




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.

LEGEND: *Blue background = Basic component* *Red background = Advanced component*




Console

Start: • Start > Thermo Chromeleon 7 > Chromeleon 7


The Console is your entry point to Chromeleon.

Click 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* provides quick reference information.



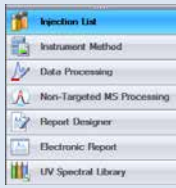

Studio

Start: • Use the Studio button in the sequence toolbar

The Studio allows you to process your data.

Click a category bar to:

- View/edit the **Injection List**
- View/edit the **Instrument Method**
- Dynamically **review and process your data**, for example, integrate chromatograms, enter calibration data, check calibration curves
- Review and **process MS data**
- Report** the results
- Create/view **Electronic Reports**
- Work with **Spectral Libraries**





Services Manager

- Click **Start > Thermo Chromeleon 7 > Services Manager**

Using the Services Manager, you can:

- Start/stop the **Instrument Controller Service**
- Start the **Instrument Configuration Manager**



Chromeleon Objects

- Folder:** A container for objects. Folders help you to organize data in a data vault.
- Query:** A search function for finding data (in the data vaults) that match the criteria you specify
- Sequence:** A collection of **injections** that belong together
*NOTE: The basic unit of data in Chromeleon is a **Sequence**. The sequence contains all the data and meta-data necessary to recreate the results.*
- Instrument Method:** A set of timed commands for an instrument to be executed during chromatographic analysis.
- Processing Method:** A collection of parameters that are used for evaluating a chromatogram. Includes parameters for peak detection and calibration.
- Report Template:** Spreadsheet file that defines how data is printed or exported. When a template is applied to a sequence in order to view, print, or export the results, the output is referred to as the report.
- View Settings:** These define how data is presented on the screen. They include settings for the interactive result tables, chromatogram, calibration curve, etc.
- Electronic Report:** An electronic snapshot of the results of a sequence
- Spectral Library:** A collection of spectra used for peak identification

Generate and Start Sequence using eWorkflows

Starting an Analysis using any eWorkflow



1. In the **Console**, click the **eWorkflows** category.
2. In the Navigation Pane, click the **eWorkflow** of your choice.
3. In the work area, click the instrument of your choice.
4. In the toolbar above the list of instruments, click **Launch**.

Starting an Analysis using an eWorkflow for a Specific Instrument



1. In the **Console**, click the **Instruments** category.
2. In the Navigation Pane, select your instrument.
3. In the toolbar above the ePanel, click **Launch eWorkflow**.
4. Select the **eWorkflow** of your choice.

Editing an eWorkflow



1. In the **Console**, click the **eWorkflows** category.
2. In the Navigation Pane, click the **eWorkflow** of your choice.
3. In the toolbar above the list of instruments, click **Edit**.
4. Modify the eWorkflow as needed.

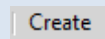
5. Follow the wizard and provide the necessary input.
6. Review/edit the sequence that the wizard generates.
7. In the sequence toolbar (above the injection list), click **Start**.

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

Generate Methods and Sequence Directly



1. In the **Console**, click the **Data** category.
2. In the main **Menu** of the **Console**, click **Create**.



Create Methods

3. Create an **Instrument Method**, a **Processing Method**, a **Report Template**, and **View Settings** following the steps in the respective wizards.

Create and Start Sequence

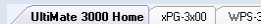
3. Select **Sequence**.
4. Follow the wizard and provide the necessary input.
5. Review/edit the generated sequence.
6. In the sequence toolbar (above the injection list), click **Start**.

Control Instruments



1. In the **Console**, click the **Instruments** category.
2. In the Navigation Pane, select the instrument of your choice.

Direct Control/Monitoring via ePanels



3. In the work area, click the relevant tab to see the corresponding ePanels.
4. Use the controls on the ePanels to monitor and control the instrument.

Control the Queue



3. In the work area, click the **Queue** tab to see the list of sequences currently waiting for analysis.
4. You can now add/remove/sort sequences and start/stop the queue.

Check Instrument Audit Trails



3. In the work area, click the **Audit** tab to see all the commands sent to and parameters received from the instrument via Chromeleon.
4. You can group, filter, and search for commands of interest.

View Data



1. Open the sequence in the **Studio**.
2. Click the **Data Processing** category.
3. Click the **Data Processing Home** tab in the ribbon at the top of the screen.

Review Chromatograms and Results

4. • Use the **Previous** and **Next** buttons for **Injection**, **Channel** and **Peak** in the **Navigation** group of the ribbon.
- In the **Navigation Pane**, select the injection and/or channel you want to evaluate.

Adjust the View

4. • Show/hide different panes using the buttons in the **Panes** group for the relevant information.
- Select a preset group of panes from the **Presets** group. Each group is designed for a specific task.

Data Processing – Peak Detection



1. Open a sequence in the **Studio**.
2. Click the **Data Processing** category.
3. Click the **Chromatogram Tools/Processing** tab in the ribbon at the top of the screen.

Set Detection Parameters



4. Select the **Cobra Wizard** in the **Detection Parameters** group.
5. Follow the wizard steps to define the **Integration area**, the **Baseline noise range**, the **Cobra smoothing width**, **Minimum area** and **Channel and injection type**.

Integrate Unresolved Peaks

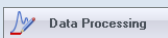


4. Select **SmartPeaks** in the **Detection Parameters** group (note that the mouse cursor changes).
5. Select an area in the chromatogram containing unresolved peaks.
6. Select the integration you need.

Modify Detection Parameters

4. Select the **Detection Parameters** option in the **Detection Parameters** group.
5. To move a detection parameter, use the mouse to select the parameter's tag or the detection parameter line and move 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



1. Open the sequence in the **Studio**.
2. Click the **Data Processing** category.
3. Click the **Chromatogram Tools/Processing** tab in the ribbon at the top of the screen.
4. Select the **Peak Windows** option in the **Component Table** group.

Create Component Table



5. Select the **Component Table Wizard** in the **Component Table** group.
6. Follow the wizard to define the **Time range** and **peak Filter**.
7. Enter the component names in the table at the **Review** stage or add peaks individually.

Assign Individual Peaks



5. Activate the **Add Component** option in the **Component Table** group.
6. Drag a rectangle around the peak to add it to the component table.
7. Double click the peak window in the chromatogram and enter the component name.

Update Retention Times



5. • Select a **Peak Window** in the chromatogram and shift it to the correct location using the left mouse button.
- Grab one of the **delimiters** to extend or narrow the peak window.

Data Processing – Calibration

1. Open the sequence in the **Studio**.

Define Standards and Calibration Levels



2. Click the **Injection List** category.
3. Assign injection type **Calibration Standard** to all calibration standards.
4. For each calibration standard, click the **Level** field and:
 - Assign the correct level, or
 - Click **Create new level** to create a new calibration level.

Enter Standard Amounts



2. Click the **Data Processing** category.
3. Click the **Data Processing Home** tab in the ribbon at the top of the screen.
4. Activate the **Processing Method** in the **Panes** group.
5. In the **Processing Method**, select the **Component Table** tab*.
6. In the calibration **Level** columns, update the concentrations.

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

Reporting

1. Open the sequence in the **Studio**.
2. Click **Report Designer**.

Preview a Report

3. • In the work area, click a report sheet to preview and select the injection and/or channel you want to evaluate in the **Navigation Pane**, or
 - Select **Print > Print Preview** from the **Studio** menu.

Print/Export a Report

3. Select **Print > Print** or **Export** from the **Studio** menu.
4. Select **Current Injection** to print/export a report for one injection, or **Current Sequence** to print/export a report for the entire sequence.

Edit a Report

3. In the work area, click the object you want to change and make the necessary edits.

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 (e.g. for changing text in table cells)
Ctrl + I	Console: Opens Instruments category
Ctrl + D	Console: Opens Data category
Ctrl + W	Console: Opens eWorkflow category
F4	Studio: Takes you to the next injection
Shift+F4	Studio: Takes you to the previous injection
F9	Fill Down: 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	Studio: Takes you to the next channel
Shift+F10	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 the Console and Studio(s)