2. In the navigation pane, select the instrument of your choice.
3. In the work area, select the **Audit** tab to see all the commands sent to and the parameters received from the instrument via Chromeleon.  
You can now group, filter, and search for commands of interest.

## View data

### Review chromatograms and results

1. Open the sequence in the Chromatography Studio.
2. Select the **Data Processing** category.
3. Select the **Data Processing Home** ribbon tab.
4. In the Navigation group, select the previous and next buttons for the **Injection**, **Channel**, and **Peak**.  
–OR–  
In the navigation pane, select the injection or channel you want to evaluate.

### Adjust the view

1. Open the sequence in the Chromatography Studio.
2. Select the **Data Processing** category.
3. Select the **Data Processing Home** ribbon tab.
4. In the Panes group, select a pane to show or hide the relevant information.
5. In the Presets group, select a preset group of panes. Each group is designed for a specific task.

## Data processing – peak detection

### Set detection parameters

1. Open the sequence in the Chromatography Studio.
2. Select the **Data Processing** category and the chromatogram plot.
3. In the Chromatogram Tools tab set, select the **Processing** ribbon tab.
4. In the Detection Parameters group, select **Cobra Wizard**.
5. Follow the wizard to define the integration area, baseline noise range, smoothing width, minimum area, channel, and injection type.

### Integrate unresolved peaks

1. Open the sequence in the Chromatography Studio.
2. Select the **Data Processing** category and the chromatogram plot.
3. In the Chromatogram Tools tab set, select the **Processing** ribbon tab.
4. In the Detection Parameters group, select **SmartPeaks** (note that the mouse cursor changes).
5. Select an area in the chromatogram containing unresolved peaks.
6. Select the integration you need.

### Modify detection parameters

1. Open the sequence in the Chromatography Studio.
2. Select the **Data Processing** category and the chromatogram plot.
3. In the Chromatogram Tools tab set, select the **Processing** ribbon tab.
4. In the Detection Parameters group, select **Detection Parameters**.
5. To move a detection parameter, select the tag or the dashed parameter line and drag it to the required location.
6. To edit the value of a parameter, double-click the tag and make the change.

## Data processing – peak identification

### Create component table

1. Open the sequence in the Chromatography Studio.
2. Select the **Data Processing** category and the chromatogram plot.
3. In the Chromatogram Tools tab set, select the **Processing** ribbon tab.
4. In the Component Table group, select **Component Table Wizard**.
5. Follow the wizard to define the time range and peak filter.
6. On the Review page, enter the component names in the table or add peaks individually.

### Assign individual peaks

1. Open the sequence in the Chromatography Studio.
2. Select the **Data Processing** category and the chromatogram plot.
3. In the Chromatogram Tools tab set, select the **Processing** ribbon tab.
4. In the Component Table group, select **Add Component**.
5. Drag a rectangle around the peak to add it to the component table.
6. Double-click the peak window in the chromatogram and enter the component name.

### Update retention times

1. Open the sequence in the Chromatography Studio.
2. Select the **Data Processing** category and the chromatogram plot.
3. In the Chromatogram Tools tab set, select the **Processing** ribbon tab.
4. In the Component Table group, select **Peak Windows**.
5. Select a peak window in the chromatogram and drag it to the correct location.
6. Drag the delimiters to extend or narrow the peak window.

## Data processing – calibration

### Define standards and calibration levels

1. Open the sequence in the Chromatography Studio.
2. Select the **Injection List** category.
3. In the Type column, select **Calibration Standard** from the dropdown list to assign the injection type for all calibration standards.
4. For each calibration standard, in the Level column:
  - Assign the correct level.
  - OR–
  - Select **Create new level** from the dropdown list to create a new calibration level.

### Enter standard amounts

1. Open the sequence in the Chromatography Studio.
2. Select the **Data Processing** category.
3. Select the **Data Processing Home** ribbon tab.
4. In the Panes group, select **Processing Method**.
5. In the processing method, select the **Component Table** tab\*.
6. In the Calibration Level column, update the concentrations.

\* Processing methods can have different layouts, consisting of different tabs and names. Therefore, some of the options might be at different locations than described here.

## Reporting

### Preview a report

1. Open the sequence in the Chromatography Studio.
2. Select the **Report Designer** category.
3. In the work area, select a report sheet to preview and select the injection or channel you want to evaluate in the navigation pane.  
–OR–  
Select **Print > Print Preview** from the Chromatography Studio menu.

### Print or export a report

1. Open the sequence in the Chromatography Studio.
2. Select the **Report Designer** category.
3. Select **Print > Print** or **Export** from the Chromatography Studio menu.
4. Select **Current Injection** to print or export a report for one injection, or select **Current Sequence** to print or export a report for the entire sequence.

### Edit a report

1. Open the sequence in the Chromatography Studio.
2. Select the **Report Designer** category.
3. In the work area, select the object you want to change and make the necessary edits.

**TIP** Dynamic Chromeleon objects are indicated with a red triangle (▼). Cells that contain text or a spreadsheet formula are not marked with this symbol.

### Helpful Keys

F1	Opens context-sensitive Help
F2	Enables edit mode (for example, for changing text in table cells)
Ctrl + I	Chromeleon Console: Opens Instruments category
Ctrl + D	Chromeleon Console: Opens Data category
Ctrl + W	Chromeleon Console: Opens eWorkflow category
F4	Chromatography Studio: Takes you to the next injection
Shift + F4	Chromatography Studio: Takes you to the previous injection
F9	Fills a column with the content of the current cell down to the last cell of the column or to the last cell in a selection
F10	Chromatography Studio: Takes you to the next channel
Shift + F10	Chromatography Studio: Takes you to the previous channel
Ctrl + C	Copy selection to clipboard
Ctrl + V	Paste clipboard content to selected location
ALT + TAB	Switches between open items on the taskbar and can be used to conveniently toggle between Chromeleon Console and Chromatography Studio windows