Maurice Chromeleon Driver

User Guide

User Guide for Maurice Chromeleon Driver Software

PN PL2-0022

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For research use only. Not for use in diagnostic procedures

Patents and Trademarks

ProteinSimple's Maurice and iCE technology is covered by issued and pending patents in the U.S. and other countries. For more information please see **https://www.bio-techne.com/support/instrument-support/intellectual-property**.

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Chapter 1:

Let’s Get Started

Chapter Overview

- Welcome
- Maurice Systems

Welcome

Congratulations on bringing Maurice into your lab! We welcome you as a user and are excited to be a part of your work. This user guide will provide you with details on system hardware and how to use the Maurice Chromeleon Driver to connect to a Maurice, Maurice C., or Maurice S. system, set up a sequence, monitor a run, and analyze data with Thermo Scientific™ Chromeleon™ Chromatography Data System (CDS).

To help you get the most from you new lab addition, we've added some attention phrases to guide you through the user guide:

NOTE	Points out useful information.
IMPORTANT	Indicates information necessary for proper operation of Maurice systems using the Maurice Chromeleon Driver.
!WARNING!	Warns you that serious physical injury can result if the listed precautions aren't followed.

Maurice Systems

Maurice systems give you identity, purity and heterogeneity data on your biologics, and get you results faster with shorter development times and simple workflows!

- **They're fluent in cIEF and CE-SDS.** They take cIEF up a notch, and CE-SDS is a breeze. You'll get pI and charge heterogeneity data in less than 10 minutes flat – with the added bonus of same-time absorbance and native fluorescence for sensitivity down to 0.7 µg/mL. The size applications have the high-resolution and wide molecular range you need and can be done in as little as 5.5 minutes.
- **They make it easy.** Just pop in a ready-to-go cartridge, drop in your sample vials or a 96-well plate, and hit start – they'll do the rest.
- **They're time-savers.** Develop methods fast so you get to results even faster. Your cIEF and CE-SDS methods are done in a day. The icing? You can development platform methods and use them for multiple molecules. No maintenance and clean-up needed between the two applications.
- **They're dependable.** Get reproducible results with tight CVs day in and day out. Your data is reliable no matter – across samples, user, instrument or labs.

Check out the **Maurice User Guide** to learn more about space, electrical and environment requirements.

Chapter 2:

Maurice

Chapter Overview

- Maurice Systems
- External Components
- Internal Components

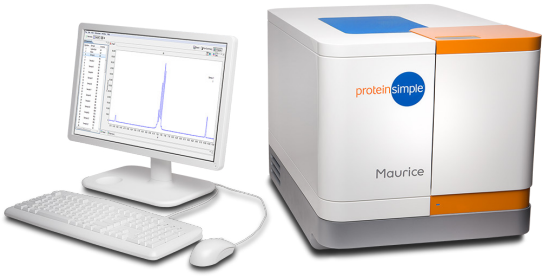
Maurice Systems

Maurice systems include the instrument, computer workstation, Compass for iCE Software, and cartridges for the cIEF or CE-SDS Application. All systems have the same hardware components, computer, and software. The only difference between them are the applications you can run.

To operate a Maurice, Maurice C., or Maurice S., using Chromeleon CDS instead of Compass of iCE Software, you will need to install the Maurice Chromeleon Driver Kit and Chromeleon software, version 7.2.10 MUg or higher in the 7.2.10 channel or 7.3.2 MUa or higher in the 7.3.2 channel, on your computer workstation. See “Maurice Chromeleon Driver Compatibility” on page 16 for more information.

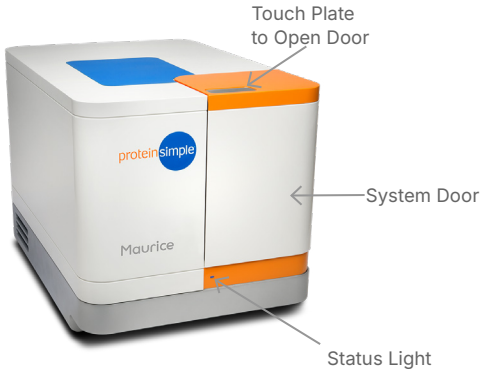
The driver complies with standard 21 CFR Part 11 in the Chromeleon CDS environment. A Chromeleon Instrument Class 3 license is also required and can be purchased from Thermo Fisher Scientific. See Chapter 3: “Software and Computer Requirements” for software installation details.

Learn about the different Maurice systems, the applications they run, and the cartridges that support those applications in the **Maurice User Guide.**



Maurice with Computer Workstation

External Components



!WARNING!
You can't replace or service any parts on Maurice systems except for the power entry fuse.

System Door

Maurice's door gives you access to the inside of the instrument to load cartridges, reagents, and samples. To open the door, first make sure the status light is a steady blue. Then just touch the metal touch plate on the top. The blue status light will flash and the door will automatically open. Close it by pushing the door from the front until you hear the latch engage and see the status light turn solid.

NOTE: Maurice's door must be closed before starting a sequence.

Status Light

The LED on Maurice's front panel tells you what he's doing. Here's what his different status lights mean:

- **Start-up (magenta)**: You've just turned on the power and Maurice is warming up.
- **Ready (steady blue)**: Maurice is powered on and ready to go.

NOTE: If after you power Maurice on the LED doesn't change from magenta to blue, the system didn't initialize. Please call ProteinSimple Technical Support.

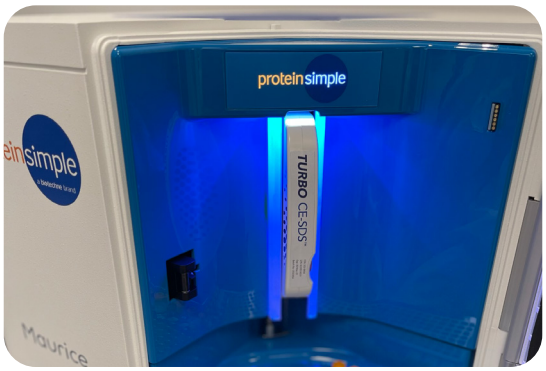
- **Opening Door (long blue flash followed by blue pulses)**: Maurice's door is opening.
- **Running (pulsing blue)**: Maurice is running a sequence.
- **Paused (blue pulse with magenta flashes):** The sequence is paused. You can edit the sequence and open Maurice's door to add new samples or reagents.
- **Trying to Open Door While Running (red flash)**: Maurice's door can't be opened when he's running.
- **Error (steady red)**: Maurice has detected an error. To get more information on the error, check the System tab in the Instrument category of Chromeleon Console.

Internal Components

Cartridge Slot

The cartridge slot holds Maurice's ready-to-go application cartridges. The lights on either side of the cartridge slot will be **orange** after Maurice disengages the cartridge when the door is opened at the end of a sequence and whenever the slot is empty.

The lights change to **blue** once a cartridge is installed correctly.



NOTE: Learn which cartridge to use for cIEF and CE-SDS applications, and find cartridge prep, installation, and post-run procedures in the **Maurice User Guide**.

Sample and Reagent Platform

Prepared reagents and samples are placed on the Maurice sample and reagent platform. Reagents are kept at room temperature while the sample block is temperature-controlled and holds either a 96-well plate or 48 vials. On-board mixing is NOT currently supported for Maurice systems operated using Chromeleon software.

The sample block temperature can be set at the beginning of the sequence and during the sequence. After a run, the sample block stays at the set temperature until you open Maurice's door. Then it shuts off until you start the next run to prevent excess condensation.

NOTE: Because Maurice holds the sample block temperature after a run until you open the door, samples are still viable for your next run and after overnight runs.

Refer to the **Maurice User Guide** to learn more about sample and reagent prep and set-up.

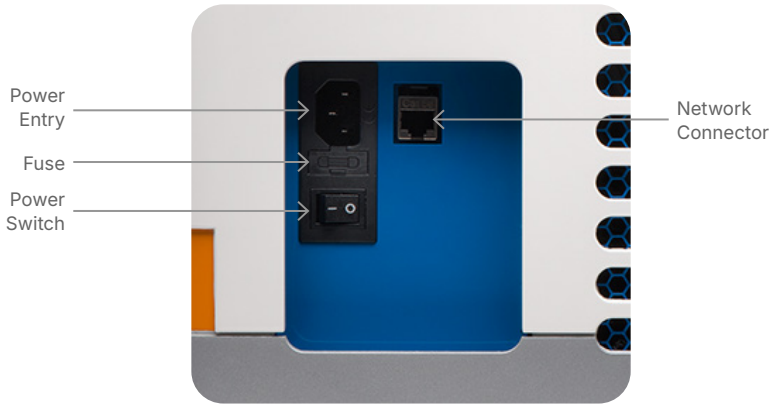
Filter

The optional Maurice System Filter Upgrade adds a fan and filter assembly to the Maurice system to help eliminate odors or vapors that may be present in sample plates from substances such as beta-mercaptoethanol (βME). The Maurice Filter Kit (PN 046-576) comes with replacement carbon filters and plate lids to cover sample plates during transport.

Refer to the **Maurice User Guide** for more information on filter installation and replacement.

Rear Panel

Located on Maurice's rear panel is the power entry, power switch, and network connector.



- **System Power** - The main system power components consist of the power input, fuse, and power switch.

!WARNING!
Only use the power supply cord provided with Maurice. If the cord is damaged, please contact ProteinSimple Technical Support.

!WARNING!
You can't replace or service any parts on Maurice except the power entry fuse.

!WARNING! SHOCK HAZARD
Disconnect the power cord from Maurice's power input to disconnect power to the instrument.

- **Network connection** - A 10/100/1000 Mbps Ethernet (RJ-45 connector) is used to connect Maurice to a computer or local network.

NOTE: Serial numbers are used to identify individual instruments.

System Labels

A full system label is located on the rear panel. It includes the ProteinSimple location, system model, power requirements, serial number, and certification markings.

A serial number label is located on the Maurice system's front lower right side, on the system base.

Chapter 3:

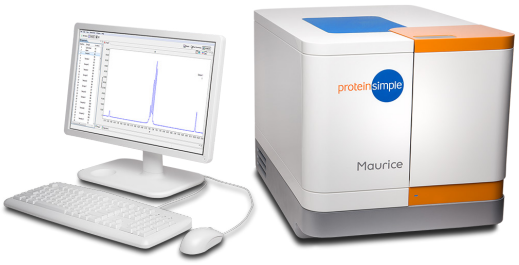
Software and Computer Requirements

Chapter Overview

- Maurice Computer Workstation
- Maurice Chromeleon Driver Compatibility
- Required Components
- Software Updates

Maurice Computer Workstation

The Maurice computer workstation PC has two built-in Ethernet ports. One is used for Maurice and the other is available for your company's network. ProteinSimple configures one port to have a fixed IP for a local link connection to the instrument, the other is configurable by users and will typically use a DHCP for dynamic IP. Set the IP address to 172.30.1.2 subnet 255.255.255.0 to connect to Maurice.



Maurice with Computer Workstation

Maurice Chromeleon Driver Compatibility

The Maurice computer comes with Compass for iCE software pre-installed. An optional Maurice Chromeleon Driver Kit (PN 104-0079) enables you to collect, manage, and report Maurice cIEF and CE-SDS results using the Thermo Scientific Chromeleon software. The driver software is provided and tested by ProteinSimple and certified by Thermo Fisher Scientific.

The Maurice Chromeleon Driver Kit is available for purchase from ProteinSimple and is compatible with Chromeleon CDS, version 7.2.10 MUg and 7.3.2 MUa. You will also need a Chromeleon CDS Instrument Class 3 license, which can be purchased from Thermo Fisher Scientific.

NOTES:
The Maurice Chromeleon Driver is only compatible with Chromeleon CDS, version 7.2.10 MUg and 7.3.2 MUa software. It is not supported in other Chromeleon software versions such as 7.3 and 7.3.1.

A Chromeleon workstation license is compatible license is compatible with the Maurice PC, but the Enterprise set is not. Contact ProteinSimple Technical Support if you need any assistance.

Required Components

The Maurice Chromeleon Driver can also be installed on a separate workstation, such as a computer that already has Chromeleon CDS installed, if you prefer to operate your Maurice system and/or analyze your data using your own workstation. Your computer must meet the recommended requirements in the table below.

Component	Minimum Requirement
Operating System	Windows 10 64-bit (Chromeleon 7.2.10 MUg) Windows 10/11 64-bit(Chromeleon 7.3.2 MUa)
Processor	Core i5
Memory	8 GB
Free Disk Space	250 GB

Software Updates

We recommend always using the latest version of the Maurice Chromeleon Driver. For more information, contact Technical Support for driver updates.

The Maurice Chromeleon Driver supports Chromeleon CDS, version 7.2.10 MUg and 7.3.2 MUa. Check with Thermo Fisher Scientific if you need to update your Chromeleon software version.

Chapter 4:

Maurice Chromeleon Driver Installation

Chapter Overview

- Maurice Chromeleon Driver Installation Overview
- Maurice Chromeleon Driver Installation (Silent)
- Repairing Maurice Chromeleon Driver Files
- Repairing Maurice Chromeleon Driver Files (Silent)

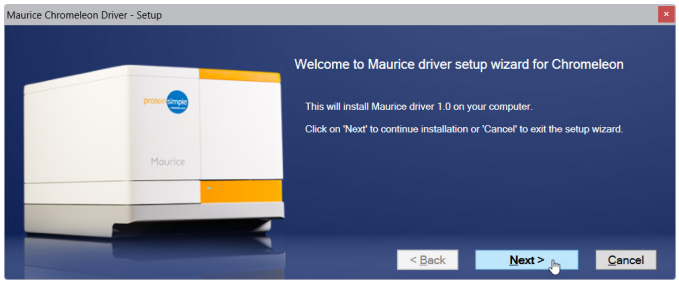
Maurice Chromeleon Driver Installation Overview

Chromeleon 7 must be installed on your workstation before installing the Maurice Chromeleon Driver. You will also need a Chromeleon CDS Instrument Class 3 license from Thermo Fisher Scientific.

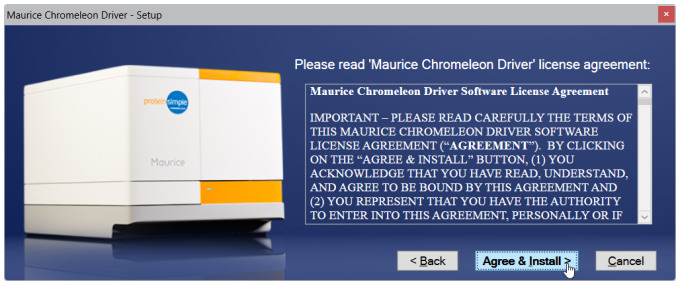
NOTE: Installing Chromeleon CDS on the Maurice PC is not covered in this guide. A Chromeleon workstation license is compatible with the Maurice PC, but the Enterprise set is not. Contact ProteinSimple Technical Support if you need any assistance.

To install the Maurice Chromeleon Driver on your workstation:

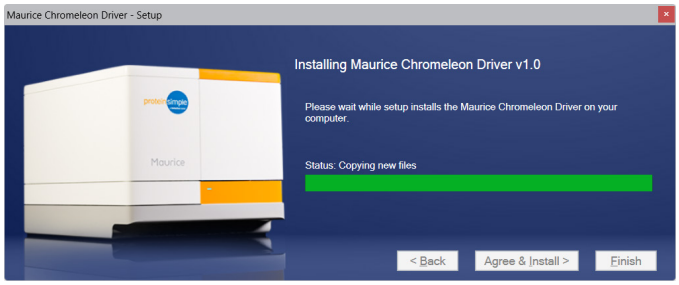
1. Confirm the Chromeleon 7 Instrument Controller is not running in the Chromeleon Service Manager. See “Instrument Controller Service” on page 25 to learn how to access the Chromeleon Service Manager.
2. Insert the Maurice Chromeleon Driver Kit CD into your computer and double click the **Maurice Chromeleon Driver 1.0.exe** file.
3. The installation wizard will appear. Select **Next**.



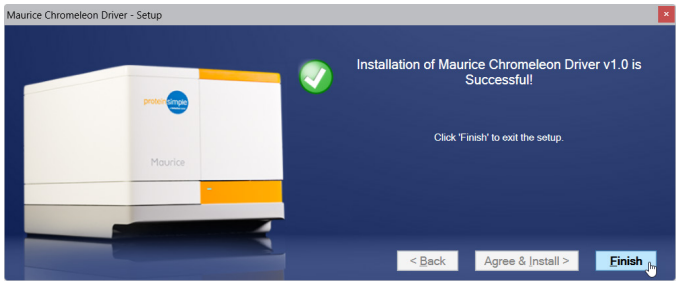
4. Accept the Maurice Chromeleon Driver license by clicking on the **Agree & Install** button.



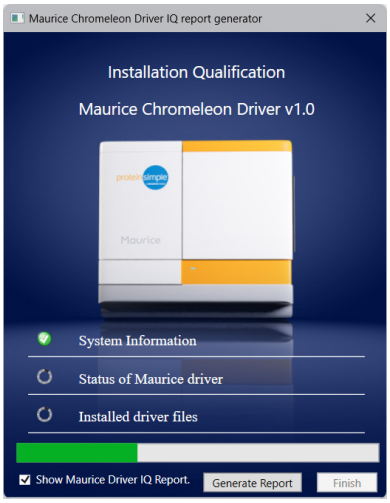
5. The software will start installing.



6. Click **Finish** when the installation is complete.



7. An Installation Qualification program will automatically launch to ensure proper driver installation. The IQ report will appear at the end of the qualification when the **Show Maurice Driver IQ Report** checkbox is selected.



8. To run the installation qualification tool again, click **Generate Report**. Click **Finish** when done.

Maurice Chromeleon Driver Installation (Silent)

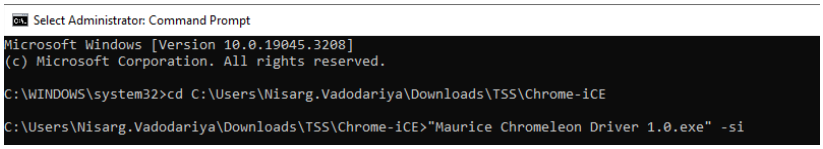
You can also perform a silent installation if you would prefer to minimize your interaction during the install.

You'll need the following:

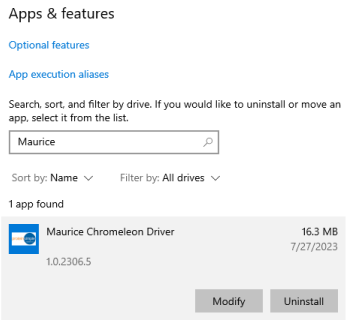
- Chromeleon 7.2 or 7.3.2, and related components pre-installed in your workstation.
- The Maurice Chromeleon Driver 1.0.exe installer saved in your local directory.
- Permissions to run Command Prompt in Administrative mode.

To perform a silent installation of the Maurice Chromeleon Driver:

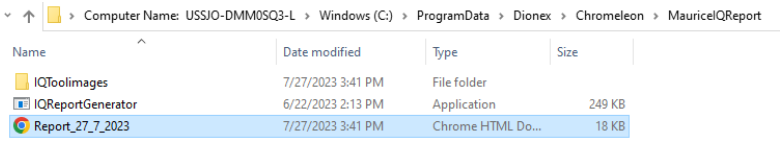
1. Run a **Command Prompt** as an Administrator.
2. Change the current director to the location where you have saved the Maurice Chromeleon Driver installer using a "*cd*" command.
3. Enter the following command: "Maurice Chromeleon Driver 1.0.0.exe" -si.



4. Hit **Enter** on your keyboard.
5. The Maurice Chromeleon Driver will start installing in the background. To confirm successful driver installation, navigate to **Add or remove programs** in the System Settings and search for Maurice in the list of installed apps.



6. To open the IQ report for the installed driver, navigate to C:\ProgramData\Dionex\Chromeleon\MauriceIQReport. IQ reports for the driver are saved in this directory in .html format.

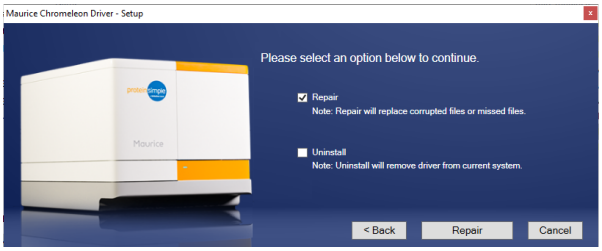


NOTE: If for some reason you need to uninstall the Maurice Chromeleon Driver, refer to “Frequently Asked Questions” on page 129 for instructions.

Repairing Maurice Chromeleon Driver Files

If files unexpectedly get corrupted, you can try to repair the files yourself.

1. Insert the Maurice Chromeleon Driver Kit CD into your computer and double click the **Maurice Chromeleon Driver 1.0.exe** file.
2. Select **Modify**.
3. Select the **Repair** checkbox and click on the **Repair** button.



NOTE: If you need additional help, send a couple of the Maurice IQ report found at C:\ProgramData\Dionex\Chromeleon\MauriceIQReport or a System Status report to Technical Support. Refer to “Generate a System Status Report” on page 112 for instructions on creating a System Status report.

Repairing Maurice Chromeleon Driver Files (Silent)

If files unexpectedly get corrupted and you want to minimize your interaction, you can also try to repair the files yourself using a silent repair.

You'll need the following:

- The Maurice Chromeleon Driver 1.0.exe installer saved in your local directory.
- Permissions to run Command Prompt in Administrative mode.

To perform a silent repair of the corrupted files:

1. Run a **Command Prompt** as an Administrator.
2. Change the current director to the location where you have saved the Maurice Chromeleon Driver installer using a "*cd*" command.
3. Enter the following command: "Maurice Chromeleon Driver 1.0.0.exe" -sr.
4. Hit **Enter** on your keyboard.
5. The Maurice Chromeleon Driver will start repairing corrupted files in the background.

Chapter 5:

Chromeleon Overview

Chapter Overview

- Software Overview
- Instrument Controller Service
- Instrument Configuration Manager
- Chromeleon Console
- Software Menus
- Chromeleon Chromatography Studio
- Directory and File Information
- Chromeleon Software Help Index

Software Overview

There are several different Chromeleon software components that are used to connect to Maurice, create a sequence, acquire data, process data, and report results:

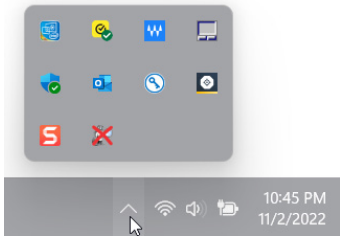
- **Instrument Controller Service:** Handles communication with and data acquisition from the Maurice system.
- **Instrument Configuration Manager:** Defines the instrument configuration and applies the Maurice driver module, enabling Chromeleon software to control the system.
- **Chromeleon Client:** Contains two windows that are used to operate Maurice, analyze data, and manage data.
  - **Chromeleon Console:** The main Chromeleon software window that controls the instrument.
  - **Chromatography Studio:** A window that is launched from the console and contains data analysis tools.
- **Administration Console:** Central access point that manages licenses and also controls policies like the User Mode that will make Chromeleon CDS 21 CFR compliant.

To learn more about Chromeleon software, refer to the Chromeleon software help index or contact Thermo Fisher Scientific. Learn how to access the “Chromeleon Software Help Index” on page 34.

Instrument Controller Service

The Instrument Controller Service runs in the background as a Windows service on the PC the Maurice system is connected to. It must be turned on to operate Maurice with Chromeleon 7.

The Instrument Controller Service icon can be found in the Notification Area of the Windows Taskbar.

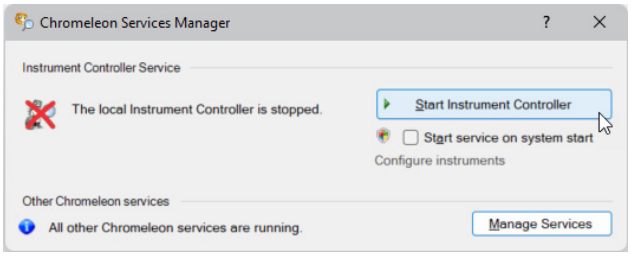


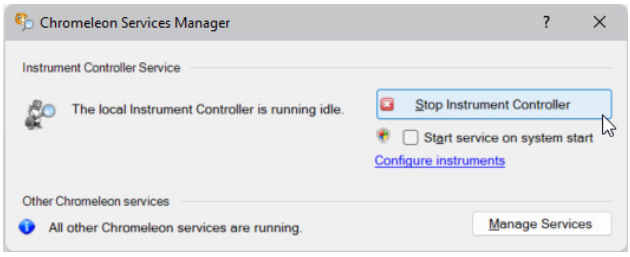
The icon indicates whether the Instrument Controller Service is running or if it is stopped.


Instrument Controller Service stopped


Instrument Controller Service running

To turn off the Instrument Controller Service, click on **Instrument Controller Service** icon in Windows Taskbar Notification Area. This will open the Chromeleon Service Manager where you can start or stop the Instrument Controller Service.





Instrument Configuration Manager

The Instrument Configuration Manager is used to add your Maurice system to Chromeleon 7, where it will appear in the Navigation pane. You can access the Instrument Configuration Manager through the Chromeleon Services Manager when the Instrument Controller Service is on. See Chapter 4: “Connecting to Maurice” for more information.

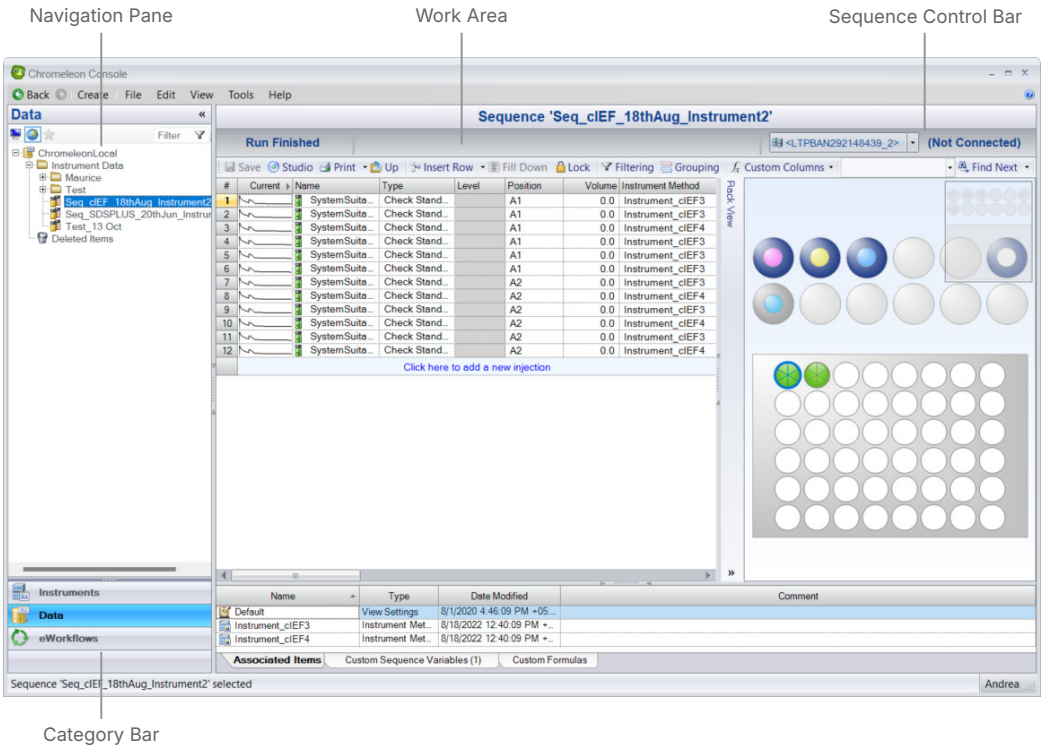
Chromeleon Console

The Chromeleon Console is the main software component that enables you to control Maurice, monitor a run and navigate through the data. It is the first program to appear when you start Chromeleon 7.

NOTE: To learn more about software features, refer to the Chromeleon software help index. Learn how to access the “Chromeleon Software Help Index” on page 34.

The Chromeleon Console window has three main screens:

- **Category Bar:** Use the category bars to switch between the Instruments and Data categories.
- **Navigation Pane:** Navigate different instruments connected to Chromeleon 7 or different completed sequences depending on the category selected. This is the window where you will select the instrument you want to operate or the sequence data you want to view.
- **Work Area:** Set up and monitor your instrument status or view a snapshot of injections from completed sequences depending on the category selected. This is the main window where you will work.
  - **Sequence Control Bar:** Monitor the sequence status (New, Running, Complete, Interrupted, Incomplete, Not Connected).



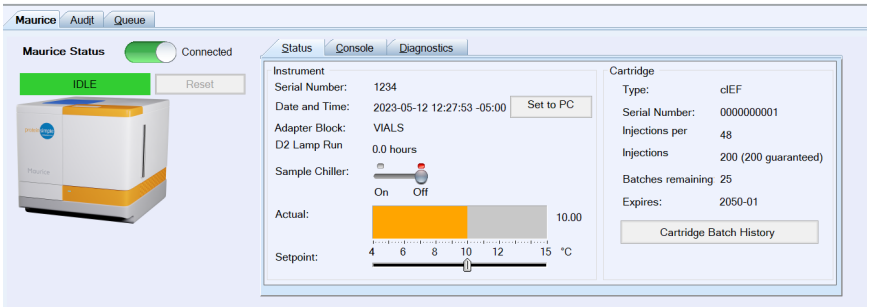
Instruments Category

The Instruments category enables you to set up and start a sequence. The Navigation pane lists connected Maurice systems and the Work Area contains multiple tabs that allows you review the instrument status and operate the system.

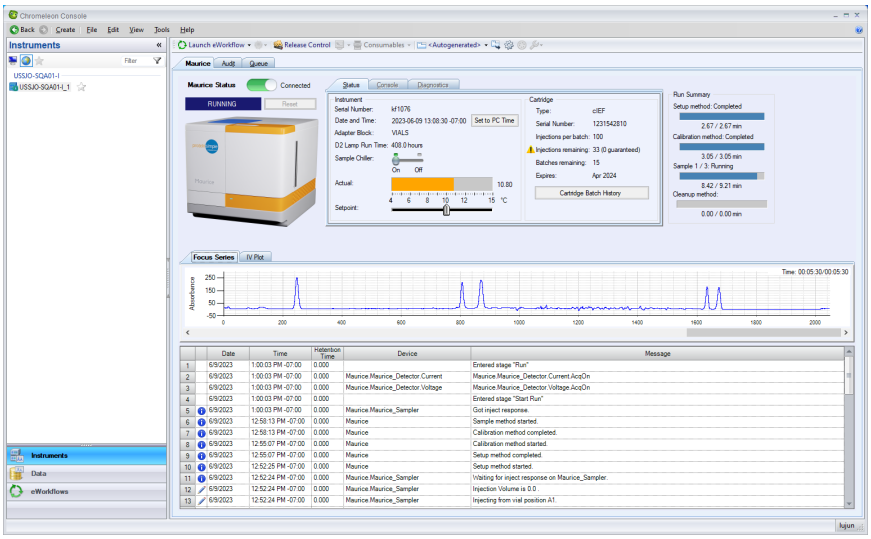
When the Instruments category is selected, tabs in the Work Area include:

- **Maurice:** The status of the instrument (connected, idle, running) and whether the instrument door is open or closed is monitored in this section. This section contains three tabs:
  - **Status:** Review parameters like instrument serial number, sample tray type, temperature set point, and the type of cartridge installed in the selected Maurice system.

  - **Console:** Perform a pipette clean, a cartridge post-run cleanup, a cartridge purge, an instrument self-test, or a cartridge self-test.
  - **Diagnostics:** Access instrument logs, self-test reports, and run files.
- **Audit:** Track instrument events such as system settings, executed commands, and error messages.
- **Queue:** Load sequences and start the run.

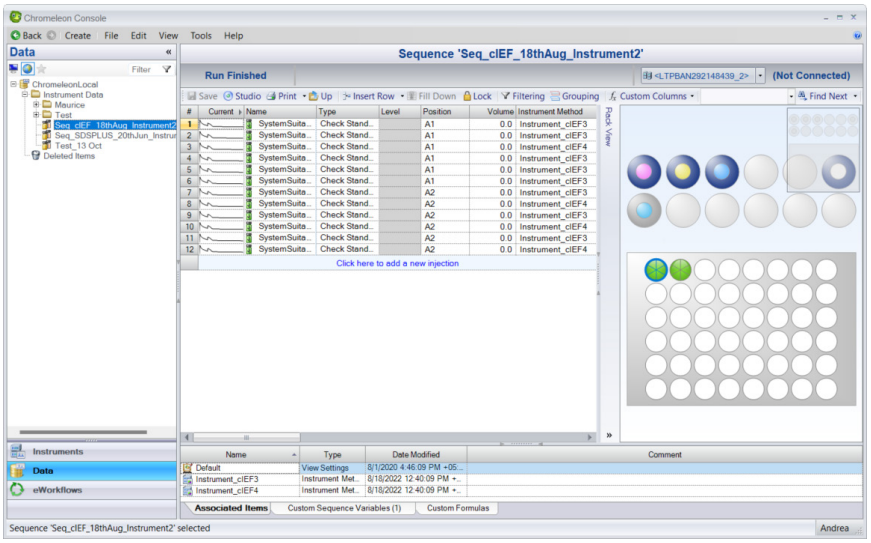


After the sequence is started, the Instruments category is also where you can monitor an in-progress sequence.



Data Category

The Data category provides a snapshot of the injections from a completed sequence. The Navigation pane lists runs completed on the workstation or runs imported from another workstation. A list of injections from a selected sequence can be found in the Work Area. Clicking on any column for any injection will result in the Chromatography Studio automatically opening for analysis.



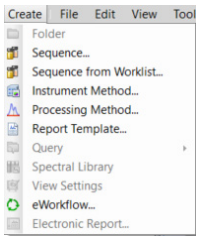
Software Menus

Items required to operate Maurice can also be accessed in the Chromeleon Console main menu.

NOTE: To learn more about software features, refer to the Chromeleon software help index. Learn how to access the “Chromeleon Software Help Index” on page 34.

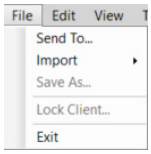
Create Menu

NOTE: Chromeleon 7 is a Chromatography Data System (CDS) that can be used to run several different instruments from different vendors. Not all Chromeleon software features will be used when operating Maurice.



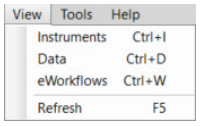
- **Sequence:** A sequence is a list of injections that will be processed and/or have already been analyzed. The sequence summarizes injection data including name, injection volume, dilution.
- **Instrument Method:** An instrument method contains the parameters, including separation time and exposure time, that will be used when processing an injection.
- **Processing Method:** The processing method contains all the data processing instructions, including detection parameters, pl markers, and peak names.

File Menu



- **Import:** Open a completed run file for data analysis.
- **Save as:** Save a sequence, method, or process.

View Menu



- **Instruments:** View the Instruments category.
- **Data:** View the Data category.

Chromeleon Chromatography Studio

In the Chromatography Studio you can review and edit all the objects related to the selected sequence, process data, and generate reports.

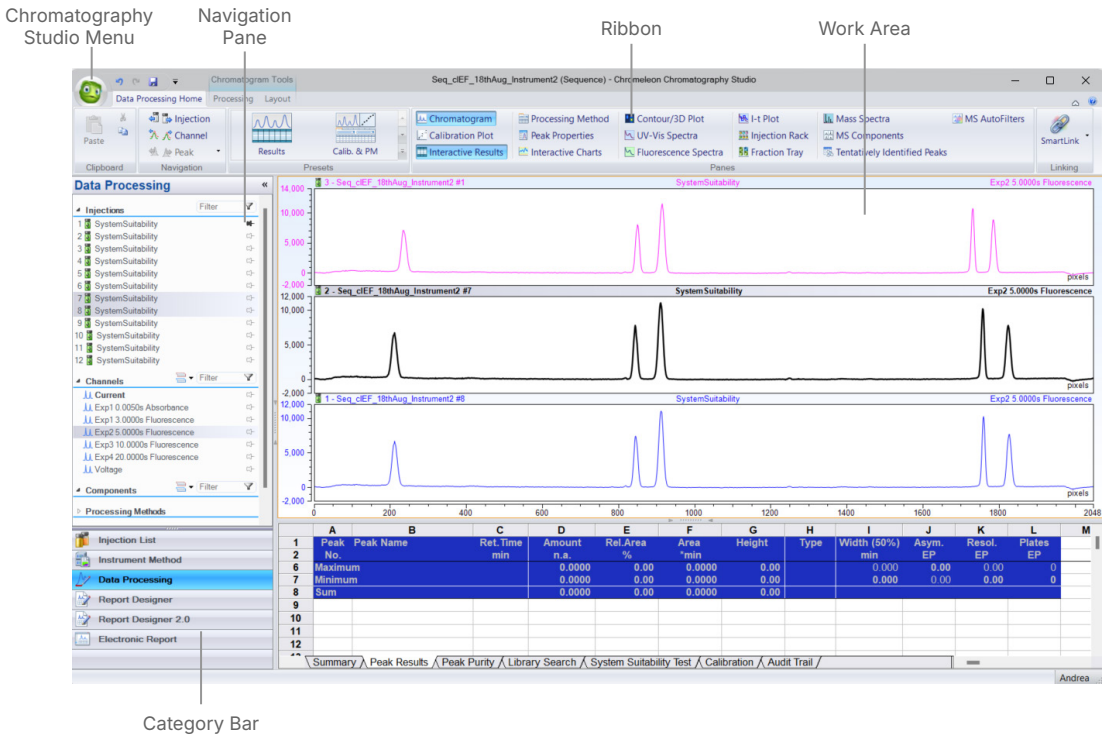
NOTE: Chromeleon 7 is a Chromatography Data System that can be used to run several different instruments from different vendors. Not all Chromeleon software features will be used when operating Maurice.

The Chromatography Studio has three main screens:

- **Category Bars:** Use the category bar to navigate between the Injection List, Processing Methods, Data Processing, and Report Designer categories.
- **Navigation Pane:** Navigate the objects related to the selected category, such as the injection or exposure.
- **Work Area:** The main window where you will work based on the selected category.

There are two additional user interaction features:

- **Ribbon:** The menu tool for main commands in the Chromatography Studio. Commands are organized in groups, which are collected together under tabs. To reduce clutter, some tabs are only shown when needed.
- **Chromatography Studio Menu:** Access general tasks such as printing, exporting, and saving.

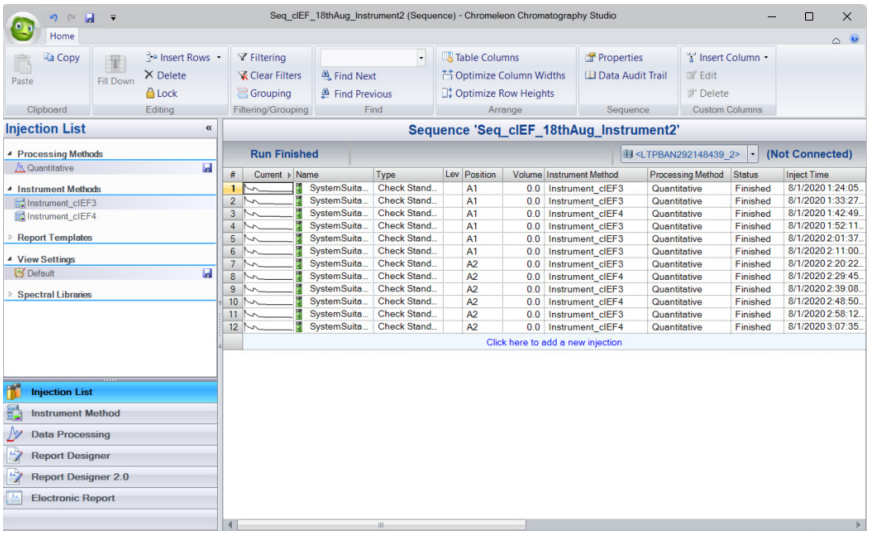


Injection List Category

The Injection List category enables you to edit, print, and export an injection list. The Navigation pane gives an overview of all files used in the sequence and the Work Area displays further details about each injection.

The Navigation pane lists the processing method, instrument methods, and report templates associated with the sequence. The Work Area lists all of the injections completed in the run. Clicking on an injection will open the injection in the Data Processing category for in-depth analysis.

NOTE: You can edit the injection list directly in the Console or in the Studio. Changes made in one window are automatically made in the other, so that copies of the sequence stay synchronized.

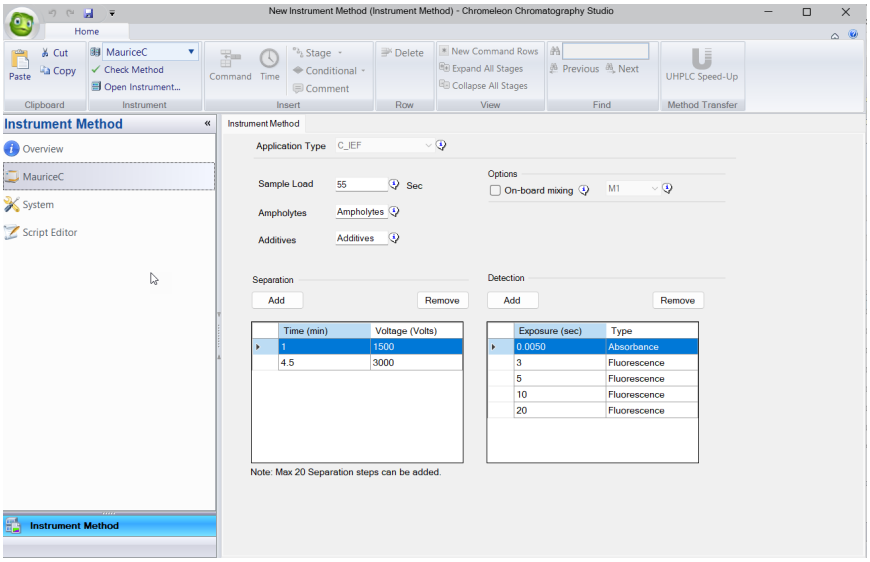


Instrument Method Category

The Instrument Method category is used to review and edit the parameters of a method.

When the Instrument Method category is selected, you can do the following in the Navigation pane:

- **Overview:** Review or edit the Instrument Method Comment or Description field.
- **Maurice:** Review or edit the method parameters.



Data Processing Category

In the Data Processing category, you can view chromatograms, edit the processing method, and manually integrate the chromatograms. The Navigation pane lists all the injections, detection channels, processing methods, and view settings. Chromatographic results are shown in the Work Area. You can customize panes displayed on the Work Area by selecting or deselecting panes in the pane group of the Ribbon in the Data Processing Home.

Report Designer Category

In the Report Designer category, you can export a PDF file of injection, method, and processing details for each injection in the sequence.

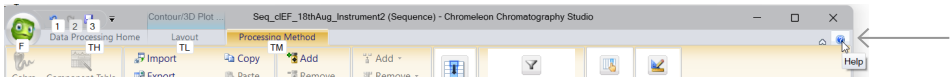
Directory and File Information

Sequences, instrument methods, processing methods, and completed run files are located in Data Vaults, the root directory for all Chromeleon software files and directories. It is possible to connect to more than one Data Vault.

Data Vaults are based on a database container and a file system. Chromeleon CDS supports the use of MS SQL Express, MS SQL Server databases, and Oracle databases. Data Vaults can be located on the hard disk of a standalone PC or on a network server and can be connected from any PC with a network link to the host server. Refer to the Chromeleon software help index for more information.

Chromeleon Software Help Index

The help index provides additional information about Chromeleon software features. To access the index, click on the **Help** icon at the top right corner of the Chromeleon Console or the Chromatography Studio.



Chapter 6:

Connecting to Maurice

Chapter Overview

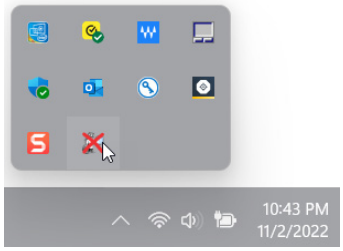
- Configuring Maurice
- Connecting to a Configured Maurice
- Editing a Maurice Configuration

Configuring Maurice

Each Maurice system must be configured before it can be operated using Chromeleon 7. Maurice, Maurice C., and Maurice S. systems are configured using the Instrument Controller and the Instrument Configuration Manager.

To configure Maurice:

1. Open the Notification Area of the Windows taskbar and click on the **Instrument Controller Service** icon.

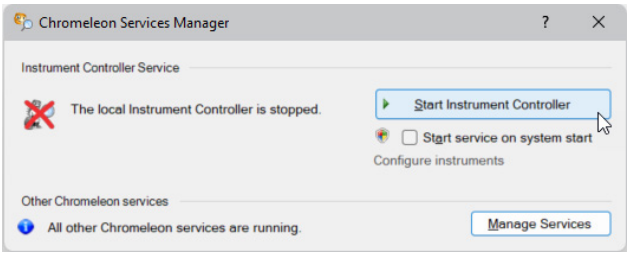


2. Check to see if the Instrument Controller is running or stopped.


Instrument Controller Service stopped

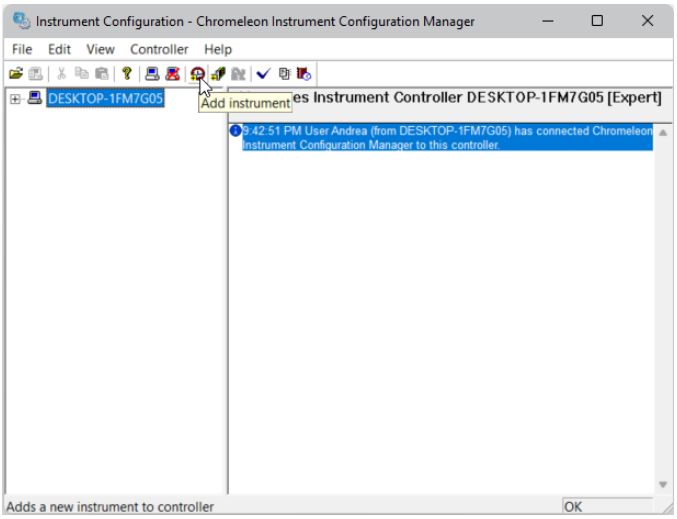

Instrument Controller Service running

3. Turn on the Instrument Controller by clicking on the **Start Instrument Controller** button. The Instrument Controller Service icon will change to indicate that the controller is running.

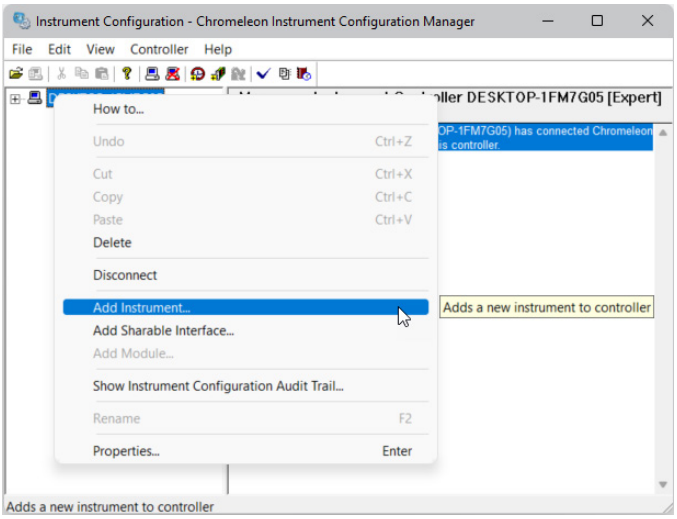


4. Select **Configure instruments**. This will open the Instrument Configuration Manager.

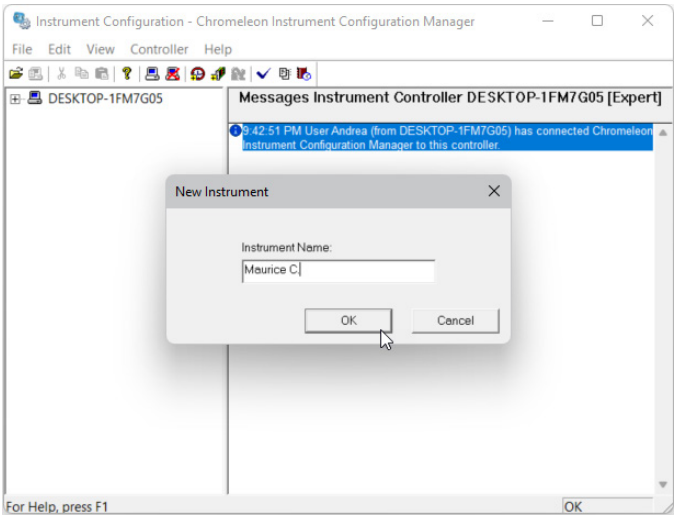
5. Select the workstation name in the Navigation pane on the left and click on the **Add Instrument** icon in the tool bar.



Or select the workstation name in the Navigation pane and right-click to select **Add Instrument**.

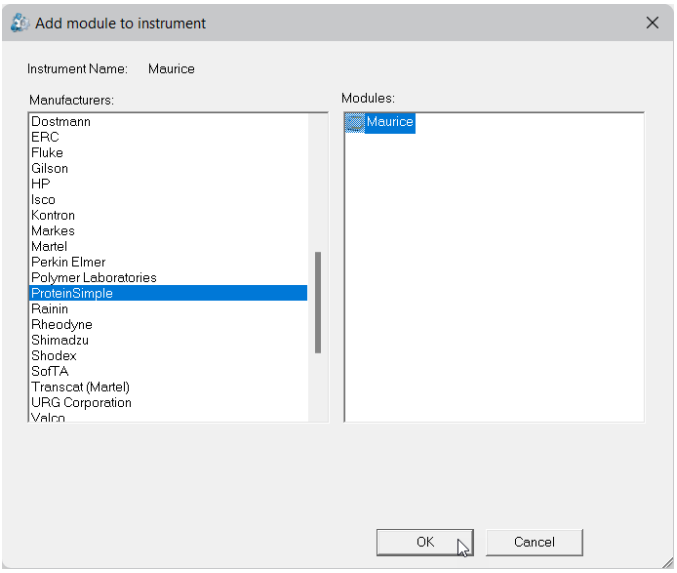


6. Name the instrument system and click **OK**.

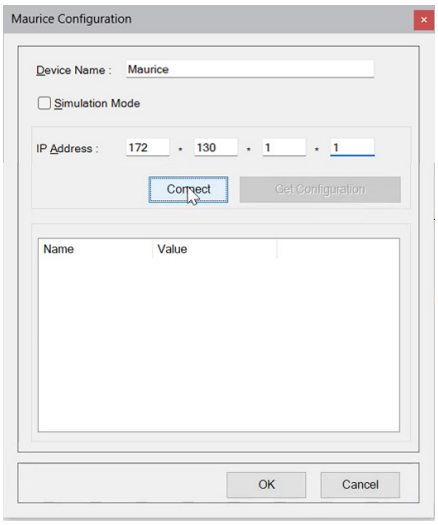


7. Select the instrument in the Navigation pane and click on the **Add Module** icon ( ) in the tool bar or right-click to select **Add Module**.

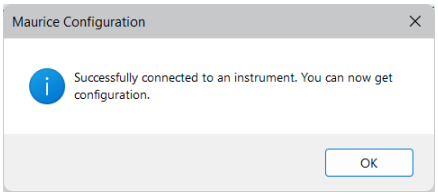
8. In the window that appears, select **ProteinSimple** under Manufacturers and **Maurice** under Modules. Click **Next**.



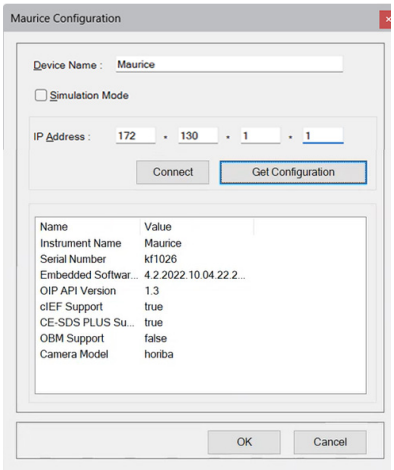
9. The Maurice Configuration window will appear. Enter an instrument name, set the IP address to 172.130.1.1, and click **Connect**.



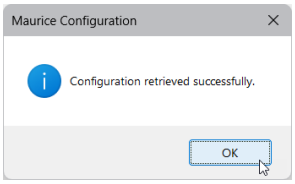
10. A window will appear to confirm successful connection. Click **OK.**



11. Click **Get Configuration** to get information about the instrument, including serial number, embedded software number, and application capabilities.



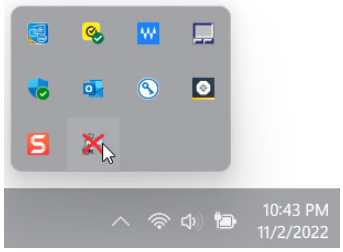
12. A window will appear to confirm successful configuration. Click **OK**.



13. Click **OK** in the Maurice Configuration window.
14. The instrument will now be listed under the system in the Instrument Configuration Manager and in the Chromeleon Console.
15. When you close the Instrument Configuration Manager, a prompt will appear asking if you want to save changes. Click **Save**.

Connecting to a Configured Maurice

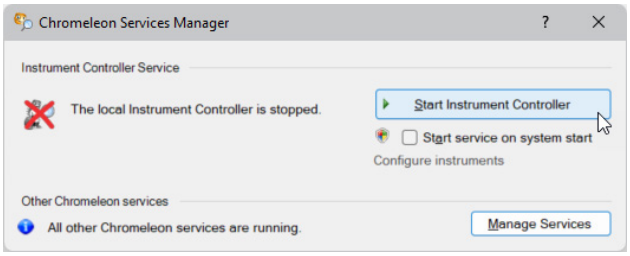
The Instrument Controller needs to be running for the Chromeleon CDS to connect to a configured Maurice. Open the Notification Area of the Windows taskbar and check the Instrument Controller Service icon to check the Instrument Controller status.



 Instrument Controller Service stopped

 Instrument Controller Service running

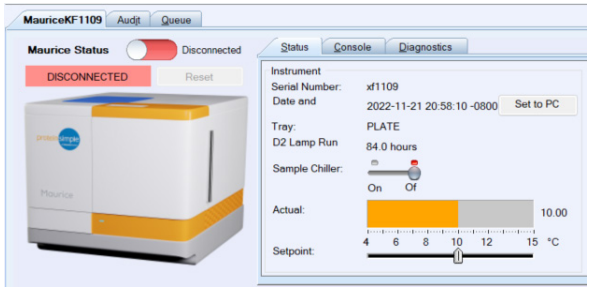
If the Instrument Controller is stopped, click the **Instrument Controller Service** icon to open the Chromeleon Service Manager and click the **Start Instrument Controller** button.

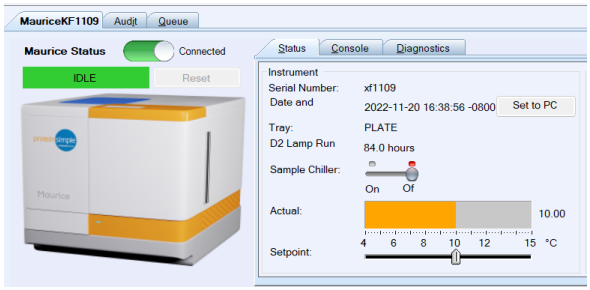


To connect to a configured Maurice:

1. Start Chromeleon 7 software by double-clicking on the **Chromeleon 7** icon on your desktop.

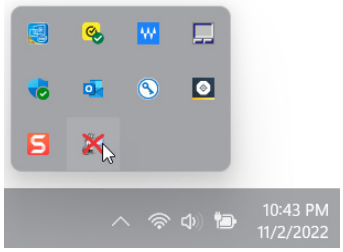
2. Select the Maurice system you want to connect to in the Navigation pane and check the status of Maurice in the Chromeleon Console Work Area. If the system is disconnected, click on the **Maurice Status** slider to connect the instrument.





Editing a Maurice Configuration

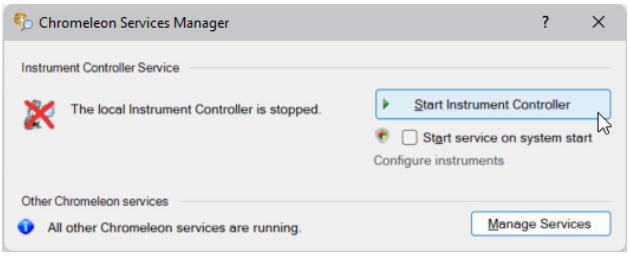
The Instrument Controller needs to be running for the Chromeleon CDS to connect to a configured Maurice. Open the Notification Area of the Windows taskbar and check the Instrument Controller Service icon to check the Instrument Controller status.




Instrument Controller Service stopped


Instrument Controller Service running

If the Instrument Controller is stopped, click the **Instrument Controller Service** icon to open the Chromeleon Service Manager and click the **Start Instrument Controller** button.

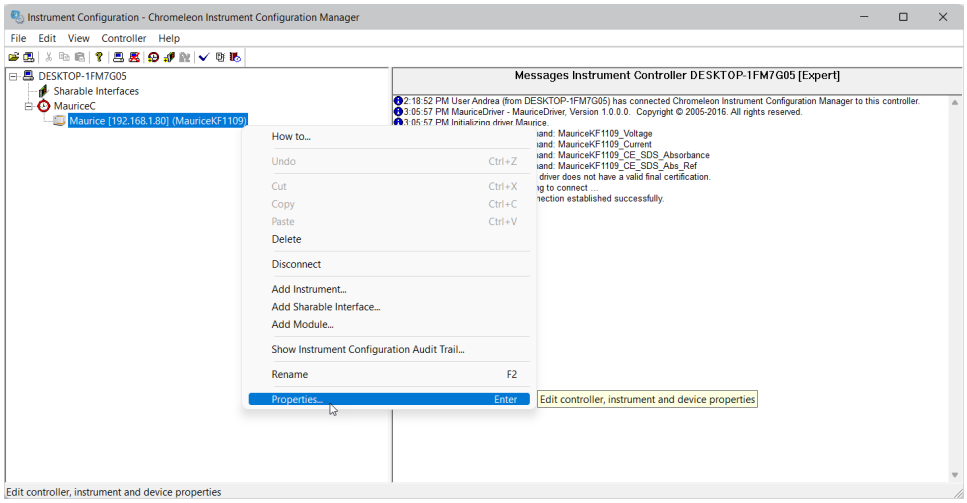


To change the properties of a configured Maurice system, open the Chromeleon Service Manager from the Notification Area of the Windows taskbar and click **Configure instruments**.

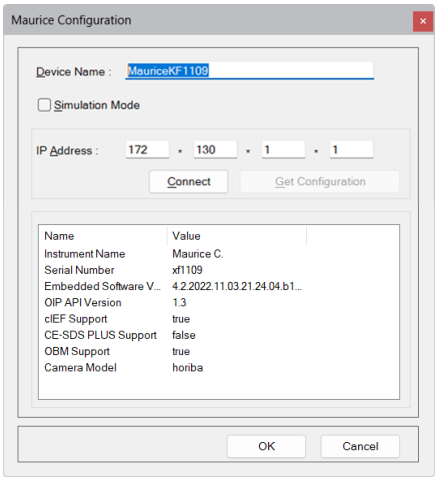
To edit the instrument properties of a configured Maurice system:

1. Click **Configure instruments** in the Chromeleon Service Manager.

2. In the Navigation pane, right click on the Maurice system and select **Properties**.



3. Change the system name and click **Connect**.



4. After successful connection, click **Get Configuration**. Then click **OK**.

NOTE: You may need to re-launch Chromeleon 7 after instrument properties are changed.

Chapter 7:

Creating a cIEF Sequence

Chapter Overview

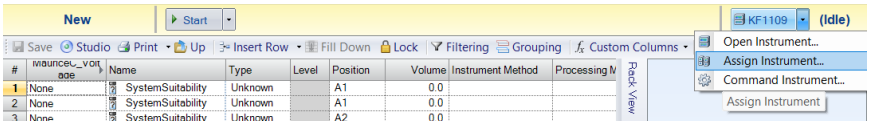
- cIEF Sequence Overview
- Connecting to Maurice
- Loading Samples, Reagents, and the cIEF Cartridge in Maurice
- Creating a New Sequence
- Editing Sequence Injections
- Editing the Custom Sequence Variable
- Editing the Instrument Method

cIEF Sequence Overview

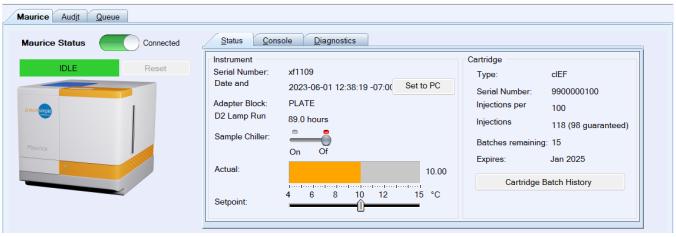
cIEF Applications can be performed on Maurice and Maurice C. systems and must be performed using a cIEF cartridge. A sequence lists the cIEF injections that will be performed during a run. A new sequence can be created or a previously used sequence edited to analyze samples on Maurice.

Connecting to Maurice

1. Confirm that the Instrument Controller is running. Then confirm that you are connected to the correct instrument in the Data category. To change instruments, select **Assign Instrument** in the pull-down menu.



2. Confirm the instrument is connected in the Maurice tab of the Instruments category.

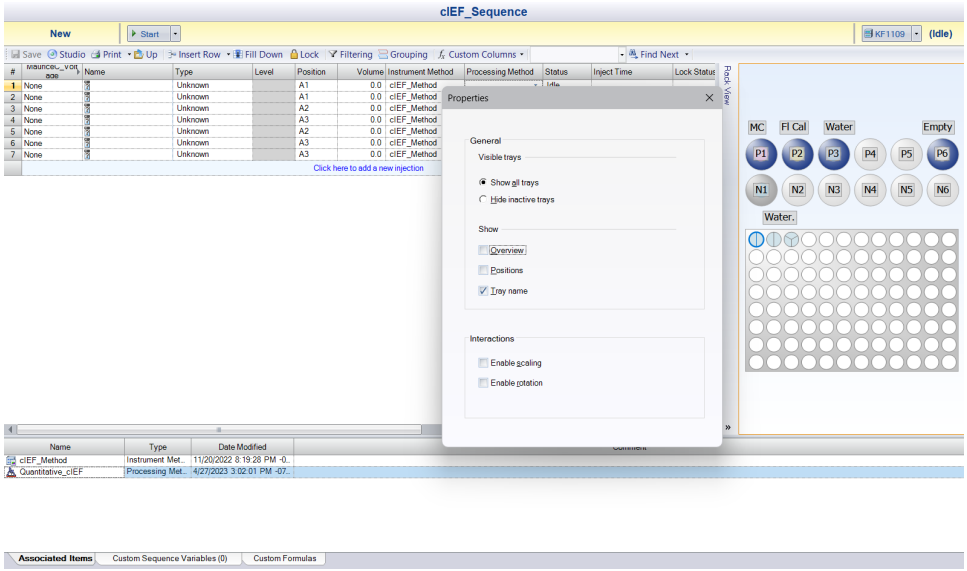


Loading Samples, Reagents, and the cIEF Cartridge in Maurice

IMPORTANT:
Review the **Maurice User Guide** for further instruction on how to prepare and install your samples, reagents and cIEF cartridge.

Load your samples, reagents and cartridge in Maurice before setting up your sequence. Chromeleon software will auto-detect the installed cartridge and sample platform. Review the **Maurice User Guide** for further instruction on how to prepare and install your samples, reagents and cIEF cartridge.

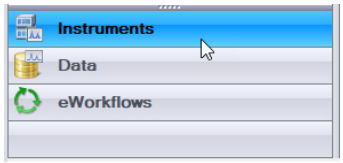
When installing the sequence reagents in Maurice, a Rack View appears to help guide where reagents should go. To see locations of each reagent on the reagent platform, right-click in the Rack View pane, select **Properties**, and then select **Tray name**.



After you have installed the samples, reagents, and cIEF cartridge in a Maurice or Maurice C. system, close Maurice's door.

Creating a New Sequence

Sequences are defined in the Instruments category of the Chromeleon Console.

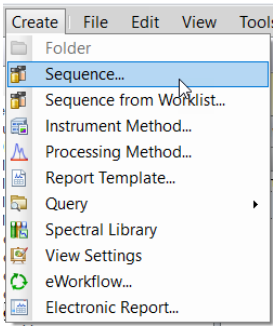


Step 1: Creating a Sequence

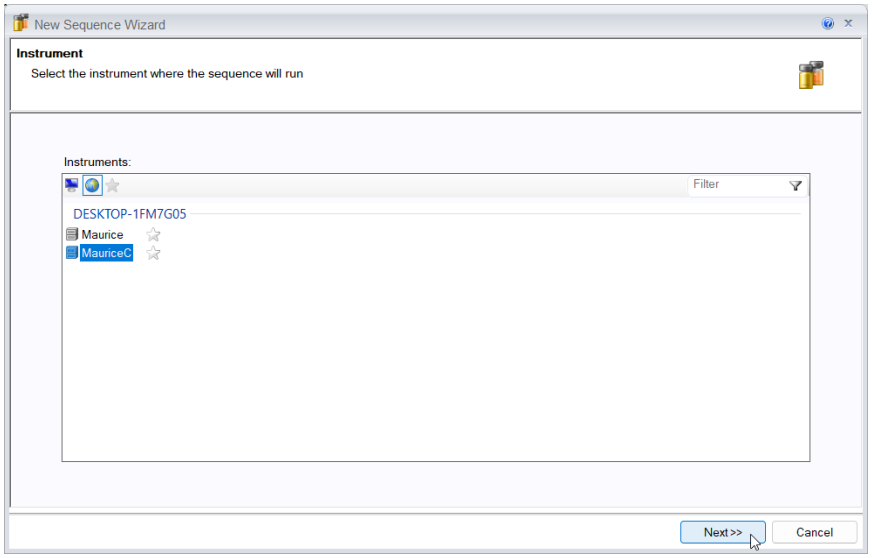
NOTE: For instruction on creating a sequence from a CSV or LIMS worklist, refer to the Chromeleon software help index. Learn how to access the “Chromeleon Software Help Index” on page 34.

To create a new sequence in the Chromeleon Console:

1. Select **Create** in the main menu and click **Sequence...** to launch the Sequence Wizard.



2. Select the Maurice system being used and click **Next**.



3. Assign your samples.

   a. **Pattern for Injection Name:** Specify how the injection will be named. Use the injection position and injection volume code to automatically add this information after the sample name. Use the injection number and replicate number code to sequentially add this information after the sample.

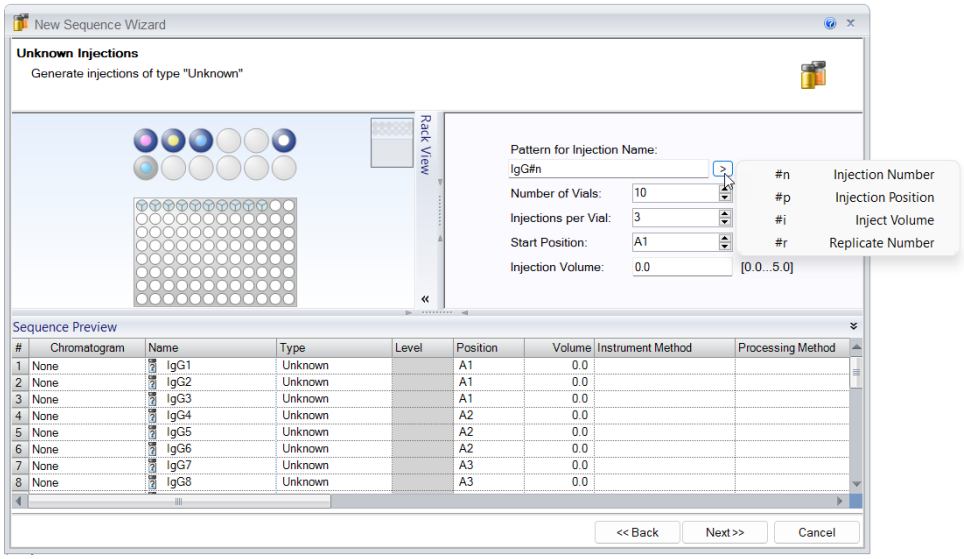
> **NOTE:** Injection names can still be edited after the sequence is created.

   b. **Number of Vials:** The number of sample vials in a 48 vial run or the number of wells with sample in a 96-well plate.

   c. **Injections per Vials:** The number of injections from each vial or well.

   d. **Start Position:** The location of the first vial in the sample block or location of the first sample in the 96-well plate.

   e. **Injection Volume:** This field is not applicable to Maurice sequences. It should be disregarded and does not need to be modified.



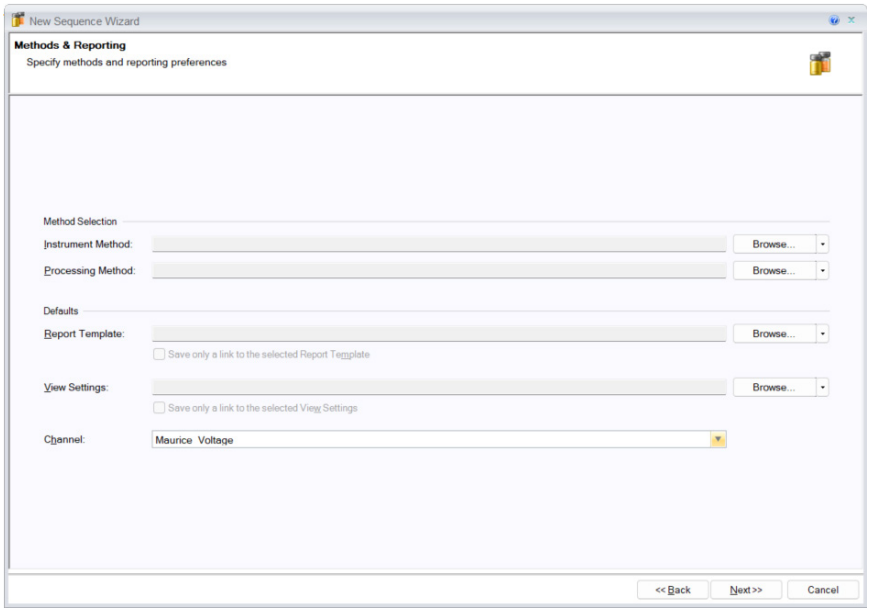
4. Click **Next**.

5. In the Methods and Reporting Window:

   a. If you want to use a previously defined Instrument Method and/or Processing Method, click the **Browse** button to select the method from the Data Vault and click **Open.** Then click **Next**.

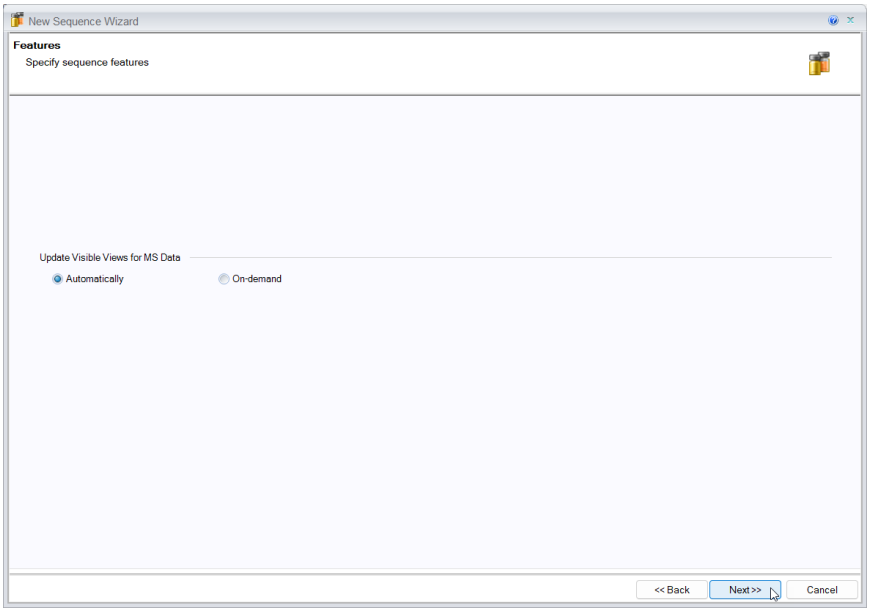
> **NOTES:**
> An Instrument Method can be defined and applied to injections in the sequence after the sequence is created, before the run starts.
>
> A Processing Method can be defined and applied to injections in the sequence after the sequence is created, before the run starts or after the run is done.

   b. Select the channel you want to monitor during the run (voltage, current or absorbance for a specific injection).

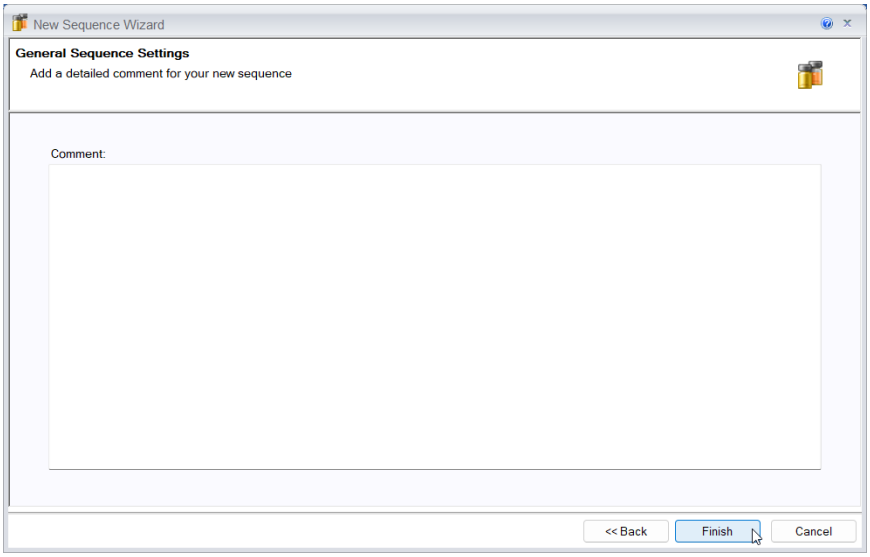


   c. Click **Next**.

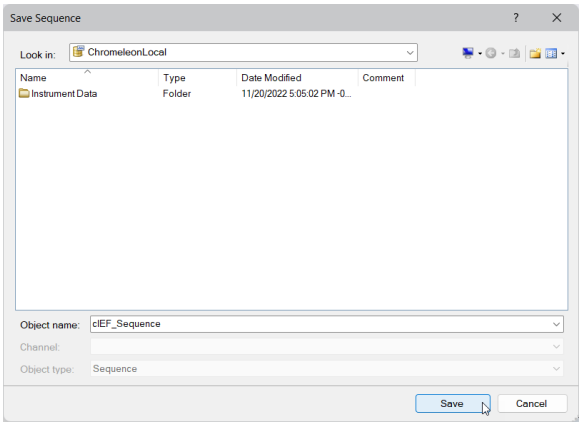
6. Click **Next** in the Features window.



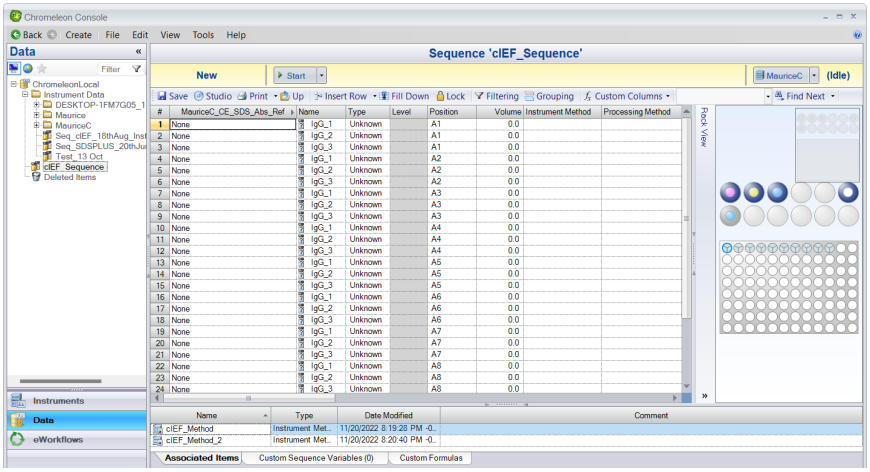
7. Enter a comment (optional) for the sequence and click **Finish**.



8. Name your sequence and click **Save**. The sequence will be saved in your local Chromeleon database by default.



9. The sequence will automatically load in the Data category Work Area. Key columns for Maurice runs are the injection Name, Position, Instrument Method, Processing Method, and Status. You can ignore or hide the remaining columns.

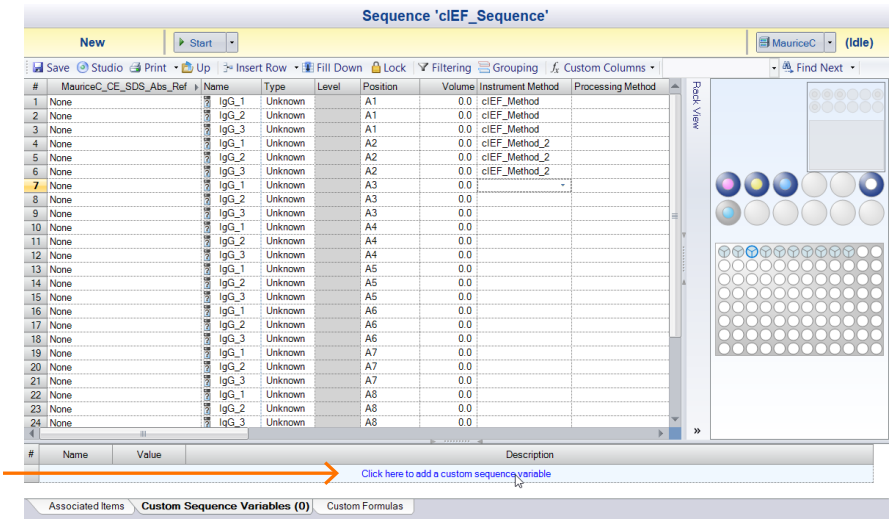


Step 2: Create a Custom Sequence Variable

IMPORTANT: A custom sequence must be created and applied to the sequence to maintain the sample block temperature during the run.

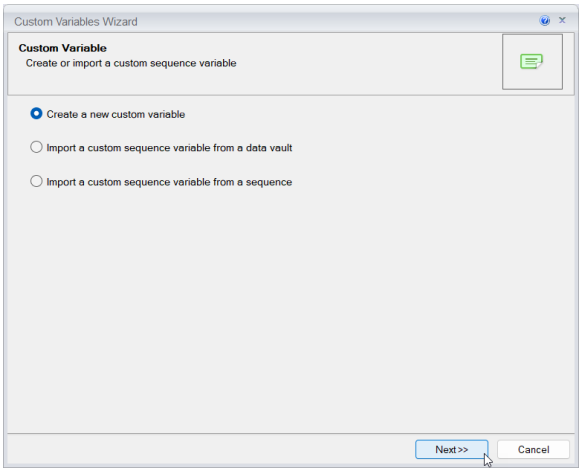
To create a custom sequence variable in the Chromeleon Console:

1. Select **Click here to add a custom sequence variable** in the Custom Sequence Variables tab at the bottom of the Data category Work Area. This will open the Custom Variable Editor.

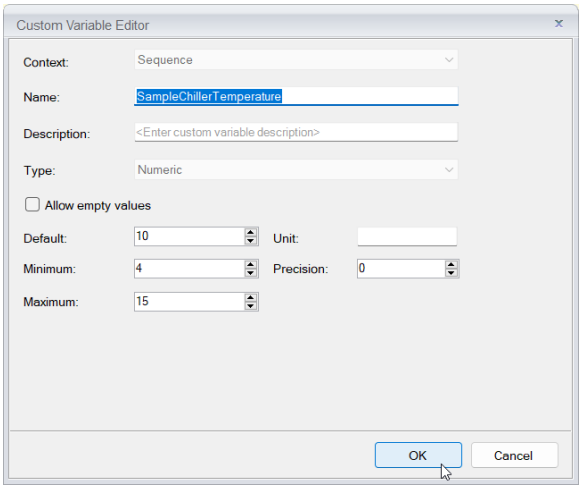


2. Select **Create a new custom variable** and click **Next**.

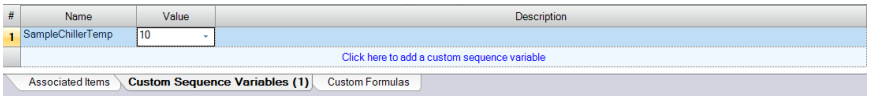
NOTE: A previously created custom variable can also be imported from the Data Vault or from another sequence.



3. Enter the following variables in the editor:
    - **Name:** SampleChillerTemperature
    - **Type:** Numeric
    - **Allow empty values:** No
    - **Default:** 10
    - **Minimum:** 4
    - **Maximum:** 15



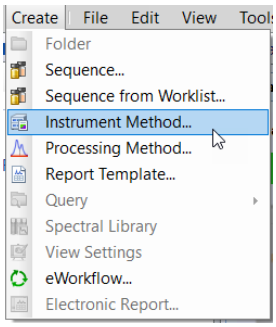
4. Click **OK**.
5. The variable will appear in the Custom Sequence Variables tab at the bottom of the Data category Work Area. Enter a number in the Value column to set the sample block temperature (°C).



Step 3: Create an Instrument Method

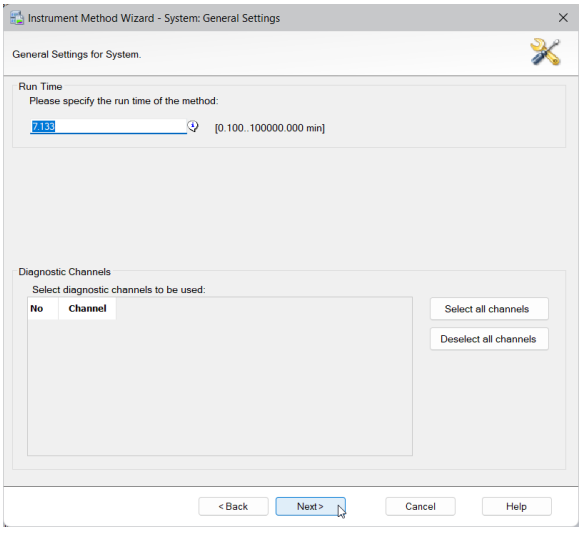
To create a new Instrument Method in the Chromeleon Console:

1. Select **Create** in the main menu and click **Instrument Method...** to launch the Instrument Method Wizard.



2. A window with General Settings for Maurice will appear. Click **Next**.

NOTE: You do not need to change the Run Time value since the displayed value in the Run Time field is automatically calculated. See “How are instrument run times calculated?” on page 130 for more information.

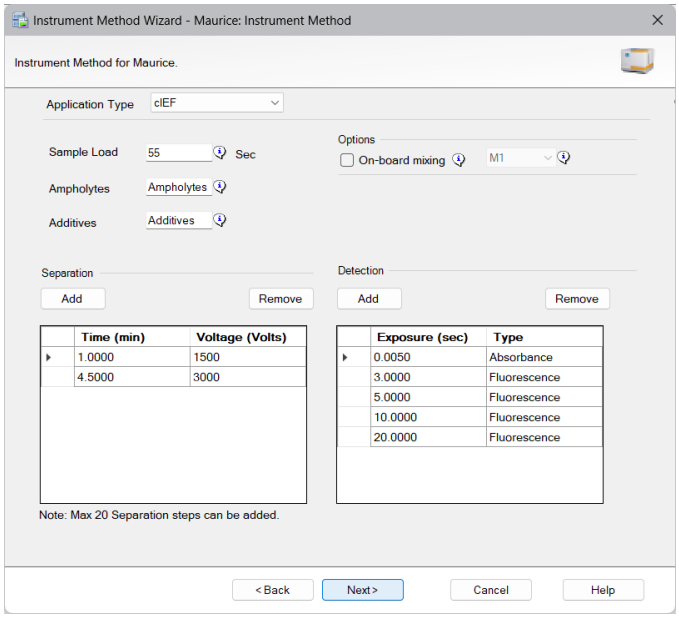


3. The Method Editor window will open. You can define the parameters for your method here.

   - **Application Type:** Select **cIEF**.
   - **Sample Load:** Set the sample load time in seconds.

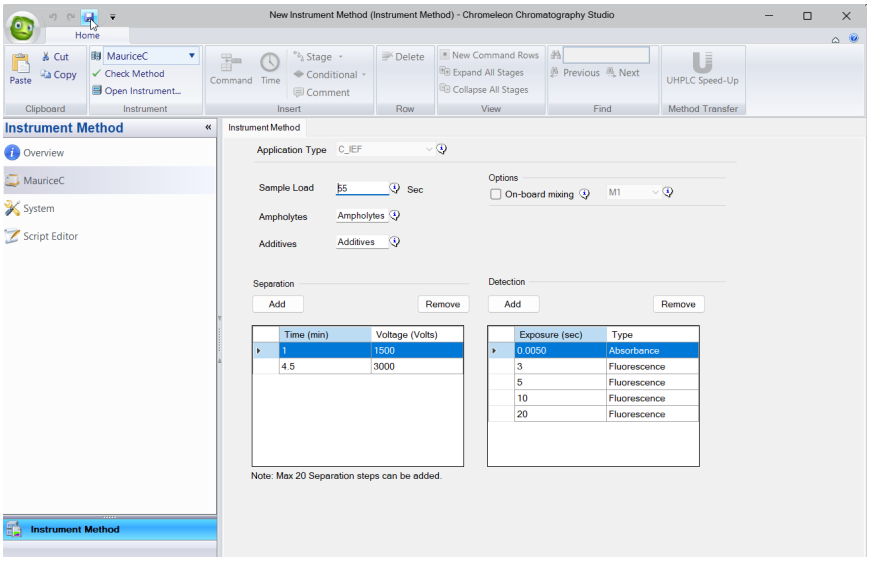
NOTE: We recommend using the default Sample Load time of 55 seconds. Please contact ProteinSimple Technical Support if you have questions on the Sample Load time to use for your application.

   - **Ampholyte (optional):** Record the ampholyte mixture used when preparing the samples to be analyzed.
   - **Additives (optional):** Record any additives added when preparing the samples to be analyzed.
   - **Options (optional):** The on-board mixing (OBM) feature is NOT currently supported in the Chromeleon driver. While there is a check-box present to select on-board mixing, this box should be ignored and left unchecked.
   - **Separation:** Edit the separation profile. Click **Add** to add an additional separation step and **Remove** to remove a separation step. Double-click on the cell to edit the value.
   - **Detection:** Edit the detection profile. Click **Add** to add an additional exposure and **Remove** to remove an exposure. Double-click on the cell to edit the value.



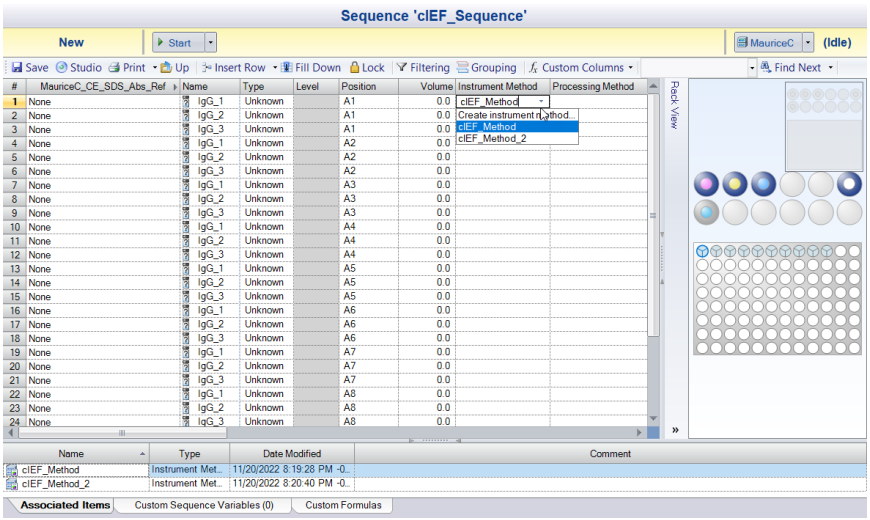
4. Click **Next**.

5. The method will automatically open in the Chromatography Studio. Review the method parameters and click the **Save** icon in the main menu. If you try to close the window without saving, a prompt will appear reminding you to save the method.

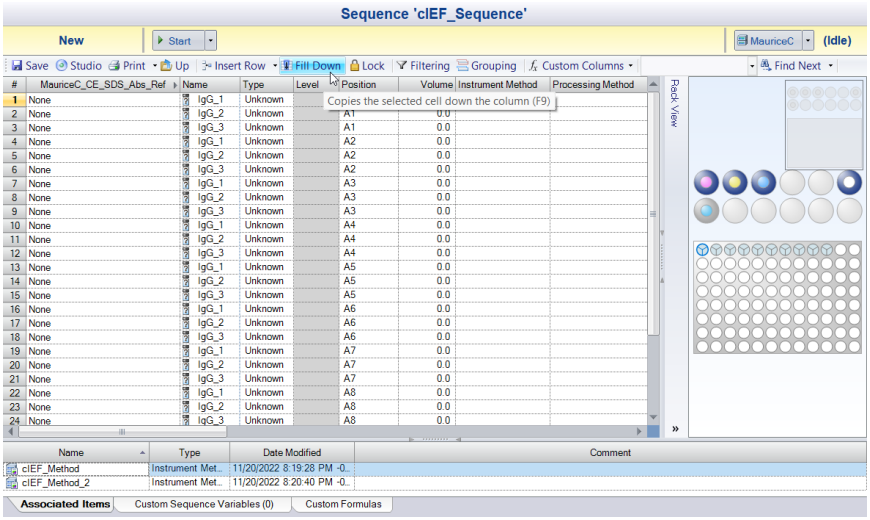


Step 4: Apply Instrument Methods to a Sequence

To apply a method to one injection: Click on the cell in the Instrument Method column. Then click on the pull-down icon that appears on the right side of the cell and select the method or select the option to create another method.



To apply a method to all the injections: Apply the method to injection #1. Then select **Fill Down** in the Work Area menu.



To apply a method to multiple sequential injections: Apply the method to injection #1. Select multiple injections by clicking on the first and last injection in the group, while holding down the **Shift** key. Continue to hold down the **Shift** key, right-click with the mouse and select **Fill Down**.

To apply a method to selected injections: Apply the method to injection #1. Select a specific injections by clicking on the injections, including injection #1, while holding down the **Ctrl** key. Continue to hold down the **Ctrl** key, right-click with the mouse and select **Fill Down**.

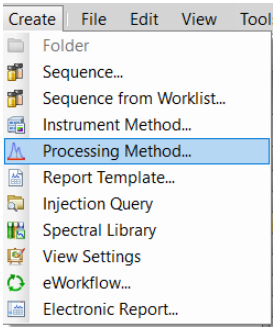
To delete a method applied to injections: Select the injections, right-click with the mouse and select **Delete**.

Step 5: Create a Processing Method

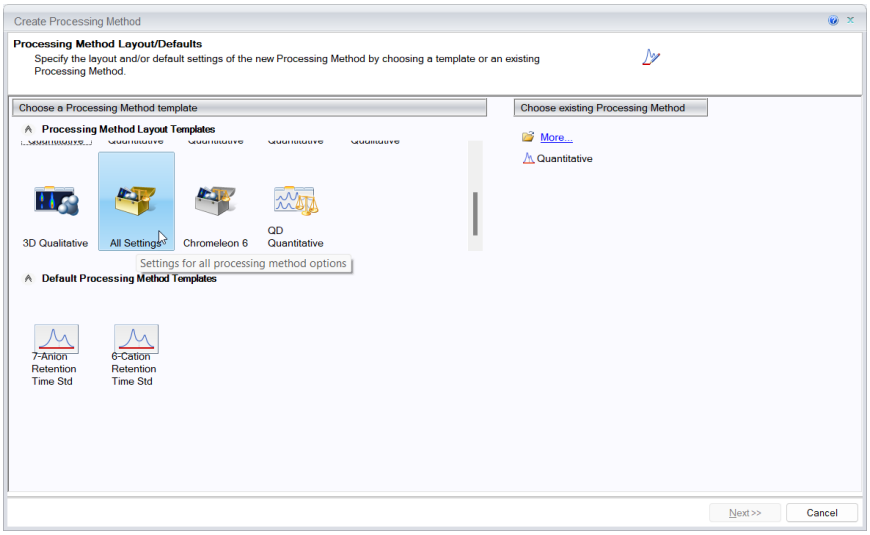
A cIEF processing method assigns the pI markers used and integrates the peaks in your injection data. Once a processing method has been created, it can be applied to multiple sequences and can be applied before or after the run is completed.

To create a processing method in the Chromeleon Console:

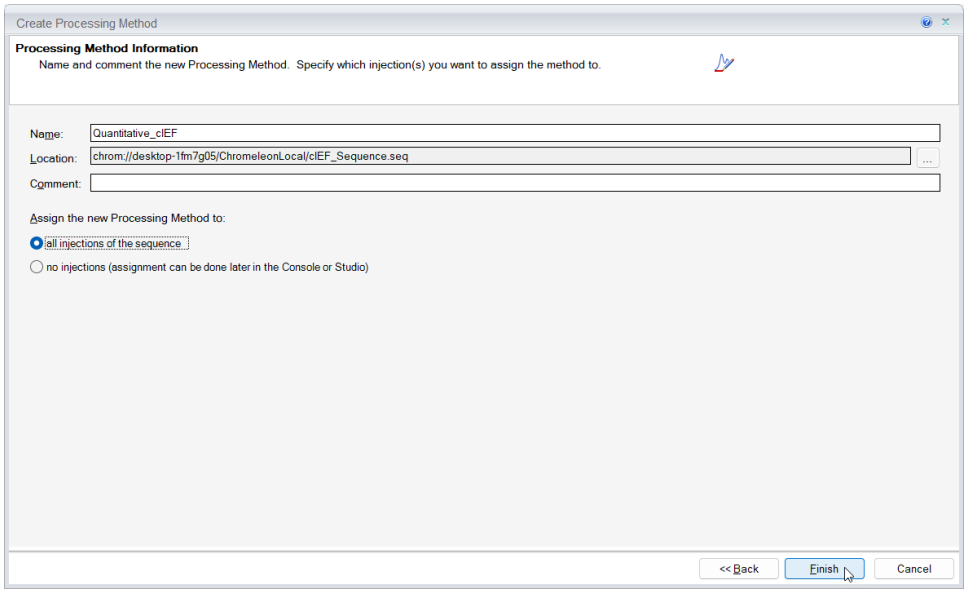
1. Select **Create** in the main menu and click **Processing Method...** to launch the Processing Method Wizard.



2. Scroll through the "Process Method Layout Templates" section to select **All Settings.** Click **Next**.



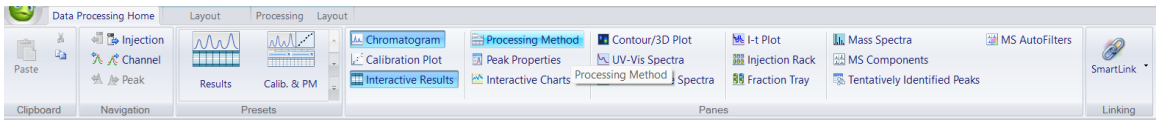
3. Name the Processing Method.
4. Select the **Browse** button next to the Location field to change where the Processing Method is saved.
5. In the "Assign the new Processing Method to:" section, select whether you want to assign the processing method now or if you want to apply it later.



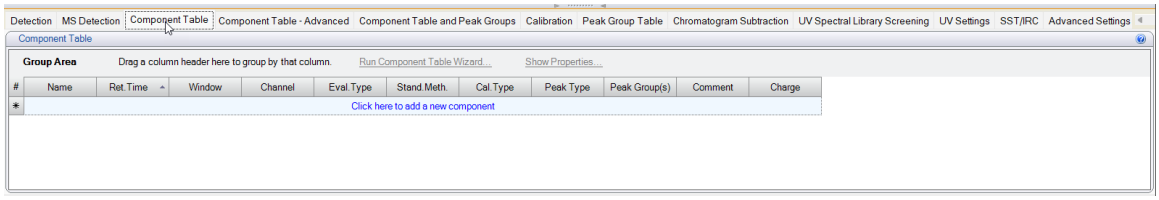
6. Click **Finish**.

7. The Chromatography Studio will open where you can define the pI markers used in your sample for the processing method.

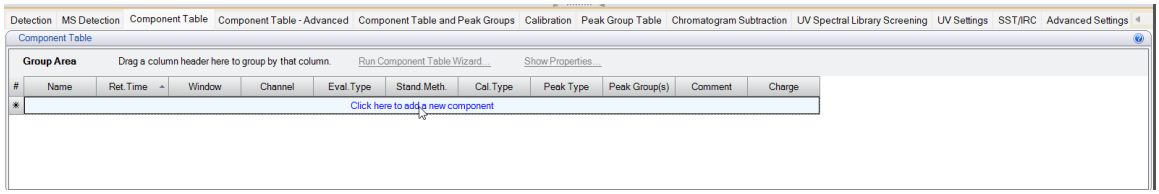
   a. If the Processing Method pane is not open, click **Processing Method** in the menu ribbon.



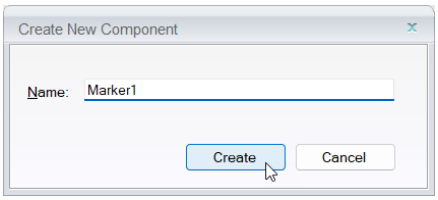
   b. In the Processing Method pane, select **Component Table**.



   c. Select **Click here to add a new component**. You'll need a separate component for each pI marker in your sample.

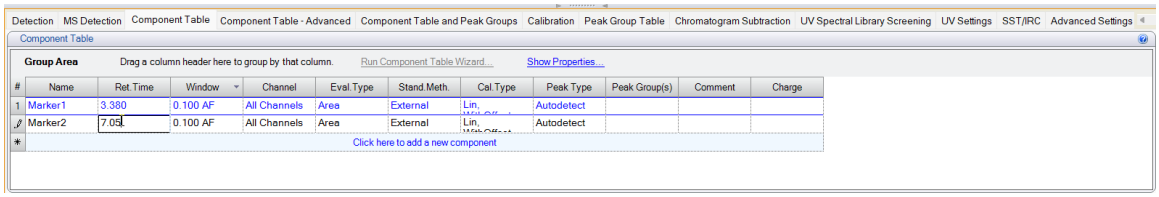


   d. Name the component and click **Create**.

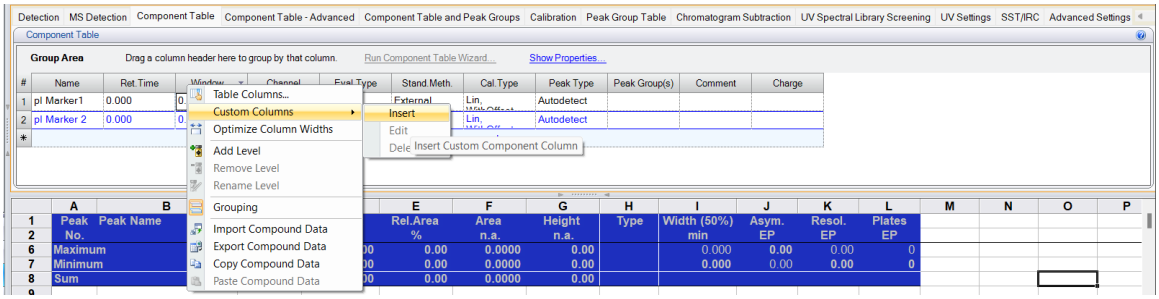


NOTE: You will need to create two components, one for each of the pI markers used in your sample.

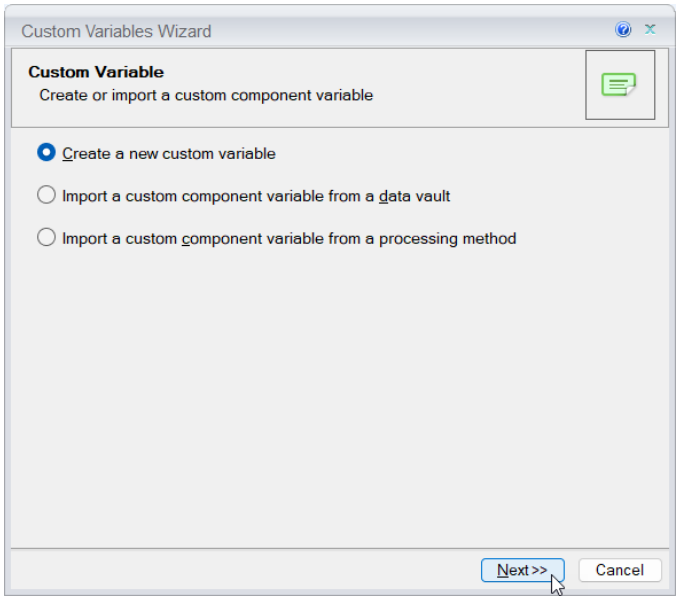
e. In the Ret. Time column, click on the cell and input the pI Marker Value.



f. To assign a pixel location to the pI marker, create a new custom component column by right-clicking on the Window table header and selecting **Custom Columns** → **Insert**.

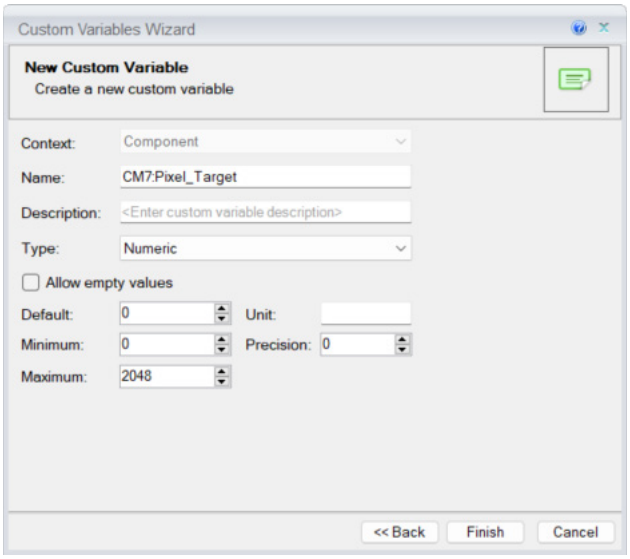


g. Select **Create a new custom variable** and click **Next**.



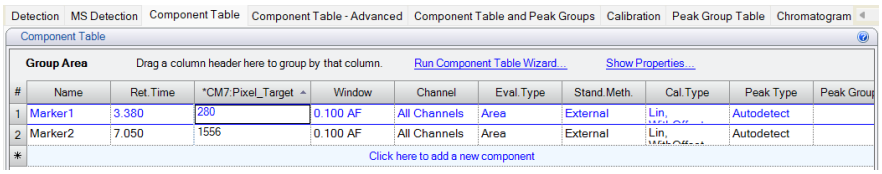
h. Define the following parameters in the Custom Variable Wizard that will appear:

- **Name:** CM7:Pixel_Target
- **Type:** Select **Numeric** in the pull-down
- **Allow empty values:** No
- **Maximum:** Enter 2048, the maximum pixel value in the chromatogram



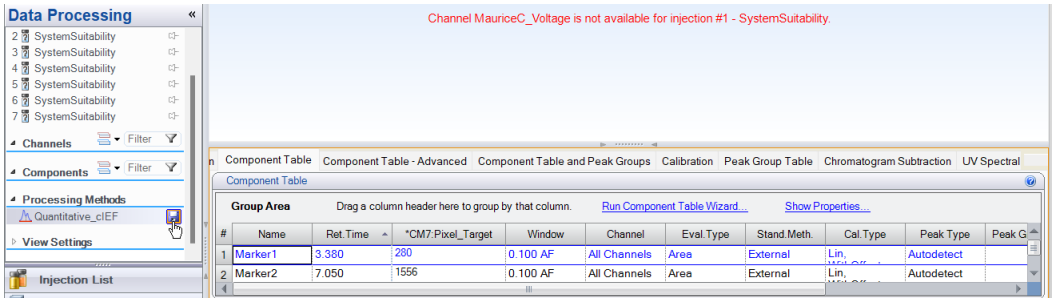
i. Click **Finish**.

j. Click on the cell and input a pixel value for the pI marker. This value can be adjusted when the sequence is completed.

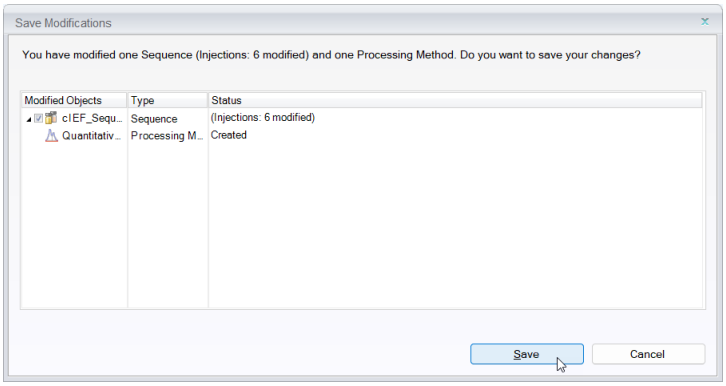


NOTE: You will need to define pixel values for each of the two pI markers used in your sample.

k. In the Navigation pane, click the **Save** icon next to the Processing Method being created.



l. Click **Save** in the Save Modification window that appears.



8. Close the Chromatography Studio

The processing method will now be applied to the injections in your sequence in the Chromeleon Console.

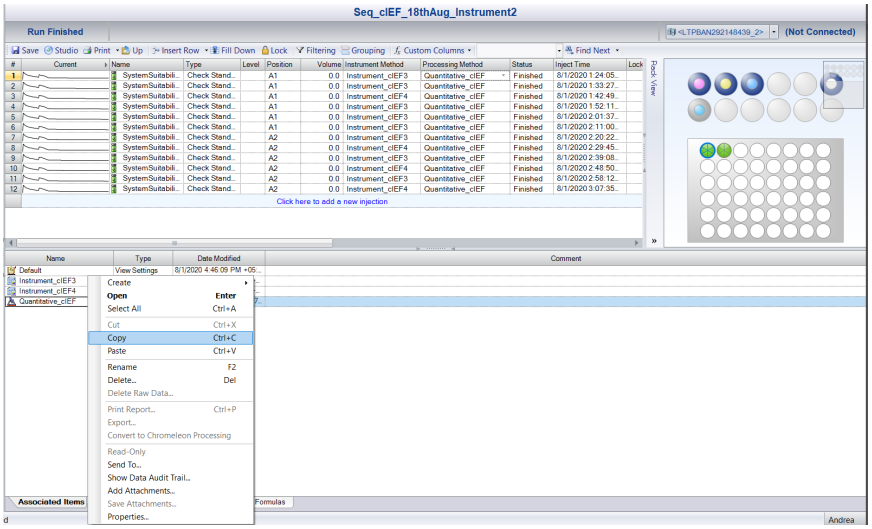
Step 6: Apply a Processing Method to a Sequence

You can apply a previously created processing method to the sequence you are creating.

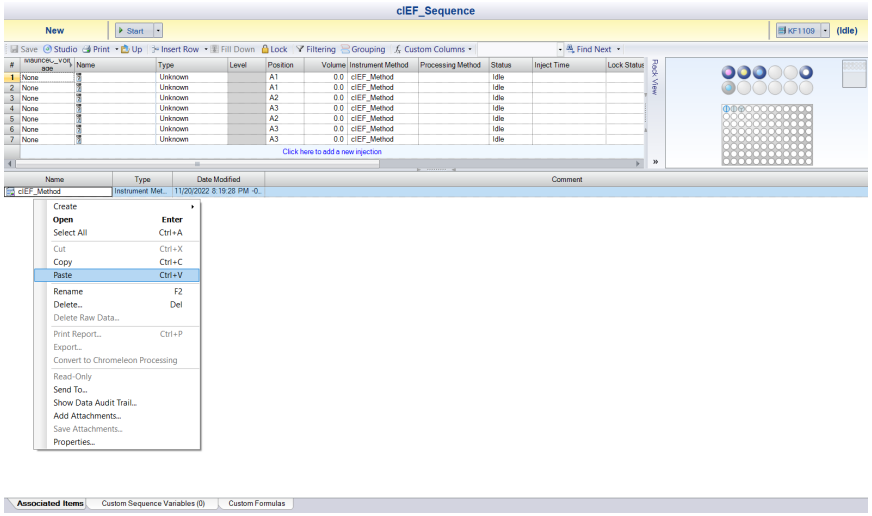
To apply a processing method in the Chromeleon Console:

1. Open a sequence that used the processing method you want to apply.
2. The processing methods used will appear in Associated Items tab at the bottom of the Work Area.

3. Right-click on the processing method you want to apply and select **Copy**.



4. Open the sequence you are creating. Right-click anywhere in the Associated Items tab at the bottom of the Work Area and select **Paste.**



5. The processing method will appear in the Associated Items tab.

6. Apply the processing method to the applicable injections.

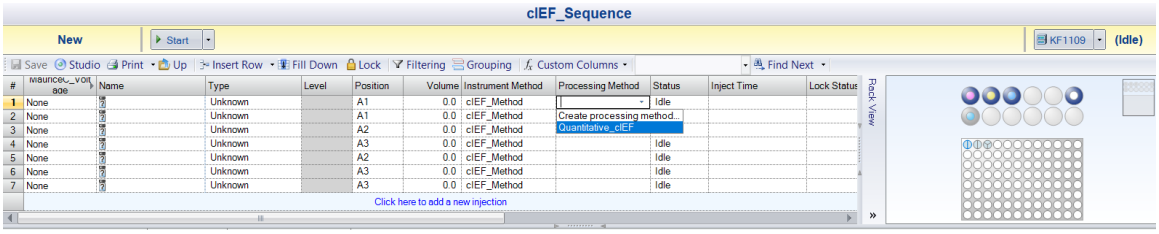
    To apply a method to one injection: Click on the cell in the Processing Method column. Then click on the pull-down icon that appears on the right side of the cell and select the method or select the option to create another method.

    To apply a method to all the injections: Apply the method to injection #1. Then select **Fill Down** in the Work Area menu.

    To apply a method to multiple sequential injections: Apply the method to injection #1. Select a group of injections by clicking on the injections, including injection #1, while holding down the **Shift** key. Continue to hold down the **Shift** key, right-click with the mouse and select **Fill Down**.

    To apply a method to selected injections: Apply the method to injection #1. Select a specific injections by clicking on the injections, including injection #1, while holding down the **Ctrl** key. Continue to hold down the **Ctrl** key, right-click with the mouse and select **Fill Down**.

    To delete a method applied to injections: Select the injections, right-click with the mouse and select **Delete**.



Editing Sequence Injections

To change the injection name or position: double-click on the cell and edit the information. Then click **Save** in the Work Area menu.

To add an injection: Select **Click here** to add a new injection at the bottom of the injection list.

To duplicate an injection: Select the injection, right-click and select **Insert**.

To delete an injection: Select the injection, right-click and select **Delete**.

Save the sequence by clicking on the **Save** icon in the Work Area menu.

Editing the Custom Sequence Variable

To edit the custom sequence variable.

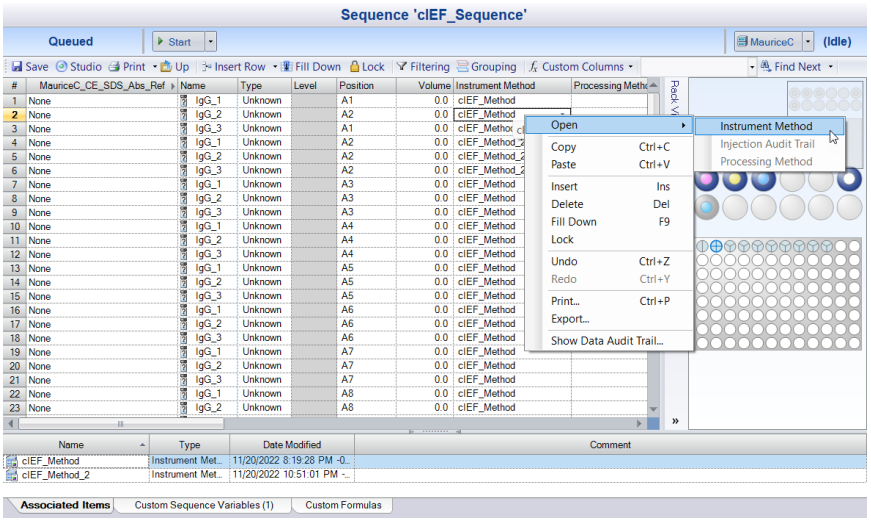
1. Select the variable in the Custom Sequence Variables at the bottom of the sequence Work Area.
2. Right-click and select **Edit...**. The Custom Variable Editor will open.
3. Make the changes to the sequence variable.

4. Click **OK** to save the sequence variable changes.
5. Click **Save** in the Work Area menu to save the change to the sequence.

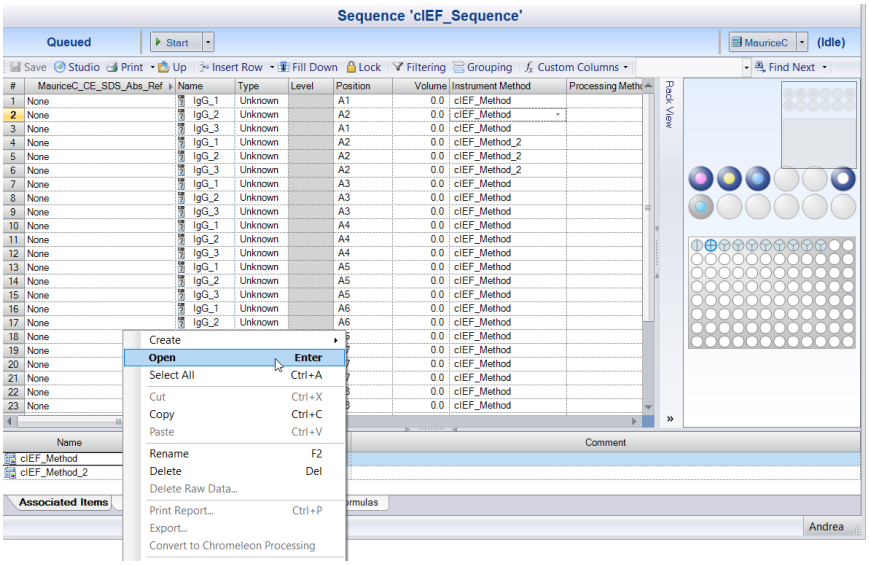
Editing the Instrument Method

You can still make changes to the method after it has been created. To edit the Instrument Method:

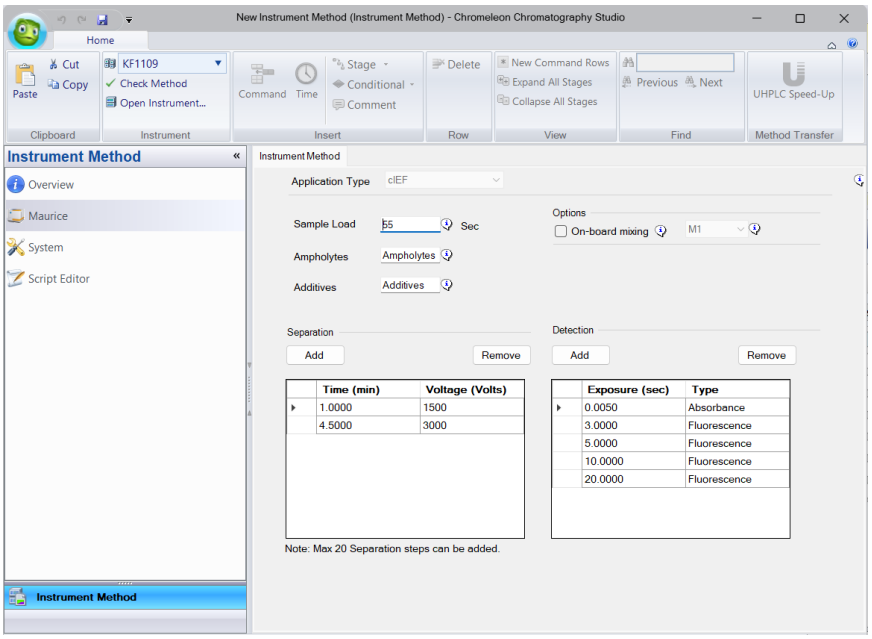
1. Open the Instrument Method in the Chromatography Studio using one of the following options:
   a. Double-click on any cell in the sequence. Select the system name in the Instrument Method category Navigation pane.
   b. Select the Method in Instrument Method Column of the Work Area. Right-click and select **Open** → **Instrument Method**.



c. Select the Method in the Associated Items tab at the bottom of the Work Area, right-click and select **Open**.



2. The method will open in the Chromatography Studio. Select the system name in the Navigation pane to view the method editor.



3. Change the method parameter in the editor and then click the **Save** icon in the main menu.

Chapter 8:

Running clEF Applications

Chapter Overview

- Before Starting the Run
- Loading the Sequence
- Performing a Ready Check
- Starting a Run
- Monitoring a Run
- Post-Run Procedures

Before Starting the Run

Confirm the sample, reagents and cIEF cartridge are installed in a Maurice or Maurice C. system and that Maurice's door is closed. Chromeleon software will auto-detect the installed cartridge and sample platform.

IMPORTANT:
Review the **Maurice User Guide** for further instruction on preparing and installing your samples, reagents and cIEF cartridge prep.

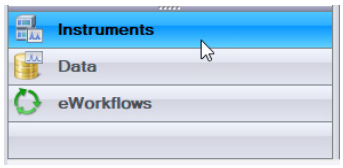
You are now ready to start your run.

Loading the Sequence

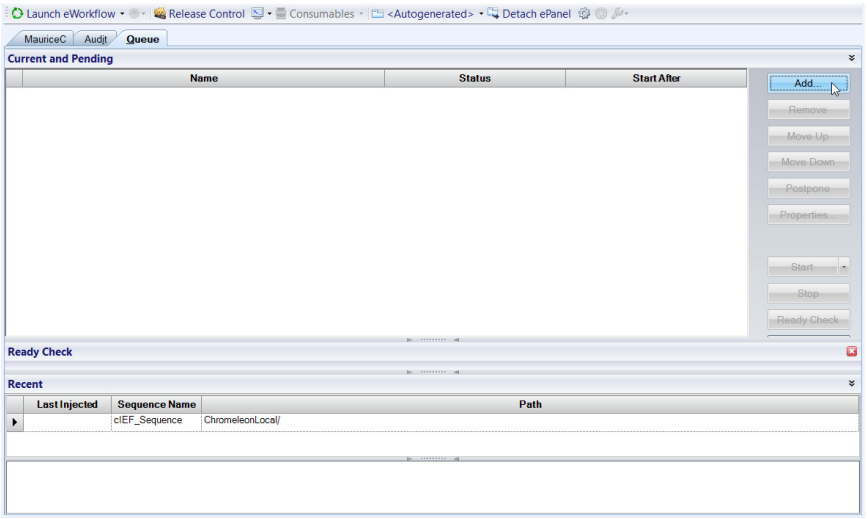
You'll need to add a sequence with an applied instrument method to the Queue before starting the run.

To add the sequence in the Chromeleon Console:

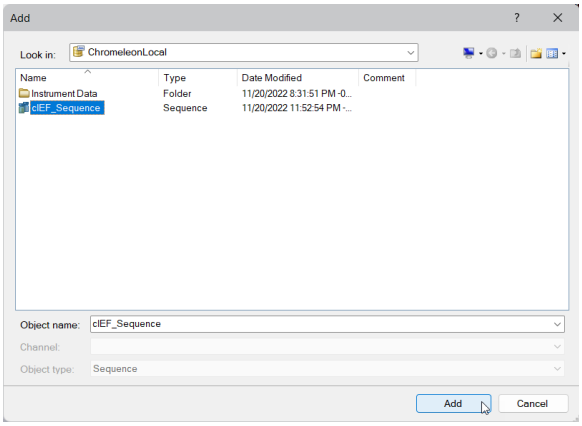
1. Select the **Instruments** category.



2. Open the Queue tab in the Work Area and click **Add**.



3. Select the sequence from the local Chromeleon database and click **Add**.



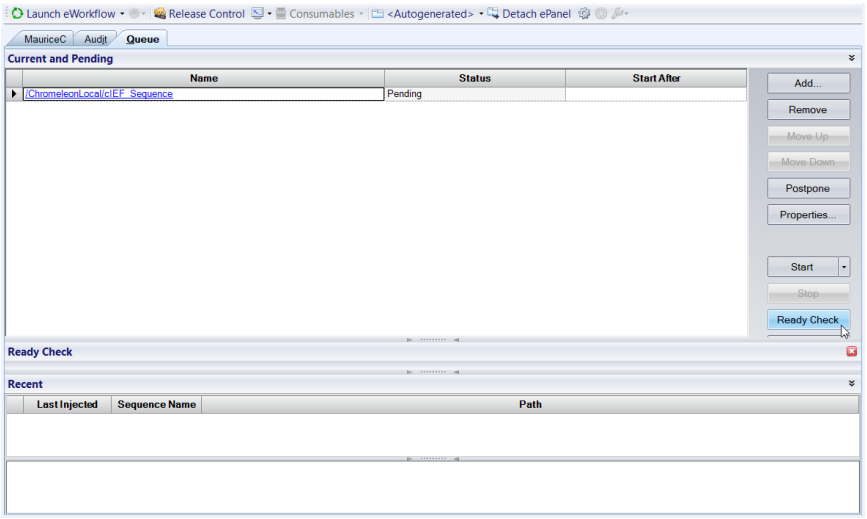
Performing a Ready Check

The Ready Check feature confirms that all method parameters are set up correctly, that the correct type of cartridge is installed, that the installed cartridge has enough available injections left and that Maurice is ready for the next run.

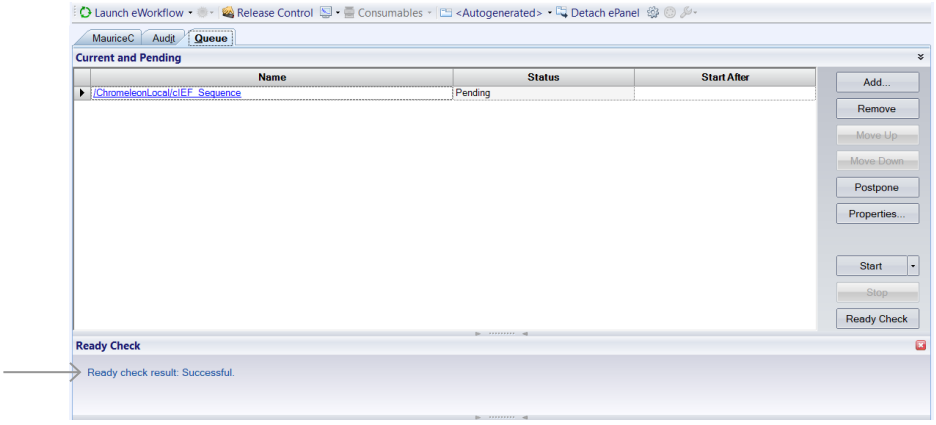
IMPORTANT: Always perform a Ready Check before starting a run.

To perform a Ready Check in the Chromeleon Console:

1. Click **Ready Check** in the Queue tab in the Instruments category to start the test.



2. Address any warnings or alerts flagged by the Ready Check. If the Ready Check is successful, you are ready to start your run!



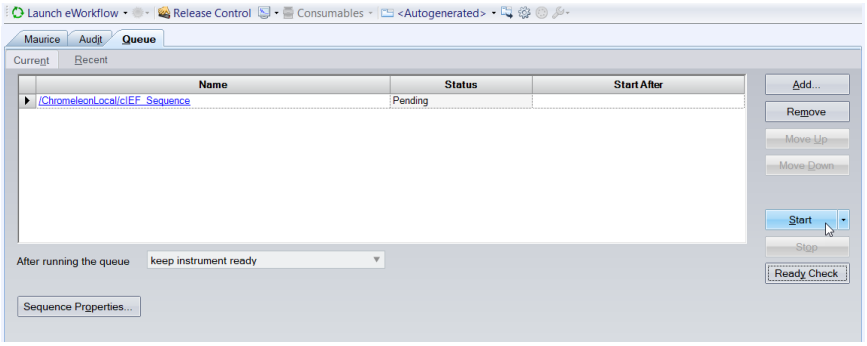
NOTE: If an alert appears and you are not sure what to do, click on the error text. A popup will appear with additional information on how to address the error.

Starting a Run

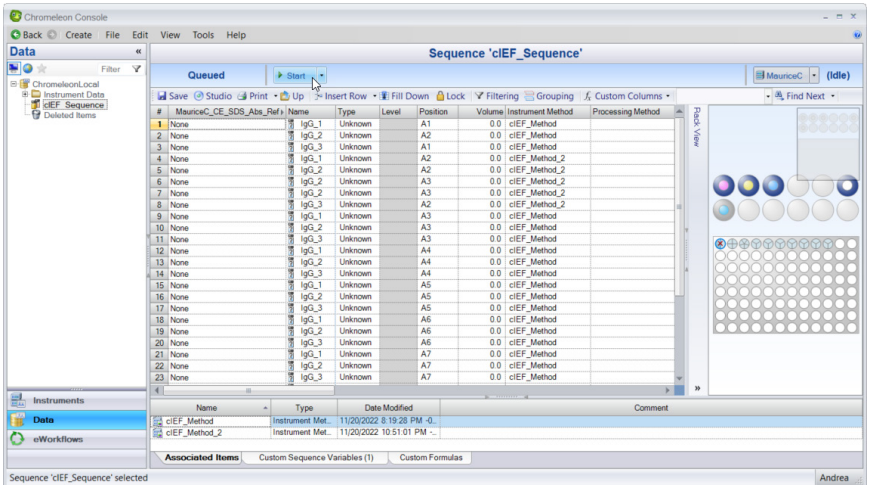
Starting a run on Maurice using Chromeleon software couldn't be easier. Make sure the configured Maurice is connected to the Chromeleon CDS. If he isn't, click on the **Maurice Status** slider in the System tab in the Instruments category of the Chromeleon Console.

After the reagents, samples, and cartridge are installed in Maurice and the sequence that has passed the Ready Check has been loaded to the queue, you have a couple ways to start the run.

- **Option 1:** In the Instruments category, click the **Start** button in the Queue tab.



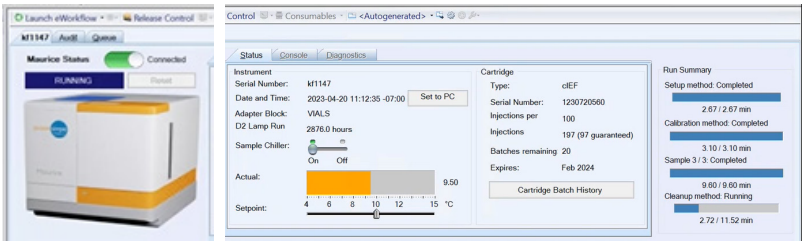
- **Option 2:** In the Data category, just click on the **Start** button at the top of the injection list.



That's it, you're done!

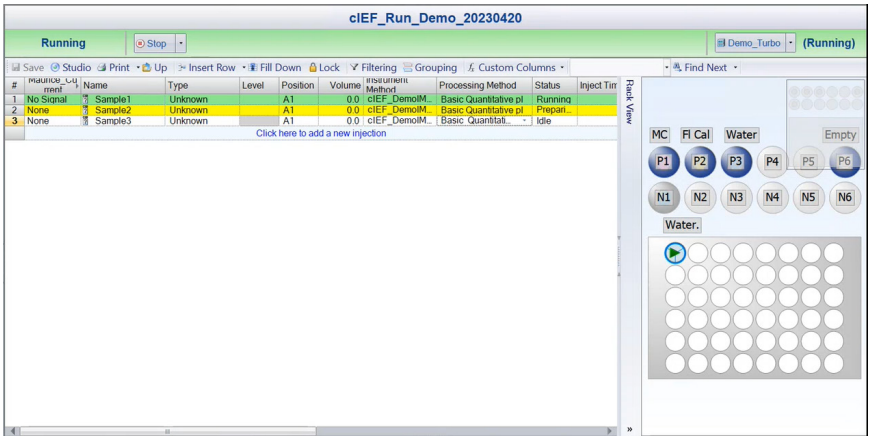
NOTE: The indicator light on Maurice's front panel will pulse slowly while the sequence is running.

The instrument status in the system tab of the Instruments category will indicate that Maurice is now running.



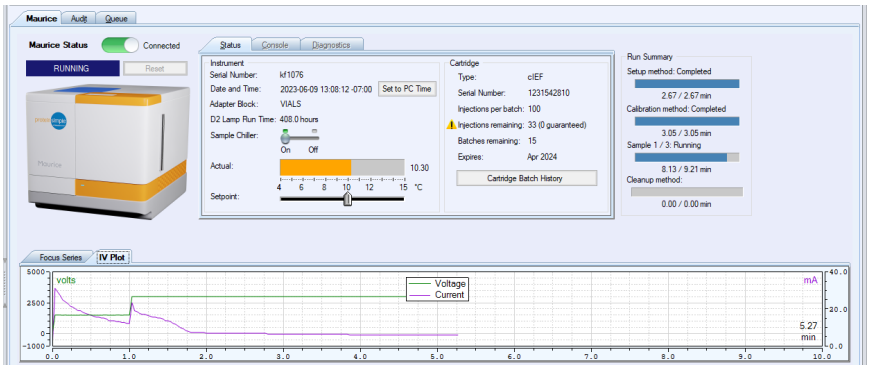
NOTE: Setup and cleanup steps are automatically part of the first and last injections in the sequences but will not be displayed as separate line items. Therefore, we do not recommend adding injections after a run has started. If you do need to add an injection to a running sequence, make there are still at least two more injections remaining in your sequence.

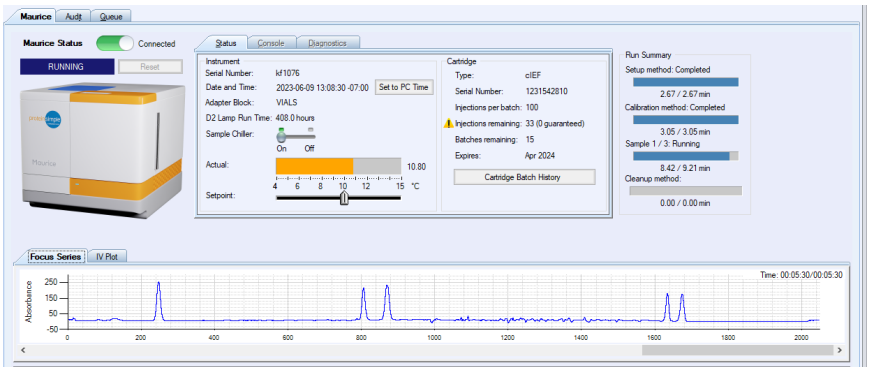
The status can also be viewed above the injection list in the Data category.



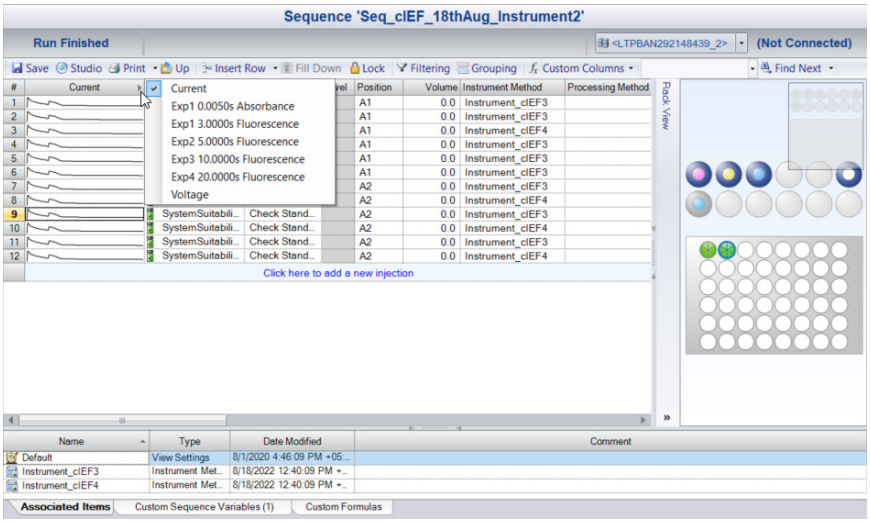
Monitoring a Run

The Instruments category will open after the run starts where you can monitor the IV Plot and Focus Series of the current injection in the Work Area.





You can also monitor the current, voltage and exposure electropherograms in the Data category Work Area while the sequence is running or completed. The electropherogram can be viewed in the column to the left. Click on the column header to open the selection menu.



Clicking on the electropherogram cell on a completed injection will open that injection in the Chromatography Studio for more detailed analysis.

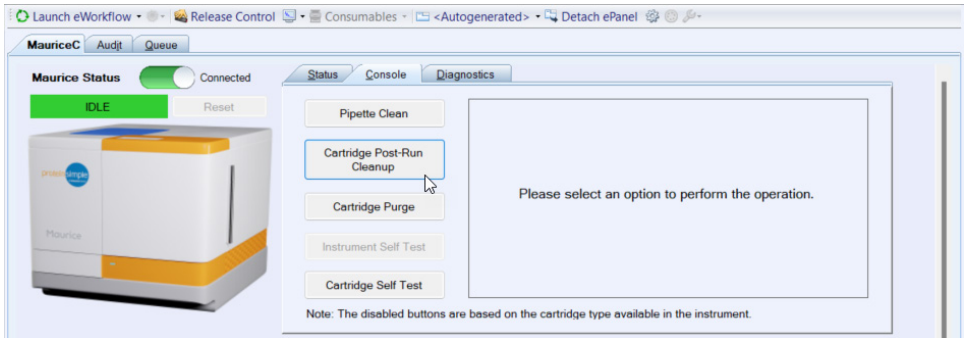
Post-Run Procedures

Refer to the **Maurice User Guide** for instructions on how to properly remove and dispose of the samples and reagents used in the sequence. You'll also get instructions on how to dispose of the cartridge if you're reached the limit of guaranteed performance or how to clean and store the cartridge if it will be used again.

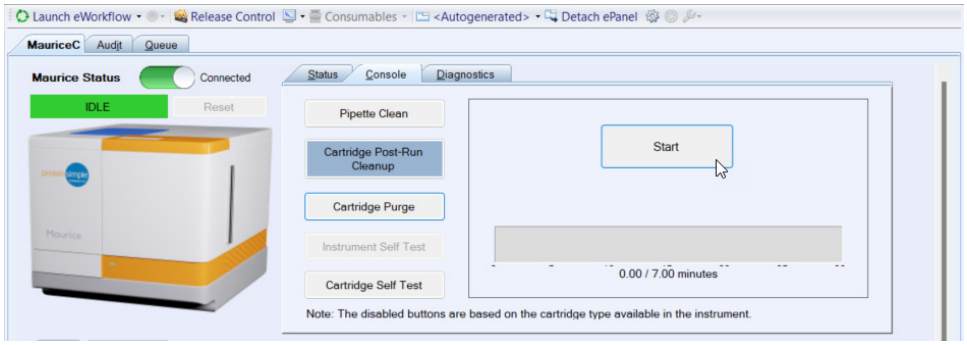
Cartridges that will be used again should undergo a Cartridge Post-Run Cleanup. To perform a cleanup:

1. Install the cartridge in Maurice after cleaning and aspirating all the liquid from the electrolyte tanks and close the door.
2. Select the **Console** tab in the Work Area of the Instruments category.

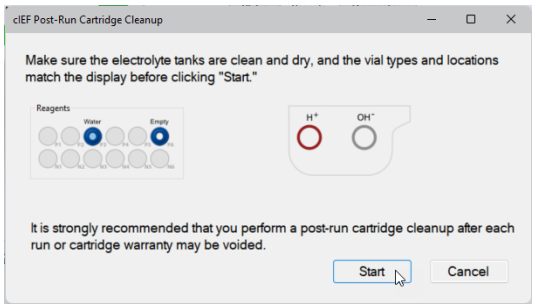
3. Click on the **Cartridge Post-Run Cleanup** button.



4. Click **Start**.



5. You'll get the following message. Confirm the cartridge and reagent status, then click **Start**.



6. After the Post-Run Cleanup is complete, open Maurice's door and complete the final steps of the Post-Run Cartridge Cleanup procedure.

Maurice is now ready for another sequence!

Chapter 9:

Creating a CE-SDS PLUS or Turbo CE-SDS Sequence

Chapter Overview

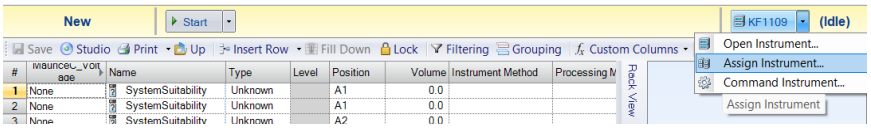
- CE-SDS Sequence Overview
- Connecting to Maurice
- Loading Samples, Reagents and the CE-SDS PLUS or Turbo CE-SDS Cartridge in Maurice
- Creating a Sequence
- Editing Sequence Injections
- Editing the Custom Sequence Variable
- Editing the Instrument Method

CE-SDS Sequence Overview

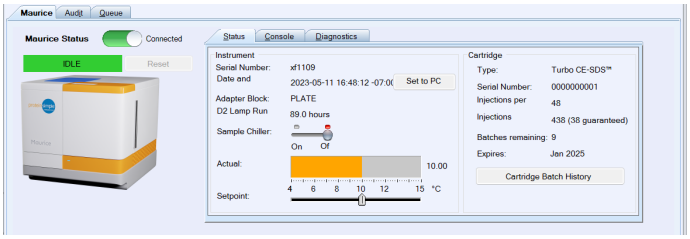
CE-SDS PLUS and Turbo CE-SDS Applications can be performed on Maurice and Maurice S. systems and must be performed using a CE-SDS PLUS and Turbo CE-SDS cartridge, respectively. A sequence lists the CE-SDS injections that will be processed during a run. A new sequence can be created or a previously used sequence edited to analyze samples on Maurice.

Connecting to Maurice

1. Confirm that the Instrument Controller is running. Then confirm that you are connected to the correct instrument in the Data category. To change instruments, select **Assign Instrument** in the pull-down menu.



2. Confirm the instrument is connected in the Maurice tab of the Instruments category.

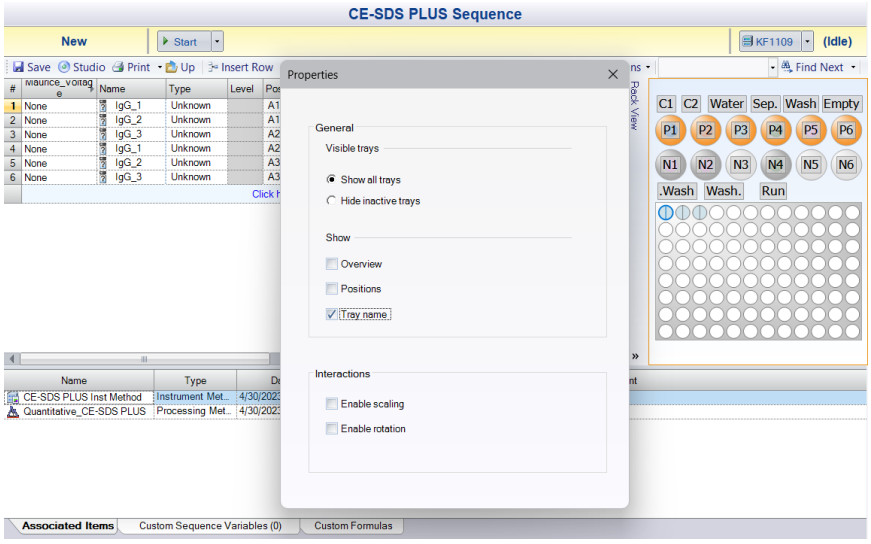


Loading Samples, Reagents, and the CE-SDS PLUS or Turbo CE-SDS Cartridge in Maurice

IMPORTANT:
Review the **Maurice User Guide** for further instruction on how to prepare and install samples, reagents and the cIEF cartridge.

Load your samples, reagents and cartridge in Maurice before setting up your sequence. Chromeleon software will auto-detect the installed cartridge and sample platform. Review the **Maurice User Guide** for further instruction on how prepare and install samples, reagents and the CE-SDS PLUS or Turbo CE-SDS cartridge.

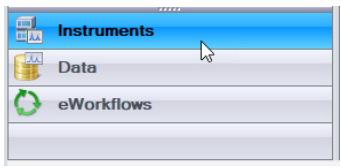
When installing the sequence reagents in Maurice, a Rack View appears to help guide where reagents should go. To see locations of each reagent on the reagent platform, right-click in the Rack View pane, select **Properties** and then select **Tray name**.



After you have installed the samples, reagents and CE-SDS PLUS or Turbo CE-SDS cartridge in a Maurice or Maurice S. system, close Maurice's door.

Creating a Sequence

Sequences are defined in the Instruments category of the Chromeleon Console.

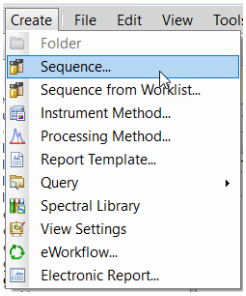


Step 1: Creating a Sequence

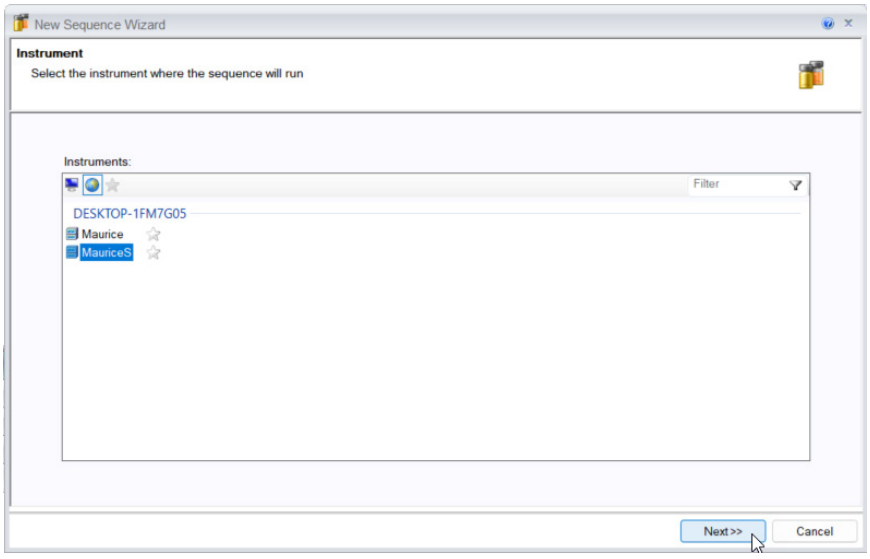
NOTE: For instruction on creating a sequence from a CSV or LIMS worklist, refer to the Chromeleon software help index. Learn how to access the “Chromeleon Software Help Index” on page 34.

To create a new sequence in the Chromeleon Console:

1. Select **Create** in the main menu and click **Sequence...** to launch the Sequence Wizard.



2. Select the Maurice system being used and click **Next**.



3. Assign your samples.

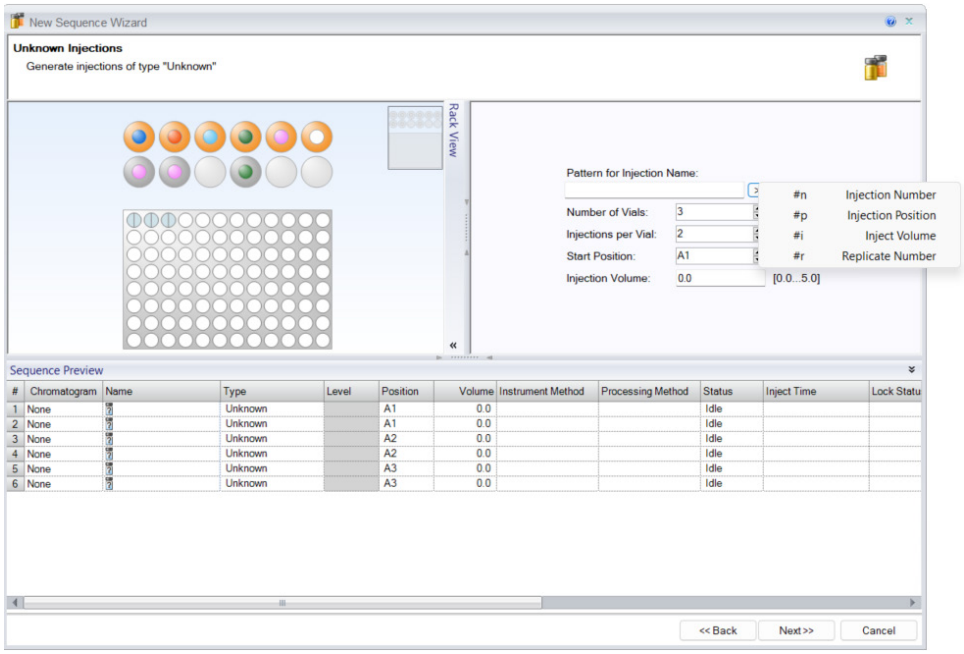
    a. **Pattern for Injection Name:** Specify how the injection will be named. Use the injection position and injection volume code to automatically add this information after the sample name. Use the injection number and replicate number code to sequentially add this information after the sample.

    b. **Number of Vials:** The number of sample vials in a 48 vial run or the number of wells with sample in a 96-well plate.

    c. **Injections per Vials:** The number of injections from each vial or well.

    d. **Start Position:** The location of the first vial in the sample block or location of the first sample in the 96-well plate.

    e. **Injection Volume:** This field is not applicable to Maurice sequences. It should be disregarded and does not need to be modified.



4. Click **Next**.

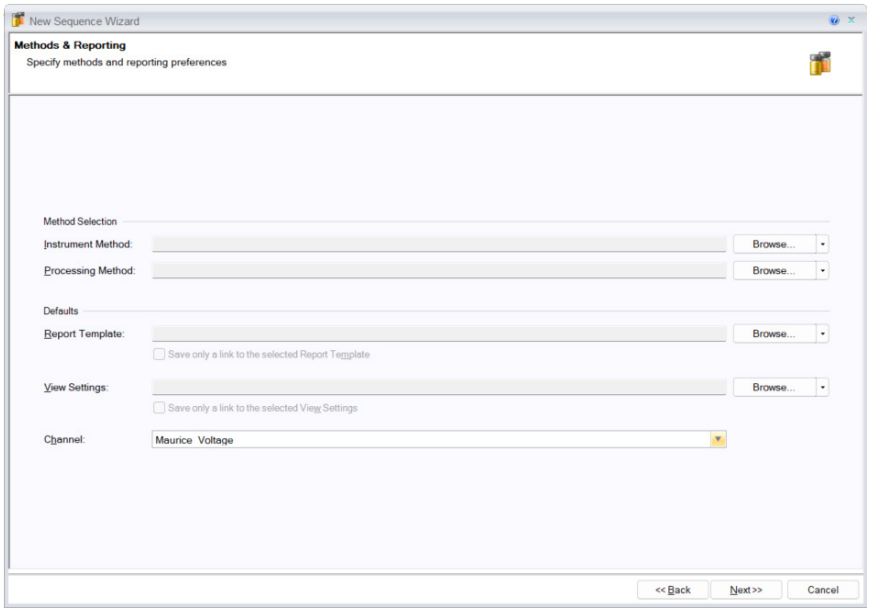
5. In the Methods and Reporting Window:

    a. If you want to use a previously defined Instrument Method and/or Processing Method, click the Browse button to select the method from the Data Vault and click **Open.** Then click **Next**.

NOTES:
An Instrument Method can be defined and applied to injections in the sequence after the sequence is created, before the run starts.

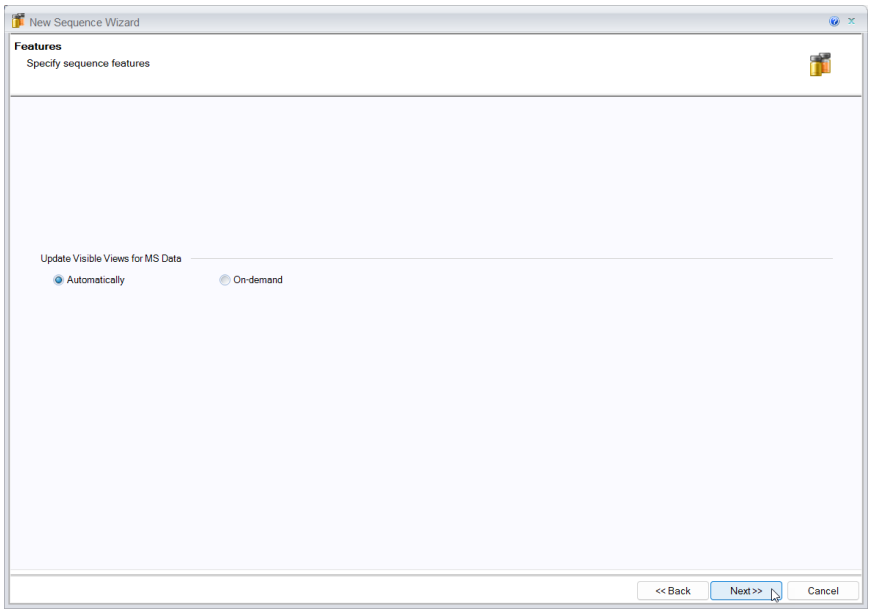
A Processing Method can be defined and applied to injections in the sequence after the sequence is created, before the run starts or after the run is done.

b. Select the channel you want to monitor during the run (voltage, current, or absorbance for a specific injection).

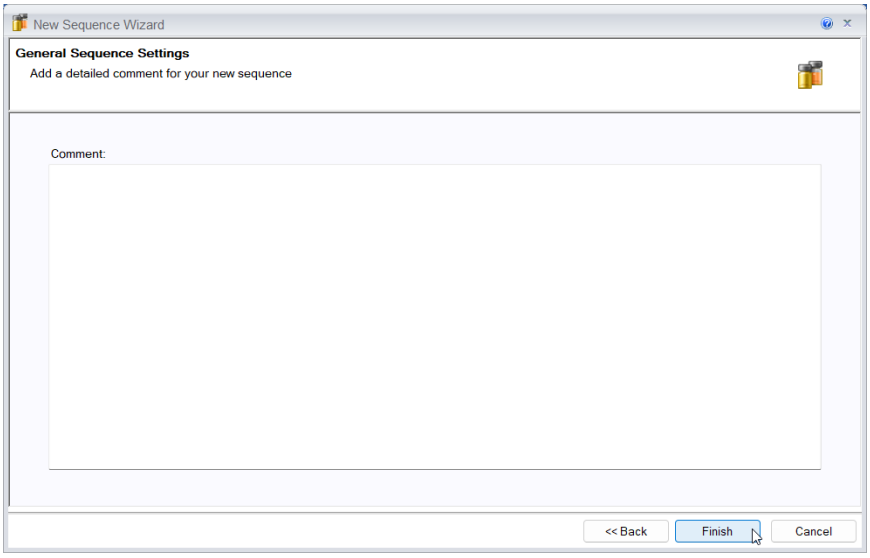


c. Click **Next**.

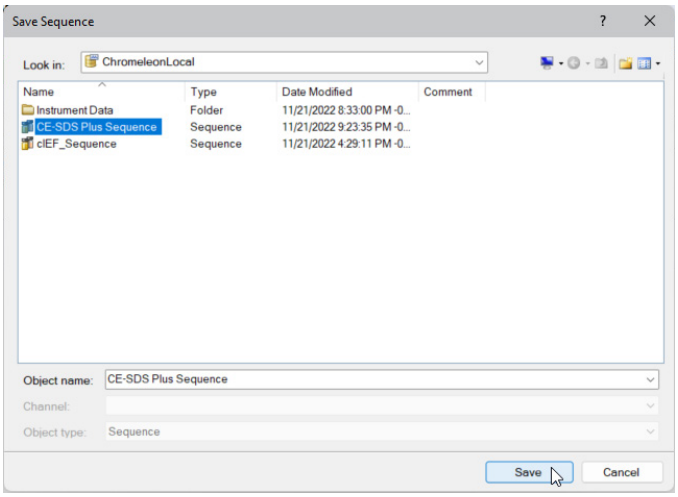
6. Click Next in the Features window.



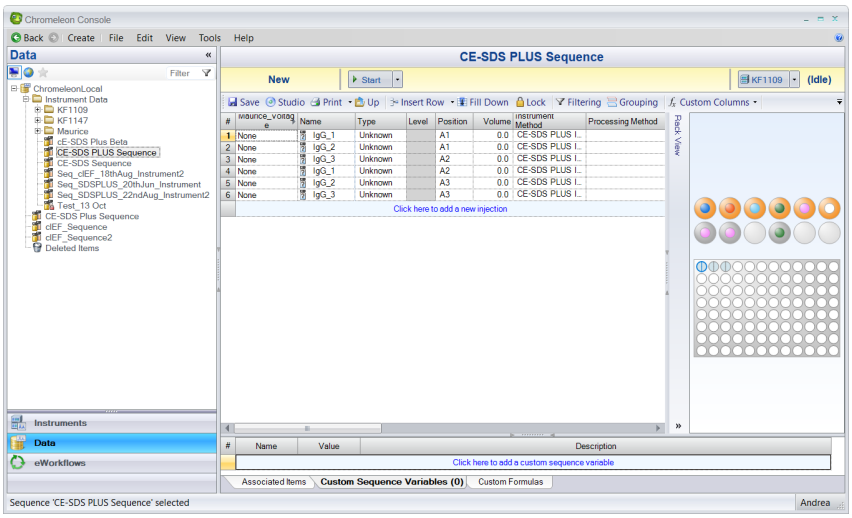
7. Enter a comment (optional) for the sequence and click **Finish**.



8. Name your sequence and click **Save**. The sequence will be saved in your local Chromeleon database by default.



9. The sequence will automatically load in the Data category Work Area. Key columns for Maurice runs are the injection Name, Position, Instrument Method, Processing Method, and Status. You can ignore or hide the remaining columns.

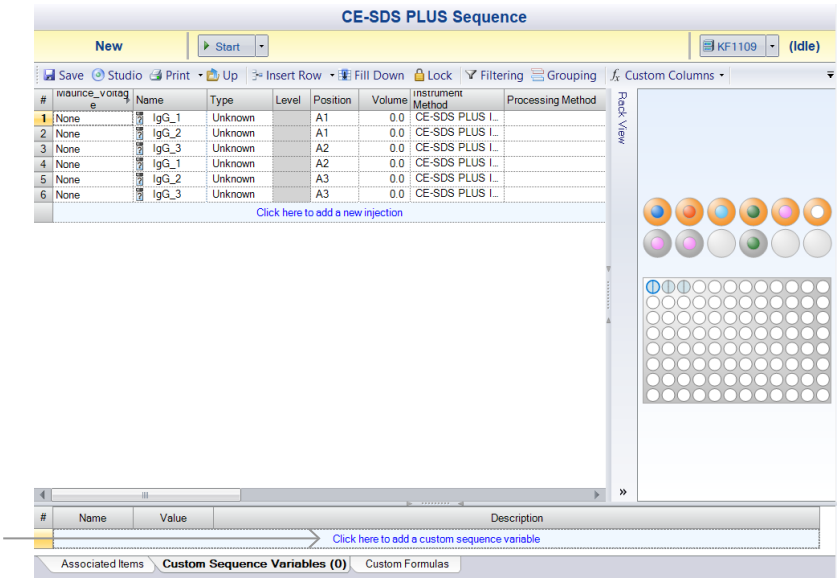


Step 2: Create a Custom Sequence Variable

IMPORTANT: A custom sequence must be created and applied to the sequence to maintain the sample block temperature during the run.

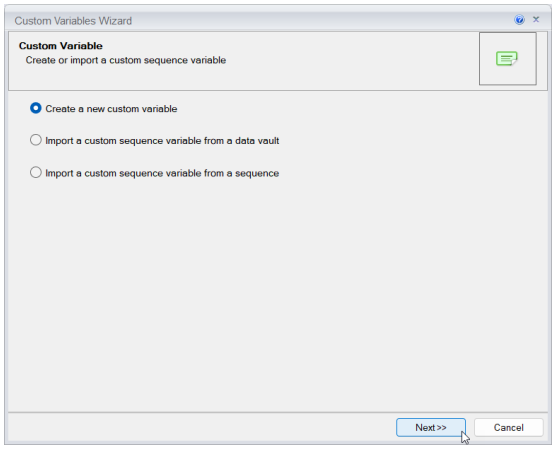
To create a custom sequence variable in the Chromeleon Console:

1. Select **Click here to add a custom sequence variable** in the Custom Sequence Variables tab at the bottom of the Data category Work Area. This will open the Custom Variable Editor.

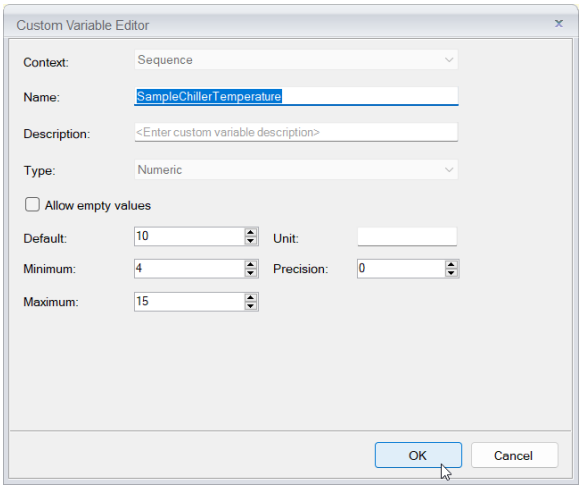


2. Select **Create a new custom variable** and click **Next**.

NOTE: A previously created custom variable can also be imported from the Data Vault or from other sequence.

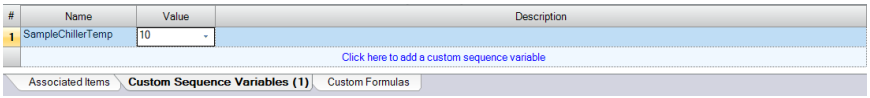


3. Enter the following variables in the editor:
    - **Name:** SampleChillerTemperature
    - **Type:** Numeric
    - **Allow empty values:** No
    - **Default:** 10
    - **Minimum:** 4
    - **Maximum:** 15



4. Click **OK**.

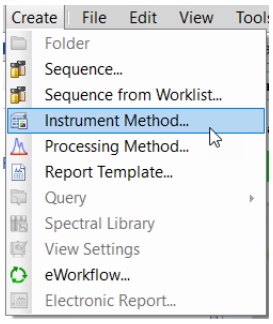
5. The variable will appear in the Custom Sequence Variables tab at the bottom of the Data category Work Area. Enter a number in the Value column to set the sample block temperature (°C).



Step 3: Create an Instrument Method

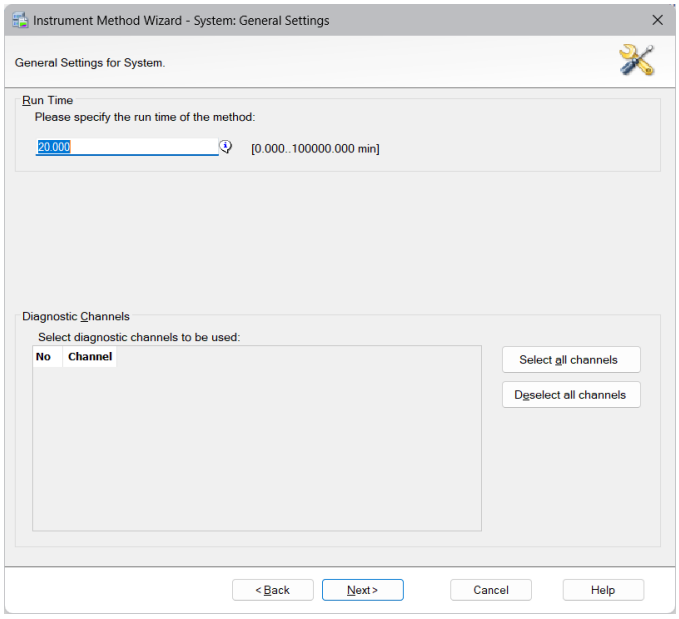
To create a new Instrument Method in the Chromeleon Console:

1. Select **Create** in the main menu and click **Instrument Method...** to launch the Instrument Method Wizard.



2. A window with General Settings for Maurice will appear. Click **Next**.

NOTE: You do not need to change the Run Time value since the displayed value in the Run Time field is automatically calculated. See “How are instrument run times calculated?” on page 130 for more information.



3. The Method Editor window will open. You can define the parameters for your method here.

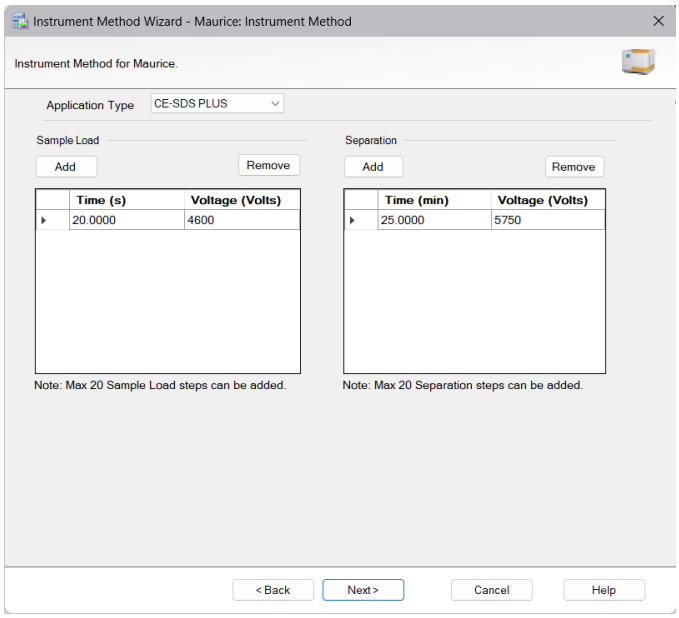
   - **Application Type:** Select **CE-SDS PLUS** if you're running a CE-SDS PLUS application. Select **Turbo CE-SDS** if you're running a Turbo CE-SDS application.
   - **Sample Load:** Set the sample load time in seconds and volts. Click **Add** to add an additional step to your sample load profile and **Remove** to remove a step from your sample load profile. Double-click on the cell to edit a value.

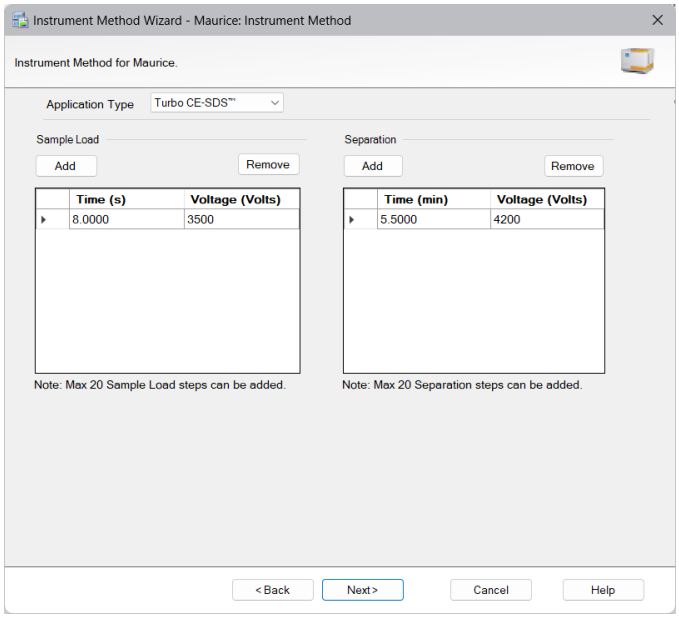
NOTE: We recommend using just one Sample Load step.

   - **Separation:** Set the separation time in seconds and volts. Click **Add** to add an additional step to your separation profile and **Remove** to remove a step from your separation profile. Double-click on the cell to edit a value.

     We recommend using the default separation method parameters for the listed sample types. Please see the **Maurice CE-SDS Application Guide** for more information on method optimization.

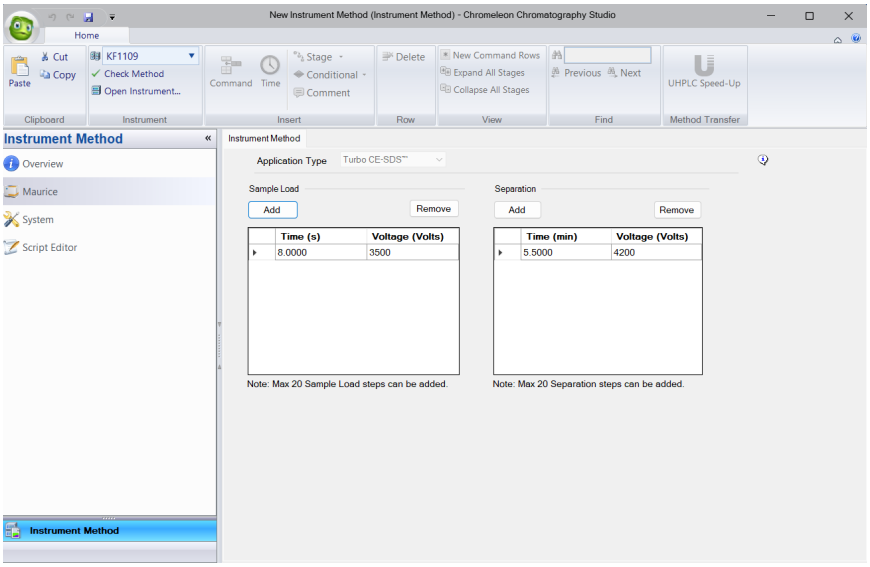
	CE-SDS		Turbo CE-SDS	
	Sample Load	**Separation**	**Sample Load**	**Separation**
Reduced IgG	20 seconds, 4600 V	25 minutes, 5750 V	8 seconds, 3500 V	5.5 minutes, 4200 V
Non-Reduced IgG	20 seconds, 4600 V	35 minutes, 5750 V	8 seconds, 3500 V	8 minutes, 4200 V
MW Markers	20 seconds, 4600 V	35 minutes, 5750 V	8 seconds, 3500 V	8 minutes, 4200 V





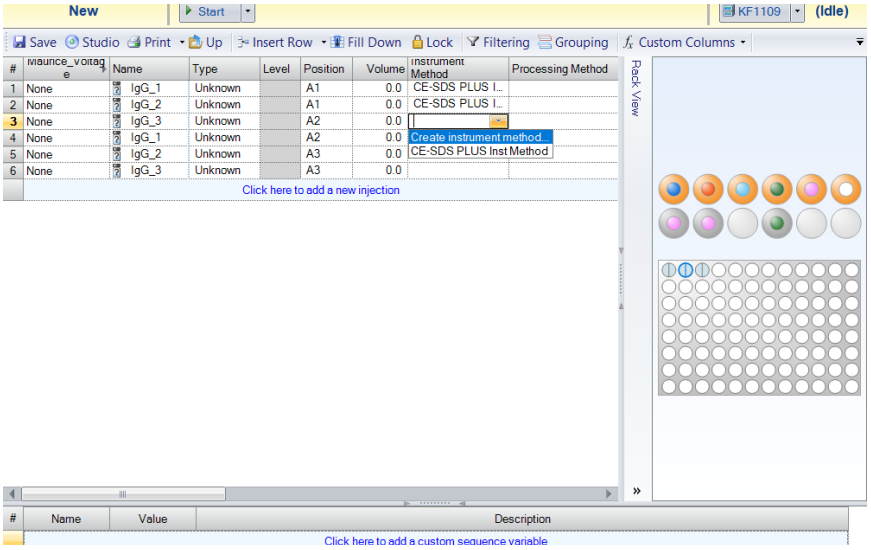
4. Click **Next**.

5. The method will automatically open in the Chromatography Studio. Review the method parameters and then click the **Save** icon in the main menu. If you try to close the window without saving, a prompt will appear reminding you to save the method.

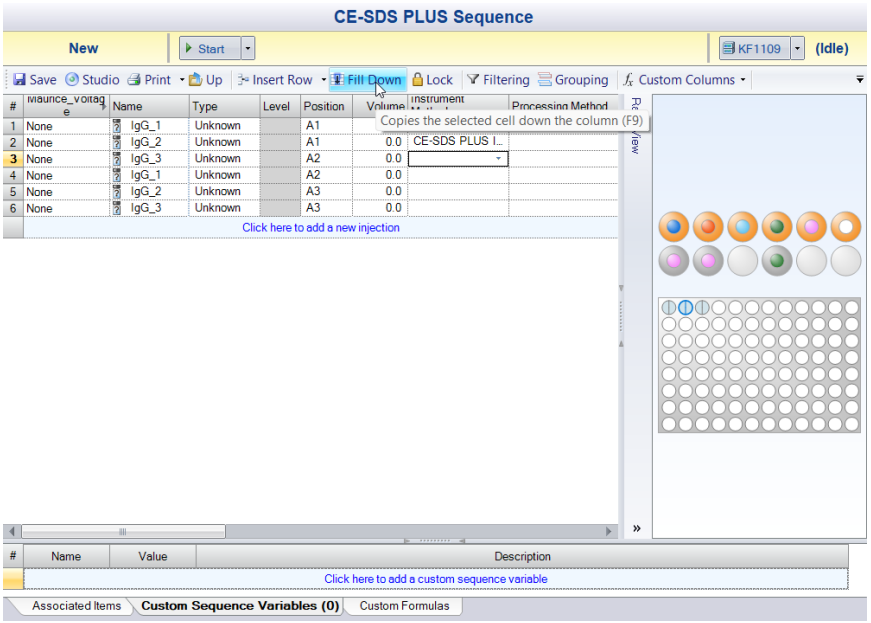


Step 4: Apply Instrument Methods to a Sequence

To apply a method to one injection: Click on the cell in the Instrument Method column. Then click on the pull-down icon that appears on the right side of the cell and select the method or select the option to create another method.



To apply a method to all the injections: Apply the method to injection #1. Then select **Fill Down** in the Work Area menu.



To apply a method to multiple sequential injections: Apply the method to injection #1. Select multiple injections by clicking on the first and last injection in the group, while holding down the **Shift** key. Continue to hold down the **Shift** key, right-click with the mouse and select **Fill Down**.

To apply a method to selected injections: Apply the method to injection #1. Select a specific injections by clicking on the injections, including injection #1, while holding down the **Ctrl** key. Continue to hold down the **Ctrl** key, right-click with the mouse and select **Fill Down**.

To delete a method applied to injections: Select the injections, right-click with the mouse and select **Delete**.

Step 5: Create a Processing Method

A CE-SDS processing method assigns the internal standard used and integrates peaks in your injection data. Once a processing method has been created, it can be applied to multiple sequences and can be applied before or after the run is completed.

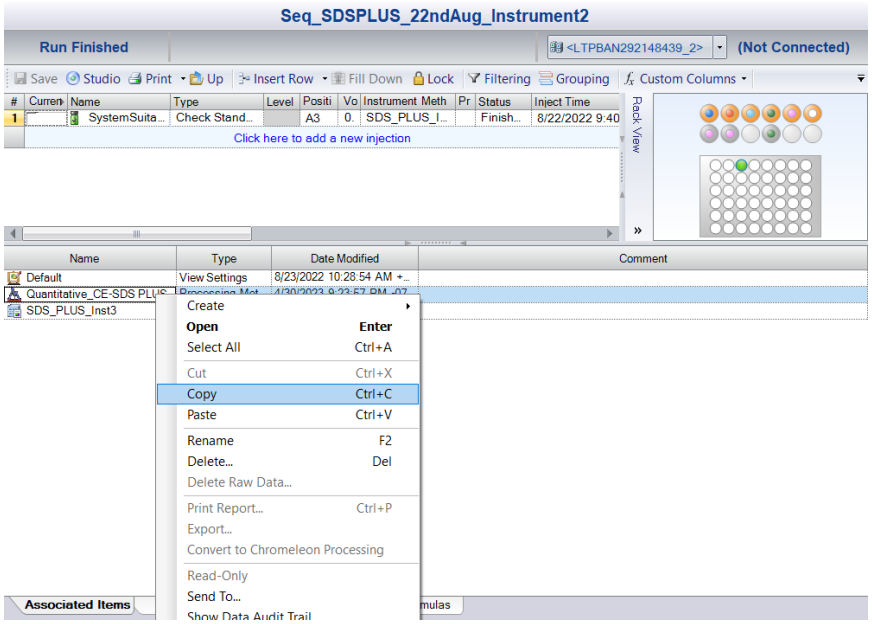
The steps required to create a processing method is not unique to using the Maurice Chromeleon Driver with Maurice. For additional instruction on creating a CE-SDS processing method, contact your local FAS or Thermo Fisher Scientific representative.

Step 6: Apply a Processing Method to a Sequence

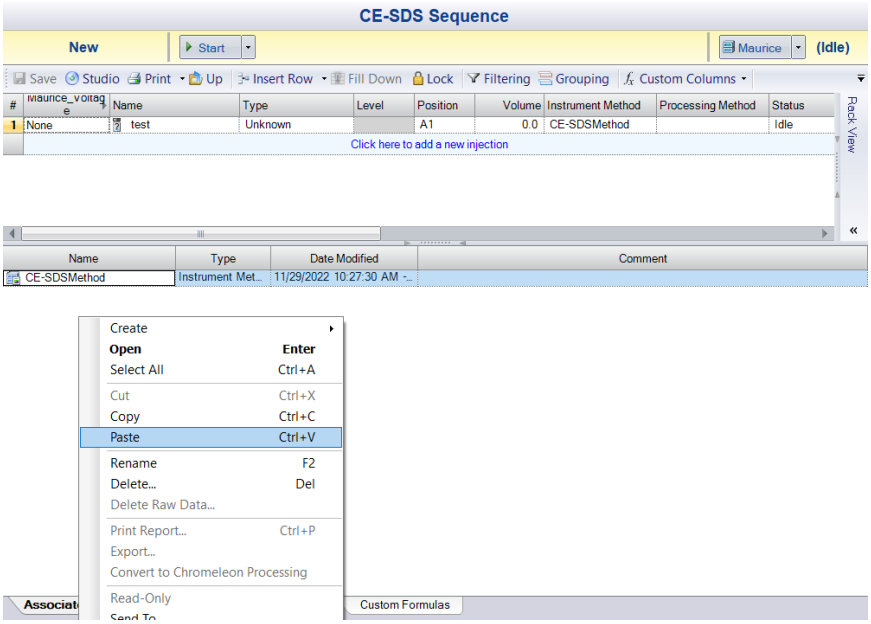
You can apply a previously created processing method to the sequence you are creating.

To apply a processing method in the Chromeleon Console:

1. Open a sequence that used the processing method you want to apply.
2. The processing methods used will appear in Associated Items tab at the bottom of the Work Area.
3. Right-click on the processing method you want to apply and select **Copy**.



4. Open the sequence you are creating. Right-click anywhere in the Associated Items tab at the bottom of the Work Area and select **Paste.**



5. The processing method will appear in the Associated Items tab.

6. Apply the processing method to the applicable injections.

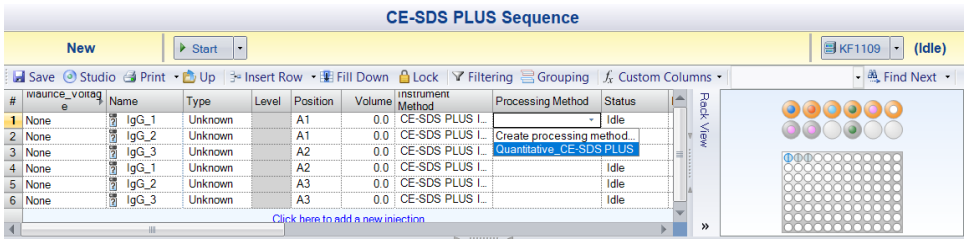
   To apply a method to one injection: Click on the cell in the Processing Method column. Then click on the pull-down icon that appears on the right side of the cell and select the method or select the option to create another method.

   To apply a method to all the injections: Apply the method to injection #1. Then select **Fill Down** in the Work Area menu.

   To apply a method to a group of injections: Apply the method to injection #1. Select a group of injections by clicking on the injections, including injection #1, while holding down the **Shift** key. Continue to hold down the **Shift** key, right-click with the mouse and select **Fill Down**.

   To apply a method to selected injections: Apply the method to injection #1. Select a specific injections by clicking on the injections, including injection #1, while holding down the **Ctrl** key. Continue to hold down the **Ctrl** key, right-click with the mouse and select **Fill Down**.

   To delete a method applied to injections: Select the injections, right-click with the mouse and select **Delete**.



Editing Sequence Injections

To change the injection name or position: double-click on the cell and edit the information. Then click **Save** in the Work Area menu.

To add an injection: Select **Click here** to add a new injection at the bottom of the injection list.

To duplicate an injection: Select the injection, right-click and select **Insert**.

To delete an injection: Select the injection, right-click and select **Delete**.

Save the sequence by clicking on the **Save** icon in the Work Area menu.

Editing the Custom Sequence Variable

To edit the custom sequence variable:

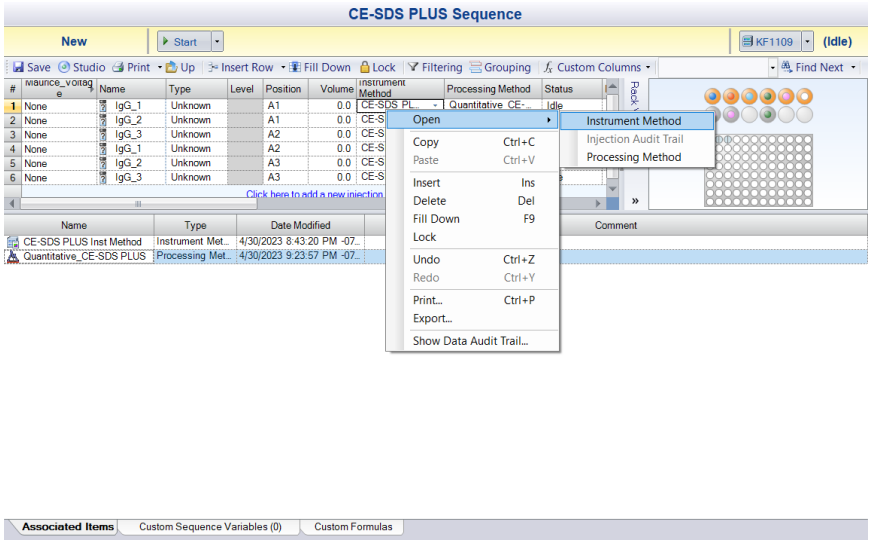
1. Select the variable in the Custom Sequence Variables at the bottom of the sequence Work Area.
2. Right-click and select **Edit...**. The Custom Variable Editor will open.
3. Make the changes to the sequence variable.
4. Click **OK** to save the sequence variable changes.
5. Click **Save** in the Work Area menu to save the change to the sequence.

Editing the Instrument Method

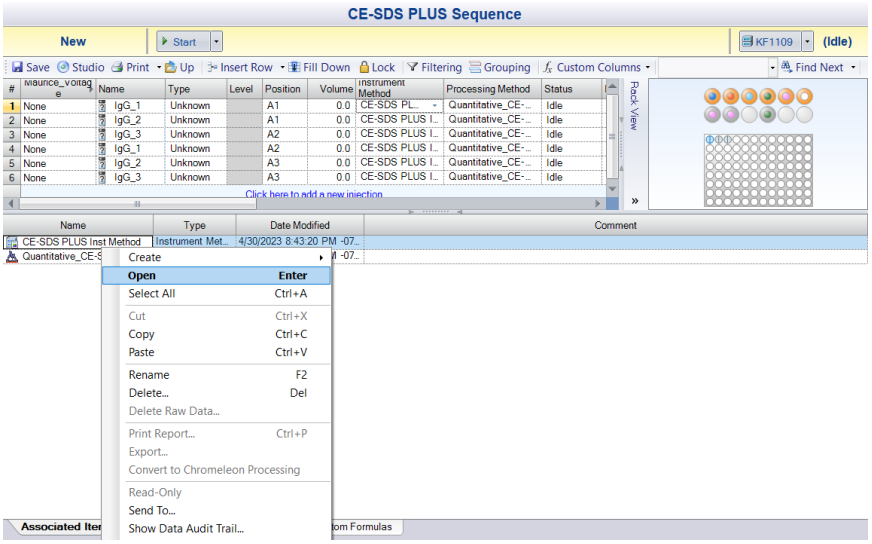
You can still make changes to the method after it has been created. To edit the Instrument Method:

1. Open the Instrument Method in the Chromatography Studio using one of the following options:
    a. Double-click on any cell in the sequence. Select the system name in the Instrument Method category Navigation pane.

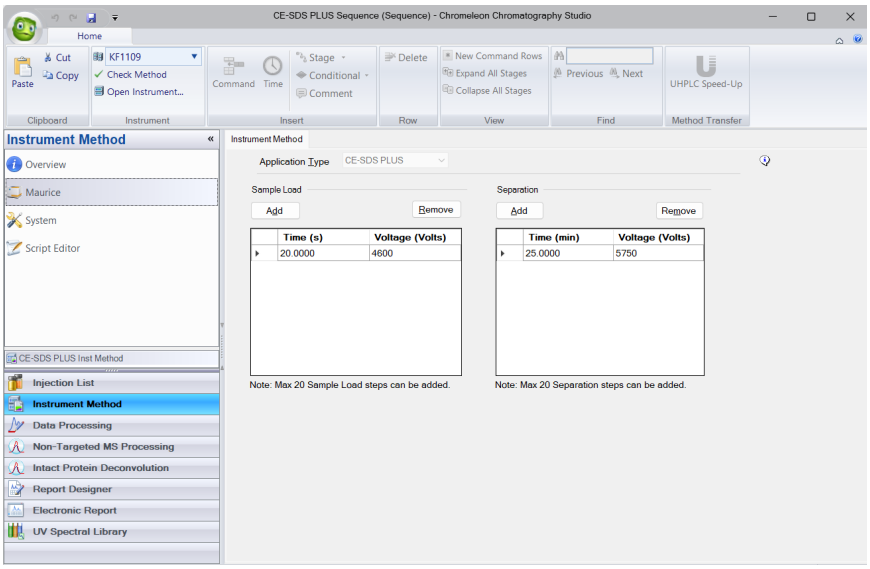
b. Select the Method in Instrument Method Column of the Work Area. Right-click and select **Open** ⟶ **Instrument Method**.



c. Select the Method in the Associated Items tab at the bottom of the Work Area, right-click and select **Open**.



2. The method will open in the Chromatography Studio. Select the system name in the Navigation pane to view the method editor.



3. Change the method parameter in the editor and then click the **Save** icon in the main menu.

Chapter 10:

Running CE-SDS PLUS or Turbo CE-SDS Applications

Chapter Overview

- Before Starting the Run
- Loading the Sequence
- Performing a Ready Check
- Starting a Run
- Monitoring a Run
- Post-Run Procedures

Before Starting the Run

Confirm the sample, reagents and CE-SDS PLUS or Turbo CE-SDS cartridge are installed in a Maurice or Maurice S. system and that Maurice's door is closed. Chromeleon software will auto-detect the installed cartridge and sample platform.

IMPORTANT:
Review the **Maurice User Guide** for further instruction on preparing and installing your samples, reagents and cartridge.

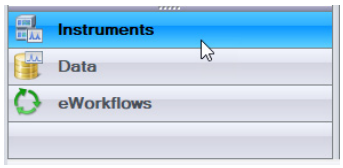
You are now ready to start your run.

Loading the Sequence

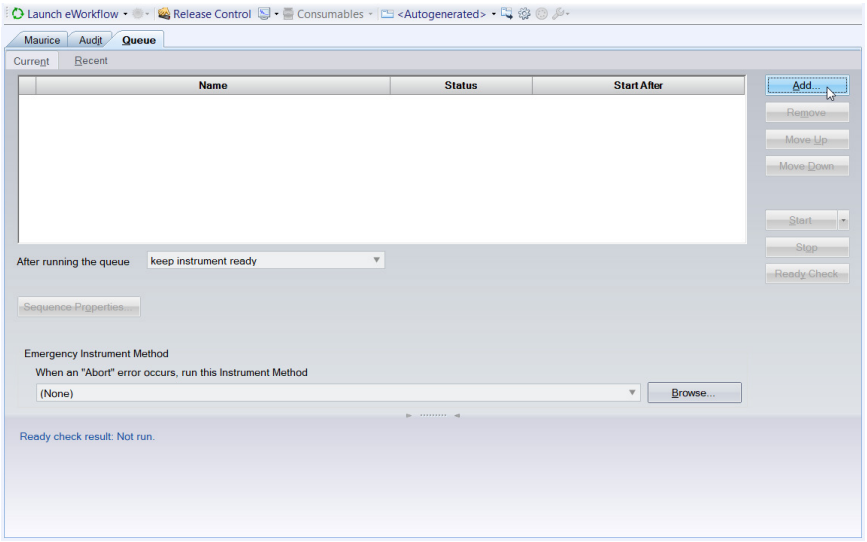
You'll need to add sequence with an applied instrument method to the Queue before starting the run.

To add the sequence in the Chromeleon Console:

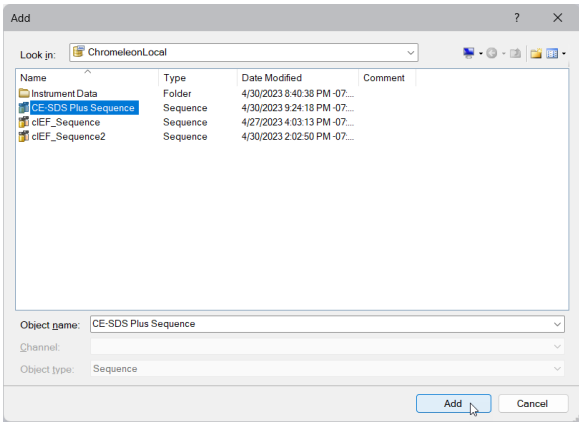
1. Select the **Instruments** category.



2. Open the Queue tab in the Work Area and click **Add**.



3. Select the sequence from the local Chromeleon database and click **Add**.



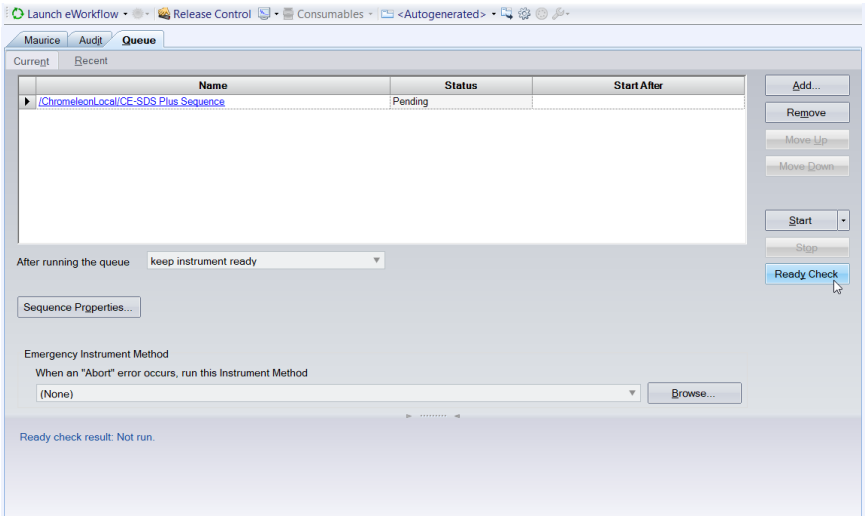
Performing a Ready Check

The Ready Check feature confirms that all method parameters are set up correctly, that the correct type of cartridge is installed, that the installed cartridge has enough available injections left and that Maurice is ready for the next run.

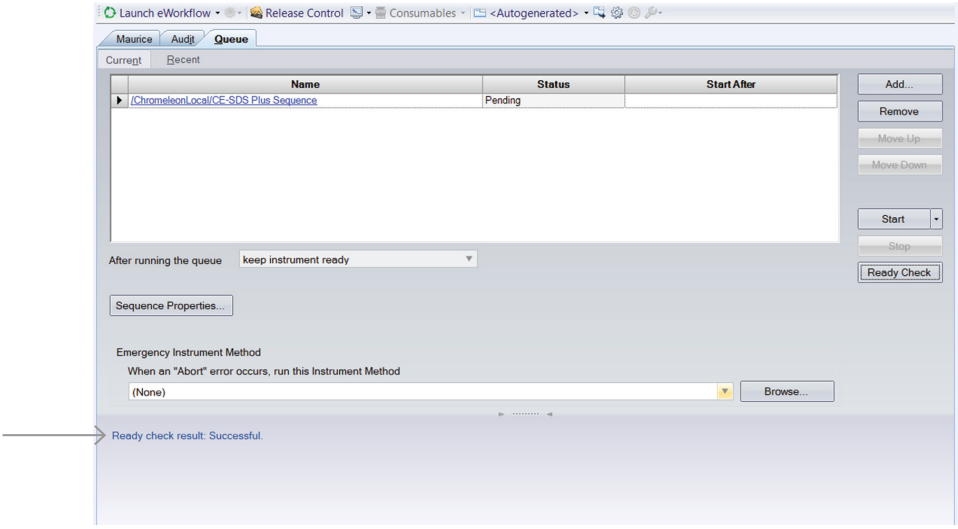
> **IMPORTANT:** Always preform a Ready Check before starting a run.

To perform a Ready Check in the Chromeleon Console:

1. Click **Ready Check** in the Queue tab in the Instruments category to start the test.



2. Address any warnings or alerts flagged by the Ready Check. If the Ready Check is successful, you are ready to start your run!



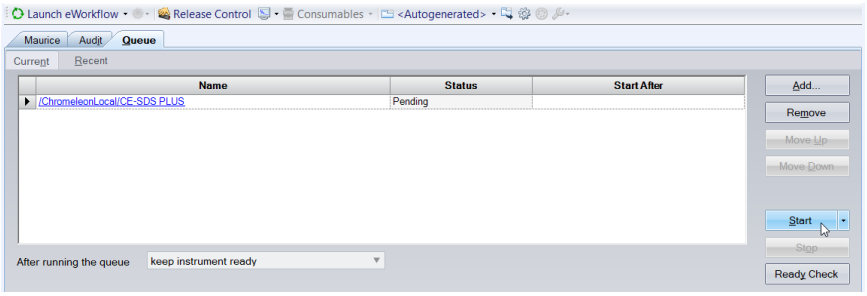
NOTE: If an alert appears and you are not sure what to do, click on the error text. A popup will appear with additional information on how to address the error.

Starting a Run

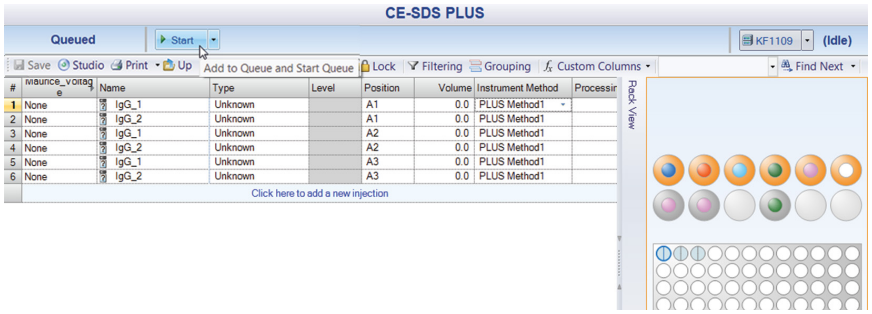
Starting a run on Maurice using Chromeleon software couldn't be easier. Make sure the configured Maurice is connected to the Chromeleon CDS. If he isn't, click on the **Maurice Status** slider in the System tab in the Instruments category of the Chromeleon Console.

After the reagents, samples and cartridge are installed in Maurice and the sequence that has passed the Ready Check has been loaded to the queue, you have a couple ways to start the run.

- **Option 1:** In the Instruments category, click the **Start** button in the Queue tab.



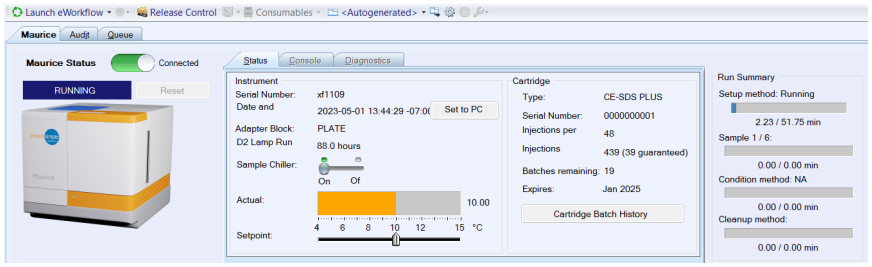
- **Option 2:** In the Data category, just click on the **Start** button at the top of the injection list.



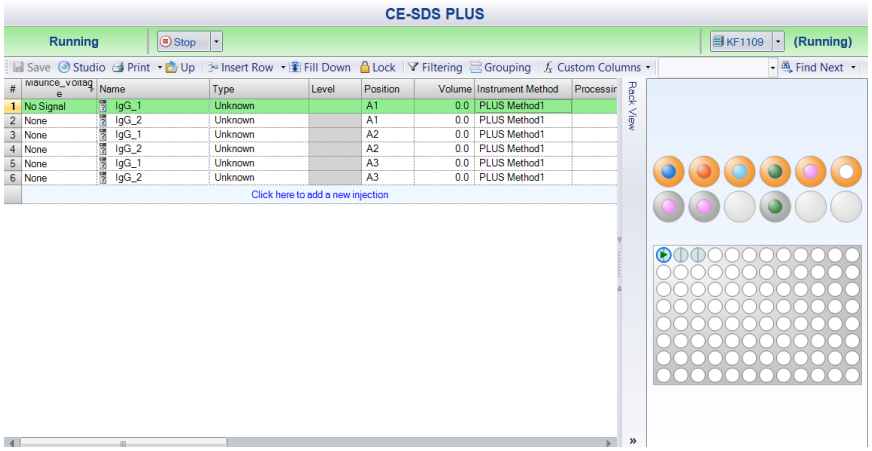
That's it, you're done!

NOTE: The indicator light on Maurice's front panel will pulse slowly while the sequence is running.

The instrument status in the system tab of the Instruments category will indicate that Maurice is now running.

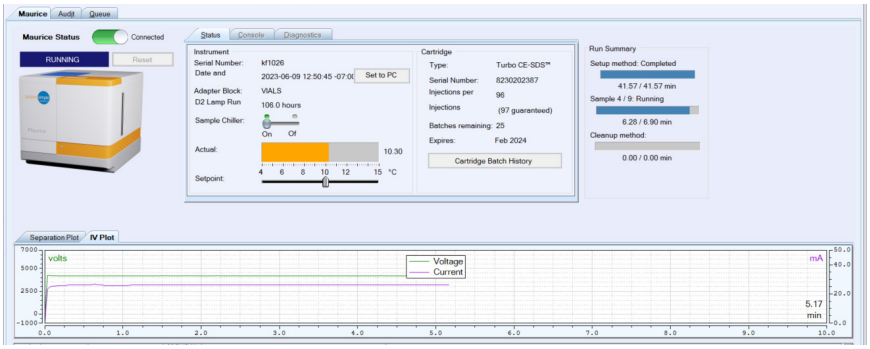


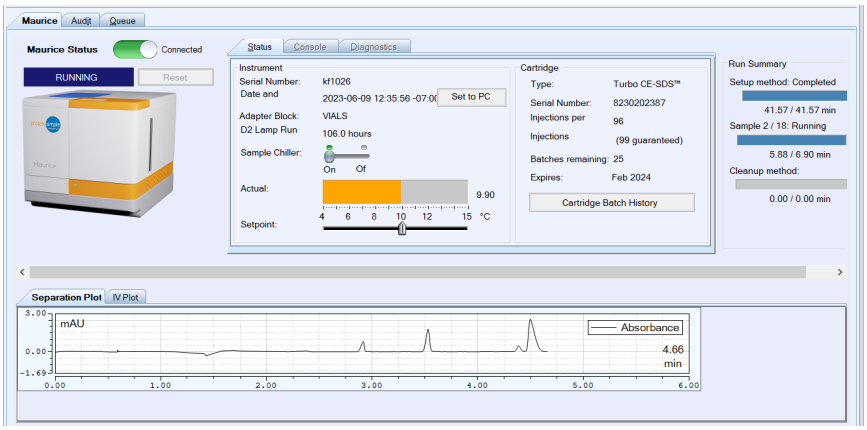
The status can also be viewed above the injection list in the Data category.



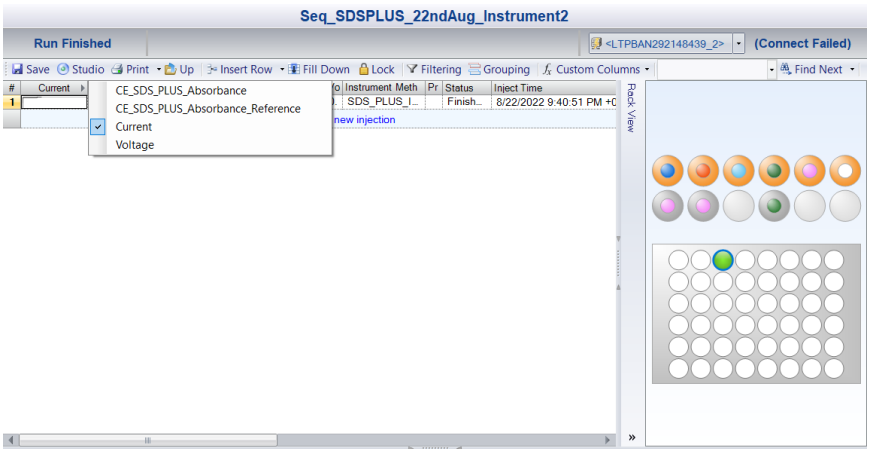
Monitoring a Run

The Instruments category will open after the run starts where you can monitor the IV Plot and Separation Plot of the current injection in the Work Area.





You can also monitor the current, voltage and exposure electropherograms in the Data Work Area while the sequence is running or completed. The electropherogram can be viewed in the column to the left. Click on the column header to open the selection menu.



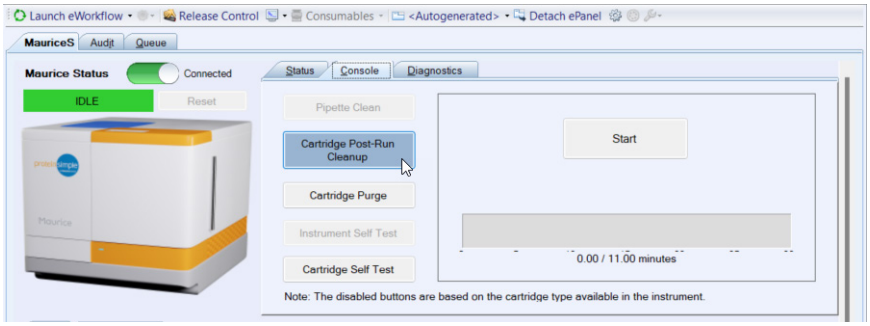
Clicking on the electropherogram cell on a completed injection will open that injection in the Chromatography Studio for more detailed analysis.

Post-Run Procedures

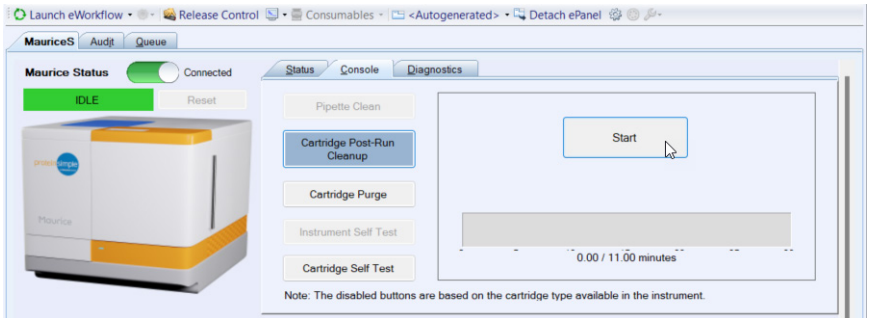
Refer to the **Maurice User Guide** for instructions on how to properly remove and dispose of the samples and reagents used in the sequence. You'll also get instructions on how to dispose of the cartridge if you're reached the limit of guaranteed performance or how to clean and store the cartridge if it will be used again.

Cartridges that will be used again should undergo a Cartridge Post-Run Cleanup. To perform a cleanup:

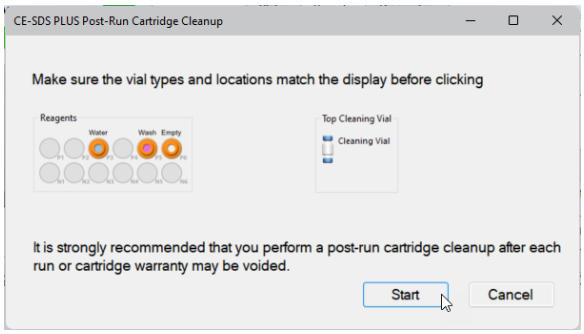
1. Prep the cartridge for the post-run cleanup following instructions in the **Maurice User Guide.**
2. Install the cartridge in Maurice and close the door.
3. Select the **Console** tab in the Instruments category Work Area.
4. Click on the **Cartridge Post-Run Cleanup** button.

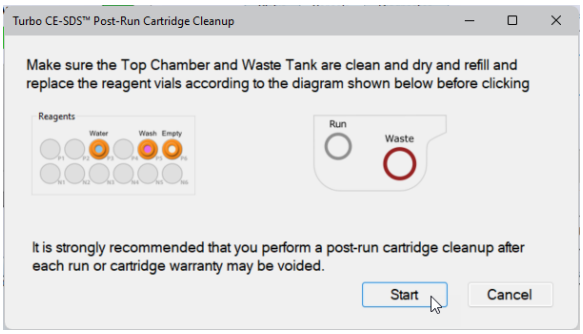


5. Click **Start**.



6. You'll get the following message. Confirm the cartridge and reagent status depending on the cartridge you are using, then click **Start**.





7. After the Post-Run Cleanup is complete, open Maurice's door and complete the final steps of the Post-Run Cartridge Cleanup procedure.

Maurice is now ready for another sequence!

Chapter 11:

Controlling Maurice

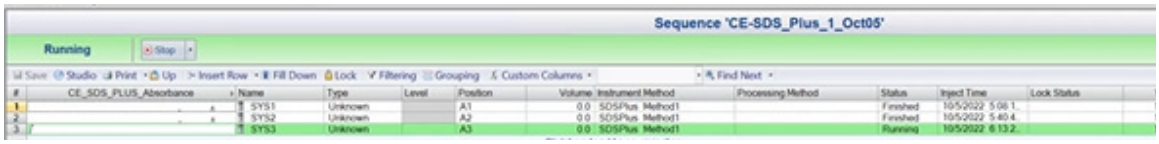
Chapter Overview

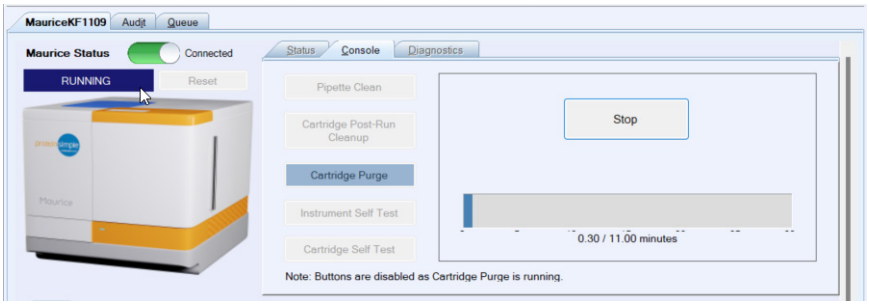
- Starting a Run
- Cartridge Cleaning
- Stopping a Run
- Instrument Self Test
- Checking Cartridge Status
- Cartridge Self-Test
- Download Files
- Generate a System Status Report

Starting a Run

To start your run, click the **Start** button in the Data category Work Area or in the Queue tab of the Instruments category after a locked sequence has been loaded. For more info on creating and starting batches check out Chapter 7: “Running cIEF Applications” or Chapter 9: “Running CE-SDS PLUS or Turbo CE-SDS Applications”.

Chromeleon software will indicate that Maurice is running above the injection list in the Data category and in the Status tab of the Instrument category.





Cartridge Cleaning

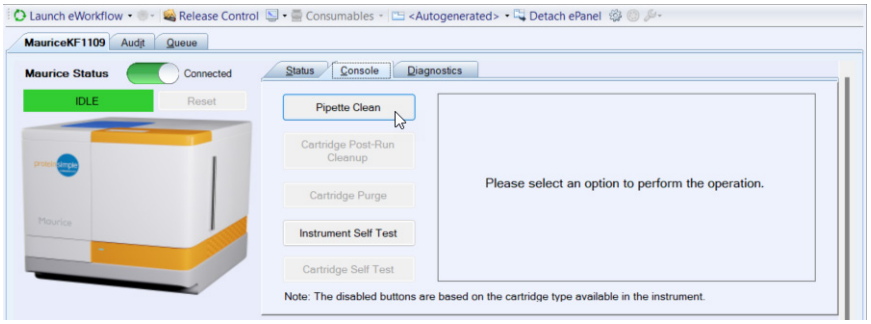
Pipette Clean

You’ll want to run the Pipette Clean any time you have to manually stop a run or if the run stops because of an error. This cleans and purges the pipette so it’s ready to go for the next run.

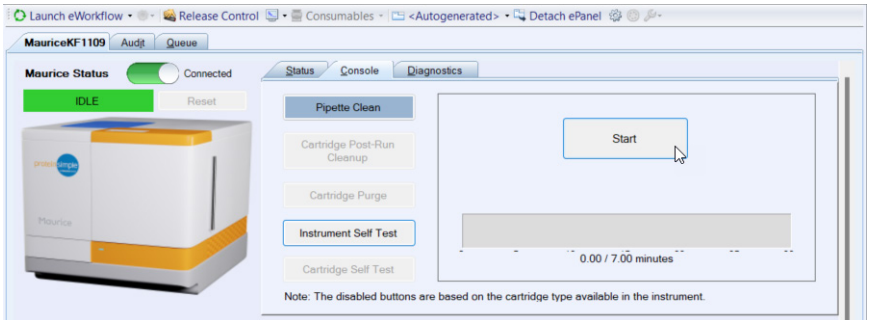
To clean the pipette in the Chromeleon Console:

1. Install reagents prepared according to the instructions in the **Maurice User Manual** in Maurice and close Maurice’s door.
2. In the Instruments category, select the **System** tab.
3. Select the **Console** tab.

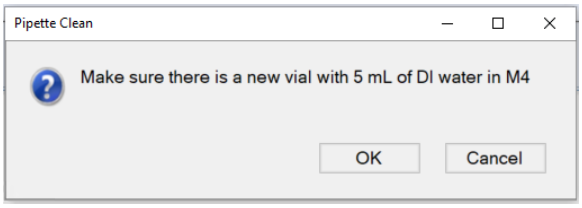
4. Click **Pipette Clean**.



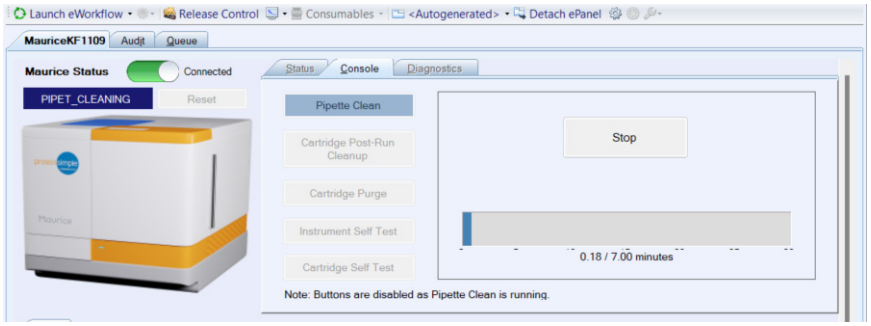
5. Click **Start**.



6. Review the prompt that appears and click **OK**.



7. The instrument status will indicate that the Pipette Clean protocol is running.



8. If you stop the Pipette Clean before it is done, the instrument status will indicate that there is an Error. Click the **Reset** button to reset Maurice.
9. The Pipette Clean protocol will take about 7 minutes to complete. When it's done, the system status will change from "PIPET_CLEANING" to "IDLE".

Cartridge Post-Run Cleanup

If you've still got injection left at the end of your sequence, you'll need to run a Cartridge Post-Run Cleanup procedure in the Chromeleon Console.

- **cIEF Cartridge:** Follow the "Post-Run Procedures" on page 73.
- **CE-SDS Plus or Turbo CE-SDS Cartridges:** Follow the "Post-Run Procedures" on page 100.

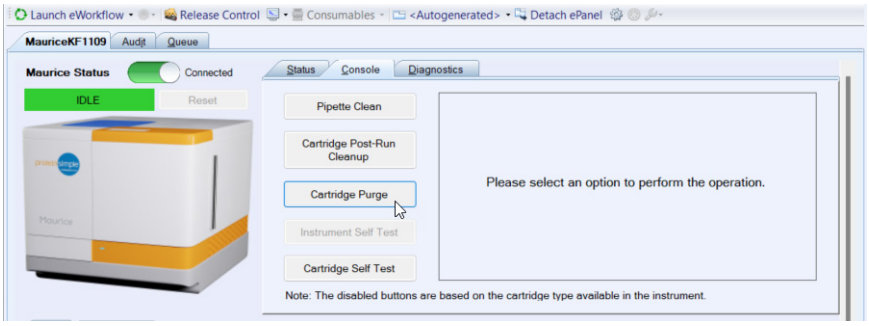
Cartridge Purge

You'll want to run the Cartridge Purge any time you have to stop a run manually, if the run stops because of an error or if your CE-SDS Plus or Turbo CE-SDS cartridge hasn't been used in more than 3 months.

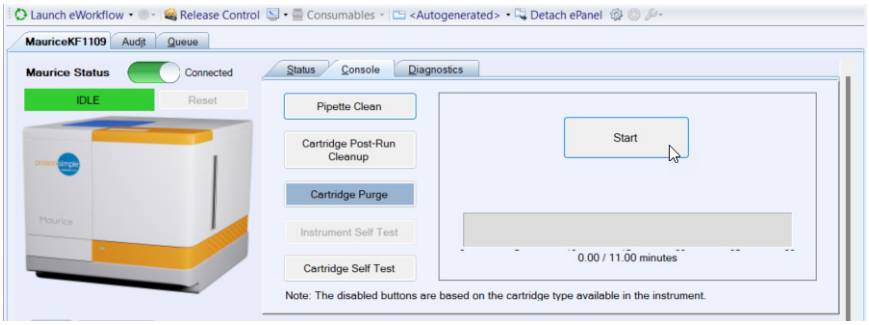
> **NOTE:** The Cartridge Purge counts toward the batch limit. If there's only one batch left on the cartridge, you'll get a message that it can't be used after the purge completes.

Install the cartridge and reagents prepared according to the instructions in the Maurice User Manual in Maurice and close Maurice's door. In the Chromeleon Console:

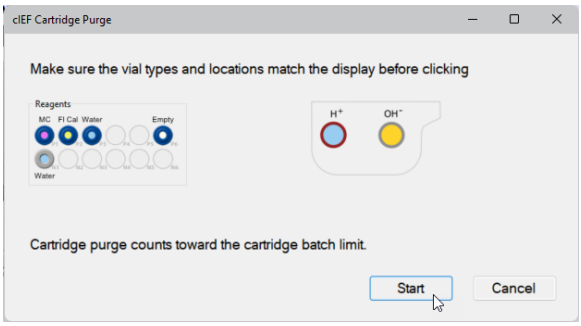
1. In the Instruments category Work Area, select the **System** tab.
2. Select the **Console** tab.
3. Click **Cartridge Purge**.

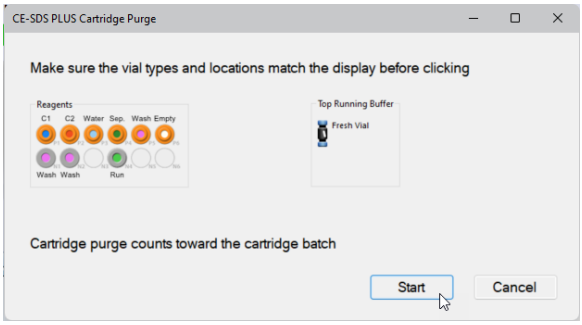


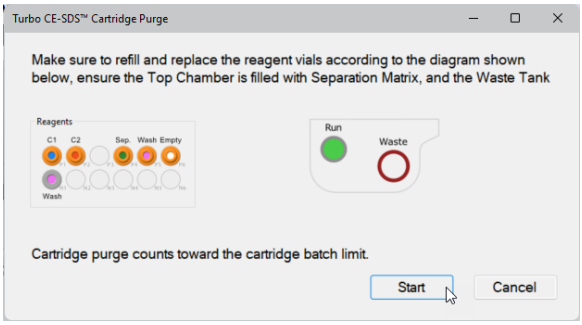
4. Click **Start**.



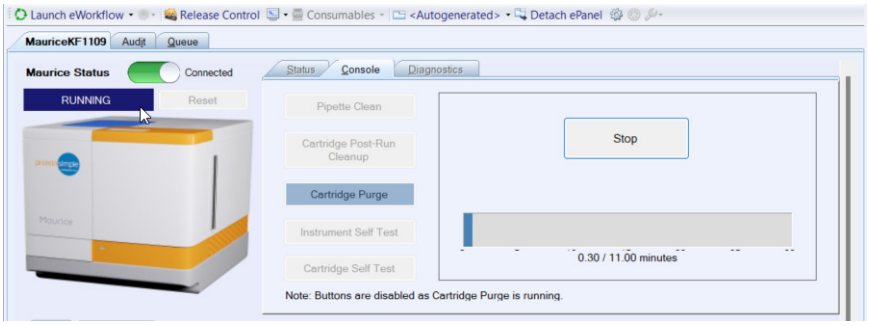
5. Confirm the reagent placement and cartridge preparation for the cartridge type you're using, then click **Start**.







6. The instrument status will change to "Running" to indicate that the Cartridge Purge protocol is running.



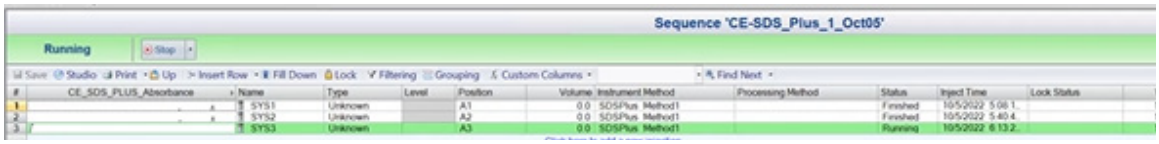
The Cartridge Purge for a CE-SDS PLUS or Turbo CE-SDS cartridge will take about 30 minutes, cIEF Cartridges take a little over 10 minutes. When it's done, the system status will change from "RUNNING" to "IDLE".

Once the purge is done, perform a Cartridge Post-Run Cleanup.

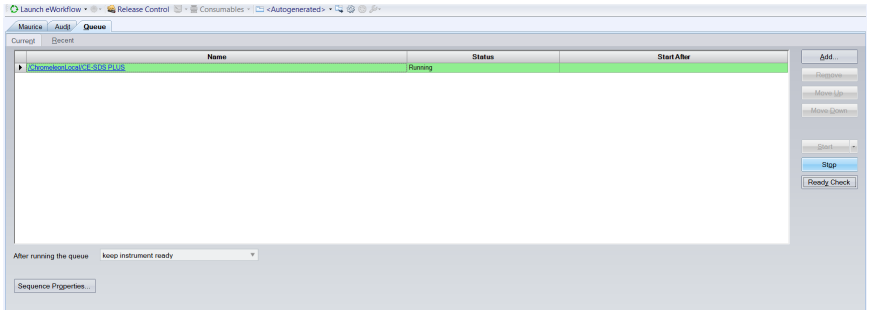
Follow the instructions in the **Maurice User Guide** on what to do if you're starting a new run right away or if you're storing the cartridge for use on a later date.

Stopping a Run

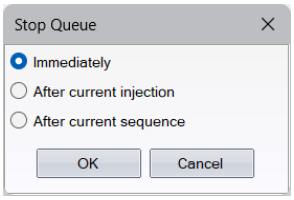
To stop a run in the middle of a sequence, click on the **Stop** icon above the injection list in the Data category.



Or click **Stop** in the Queue tab in the Instruments category.



You will then have the option to stop the run immediately, after the current injection, or after the sequence is complete.



Perform a Cartridge Purge after stopping the run, followed by a Cartridge Post-Run Cleanup.

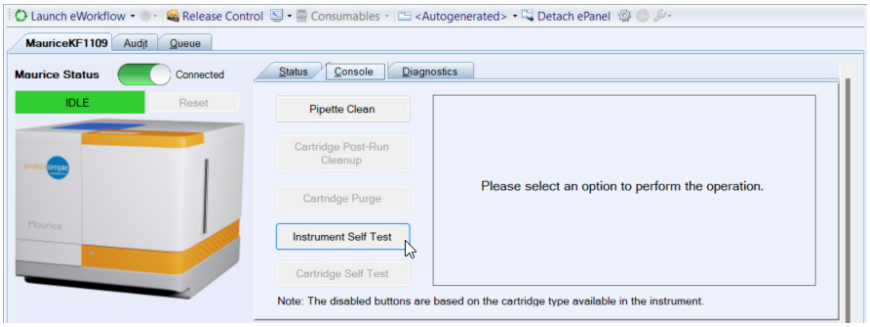
Instrument Self Test

Maurice, Maurice C. and Maurice S. can run a series of self tests for you to make sure they're operating properly.

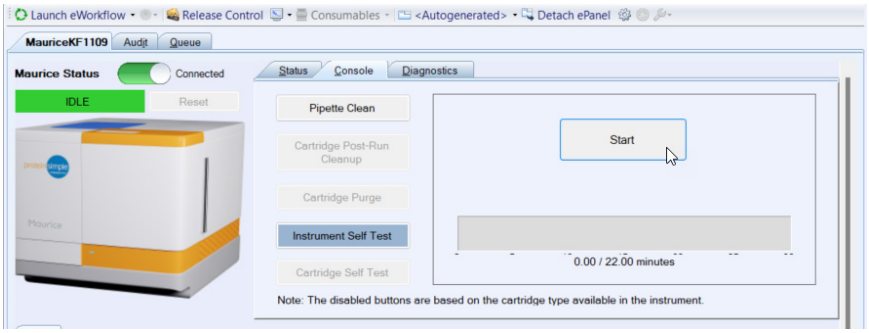
IMPORTANT: Remove the cartridge from Maurice before performing an Instrument Self Test.

To perform an Instrument Self Test in the Chromeleon Console:

1. In the Instruments category, select the **System** tab.
2. Select the **Console** tab.
3. Click **Instrument Self Test**.



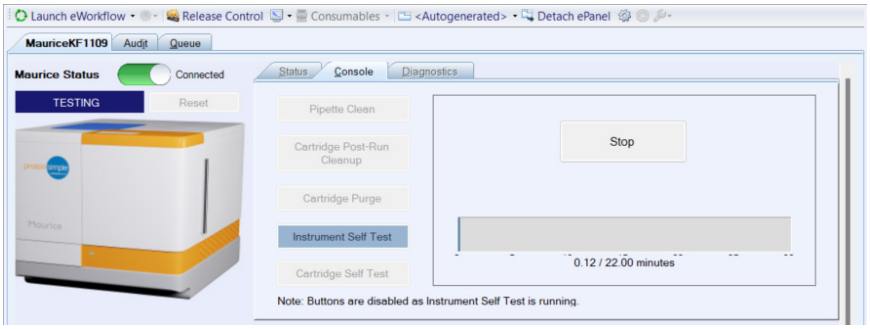
4. Click **Start**.



5. A Self Test Confirmation window will appear. Click **OK**.

If you stop the test before it is done, the instrument status will indicate that there is an Error. Click the **Reset** button to reset Maurice.

The instrument status will indicate that the Instrument Self Test is running. It will take about 22 minutes for the test to complete.



When the Instrument Self Test is done, the report will be automatically saved. The file name will be the date and time the test was completed.

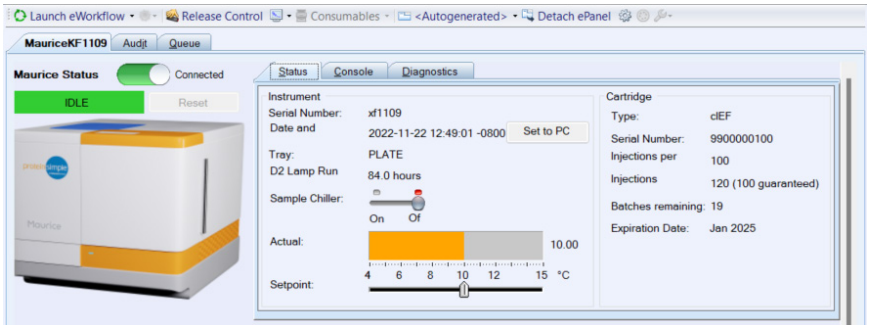
You can download the PDF from the Chromeleon Console.

1. In the Instruments category, select the **System** tab.
2. Select the **Diagnostics** tab.
3. Click **Self Test Report** and choose a report based on the completion date and time.

Checking Cartridge Status

If you've got a cartridge installed in the system, you can see its serial number, the injections and batches it still has available, and a history of batches and injections its run to date.

You can view the cartridge status in the Instruments category of the Chromeleon Console. Select the **System** tab and then the **Status** tab.

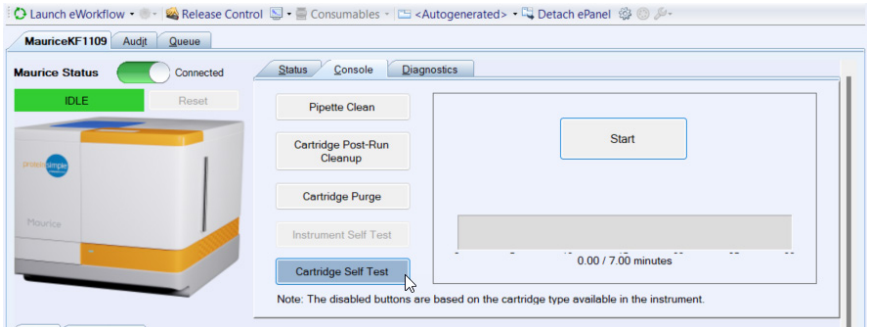


Cartridge Self-Test

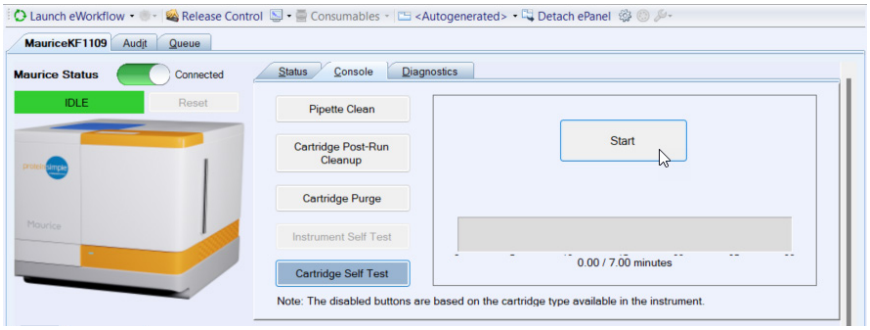
You can run a series of self-tests on your cIEF, CE-SDS PLUS or Turbo CE-SDS cartridge to make sure they're operating properly.

To perform a Cartridge Self Test in the Chromeleon Console:

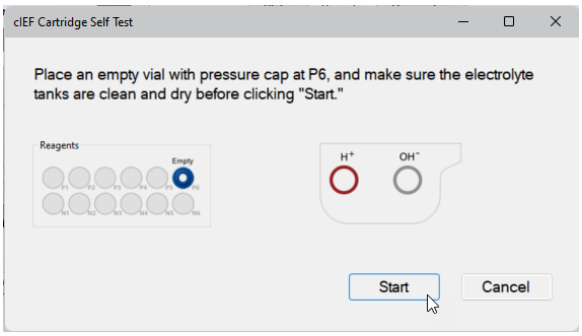
1. In the Instruments category, select the **System** tab.
2. Select the **Console** tab.
3. Click the **Cartridge Self Test** button.

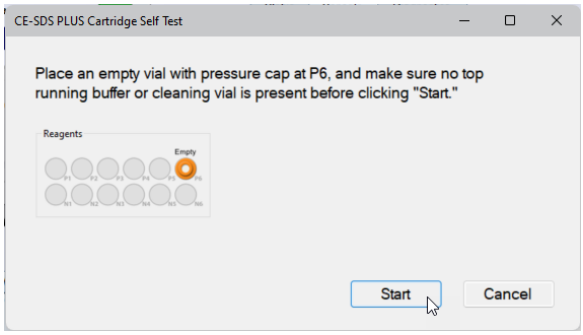


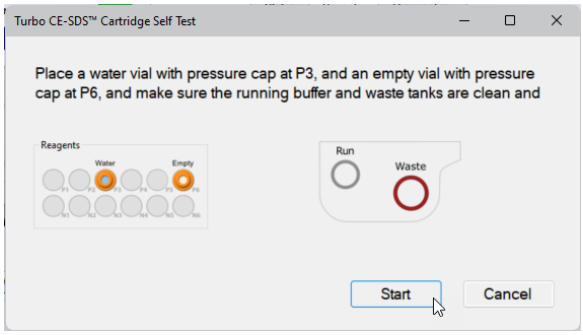
4. Click **Start**.



5. Confirm the reagent placement for the cartridge you're testing and click **Start**.







The instrument status will indicate that the Instrument Self Test is running. It will take about 7 minutes for the test to complete.

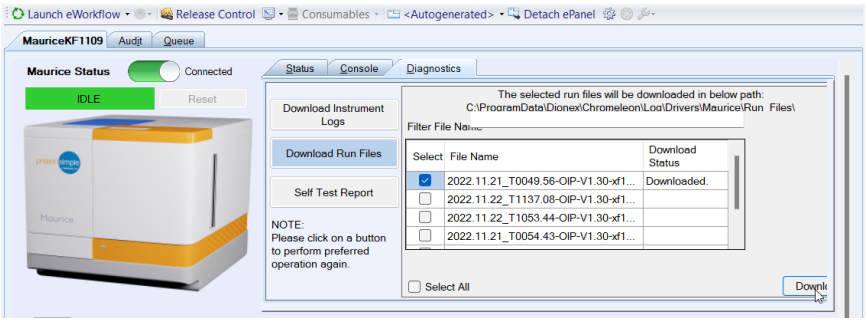
When the Cartridge Self Test is done, the report will be automatically saved. The file name will be the date and time the test was completed. You can download the PDF from the Chromeleon Console.

1. In the Instruments category, select the **System** tab.
2. Select the **Diagnostics** tab.
3. Click **Self Test Report** and select the report based on the completion date and time.

Download Files

You can download instrument logs, run files, and self test reports directly from the Instruments category of the Chromeleon Console. Select the **Diagnostics** tab in the System tab to download files.

- **Download Instrument Logs:** will be automatically downloaded to the following path: C:\ProgramData\Dionex\Chromeleon\Log\Drivers\Maurice\Instrument_Logs\.
- **Download Run Files:** Select the run file you want to download and click Download. The file will be downloaded to the following path: C:\ProgramData\Dionex\Chromeleon\Log\Drivers\Maurice\Run_Files\.



- **Self Test Report:** Click on self test completion date and time to download the test. The PDF will automatically open.

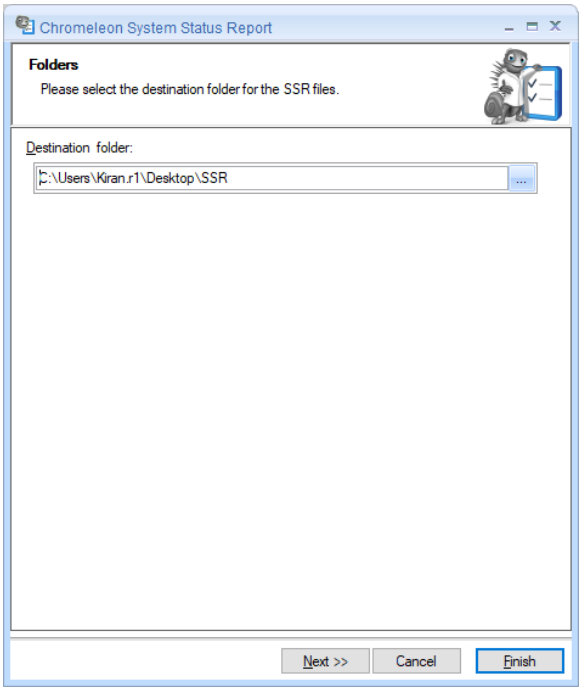
Generate a System Status Report

The System Status Report captures the status of a specific Chromeleon CDS installation. Depending on the logs files you have selected, the created report will include various sub-reports with the relevant diagnostic tests, performance data and audit trails.

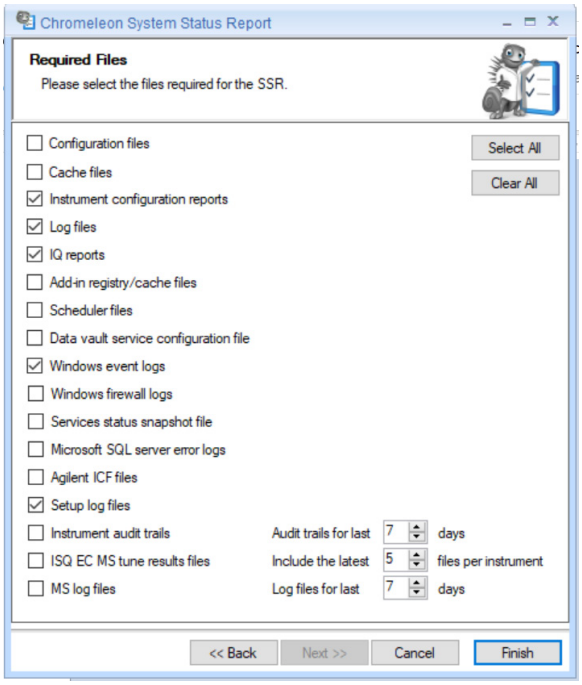
To generate a System Status Report:

1. Open the **System Status Report** application from your computer's **Start** menu. The application can be found in the Thermo Chromeleon 7 folder.

   a. Define the Destination folder where you want to save the report and click **Next**.



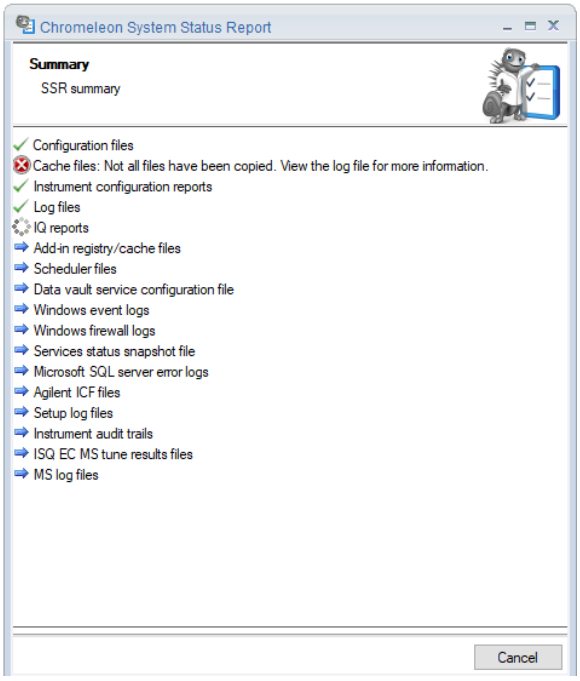
b. Select the files to be exported.



NOTE: If you are sending a report to Technical Support to get help with installing the Maurice Chromeleon Driver, you will minimally need to select the log files, IQ reports, windows event logs, and setup log files. Enter the number of days since the installation in the “Audit trail for last X days” and Log files for last X days” fields

c. Click **Finish** to start generating the report.

d. You can see a live status of the report being generated. Once it is done, click **Finish**.



Chapter 12:

Data Analysis

Chapter Overview

- Analyzing Data
- Opening a Run File
- Displaying Run Data
- Selecting a Detection Channel
- Selecting an Injection
- Assigning pI Markers (cIEF only)
- Assigning the Internal Standard (CE-SDS only)
- Assigning the Molecular Weight Standard (Optional, CE-SDS only)
- Report Generation
- Additional Data Analysis

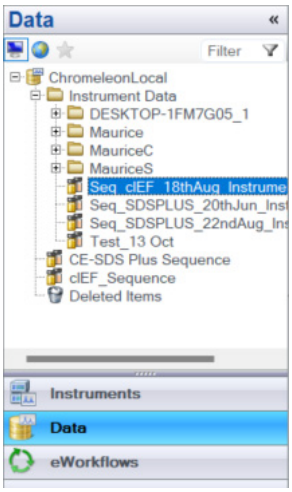
Analyzing Data

Analysis is performed in the Chromatography Studio. At the end of a sequence, you can open the completed run in the Chromatography Studio by double clicking on any injection in the sequence.

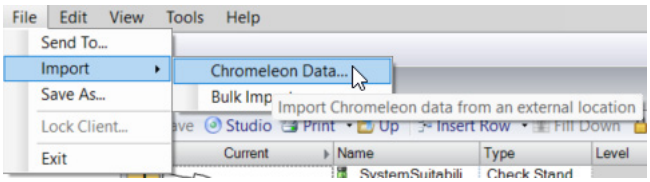
Opening a Run File

You will first need to open the run file in the Chromeleon Console before you can analyze data in the Chromatography Studio.

- **If the completed sequence is saved in the ChromeleonLocal database:** Select the sequence in the Navigation pane in the Data category of the Chromeleon Console. The sequence will load in the Work Area. Click on any injection to view the electropherogram in the Chromatography Studio.



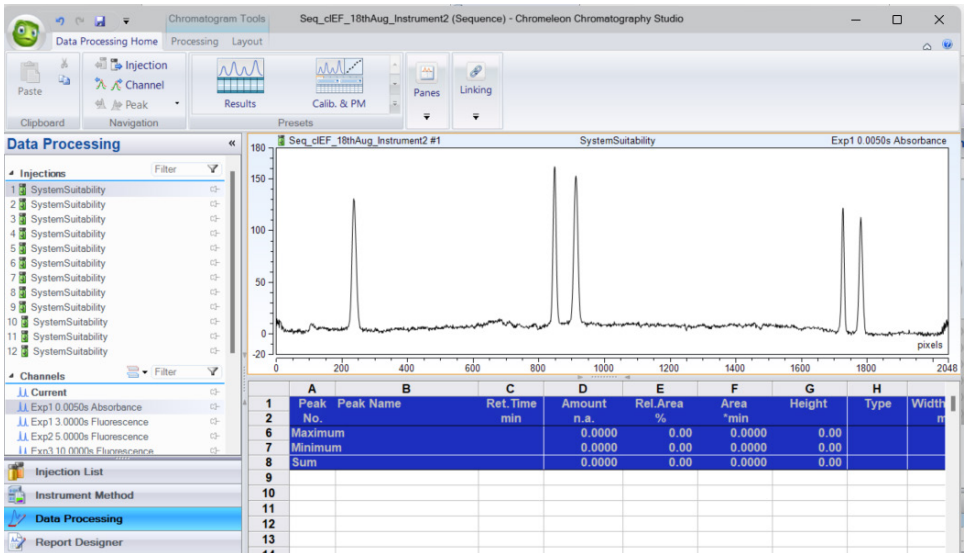
- **If the completed sequence is currently saved on a remote location:** Import the sequence. Click **Import** in the File menu and then select Chromeleon Data. Then select the sequence file to be imported and click **Open**. The sequence will be imported into the ChromeleonLocal database. Then, open the sequence in the Navigation pane of the Chromeleon Console.



Displaying Run Data

The completed sequence data is displayed in the Data Processing category of the Chromatography Studio.

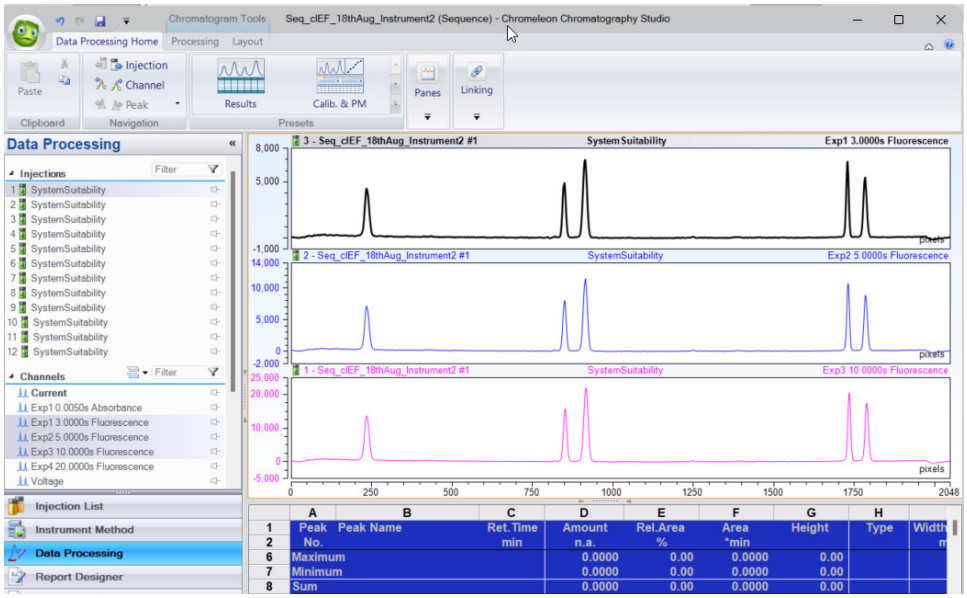
At the top of the electropherogram you'll see the sequence name to the left, the sample/injection name in the middle, and the detection channel to the right.



Selecting a Detection Channel

You can select the detection channel in the Navigation pane of the Data Processing category.

You can compare stacked electropherograms from multiple detection channels by selecting a group of channels while holding the **Shift** key down on your keyboard or by selecting specific channels while holding the **Ctrl** key down on your keyboard.

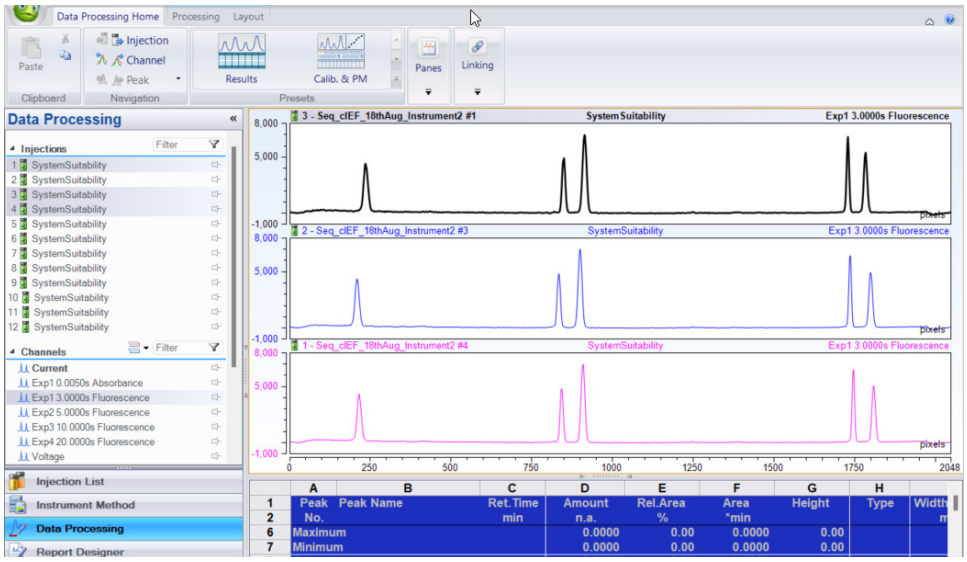


You can also pin a detection channel so it will always appear by clicking on the pin icon to the right of the channel in the Navigation pane.

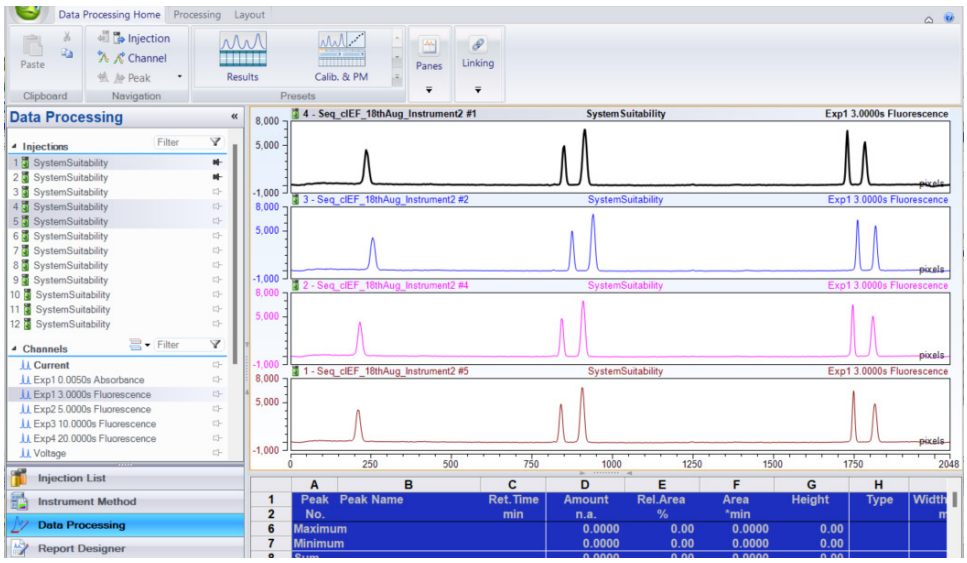
Selecting an Injection

Select injections to analyze in the Navigation pane of the Data Processing category in the Chromatography Studio.

You can compare stacked electropherograms from multiple injections by selecting a group of channels while holding the Shift key down on your keyboard or by selecting specific channels while holding the Ctrl key down on your keyboard.



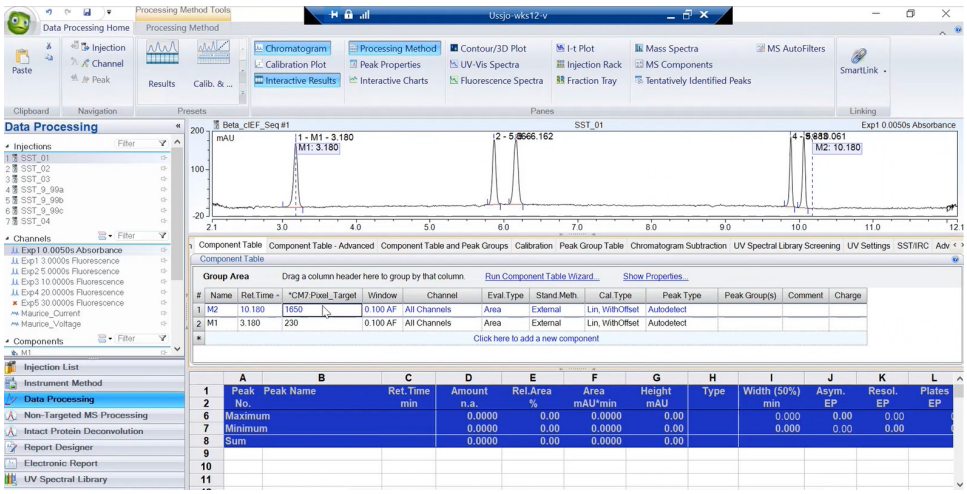
You can also pin an injection so it will always appear by clicking on the pin icon to the right of the channel in the Navigation pane.



Assigning pI Markers (cIEF only)

pI markers are assigned using a processing method. Processing methods can be applied to a sequence before you start the run or after the run is completed. Learn more about creating a processing method at “Step 5: Create a Processing Method” on page 57.

Once a processing method has been applied to a completed run, pI markers will be labeled.



Assigning the Internal Standard (CE-SDS only)

Contact your local FAS for instructions on assigning the internal standard to your CE-SDS electropherograms.

Assigning the Molecular Weight Standard (Optional, CE-SDS only)

If you ran the Molecular Weight Standard in your run, contact your local FAS for instructions on assigning the molecular weight standard to your CE-SDS electropherograms.

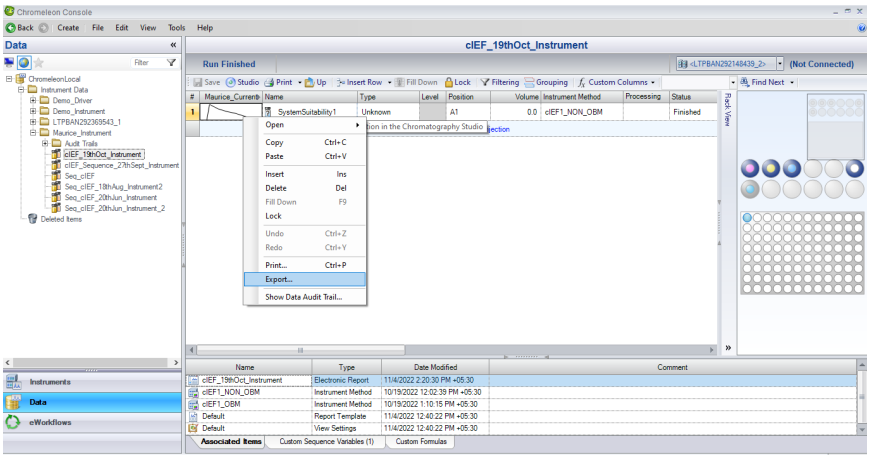
Report Generation

Reports with injection information, electropherograms and peak integrations for one injection or all the injections in a sequence can be exported. Reports can be exported from the Chromeleon Console and the Chromatography Studio.

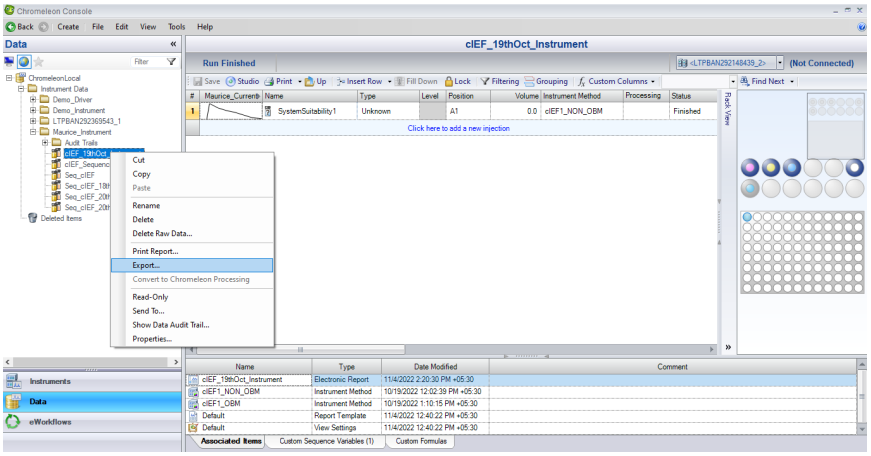
Exporting a Report From the Chromeleon Console

1. Select the sequence in the Data category Navigation pane.

a. To export a report for one injection: select the injection in the Data category Work Area and right click. Select **Export**.



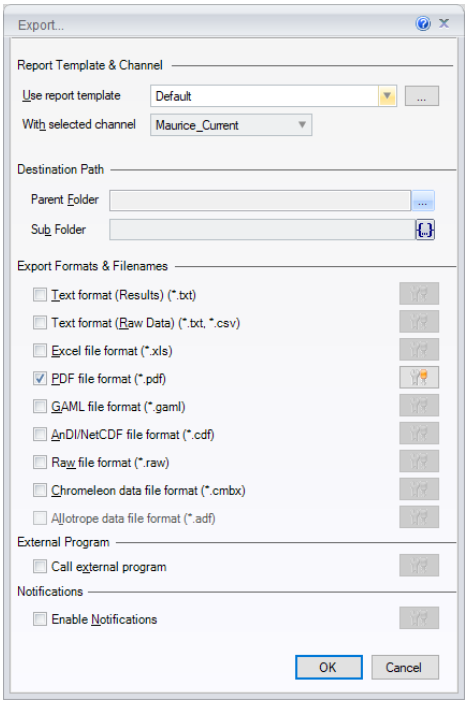
b. To export a report for the entire sequence: select the sequence in the Data category Navigation pane and right click. Select **Export**.



2. An Export dialog will appear. In the dialog:

   a. A report template will be listed in the “Use report template” field. Select the **Browse** button to select a different report template.

> **NOTES:**
> A report template is optional when exporting a Text (Raw Data), GAML, AnDI/NetCDF, Raw and Chromeleon data file formats.
>
> When exporting multiple sequence, each sequence is exported using its preferred report template and export format. The sequence cannot be exported if the preferred report template or export format for a sequence has not been specified.



   b. Select a channel - current, voltage, exposure (cIEF), or absorbance (CE-SDS).

   c. Specify a location to save the report.

   d. Select the report file format. Multiple formats can be exported at the same time. File formation options include:

      i. **Text format (Results) (*.txt):** Exports a plain text format; content is separated by tab stops.

      ii. **Text format (Raw Data) (*.txt, *.csv):** Exports the raw data from selected channels to one of the following formats:

         - Plain text (*.txt), with the content separated by tab stops.
         - Comma-separated values text (*.csv), with the content separated by commas.

iii. **Excel file format (*.xls):** Exports a Microsoft Excel spreadsheet.

iv. **PDF file format (*pdf):** Exports a PDF.

v. **GAML file format (*.gaml**): Exports a Generalized Analytical Markup Language file format.

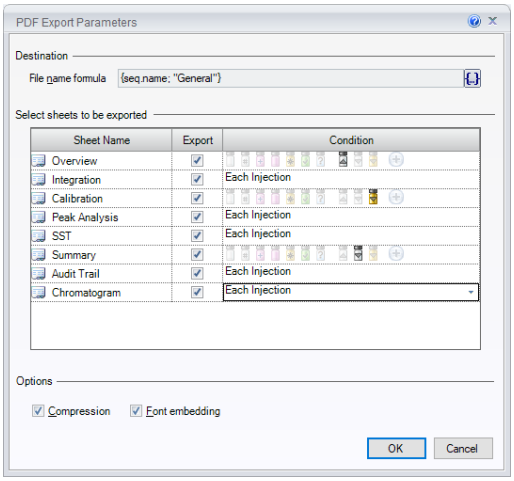
vi. **AnDI/NetCDF file format (*.cdf):** Exports an AnDI (Analytical Data Interchange) file format.

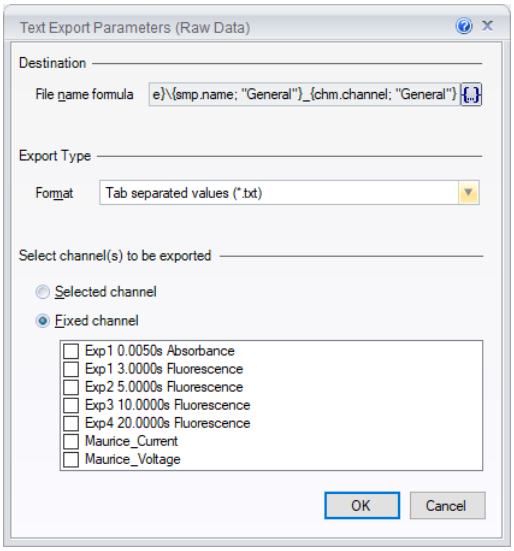
vii. **Raw file format (*.raw):** Exports MS raw data to the raw data file format, which can be opened in applications such as Xcalibur. For more information, see Exsport MS Raw Data in the Chromeleon software help index. Learn how to access the “Chromeleon Software Help Index” on page 34.

viii. **Chromeleon data file format (*.cmbx):** Exports a Chromeleon 7 data file format.

ix. **Allotrope data file format (*.adf):** Exports a Allotrope Data file format. For more information about this data format, see the Allotrope Foundation website.

3. Select the tools button ( ) next to selected export file formats to define export parameters.



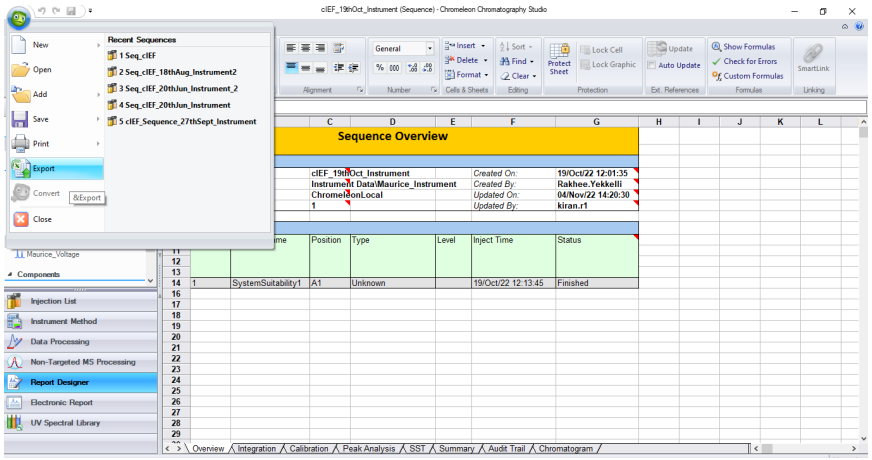


4. Click **OK** to start exporting the report.

> **NOTE:** Refer to the Chromeleon software help index for more information. Learn how to access the “Chromeleon Software Help Index” on page 34.

Exporting a Report From the Chromatography Studio

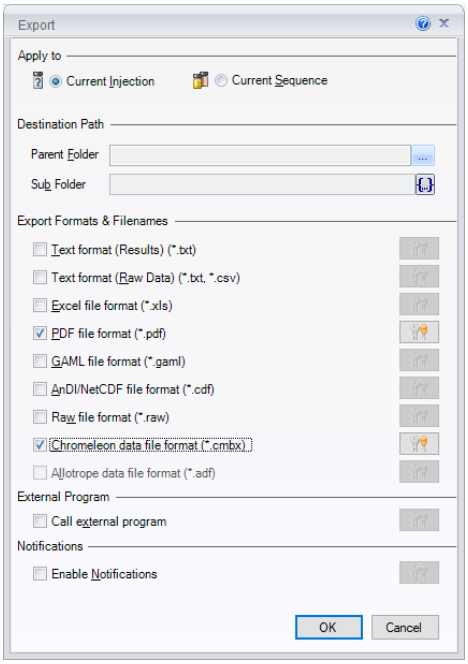
1. Open the sequence and select the **Report Designer** category.
2. Click the Chromatography Studio button in the top, left corner and select **Export**.



3. An Export dialog will appear. In the dialog:
   a. Select whether you want the report to include the current injection or the entire sequence.
   b. A report template will be listed in the “Use report template” field. Select the **Browse** button to select a different report template.

NOTES:
A report template is optional when exporting a Text (Raw Data), GAML, AnDI/NetCDF, Raw and Chromeleon CDS data file formats.

When exporting multiple sequence, each sequence is exported using its preferred report template and export format. The sequence cannot be exported if the preferred report template or export format for a sequence has not been specified.



c. Select a channel - current, voltage, exposure (cIEF), or absorbance (CE-SDS).

d. Specify a location to save the report.

e. Select the report file format. Multiple formats can be exported at the same time. File formation options include:

   i. **Text format (Results) (*.txt):** Exports a plain text format; content is separated by tab stops.

   ii. **Text format (Raw Data) (*.txt, *.csv):** Exports the raw data from selected channels to one of the following formats:

      - Plain text (*.txt), with the content separated by tab stops.
      - Comma-separated values text (*.csv), with the content separated by commas.

   iii. **Excel file format (*.xls):** Exports a Microsoft Excel spreadsheet.

   iv. **PDF file format (*pdf):** Exports a PDF.

   v. **GAML file format (*.gaml**): Exports a Generalized Analytical Markup Language file format.

vi. **AnDI/NetCDF file format (*.cdf):** Exports anAnDI (Analytical Data Interchange) file format.

vii. **Raw file format (*.raw):** Exports MS raw data to the raw data file format, which can be opened in applications such as Xcalibur. For more information, see Export MS Raw Data in the Chromeleon software help index. Learn how to access the “Chromeleon Software Help Index” on page 34.

viii. **Chromeleon data file format (*.cmbx):** Exports a Chromeleon 7 data file format.

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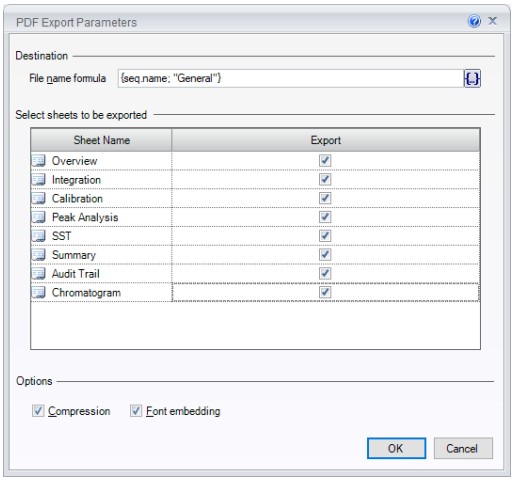
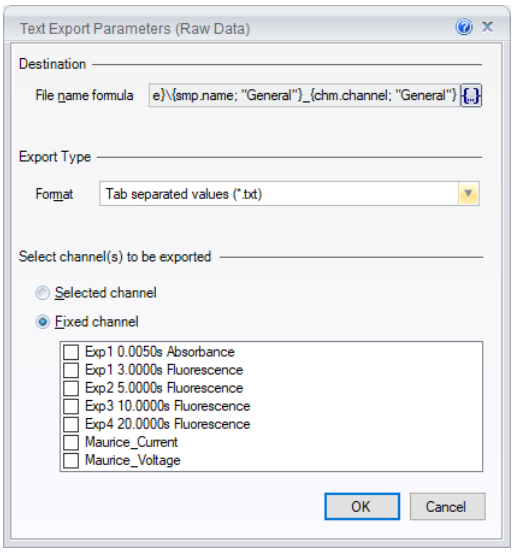




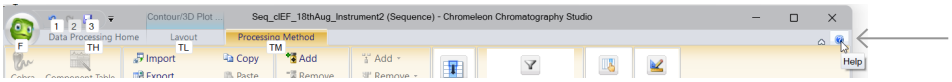
5. Click **OK** to start exporting the report.

NOTE: Refer to the Chromeleon software help index for more information. Learn how to access the “Chromeleon Software Help Index” on page 34.

Additional Data Analysis

Refer to the Chromeleon software help index to learn about additional data analysis tools.

To access the help, click on the **Help** icon at the top right corner of the Chromeleon Console or the Chromatography Studio.



Chapter 13:

General Information

Chapter Overview

- Compliance
- Maurice Maintenance and Consumables
- Frequently Asked Questions
- Customer Service and Technical Support
- Legal Notices

Compliance

Maurice complies with:

- **UL 61010-1:2001**: Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 1: General requirements (US)
- **EN 61010-1:2010**: Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 1: General requirements (EU)
- **CAN/CSA 22.2 No. 61010-1-04**: Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 1: General requirements (CA)
- **EN 61326-1:2013**: Electrical equipment for measurement, control and laboratory use. **EMC** Requirements. General requirements (EU)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

Modifications: Any modifications made to this device that are not approved by ProteinSimple, Inc. may void the authority granted to the user by the FCC to operate this equipment.

FCC ID: 2AHGG-MAURICE

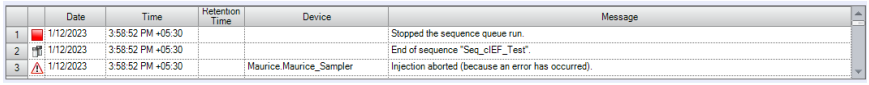
Maurice Maintenance and Consumables

Refer to the **Maurice User Guide** for additional information on Maintenance and Troubleshooting, safety guidelines, and required consumables and reagents.

Frequently Asked Questions

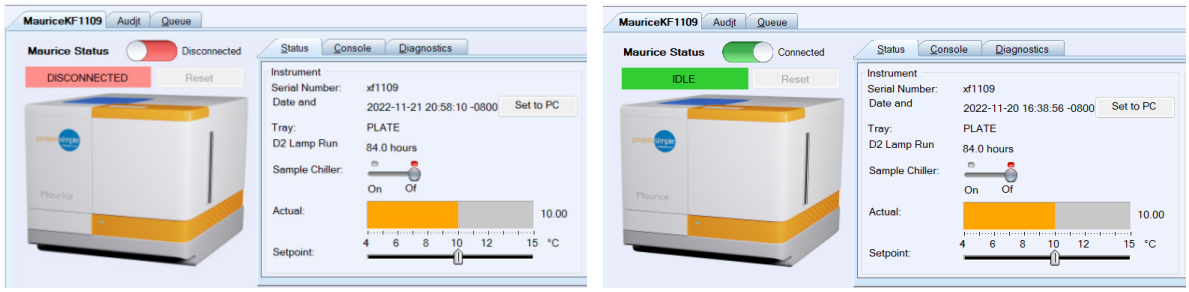
What should I do if Maurice disconnects from Chromeleon software mid-run?

If communication with Maurice is lost during the run, the sequence run will be aborted in the Chromeleon CDS, which will be logged in the Audit trail.



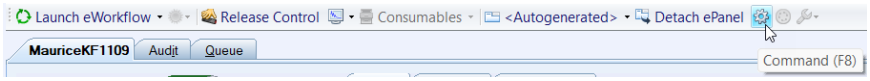
To resume operations:

1. Click on the **Maurice Status** slider in the System tab of the Chromeleon Console Work Area in the Instruments category.



2. If the instrument status is not “IDLE”.

   a. Select the **Command** box in the Chromeleon Console Work Area of the Instruments category and select your Maurice system.



   a. Select the **Commands** button.

   b. Click on **AbortOperations.**

   c. You should see the instrument status change.

      i. If the instrument status is “ERROR”, click on the Reset button in the System tab of the Chromeleon Console Work Area in the Instruments category.

      ii. If the instrument status is “IDLE”, you are ready to continue your run.

How are instrument run times calculated?

The instrument method Run Time in the General Settings page of the method editor is calculated as follows:

For cIEF:

Run Time = Sample Load + Separation Time (1 to n) + Detection Time (1 to n) + 1 minute

Where:

- Sample Load (in minutes) is the time it takes to load the sample in the cartridge.
- Separation Time (1 to n) (in minutes) is the sum of all steps added to the Separation profile.
- Detection Time (1 to n) (in minutes) is the sum of all steps added to the Detection profile.
- An additional 1 minute that accounts for other time values (like the loadTime, soakTime, etc..) provided in the method.

For CE-SDS PLUS:

Run Time = Sample Load (1 to n) + Separation Time (1 to n) + 5.33 minute

Where:

- Sample Load (in minutes) is the sum of all the steps added to the Sample Load profile.
- Separation Time (1 to n) (in minutes) is the sum of all steps added to the Separation profile.
- An additional 5.33 minutes that accounts for other time values (like the loadTime, soakTime, etc..) provided in the method.

For Turbo CE-SDS:

Run Time = Sample Load (1 to n) + Separation Time (1 to n) + 1 minute

Where:

- Sample Load (in minutes) is the sum of all the steps added to the Sample Load profile.
- Separation Time (1 to n) (in minutes) is the sum of all steps added to the Separation profile.
- An additional 1 minute that accounts for other time values (like the loadTime, soakTime, etc..) provided in the method.

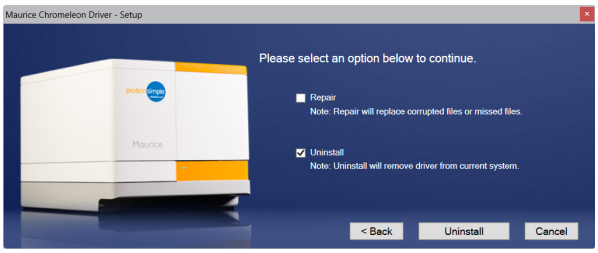
What are recommended display settings?

Description	Recommended Setting
Scale	100%
Display Resolution	1920 x 1080
Display Orientation	Landscape

How do I uninstall the Maurice Chromeleon Driver Software?

To remove the software using the installer wizard:

1. Insert the Maurice Chromeleon Driver Kit CD into your computer and double click the **Maurice Chromeleon Driver 1.0.exe** file.
2. Select **Modify**.
3. Select the **Uninstall** checkbox and click on the **Uninstall** button.



If you want to minimize your interaction, you can also remove the software using a silent uninstallation.

You'll need the following:

- The Maurice Chromeleon Driver 1.0.exe installer saved in your local directory.
- Permissions to run Command Prompt in Administrative mode.

To perform a silent uninstallation:

1. Run a **Command Prompt** as an Administrator.
2. Change the current director to the location where you have saved the Maurice Chromeleon Driver installer using a "*cd*" command.
3. Enter the following command: "Maurice Chromeleon Driver 1.0.0.exe" -su.

Customer Service and Technical Support

Need pricing information or want to know who your sales rep is? Our Customer Service team can help.

Email: **orders@proteinsimple.com**

Telephone: 1-408-510-5500, option 1

Toll-free (US and Canada): 1-888-607-9692, option 1

Fax: 1-408-520-4831

Have product-related questions? Ping our Tech Support group, they'll be happy to help!

Use our online technical support request

Email: **support@proteinsimple.com**

Telephone: 1-408-510-5500

Toll-free (US and Canada): 1-888-607-9692, option 3

Web

www.bio-techne.com

Address

ProteinSimple
3001 Orchard Parkway
San Jose, CA 95134
USA

Legal Notices

NOTE: Read the Legal Notices carefully before using Maurice.

Maurice Disclaimer of Warranty

EXCEPT AS EXPRESSLY PROVIDED IN ANY ProteinSimple SOFTWARE LICENSE AGREEMENT OR QUOTATION, THE PRODUCTS SOLD AND SERVICES PROVIDED BY ProteinSimple ARE PROVIDED ON AN “AS IS” AND “AS AVAILABLE” BASIS WITHOUT WARRANTY OF ANY KIND. ProteinSimple AND ITS SUPPLIERS DO NOT WARRANT THE SECURITY, PRIVACY, OR ACCURACY OF ANY DATA PROVIDED VIA THE PRODUCTS OR SERVICES, AND YOU AGREE THAT THE USE OF ANY SUCH DATA BY YOU IS AT YOUR SOLE RISK. TO THE MAXIMUM EXTENT ALLOWED UNDER APPLICABLE LAW, ProteinSimple AND ITS SUPPLIERS DISCLAIM ANY AND ALL WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY, TITLE, NON-INFRINGEMENT, OR FITNESS FOR A PARTICULAR PURPOSE.

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PL2-002, Rev B

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INCLUDES R&D Systems™ Novus Biologicals™ Tocris Bioscience™ ProteinSimple™ ACD™ ExosomeDx™ Asuragen® Lunaphore™