



ExionLC™ System

Software User Guide

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Introduction to ExionLC™ Series

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The ExionLC™ series is an LC system series provided by SCIEX to work specifically with SCIEX mass spectrometers. The LC systems in this series provide speed, sensitivity, resolution, and reliability for routine or complex LC-MS/MS analysis. The ExionLC series currently consists of ExionLC 100 System, ExionLC AC system, and ExionLC AD system.

This user guide describes the following:

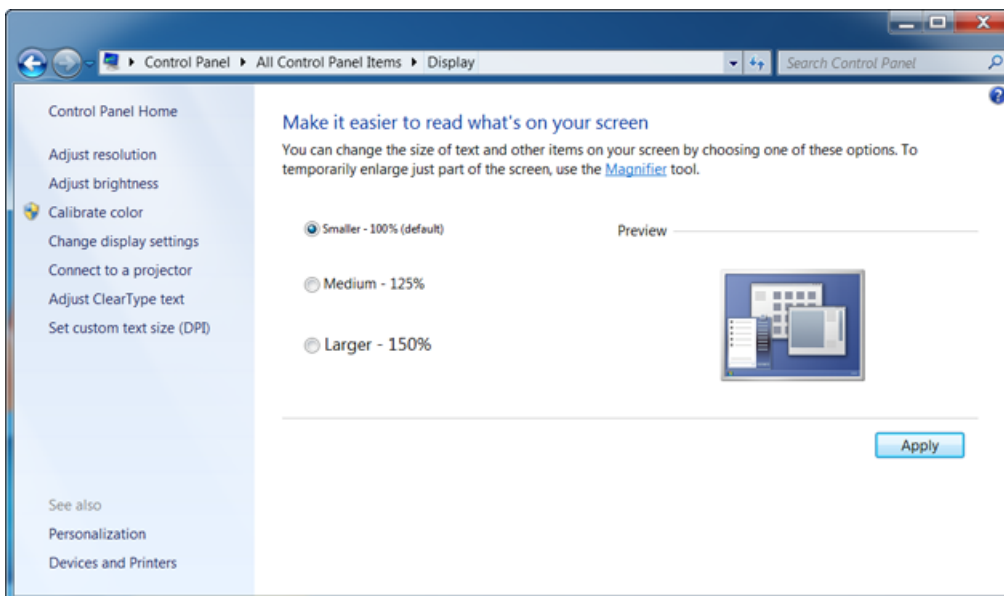
- Creating hardware profile in the Analyst® software for the ExionLC series systems.
- Creating acquisition methods in the Analyst software for the for the ExionLC series systems.
- Viewing information related to the devices in the ExionLC systems in the File Info.
- Viewing the status of devices comprising an ExionLC system in the Instrument Status dialog.

Note: For information about the various parameters in different dialogs, press F1 for help.

Display Setting

To display the contents of the ExionLC system-related dialogs in the Analyst software as intended, set the display setting to **Smaller - 100%** in **Start > Control Panel > Display**. Refer to [Figure 1-1](#).

Figure 1-1 Display Setting



This section describes how to create a hardware profile for the ExionLC™ 100 system, ExionLC AC system, and ExionLC AD system.

A hardware profile tells the software which mass spectrometer and devices to use, and how the instrument and the devices are configured and connected to the computer. For more information, refer to Hardware profile chapters in the appropriate System User Guide and *Advanced User Guide*.

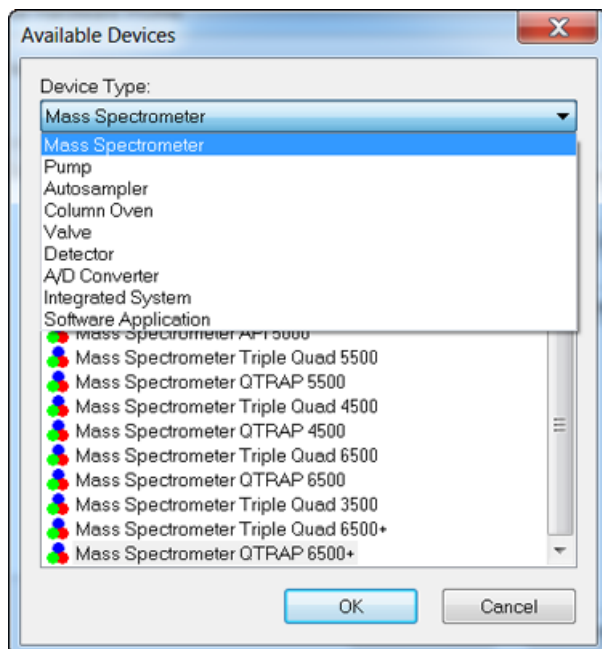
Create a Hardware Profile for ExionLC™ 100 System

Prerequisites

- Make sure that the Analyst® software is open and the computer is connected to the ExionLC™ 100 system.

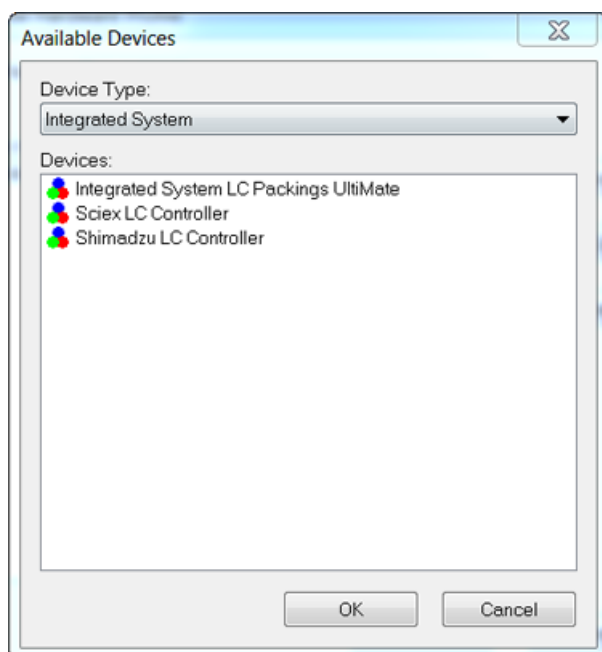
1. In the Analyst® software, double-click **Hardware Configuration** on the Navigation bar.
2. Click **New Profile** in the **Hardware Configuration Editor**.
The Create New Hardware Profile dialog opens.
3. Type a profile name in the **Profile Name** field and then click **Add Device**.
The Available Devices dialog opens.
4. With the **Device Type** field set to **Mass Spectrometer**, select a mass spectrometer from the **Devices** list and then click **OK**.
5. Configure the selected mass spectrometer using the **Setup Device** button. Refer to the appropriate *System User Guide*.
6. Click **Add Device** in the **Create New Hardware Profile** dialog.
The Available Devices dialog opens.
7. Click the ▼ down arrow in the **Device Type** field.
All of the available devices that can be added to the hardware profile are shown.

Figure 2-1 Device Type



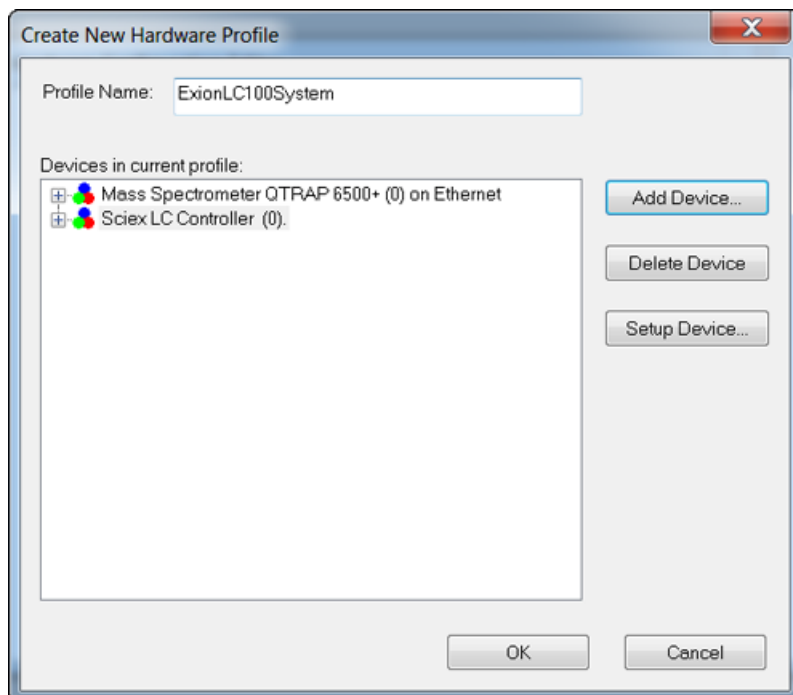
8. Click **Integrated System** in the **Device Type** list.
The option Sciex LC Controller is added to the Devices list.

Figure 2-2 Available Devices Dialog



9. Click **Sciex LC Controller** in the **Devices** list.
10. Click **OK**.
Sciex LC Controller is added to the hardware profile.

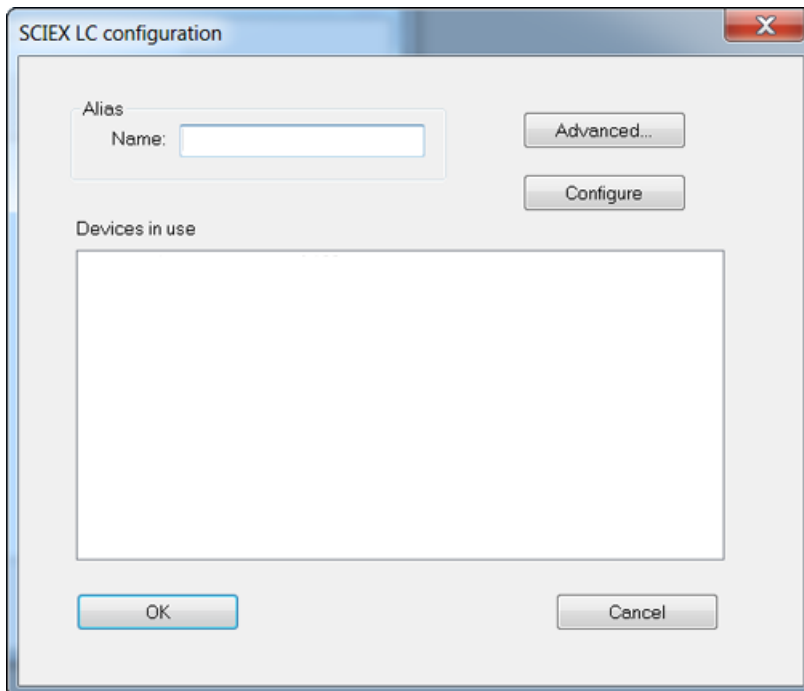
Figure 2-3 Create New Hardware Profile Dialog



11. With **Sciex LC Controller** selected, click **Setup Device**.

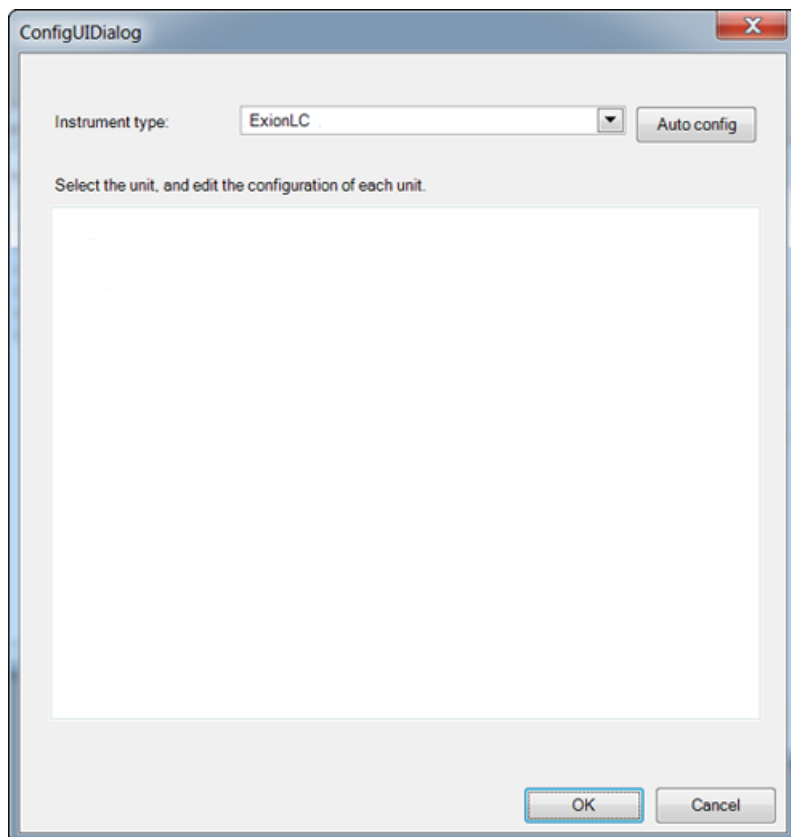
The SCIEX LC Configuration dialog opens.

Figure 2-4 SCIEX LC Configuration Dialog



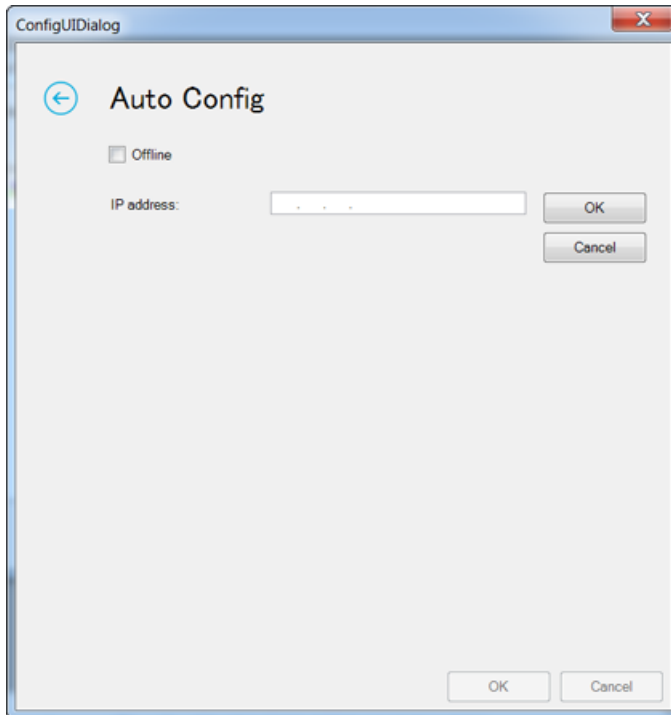
12. Type a name in the **Alias Name** field.
13. Click **Configure**.
The ConfigUIDialog opens.

Figure 2-5 Config UI Dialog



14. To automatically configure the devices in the ExionLC 100 system, click **Auto config**.

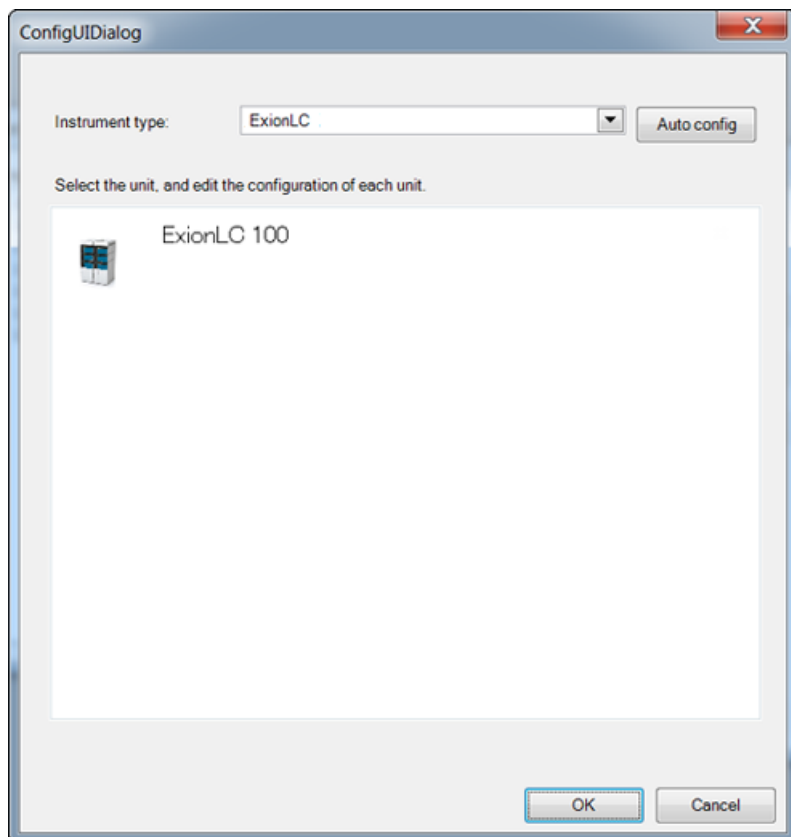
Figure 2-6 Config UI Dialog - Auto Config



15. Type the IP address for the ExionLC 100 system and then click **OK** next to the IP address field.

The Config UI Dialog is shown again. In this dialog, the devices in the ExionLC system can be further configured.

Figure 2-7 Config UI Dialog



16. Click **ExionLC 100**.

The ExionLC 100 Configuration dialog opens. The dialog shows information about the connected LC system. The parameters for the pump in the ExionLC 100 system are also shown.

Figure 2-8 ExionLC 100 Configuration - Pump Tab

The screenshot shows the 'ExionLC 100 Configuration' dialog box with the 'Pump' tab selected. The dialog has a title bar with a question mark and a close button. The main area contains several input fields and a tabbed interface. The 'Pump' tab is active, showing a 'Mobile phase switching valve' section with 'Model' set to 'None' and an empty 'Serial number' field. Other tabs include 'Autosampler', 'Column Oven', and 'System Controller'. At the bottom right, there are 'System check settings...', 'OK', and 'Cancel' buttons.

Model:	ExionLC 100	IP Address:	192.168.200.101
Serial number:	L21674500001	ROM version:	00.3
UnitID:			
Pressure unit:	MPa		

Mobile phase switching valve

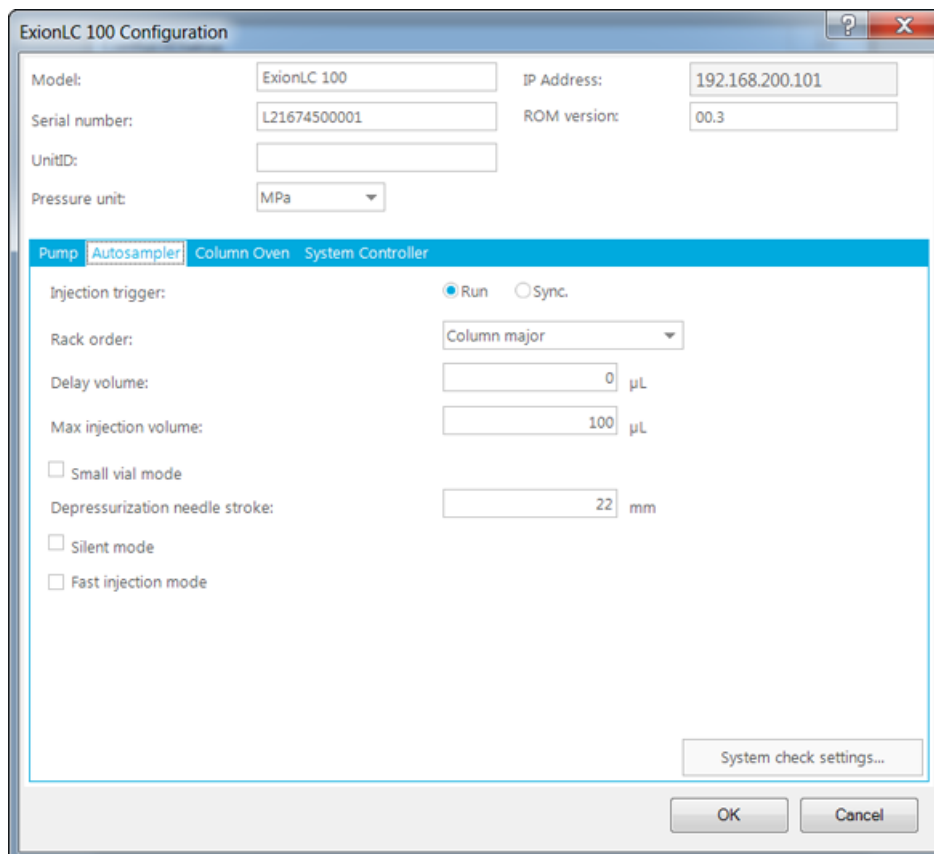
Model:	None
Serial number:	

If required, modify the fields for each device in the ExionLC 100 system. Press F1 for help.

17. Click the **Autosampler** tab.

The parameters for the autosampler in the ExionLC 100 system are shown. If required, modify the parameters. Press F1 for help.

Figure 2-9 Autosampler Tab



18. Make sure that the **Run** option is selected for the **Injection trigger** parameter.

19. Click the **Column Oven** tab.

The parameters for the column oven in the ExionLC 100 system are shown. If required, modify the parameters. Press F1 for help.

Figure 2-10 Column Oven Tab

The screenshot shows the 'ExionLC 100 Configuration' dialog box with the 'Column Oven' tab selected. The dialog has a title bar with a question mark and a close button. The main area is divided into several sections:

- General Information:**
 - Model: ExionLC 100
 - Serial number: L2167450001
 - UnitID: (empty)
 - Pressure unit: MPa (dropdown)
 - IP Address: 192.168.200.101
 - ROM version: 00.3
- Rotary valve section:**
 - Type: None (dropdown)
 - Serial number: (empty)
 - Use column settings
 - Settings... (button)
- System check settings...** (button)
- OK** and **Cancel** buttons at the bottom.

20. Click the **System Controller** tab.

The parameters for the system controller in the ExionLC 100 system are shown. If required, modify the parameters. Press F1 for help.

Hardware Profile Creation

Figure 2-11 System Controller Tab

The screenshot shows the 'ExionLC 100 Configuration' dialog box with the 'System Controller' tab selected. The dialog has a title bar with a question mark and a close button. The main area is divided into two sections. The top section contains fields for 'Model' (ExionLC 100), 'IP Address' (192.168.200.101), 'Serial number' (L21674500001), 'ROM version' (00.3), 'UnitID' (empty), and 'Pressure unit' (MPa). The bottom section contains a tabbed interface with 'System Controller' selected. This section includes a checkbox for 'System protection', a 'Fire start relay on:' dropdown menu (set to 'All runs'), and four 'Relay' dropdown menus (Relay 1, 2, 3, and 4, all set to 'Event'). There is also a checkbox for 'Optional A/D board'. At the bottom right, there are 'OK' and 'Cancel' buttons.

21. Click **Inj. only** in the **Fire start relay on** field.

The **Inj. only** option is selected.

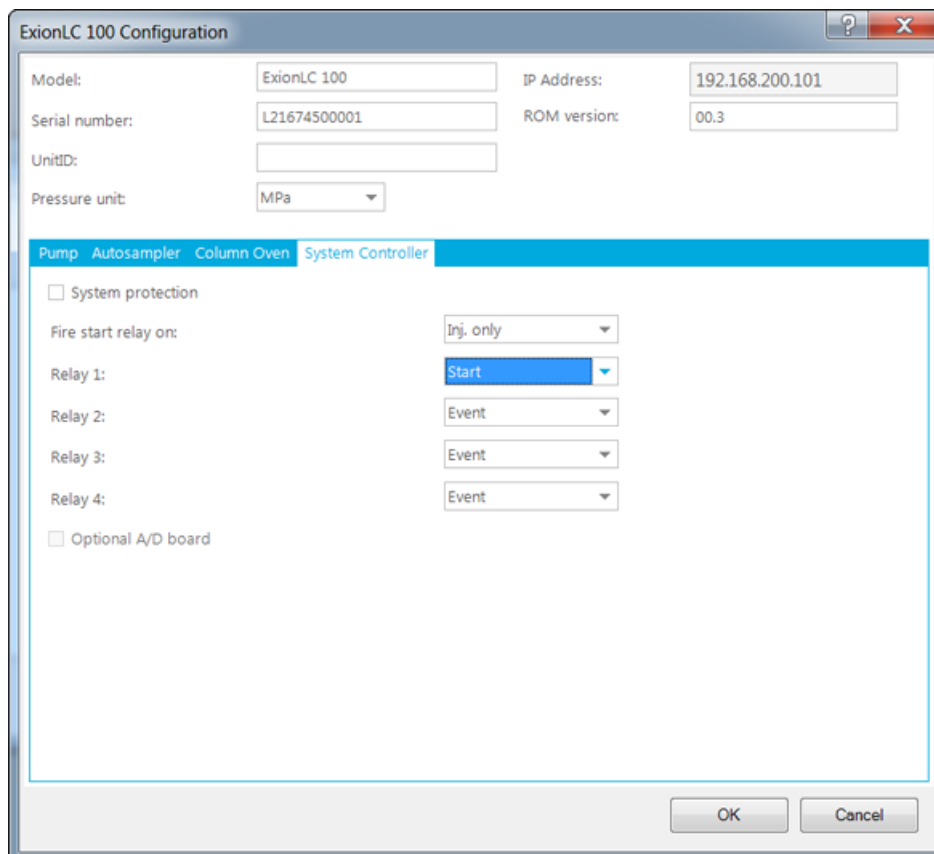
Figure 2-12 System Controller Tab

The screenshot shows the 'ExionLC 100 Configuration' dialog box with the 'System Controller' tab selected. The dialog has a title bar with a question mark and a close button. The main area is divided into two sections. The top section contains fields for Model (ExionLC 100), IP Address (192.168.200.101), Serial number (L21674500001), ROM version (00.3), UnitID (empty), and Pressure unit (MPa). The bottom section contains a tabbed interface with 'System Controller' selected. This section includes a checkbox for 'System protection', a 'Fire start relay on:' dropdown menu set to 'inj. only', and four 'Relay' fields (Relay 1, 2, 3, 4) each with a dropdown menu set to 'Event'. There is also an 'Optional A/D board' checkbox. At the bottom right are 'OK' and 'Cancel' buttons.

22. If the cable in the rear of the system controller is connected to Relay 1, click **Start** in the **Relay 1** field and click **OK**. If the cable is connected to another Relay number, then set the value to Start for that Relay number instead.

Hardware Profile Creation

Figure 2-13 Set Relay 1 to Start



23. Click **OK** in **ConfigUIDialog**.
24. Click **OK** in the **SCIEX LC configuration** dialog.
25. Click **OK** in **Create New Hardware Profile** dialog.
The hardware profile for ExionLC 100 system is created.
26. Click **Activate Profile**.
The hardware profile for ExionLC 100 System is activated.

Create a Hardware Profile for ExionLC™ AC System

Prerequisites

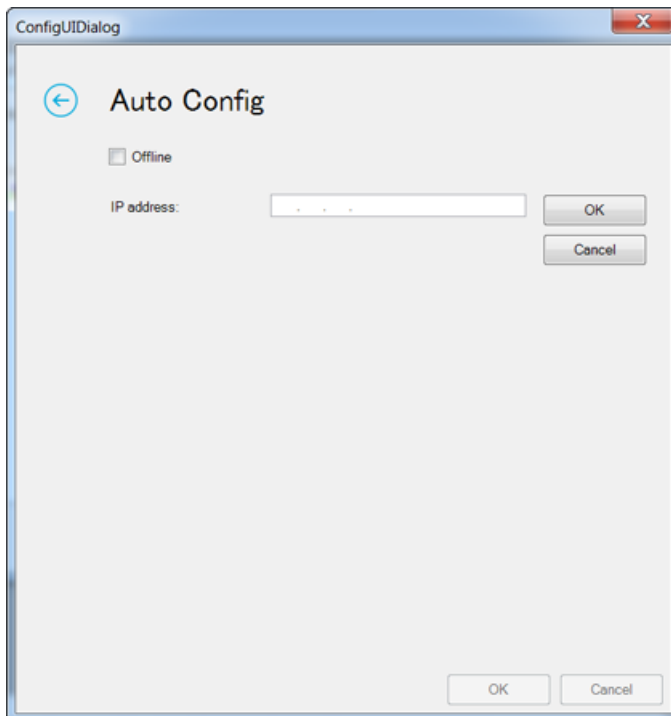
- Make sure that the Analyst® software is open and the computer is connected to the ExionLC™ AC system.

1. Perform steps 1 to 13 in the [Create a Hardware Profile for ExionLC™ 100 System](#). Replace all of ExionLC™ 100 system entries by ExionLC AC System.

2. To automatically configure the devices in the ExionLC AC system, click **Auto config**.

The Auto Config dialog opens.

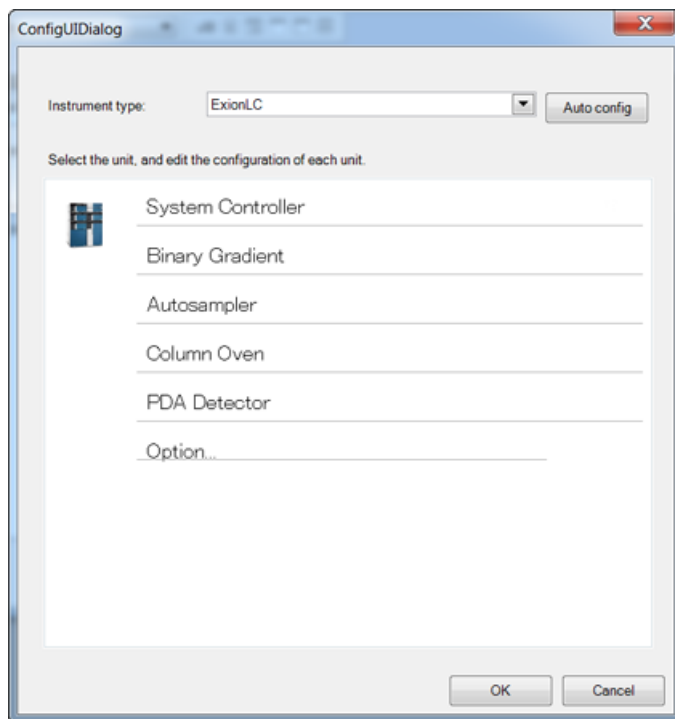
Figure 2-14 Config UI Dialog - Auto Config



3. Type the IP address for the ExionLC AC system and then click **OK** next to the IP address field.

The ConfigUIDialog opens and all of the devices configured in the ExionLC AC system are shown in the dialog. Devices in the ExionLC system can be further configured in this dialog.

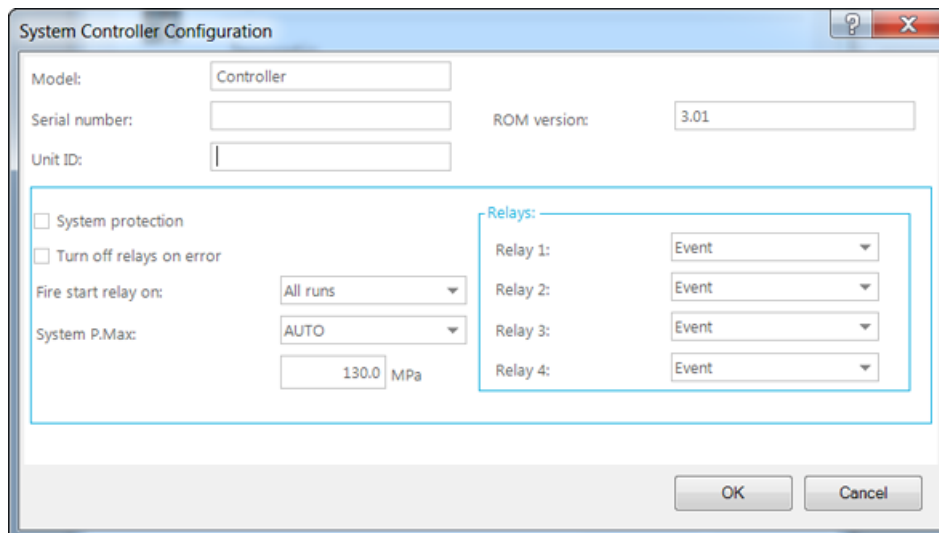
Figure 2-15 Devices in the ExionLC AC System



4. Click **System Controller**.

The System Controller Configuration dialog opens.

Figure 2-16 System Controller Configuration Dialog

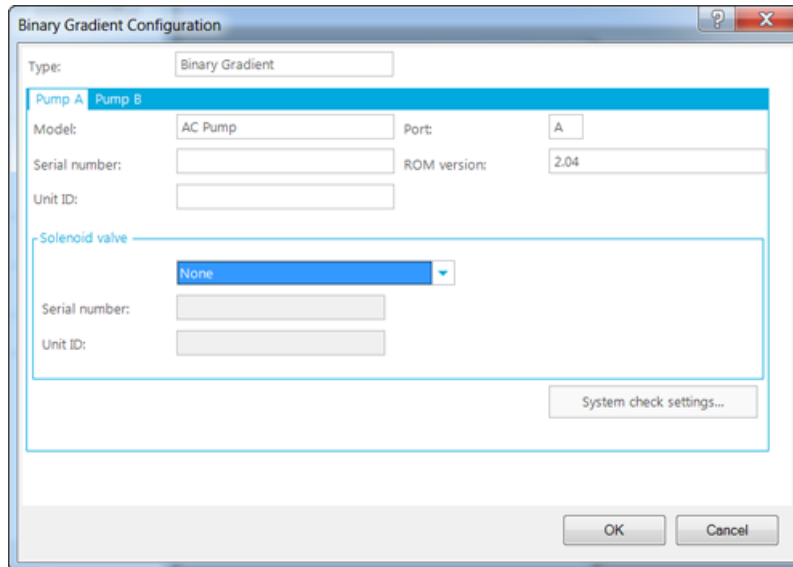


Modify the values of the different fields if required. Press F1 for help.

5. Click **OK**.
6. In the **ConfigUIDialog**, click **Binary Gradient**.

The Binary Gradient Configuration dialog opens. The parameters for Pump A are shown.

Figure 2-17 Binary Gradient Configuration Dialog - Pump A



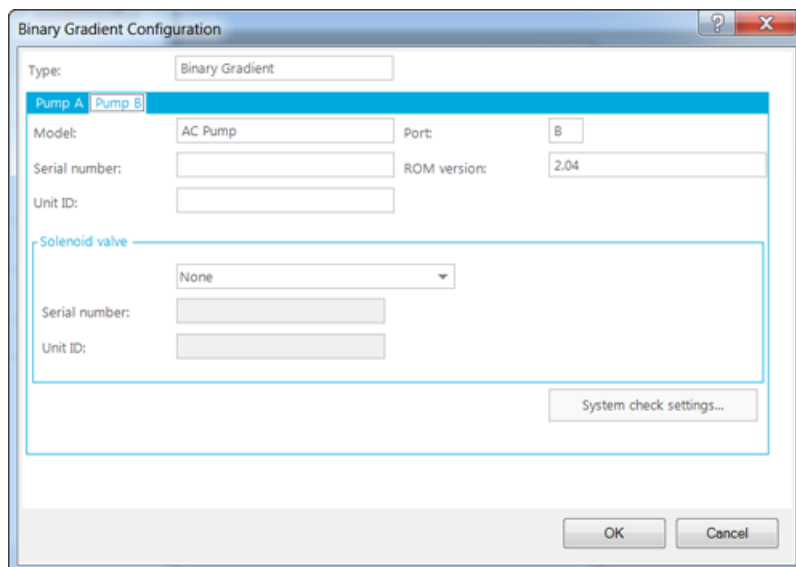
If required, modify the values of the different fields. Press F1 for help.

7. Click the **Pump B** tab.

The parameters for Pump B are shown.

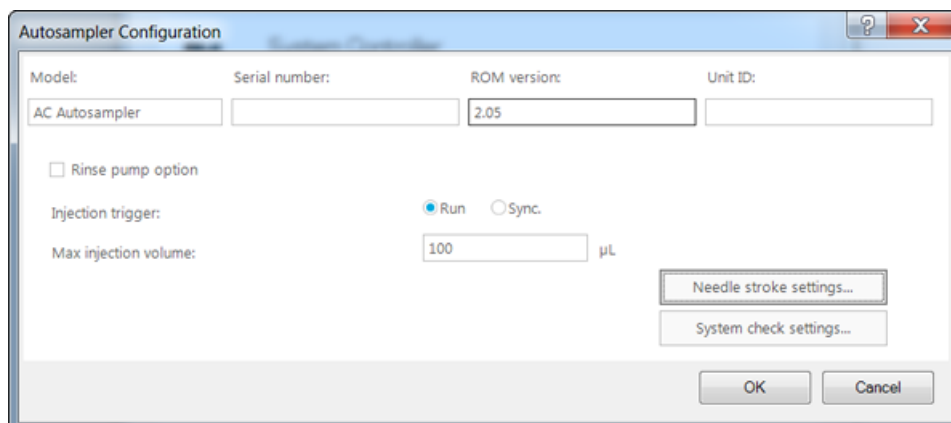
Hardware Profile Creation

Figure 2-18 Binary Gradient Configuration Dialog - Pump B



8. Click **OK**.
9. In the **ConfigUIDialog**, click **Autosampler**.
The Autosampler Configuration dialog opens.

Figure 2-19 Autosampler Configuration Dialog



Note: The maximum injection volume for the AC autosampler is 50 μ L. The optional 100 μ L range is not available.

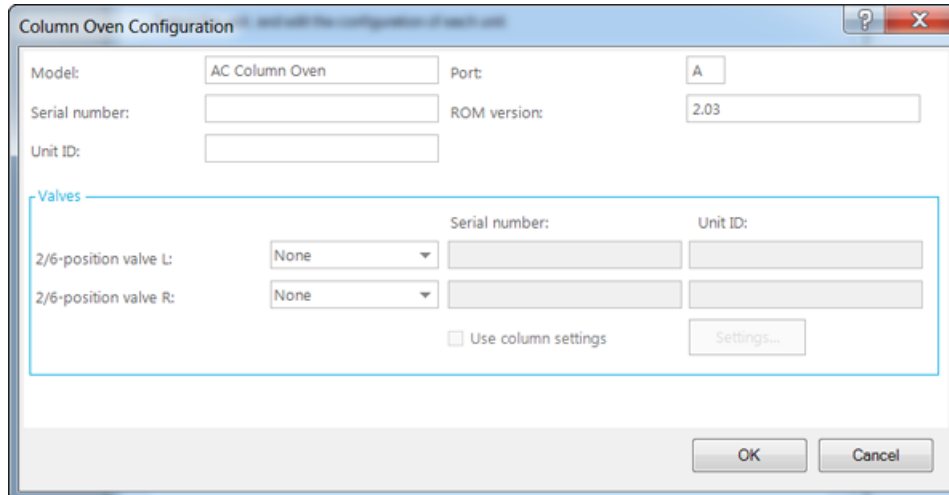
Modify the values of the different fields if required. Press F1 for help.

10. Click **OK**.

11. In the **ConfigUIDialog**, click **Column Oven**.

The Column Oven Configuration dialog opens.

Figure 2-20 Column Oven Configuration Dialog



The screenshot shows the 'Column Oven Configuration' dialog box. It has a title bar with a question mark and a close button. The dialog contains several input fields: 'Model' (text box with 'AC Column Oven'), 'Port' (text box with 'A'), 'Serial number' (empty text box), 'ROM version' (text box with '2.03'), and 'Unit ID' (empty text box). Below these is a section titled 'Valves' which contains two rows: '2/6-position valve L' and '2/6-position valve R'. Each row has a dropdown menu (both set to 'None'), a 'Serial number' text box, and a 'Unit ID' text box. There is also a checkbox labeled 'Use column settings' and a 'Settings...' button. At the bottom right are 'OK' and 'Cancel' buttons.

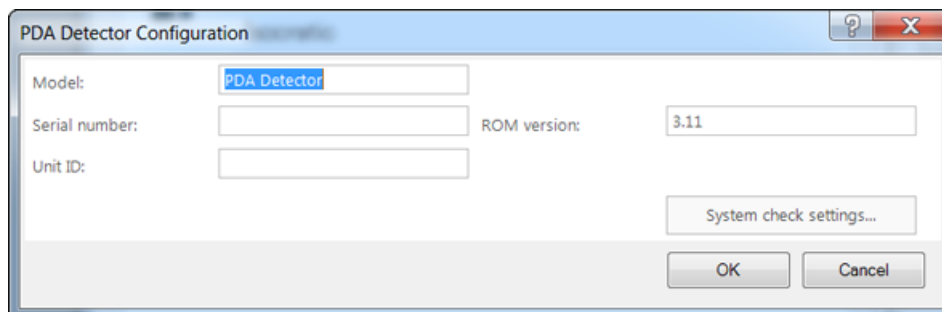
Modify the values of the different fields if required. Press F1 for help.

12. Click **OK**.

13. In the **ConfigUIDialog**, click **PDA Detector**.

The PDA Detector Configuration dialog opens.

Figure 2-21 PDA Detector Configuration Dialog



The screenshot shows the 'PDA Detector Configuration' dialog box. It has a title bar with a question mark and a close button. The dialog contains several input fields: 'Model' (text box with 'PDA Detector'), 'Serial number' (empty text box), 'ROM version' (text box with '3.11'), and 'Unit ID' (empty text box). Below these is a 'System check settings...' button. At the bottom right are 'OK' and 'Cancel' buttons.

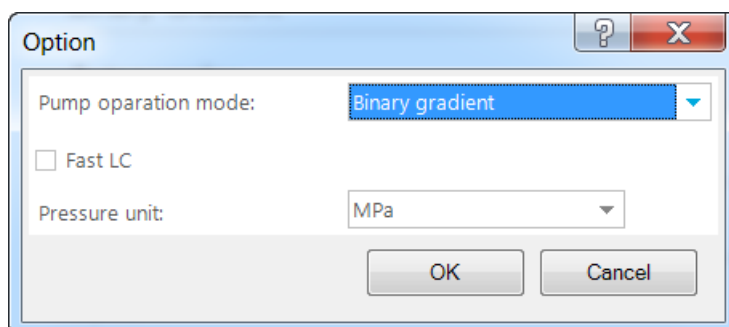
Modify the values of the different fields if required. Press F1 for help.

14. Click **OK**.

15. In the **ConfigUIDialog**, click **Option**.

The Option Configuration dialog opens.

Figure 2-22 Option Dialog



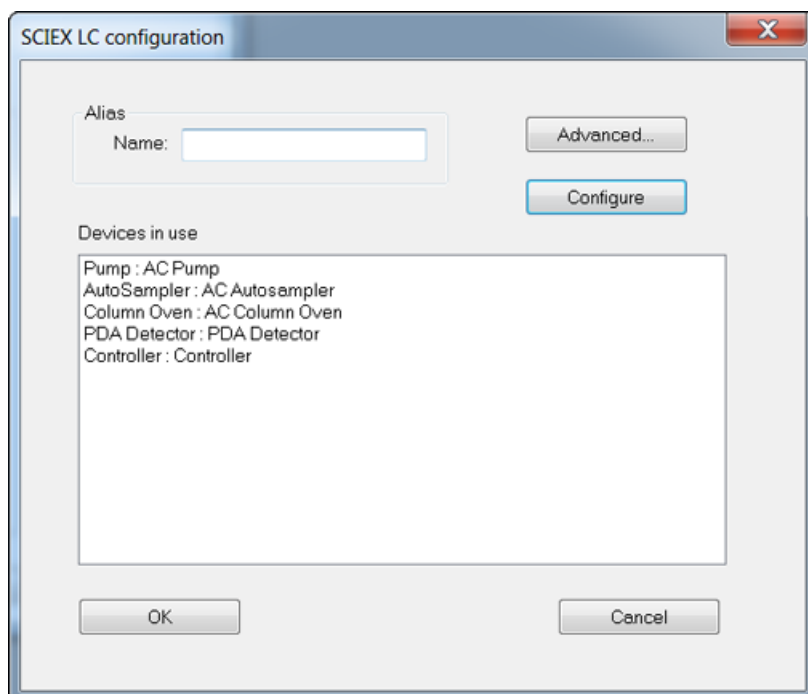
If required, modify the values of the different fields. Press F1 for help.

16. Click **OK**.

17. Click **OK** in the **ConfigUIDialog**.

The SCIEX LC Configuration dialog opens.

Figure 2-23 SCIEX LC Configuration Dialog



All of the configured devices are shown in the Devices in use section.

18. Click **OK**.

The Create New Hardware Profile dialog opens.

19. Add more devices to the current profile if required and then click **OK**.

A hardware profile using the ExionLC AC system is created.

Create a Hardware Profile for ExionLC™ AD System

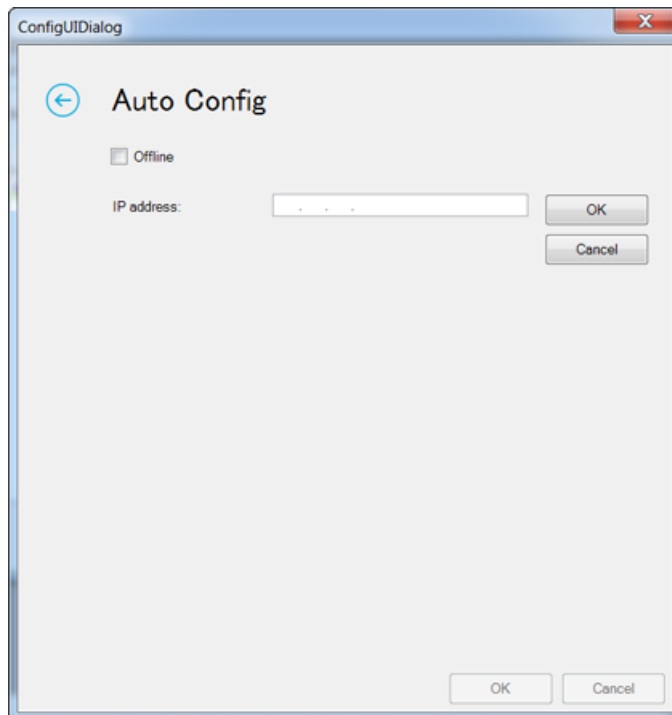
Prerequisites

- Make sure that the Analyst® software is open and the computer is connected to the ExionLC™ AD system.

1. Perform steps 1 to 13 in the [Create a Hardware Profile for ExionLC™ 100 System](#). Replace all of the ExionLC™ 100 system entries by ExionLC AD System.
2. To automatically configure the devices in the ExionLC AD system, click **Auto config**.

The Auto Config dialog opens.

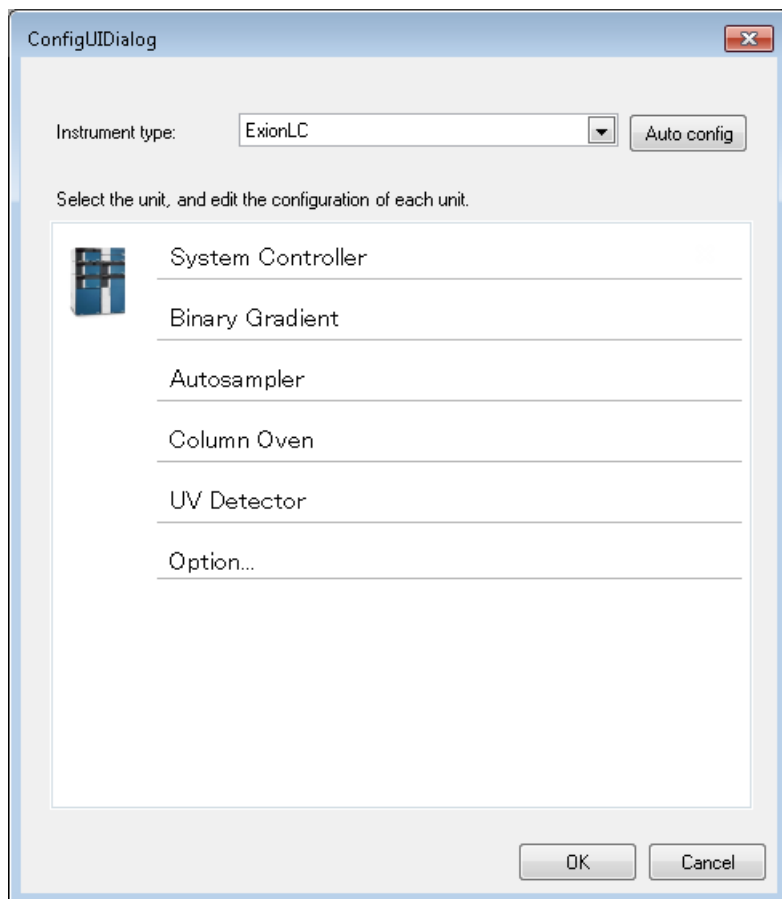
Figure 2-24 Config UI Dialog - Auto Config



3. Type the IP address for the ExionLC AD system and then click **OK** next to the IP address field.

The ConfigUIDialog is shown and all of the devices configured in the ExionLC AD system are shown in the dialog. The devices in the ExionLC system can be further configured in this dialog.

Figure 2-25 Devices in the ExionLC AD System



4. Click **System Controller**.

The System Controller Configuration dialog opens.

Figure 2-26 System Controller Configuration Dialog

System Controller Configuration

Model: Controller

Serial number: ABCBM159909 ROM version: 3.01

Unit ID:

System protection

Turn off relays on error

Fire start relay on: All runs

System P.Max: AUTO

18855 psi

Relays:

Relay 1: Event

Relay 2: Event

Relay 3: Event

Relay 4: Event

OK Cancel

If required, modify the values of the different fields. Press F1 for help.

5. Click **OK**.
6. In the **ConfigUIDialog**, click **Binary Gradient**.

The Binary Gradient Configuration dialog opens. The parameters for Pump A are shown.

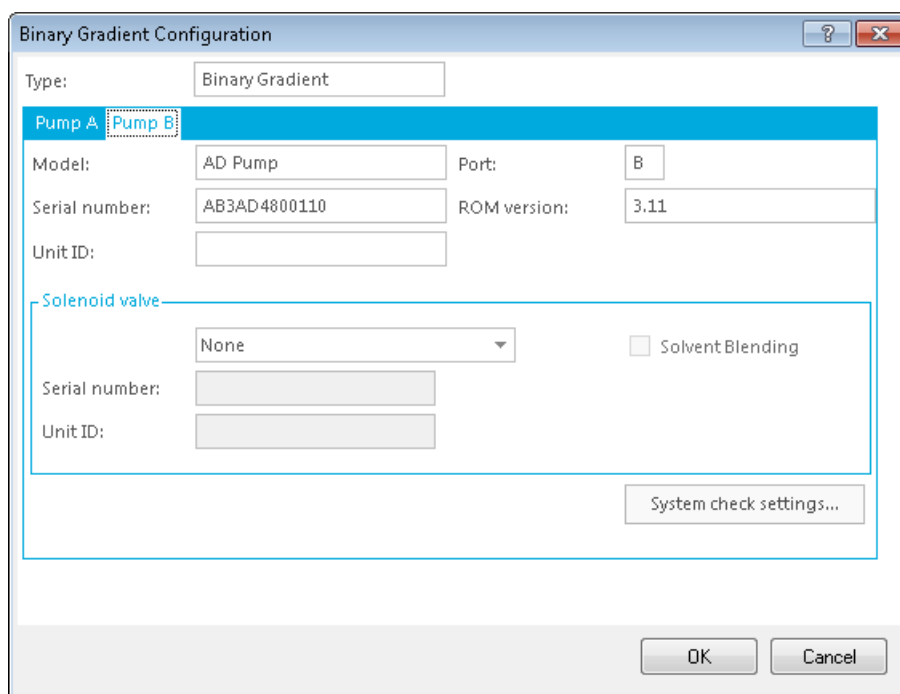
Figure 2-27 Binary Gradient Configuration Dialog - Pump A

The screenshot shows a window titled "Binary Gradient Configuration" with a help icon and a close button in the top right corner. Below the title bar, there is a "Type:" label followed by a text box containing "Binary Gradient". Below this, there are two tabs: "Pump A" (which is selected and highlighted in blue) and "Pump B". Under the "Pump A" tab, there are several input fields: "Model:" with "AD Pump", "Port:" with "A", "Serial number:" with "AB3AD4800101", and "ROM version:" with "3.11". There is also an empty "Unit ID:" field. Below these fields is a section titled "Solenoïd valve" which contains a dropdown menu set to "None", a "Serial number:" field, and a "Unit ID:" field. To the right of the dropdown menu is a checkbox labeled "Solvent Blending" which is currently unchecked. At the bottom right of this section is a button labeled "System check settings...". At the very bottom of the dialog box are "OK" and "Cancel" buttons.

If required, modify the values of the different fields. Press F1 for help.

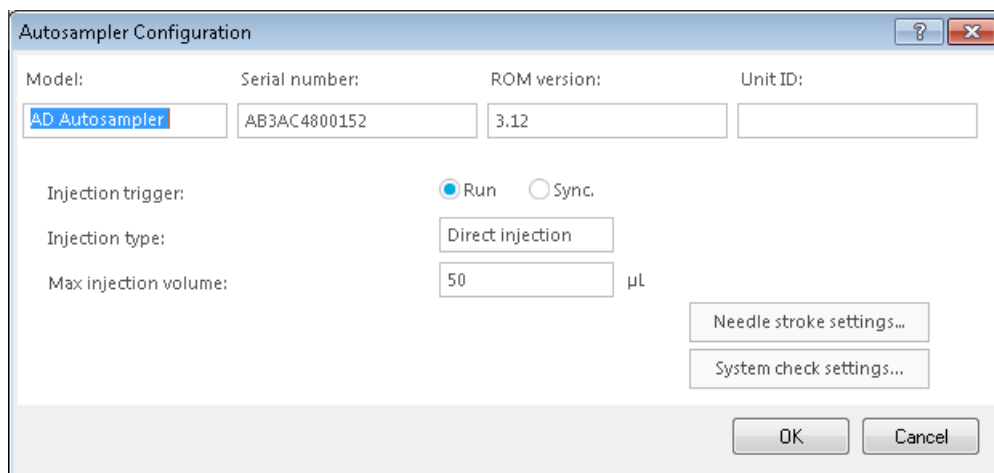
7. Click the **Pump B** tab.

The parameters for Pump B are shown.

Figure 2-28 Binary Gradient Configuration Dialog - Pump B

The dialog box is titled "Binary Gradient Configuration". It features a "Type" dropdown set to "Binary Gradient". Below this, there are two tabs: "Pump A" and "Pump B", with "Pump B" selected. The "Pump B" section contains the following fields: "Model" (AD Pump), "Port" (B), "Serial number" (AB3AD4800110), and "ROM version" (3.11). There is an empty "Unit ID" field. A "Solenoïd valve" section is outlined in blue, containing a dropdown menu set to "None", a "Solvent Blending" checkbox (unchecked), and empty "Serial number" and "Unit ID" fields. A "System check settings..." button is located at the bottom right of this section. At the very bottom of the dialog are "OK" and "Cancel" buttons.

8. Click **OK**.
9. In the **ConfigUIDialog**, click **Autosampler**.
The Autosampler Configuration dialog opens.

Figure 2-29 Autosampler Configuration Dialog

The dialog box is titled "Autosampler Configuration". It contains the following fields: "Model" (AD Autosampler), "Serial number" (AB3AC4800152), "ROM version" (3.12), and an empty "Unit ID" field. The "Injection trigger" section has two radio buttons: "Run" (selected) and "Sync.". The "Injection type" dropdown is set to "Direct injection". The "Max injection volume" is set to "50" with a "µL" unit. There are two buttons: "Needle stroke settings..." and "System check settings...". At the bottom are "OK" and "Cancel" buttons.

If required, modify the values of the different fields. Press F1 for help.

Hardware Profile Creation

10. Click **OK**.

11. In the **ConfigUIDialog**, click **Column Oven**.

The Column Oven Configuration dialog opens.

Figure 2-30 Column Oven Configuration Dialog

The screenshot shows the 'Column Oven Configuration' dialog box. It has a title bar with a question mark and a close button. The dialog contains several input fields: 'Model' (AD Column Oven), 'Port' (A), 'Serial number' (AB3CT4800059), and 'ROM version' (3.11). There is an empty 'Unit ID' field. Below these is a section titled 'Valves' which contains two rows of settings for '2/6-position valve L' and '2/6-position valve R'. Each row has a dropdown menu (both set to 'None'), a 'Serial number' field, and a 'Unit ID' field. There is a checkbox for 'Use column settings' and a 'Settings...' button. At the bottom of the dialog are 'OK' and 'Cancel' buttons, and a 'System check settings...' button.

If required, modify the values of the different fields. Press F1 for help.

12. Click **OK**.

13. In the **ConfigUIDialog**, click **UV Detector**.

The UV Detector Configuration dialog opens.

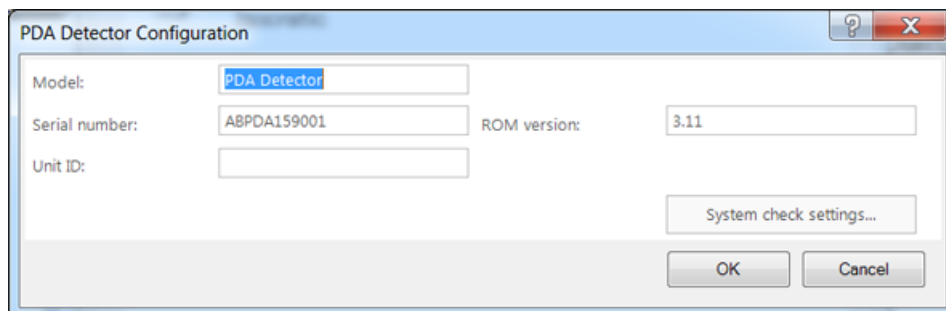
Figure 2-31 UV Detector Configuration Dialog

The screenshot shows the 'UV Detector Configuration' dialog box. It has a title bar with a question mark and a close button. The dialog contains several input fields: 'Model' (UV Detector), 'Port' (A), 'Serial number' (ABSPD4250002), and 'ROM version' (2.03). There is an empty 'Unit ID' field. Below these is a checkbox for 'Use recycle valve'. At the bottom of the dialog are 'OK' and 'Cancel' buttons, and a 'System check settings...' button.

If required, modify the values of the different fields. Press F1 for help.

14. If the ExionLC stack has a PDA instead of UV Detector, the ConfigUIDialog will show PDA Detector. In such a case, in the **ConfigUIDialog**, click **PDA Detector**.

The **PDA Detector Configuration** dialog opens.

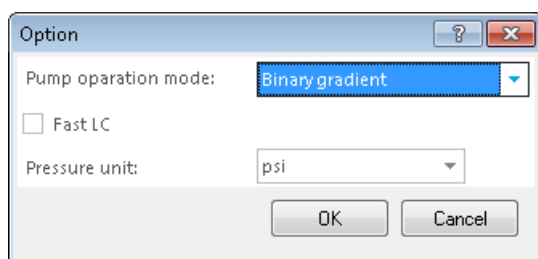
Figure 2-32 PDA Detector Configuration Dialog

If required, modify the values of the different fields. Press F1 for help.

15. Click **OK**.

16. In the **ConfigUIDialog**, click **Option**.

The Option Configuration dialog opens.

Figure 2-33 Option Dialog

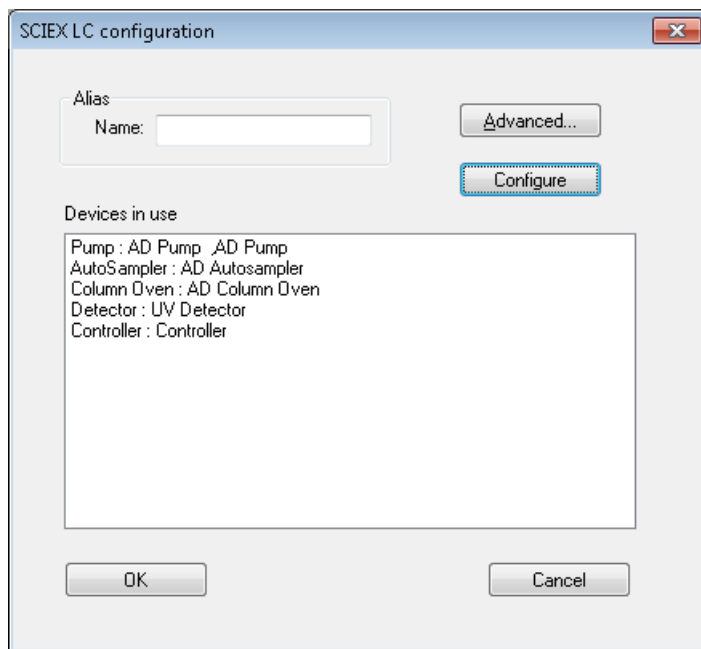
If required, modify the values of the different fields. Press F1 for help.

17. Click **OK**.

18. Click **OK** in the **ConfigUIDialog**.

The SCIEX LC Configuration dialog opens. All of the configured devices are shown in the Devices in use section.

Figure 2-34 SCIEX LC Configuration Dialog



19. Click **OK**.

The Create New Hardware Profile dialog opens.

20. Add more devices to the current profile if required and then click **OK**.

A hardware profile using the ExionLC AD system is created.

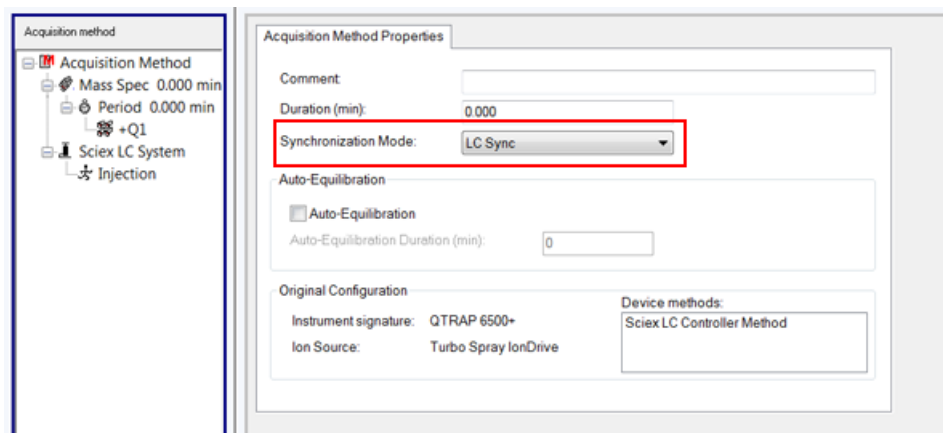
Create an Acquisition Method for an ExionLC™ 100 System

Prerequisites

- Make sure that the Analyst® software is open and the computer is connected to the ExionLC™ 100 system.
- Make sure that the hardware profile for the ExionLC 100 system is activated.

1. On the Navigation bar, under **Acquire**, double-click **Build Acquisition Method**.
2. In the **Acquisition Method Properties** tab, make sure that the **Synchronization Mode** is set to **LC Sync**.

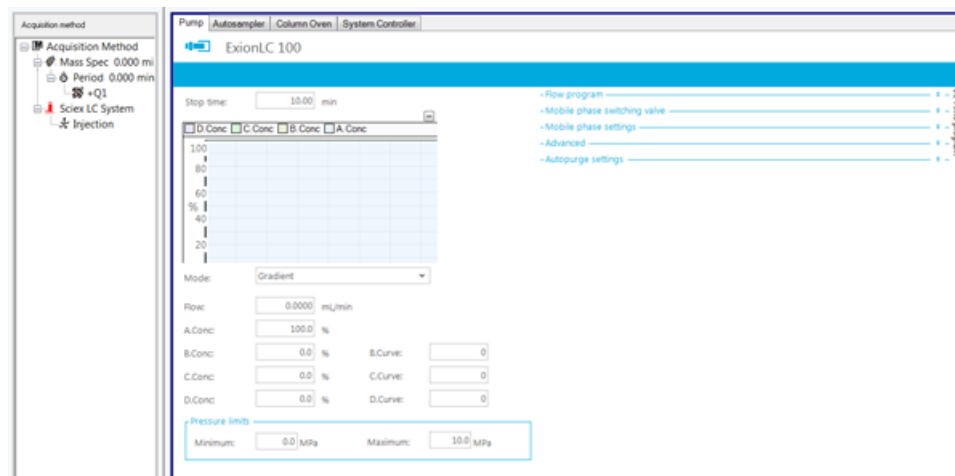
Figure 3-1 Acquisition Method Editor




3. Click **Sciex LC System** in the **Acquisition Method** pane.

Parameters for all of the devices in the ExionLC 100 system are shown on different tabs. The Pump tab shows the parameters for the pump.

Figure 3-2 Parameters for the Pump in the ExionLC 100 System



If required, modify the parameters. Press F1 for help.

4. Click  next to **Flow program**, **Mobile phase switching valve**, **Mobile phase settings**, **Advanced**, and **Autopurge settings** to view their respective parameters.

The parameters are shown.

Figure 3-3 Parameters for Flow Program and Mobile Phase Switching Valve

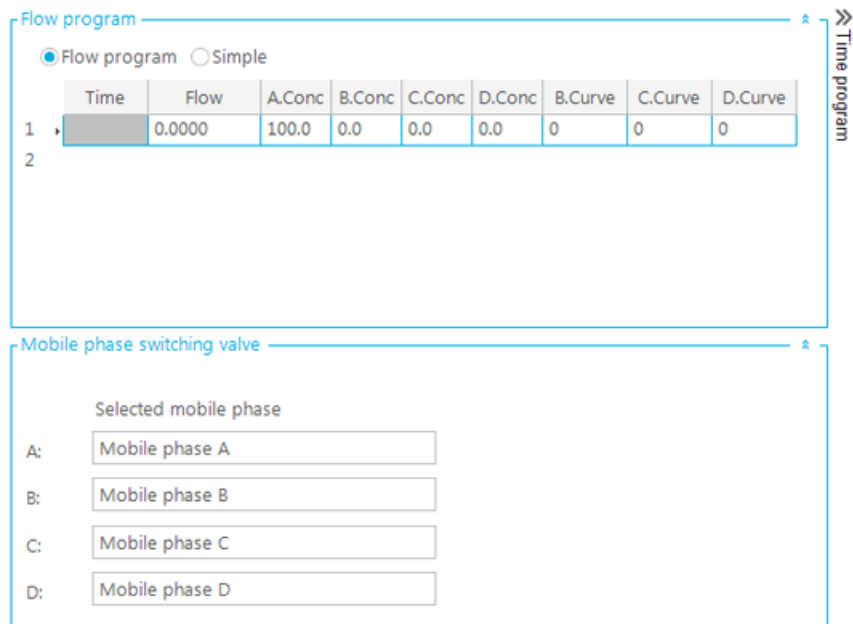


Figure 3-4 Parameters for Mobile Phase Settings, Advanced, and Autopurge Settings

The screenshot displays three sections of the software interface:

- Mobile phase settings:** Includes a checkbox for "Compressibility settings" (unchecked). Below it, "Mobile phase name" is followed by four dropdown menus labeled A, B, C, and D.
- Advanced:** Includes a checked checkbox for "Degassing unit" and a dropdown menu for "LPGE mode" set to "Auto".
- Autopurge settings:** A table with columns "Purge order", "Mobile phase name", and "Purge time".

Purge order	Mobile phase name	Purge time
1st:	None	5 min
2nd:	None	5 min
3rd:	None	5 min
4th:	None	5 min

 Below the table is a checkbox for "Init conc-replacement:" with a value of 5 min.

5. Click **»** above **Time program** to configure the time program.

Figure 3-5 Time Program

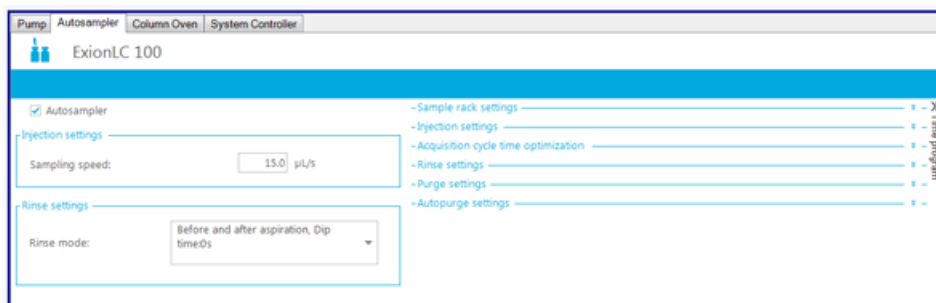
The screenshot shows the "Time program" configuration window for the ExionLC 100 system. The window title is "ExionLC 100" and it has tabs for "Pump", "Autosampler", "Column Oven", and "System Controller". The "Autosampler" tab is active. Below the tabs is a table with columns "Time", "Command", "Value", and "Comment".

Time	Command	Value	Comment
1			

6. Click **«** above Time program to return to the Pump parameters.
7. Click the **Autosampler** tab.

The parameters for the autosampler in the ExionLC 100 system are shown. If required, modify the parameters. Press F1 for help.

Figure 3-6 Autosampler Parameters




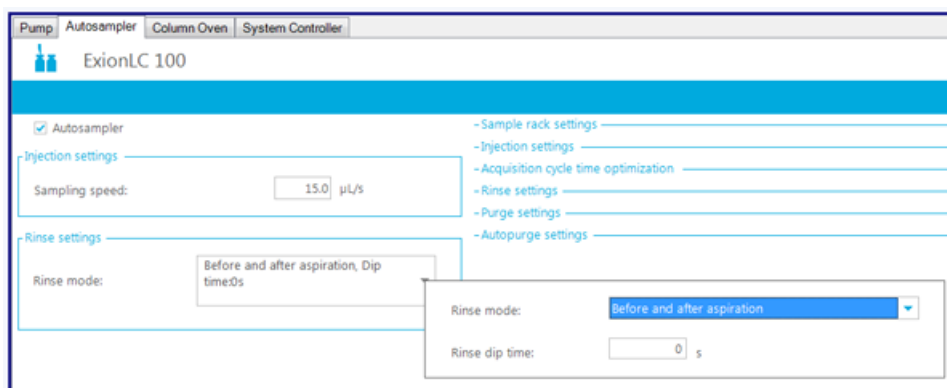
8. Click  in the **Rinse mode** field to view and modify values for this field. The pane to set the values for the Rinse mode field is shown.

Figure 3-7 Setting Rinse Mode



9. Click  next to **Sample rack settings, Injection settings, Acquisition cycle time optimization, Rinse settings, Purge settings, and Autopurge settings** to view their respective parameters. The parameters are shown.

Figure 3-8 Parameters for Sample rack settings, Injection settings, Acquisition cycle time optimization, Rinse settings, Purge settings, Autopurge settings

The screenshot displays the following parameters:

- Sample rack settings:**
 - Specify rack
 - Rack plate L: MTP 96
- Injection settings:**
 - Air gap volume: 0.1 μL
 - On time injection
- Acquisition cycle time optimization:**
 - Pretreatment start timing: Off
 - Pretreatment overlap time: 0.00 min
- Rinse settings:**
 - Rinsing speed: 35 $\mu\text{L/s}$
 - Rinsing volume: 500 μL
 - Rinse solution name:
- Purge settings:**
 - Purge time (Rinse port): 10.0 min
- Autopurge settings:**
 - Execute sampler purge

A vertical label 'Time program' is located on the right side of the interface.

- Click to close the parameters.
- Click above Time program to program the time for the autosampler.
- Click the **Column Oven** tab.

The parameters for the column oven device in the ExionLC 100 system are shown. Press F1 for help.

Figure 3-9 Column Oven Parameters

The screenshot displays the following parameters:

- System: ExionLC 100
- Column Oven
- Oven temperature: 40 $^{\circ}\text{C}$
- Temperature limit(Maximum): 65 $^{\circ}\text{C}$
- Valve: None

A vertical label 'Time program' is located on the right side of the interface.

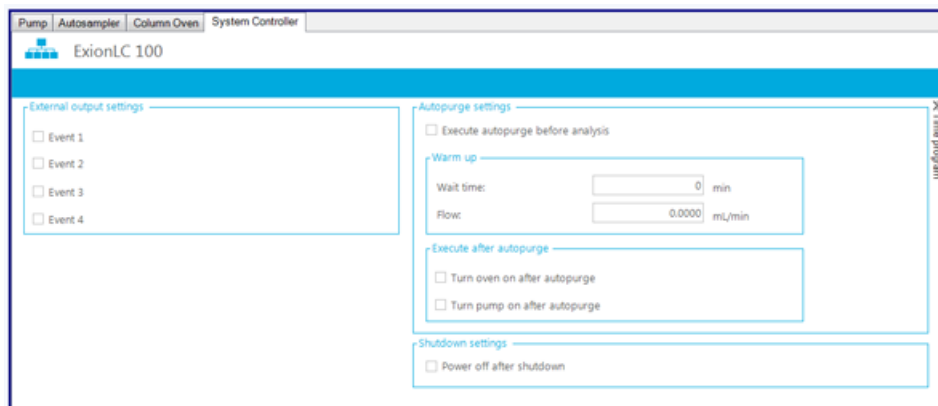
- Click above **Time program** to configure the time program.

Acquisition Methods

14. Click the **System Controller** tab.

The parameters for the system controller in the ExionLC 100 system are shown. Press F1 for help.

Figure 3-10 System Controller Parameters

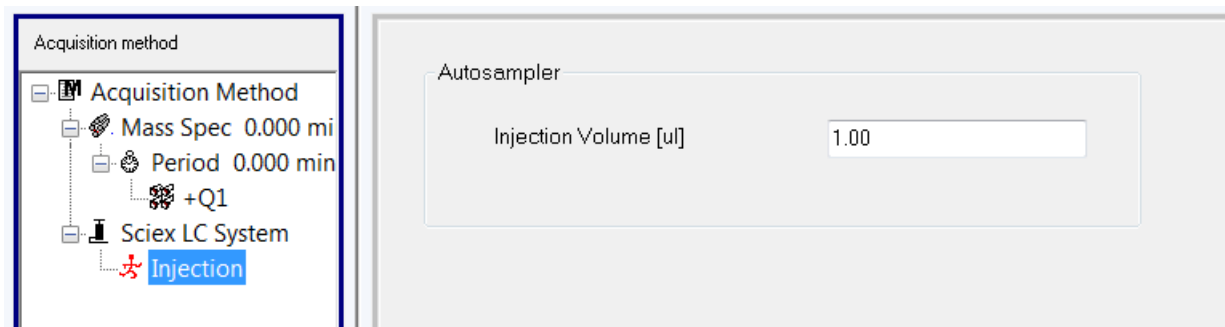


15. Click **»** above **Time program** to configure the time program.

16. Click **Injection** in the **Acquisition method** pane.

The parameters for Injection are shown. If required, modify the parameters.

Figure 3-11 Set Injection Volume



17. Click **Mass Spec** in the **Acquisition method** pane.

The MS and Advanced MS tabs are shown.

18. If required, populate the different fields on the **MS** and **Advanced MS** tabs.

19. Save the acquisition method.

Create an Acquisition Method for an ExionLC™ AC System

Prerequisites

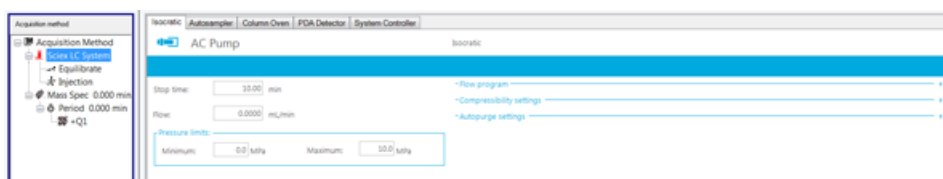
- Make sure that the Analyst® software is open and the computer is connected to the ExionLC™ AC system.
- Make sure that the hardware profile for the ExionLC AC system is activated.

1. On the Navigation bar, under **Acquire**, double-click **Build Acquisition Method**.
2. In the **Acquisition Method Properties** tab, make sure that the **Synchronization Mode** is set to **LC Sync**.

3. Click **Sciex LC System** in the **Acquisition Method** pane.

The parameters for all of the devices in the ExionLC AC system are shown.

Figure 3-12 Acquisition Method Editor

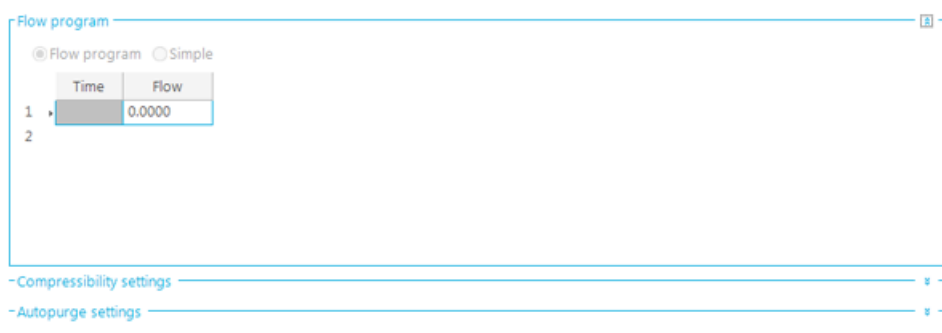


If required, modify the parameter values on the Isocratic tab for the pump. Press F1 for help.

4. Click  for **Flow program**.

The parameters for the Flow program are shown.

Figure 3-13 Isocratic Tab — Parameters for the Pump



If required, modify the parameter values for Flow program.

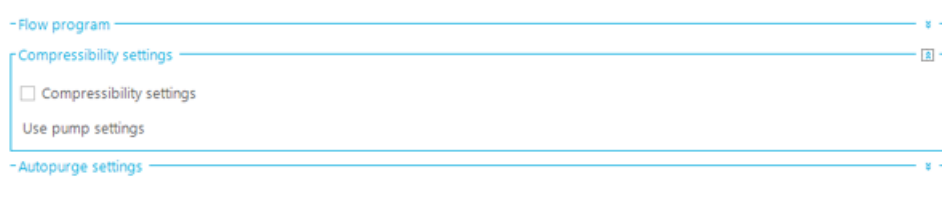
5. To close the **Flow program** parameters section, click  for Flow program.

Acquisition Methods



6. Click  for **Compressibility settings**.

The parameters for the Compressibility settings are shown.

Figure 3-14 Parameters for the Compressibility Settings

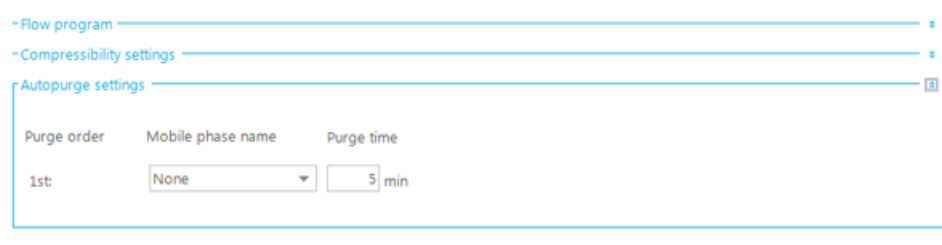


If required, modify the parameter for Compressibility settings.


7. To close the **Compressibility settings** parameters section, click  for Compressibility settings.
8. Click  for **Autopurge settings**.

The parameters for the Autopurge settings are shown.

Figure 3-15 Parameters for the Autopurge Settings

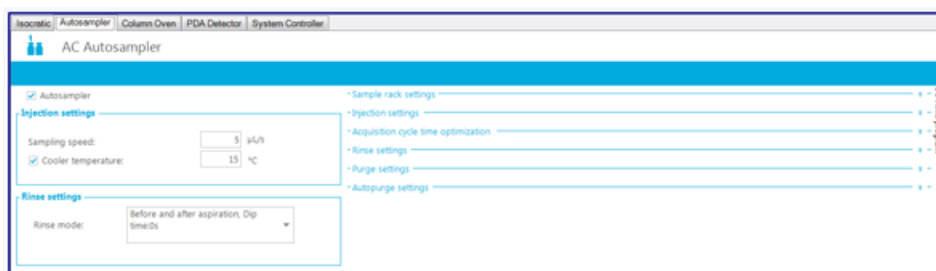


If required, modify the parameters for the Autopurge settings.


9. To close the **Autopurge settings** parameters section, click  for **Autopurge settings**.
10. Click the **Autosampler** tab.

The parameters for the connected autosampler are shown.

Figure 3-16 Autosampler Tab — Parameters

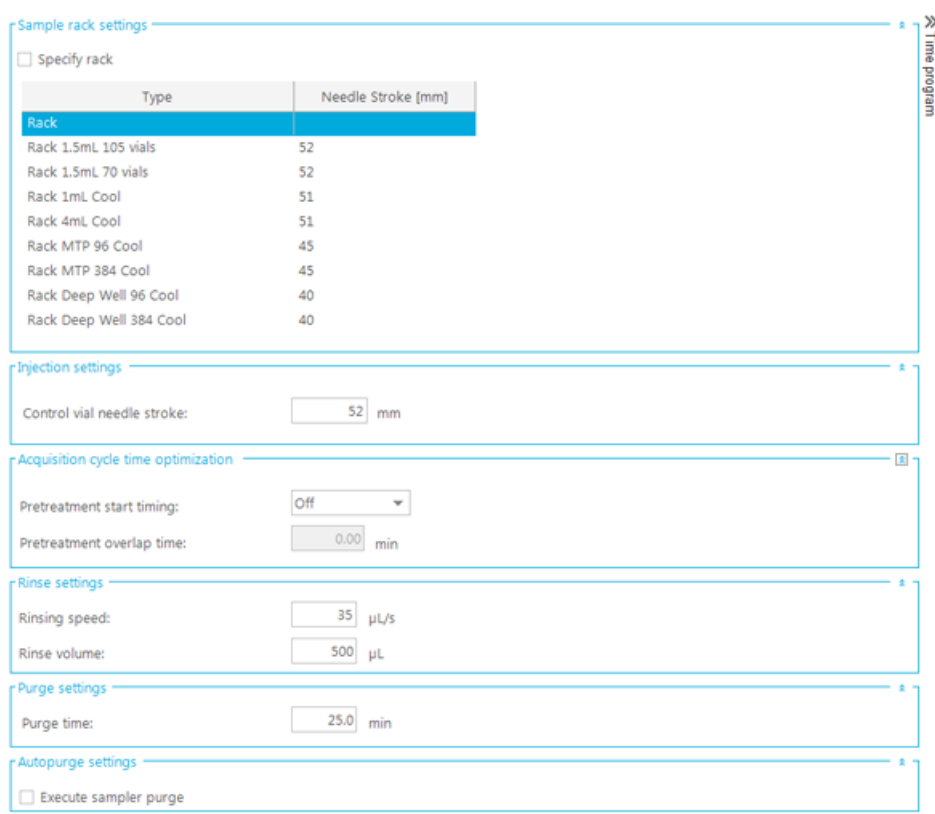


If required, modify the parameter values. Press F1 for help.

11. To access and modify the parameters for **Sample rack settings**, **Injection settings**, **Acquisition cycle time optimization**, **Rinse settings**, **Purge settings**, and **Autopurge settings**, click  located to the right of each of these sections.

All of the parameters are shown.

Figure 3-17 Autosampler Parameters



Sample rack settings

Specify rack

Type	Needle Stroke [mm]
Rack	
Rack 1.5mL 105 vials	52
Rack 1.5mL 70 vials	52
Rack 1mL Cool	51
Rack 4mL Cool	51
Rack MTP 96 Cool	45
Rack MTP 384 Cool	45
Rack Deep Well 96 Cool	40
Rack Deep Well 384 Cool	40

Injection settings

Control vial needle stroke: mm

Acquisition cycle time optimization

Pretreatment start timing: ▾

Pretreatment overlap time: min

Rinse settings

Rinsing speed: µL/s

Rinse volume: µL

Purge settings

Purge time: min

Autopurge settings

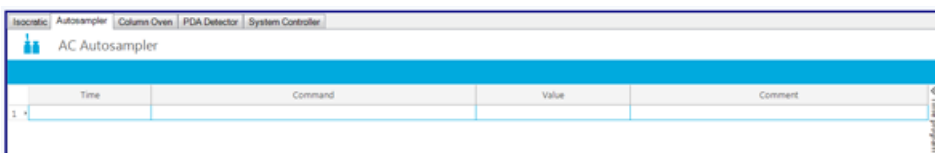
Execute sampler purge

Time program

If required, modify the parameter values. Press F1 for help.

12. Click  above **Time program** to configure the time program.

Figure 3-18 Time Program Parameters




Isocratic | Autosampler | Column Oven | PDA Detector | System Controller

AC Autosampler

Time	Command	Value	Comment

Time program

If required, modify the parameters.

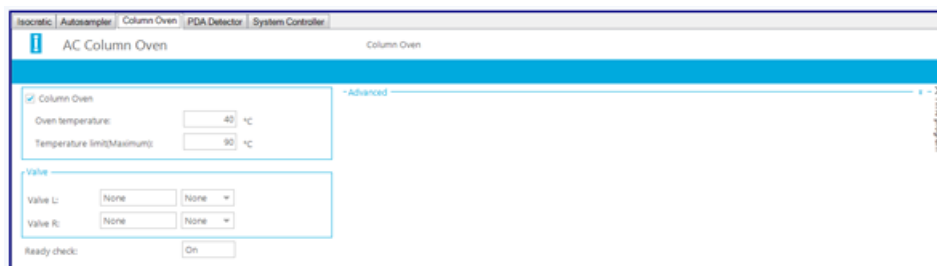
13. Click  above **Time program** to return to the Autosampler parameters.

Acquisition Methods


14. Click the **Column Oven** tab.

The parameters for the column oven are shown.

Figure 3-19 Column Oven Tab — Parameters

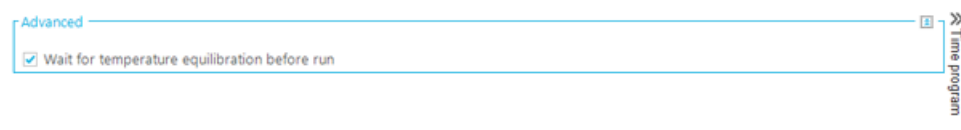


If required, modify the parameter values. Press F1 for help.

15. Click  for **Advanced**.

The Advanced parameter is shown.

Figure 3-20 Column Oven Tab — Advanced Parameters



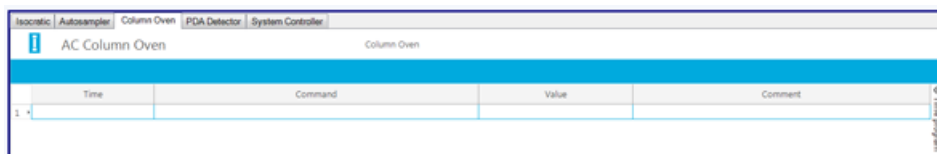
If required, modify the parameter.

Note: When WAIT TIME is set to 0 on the front panel of the column oven, the column oven becomes READY to start acquisition without waiting to reach the set temperature.


16. Click  above **Time program** to configure the time program.

The parameters for the Time program are shown.

Figure 3-21 Time Program Parameters for Column Oven



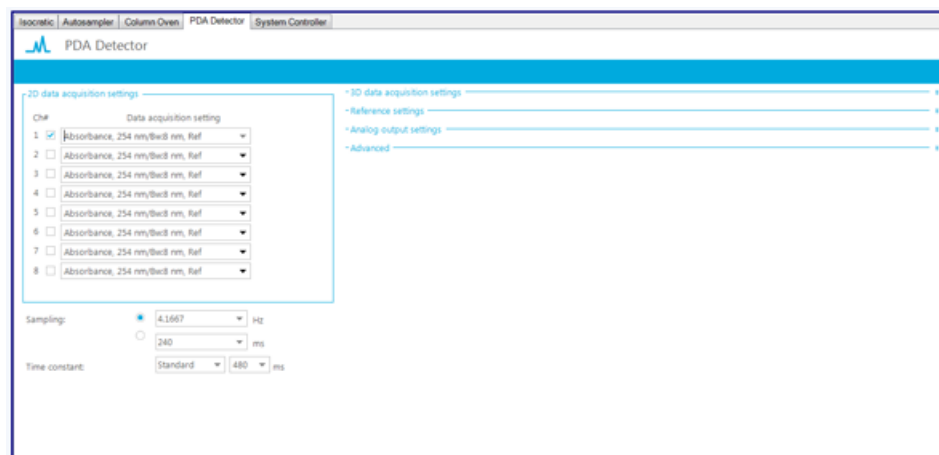
If required, modify the parameter.

17. Click  above **Time program** to return to the Column oven parameters.

18. Click the **PDA Detector** tab.

The parameters for the PDA Detector are shown.

Figure 3-22 PDA Detector Tab — Parameters



If required, modify the parameter values. Press F1 for help.



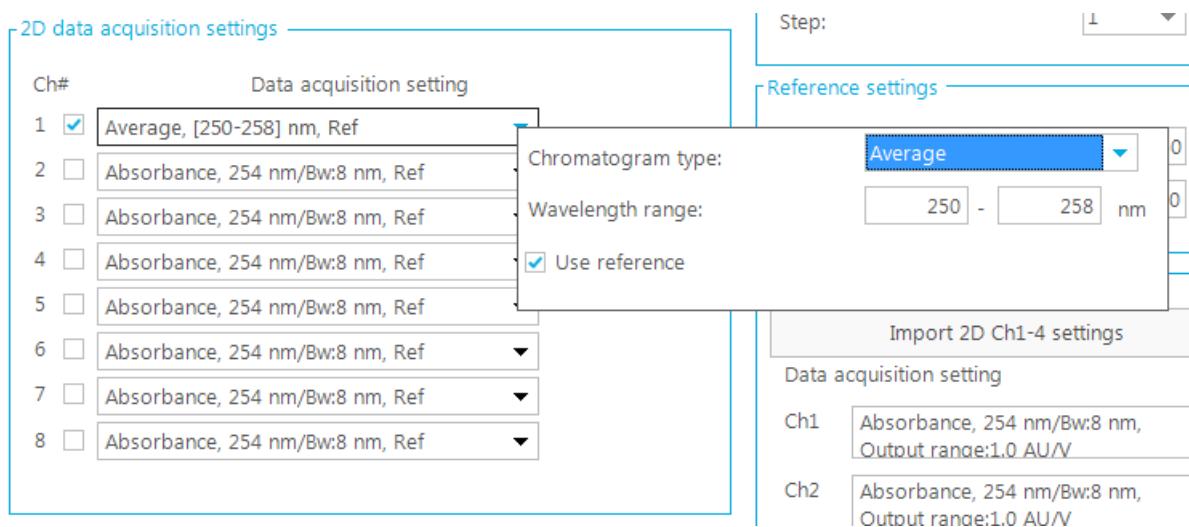
19. To access and modify the parameters for **3D data acquisition settings**, **Reference settings**, **Analog output settings**, and **Advanced**, click  located to the right of each of these sections.
20. In the **2D data acquisition settings** section, click  in the **Ch1** field. Parameters for Ch1 are shown. If required, modify the parameters.

Figure 3-23 Parameters for the Ch1 Field




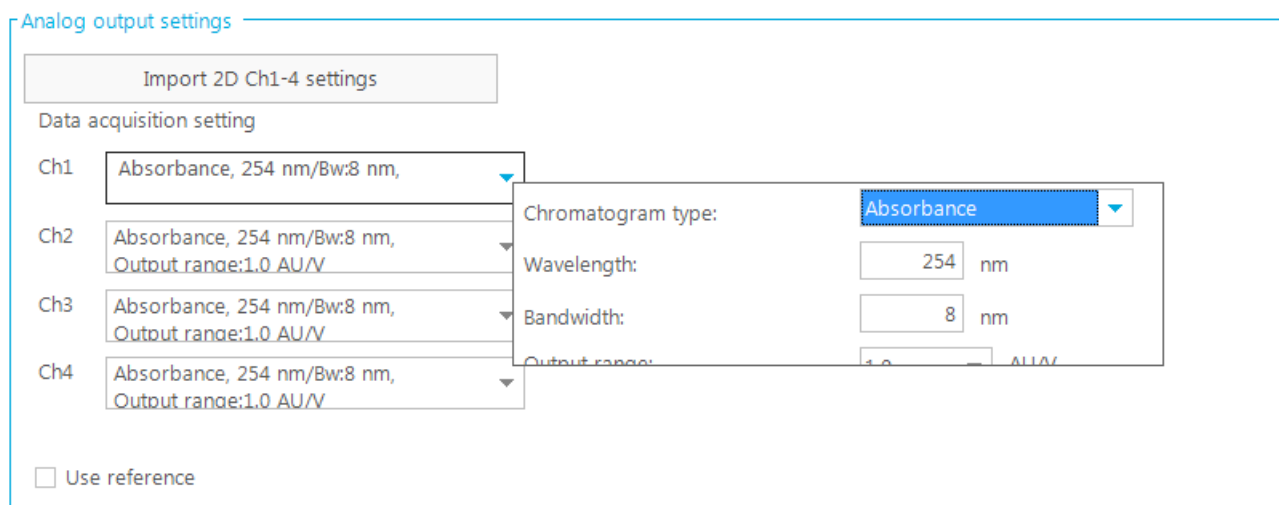
21. In the **Analog output settings** section, click  in the **Ch1** field. Parameters for Ch1 are shown. If required, modify the parameters.

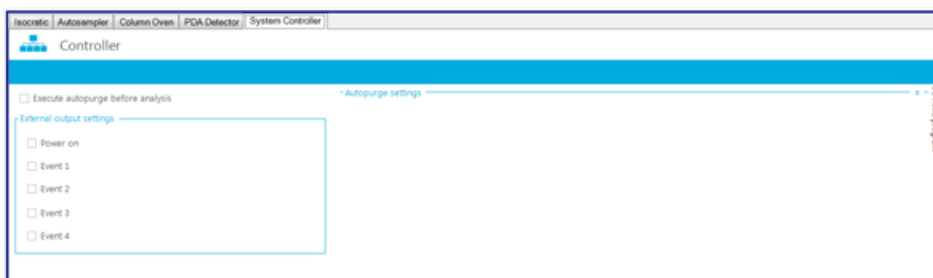
Figure 3-24 Parameters for the Ch1 Field




22. Click the **System Controller** tab.

The parameters for the System Controller are shown.

Figure 3-25 System Controller tab — Parameters



If required, modify the parameter values. Press F1 for help.

23. Click  next to Autopurge settings.

The parameters for **Autopurge settings** are shown. If required, modify them.

Figure 3-26 Autopurge Settings Parameters

Autopurge settings

Warm up

Wait time: min

Isocratic1 flow: mL/min

Execute after autopurge

Turn oven(s) on after autopurge

Turn pump(s) on after autopurge

Time program

24. Click **>>** above **Time program** to configure the time program.
The parameters are shown.

Figure 3-27 Time Program Parameters for the System Controller

Time	Command	Value	Comment
1			

Time program

If required, modify the parameters.

25. Click **<<** above **Time program** to return to the System Controller parameters.
26. Click **Equilibrate** in the **Acquisition method** pane.
The parameter to specify Equilibration is shown. Modify the parameter if required.

Figure 3-28 Equilibrate Parameter

Acquisition method

- Acquisition Method
 - Sciex LC System
 - Equilibrate
 - Injection
 - Mass Spec 5.001 min
 - Period 5.001 min
 - +Q1

Pump

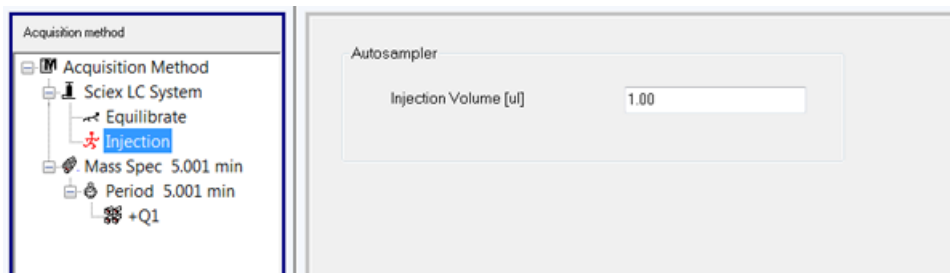
Step 0 (Equilibration) time [min]

Acquisition Methods

27. Click **Injection** in the **Acquisition method** pane.

The parameter to specify the injection volume is shown.

Figure 3-29 Injection Parameter



28. Click **Mass Spec** in the **Acquisition method** pane.

The MS and Advanced MS tabs are shown.

29. If required, populate the different fields on the **MS** and **Advanced MS** tabs.

30. Save the acquisition method.

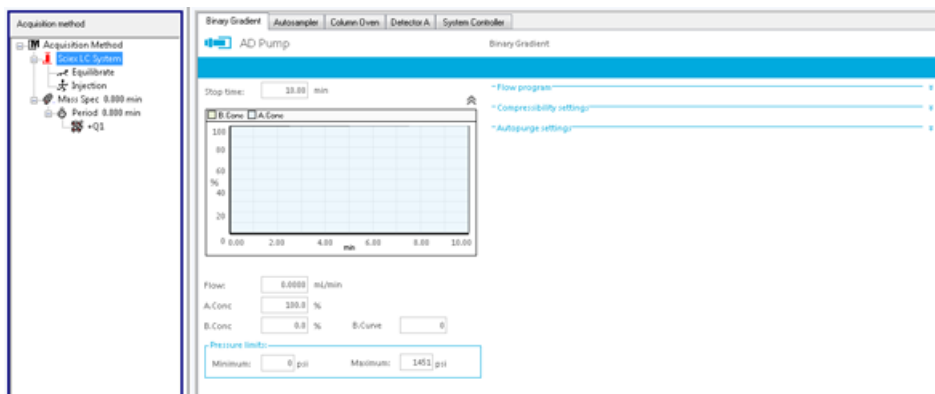
Create an Acquisition Method for an ExionLC™ AD System

Prerequisites

- Make sure that the Analyst® software is open and the computer is connected to the ExionLC™ AD system.
- Make sure that the hardware profile for the ExionLC AD system is activated.

1. On the Navigation bar, under **Acquire**, double-click **Build Acquisition Method**.
2. In the **Acquisition Method Properties** tab, make sure that the **Synchronization Mode** is set to **LC Sync**.
3. Click **Sciex LC System** in the **Acquisition Method** pane.
The parameters for all of the devices in the ExionLC AD system are shown.

Figure 3-30 Acquisition Method Editor

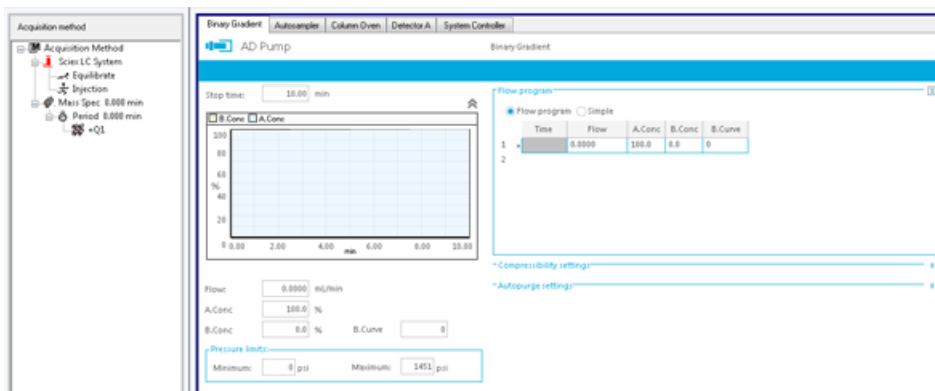


If required, modify the parameter values on the **Binary Gradient** tab for the pump. Press F1 for help.



4. Click  for **Flow program**.

The parameters for the Flow program are shown.

Figure 3-31 Binary Gradient Tab — Parameters for the Pump

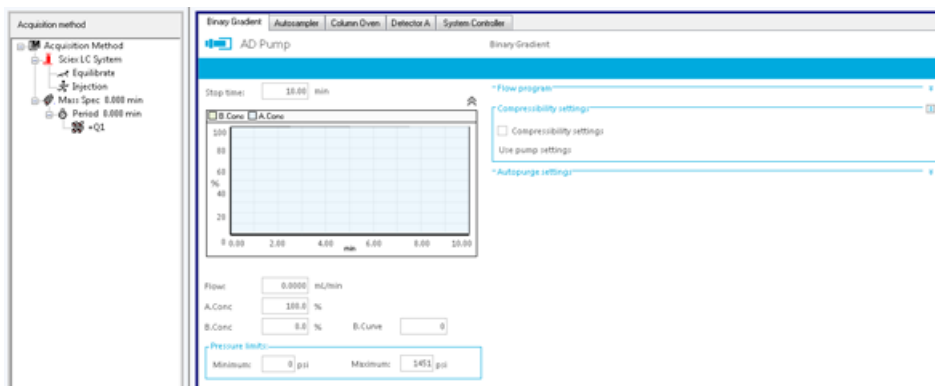



If required, modify the parameter values for Flow program.

5. To close the **Flow program** parameters section, click  for Flow program.
6. Click  for **Compressibility settings**.

The parameters for the Compressibility settings are shown.

Figure 3-32 Parameters for the Compressibility Settings

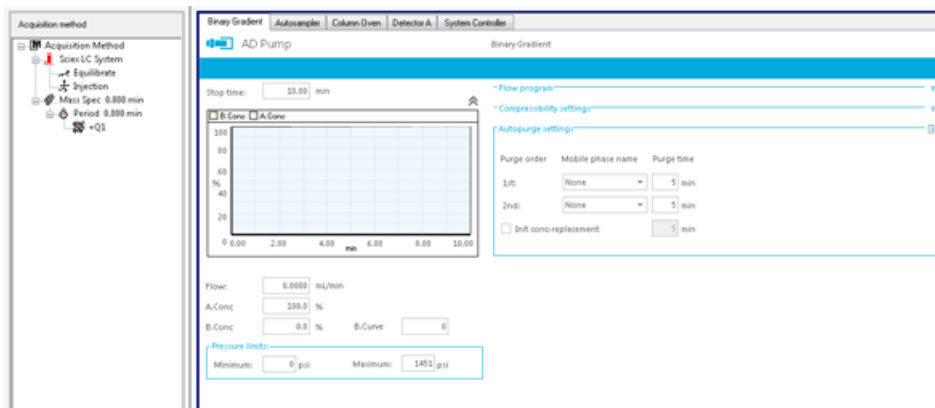


7. To close the **Compressibility settings** parameters section, click  for Compressibility settings.

8. Click  for **Autopurge settings**.

The parameters for the Autopurge settings are shown.

Figure 3-33 Parameters for the Autopurge Settings



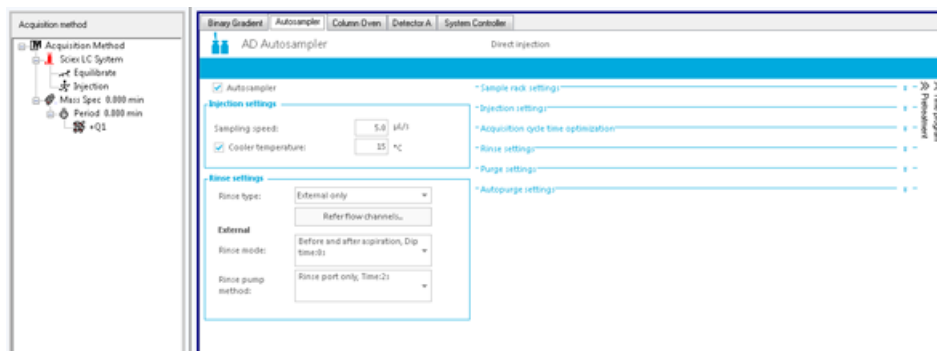
If required, modify the parameter values for Autopurge settings.

9. To close the **Autopurge settings** parameters section, click  for Autopurge settings.

10. Click on the **Autosampler** tab.

The parameters for the connected autosampler are shown.

Figure 3-34 Autosampler Tab — Parameters for the Autosampler



If required, modify the parameter values. Press F1 for help.



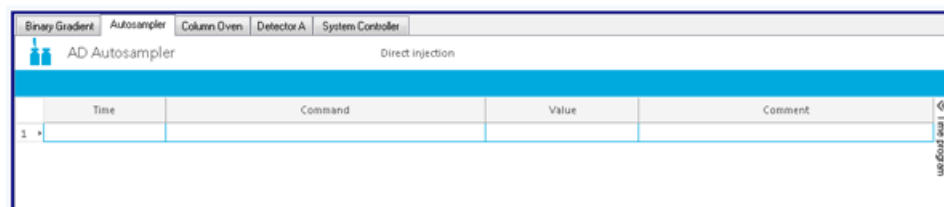
11. To access and modify the parameters for **Sample rack settings**, **Injection settings**, **Acquisition cycle time optimization**, **Rinse settings**, **Purge settings**, and **Autopurge settings**, click  located to the right of each of these sections.
12. Click  above **Time program** to configure the time program.

Figure 3-35 Time Program Parameters



If required, modify the parameters.


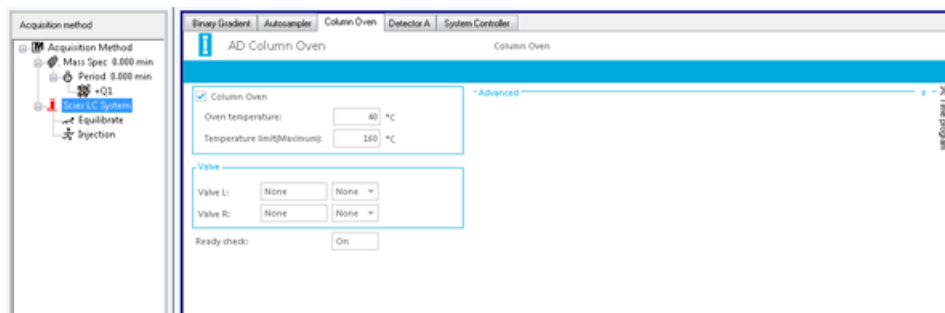
13. Click  above **Time program** to go back to the Autosampler parameters.
14. Click the **Column Oven** tab.
The parameters for the column oven are shown.

Figure 3-36 Column Oven Tab — Parameters

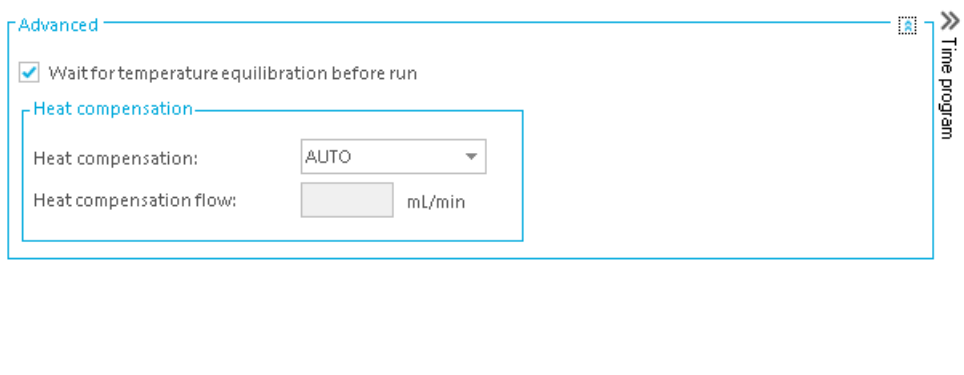


If required, modify the parameter values. Press F1 for help.

15. Click  for **Advanced**.

The Advanced parameters are shown.

Figure 3-37 Column Oven Tab — Advanced Parameters



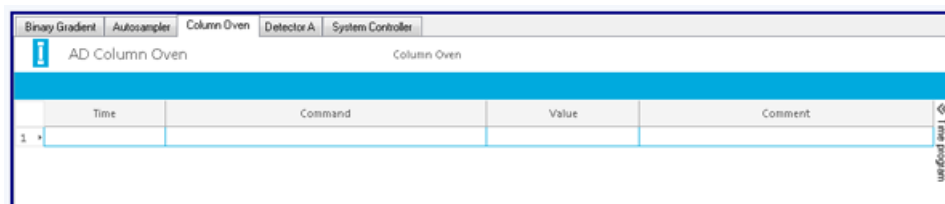
If required, modify the parameters.

Note: When WAIT TIME is set to 0 on the front panel of the column oven, the column oven becomes READY to start acquisition without waiting to reach the set temperature.

16. Click  above **Time program** to configure the time program.

The parameters for the Time program are shown.

Figure 3-38 Time Program Parameters for Column Oven

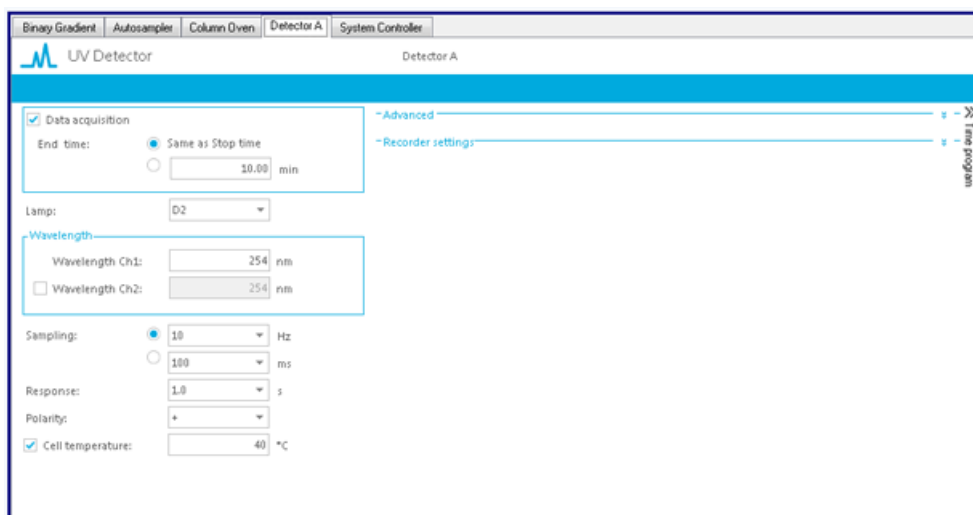


If required, modify the parameters.

17. Click « above **Time program** to go back to the Autosampler parameters.
18. Click the **Detector A** tab.

The parameters for the UV Detector are shown.

Figure 3-39 UV Detector Tab — Parameters



If required, modify the parameter values. Press F1 for help.

19. To access and modify the parameters for **Advanced** and **Recorder settings**, click « located to the right of each of these sections.

The parameters for the Advanced and Recorder settings are shown.

Figure 3-40 UV Detector Tab — Advanced and Recorder Settings Parameters

The screenshot shows the 'UV Detector' configuration window with the following settings:

- Data acquisition:** Data acquisition; End time: Same as Stop time, 10.00 min.
- Lamp:** D2
- Wavelength:** Wavelength Ch1: 254 nm; Wavelength Ch2: 254 nm
- Sampling:** 10 Hz, 100 ms
- Response:** 1.0 s
- Polarity:** +
- Cell temperature:** Cell temperature: 40 °C
- Advanced:** Auto zero; Auxiliary range: 1.0 AU/V
- Recorder settings:** Recorder mode: Ch1 Chromatogram output; Ratio range: 10; Ratio threshold: 0.0001 AU; Synchronize with Auxiliary range; Recorder range: 1.0000

If required, modify the parameter values. Press F1 for help.

20. Click **>>** above **Time program** to configure the time program.
The parameters are shown.

Figure 3-41 Time Program Parameters for the UV Detector

Time	Command	Value	Comment
1			

If required, modify the parameter values.

21. If the ExionLC stack has a PDA instead of UV Detector, the **Acquisition Method Editor** will show PDA Detector. In such a case, in the **Acquisition Method Editor**, click the **PDA Detector** tab.
The parameters for the PDA Detector are shown.

Figure 3-42 PDA Detector Tab — Parameters

PDA Detector

2D data acquisition settings

Ch#	Data acquisition setting
1	<input checked="" type="checkbox"/> Absorbance, 254 nm/Bw8 nm, Ref
2	<input type="checkbox"/> Absorbance, 254 nm/Bw8 nm, Ref
3	<input type="checkbox"/> Absorbance, 254 nm/Bw8 nm, Ref
4	<input type="checkbox"/> Absorbance, 254 nm/Bw8 nm, Ref
5	<input type="checkbox"/> Absorbance, 254 nm/Bw8 nm, Ref
6	<input type="checkbox"/> Absorbance, 254 nm/Bw8 nm, Ref
7	<input type="checkbox"/> Absorbance, 254 nm/Bw8 nm, Ref
8	<input type="checkbox"/> Absorbance, 254 nm/Bw8 nm, Ref

Sampling: 4.1667 Hz 240 ms

Time constant: Standard 480 ms


3D data acquisition settings

Reference settings

Analog output settings

Advanced

If required, modify the parameter values. Press F1 for help.

22. To access and modify the parameters for **3D data acquisition settings**, **Reference settings**, **Analog output settings**, and **Advanced**, click  located to the right of each of these sections.

Acquisition Methods

Figure 3-43 3D data acquisition, Reference settings, Analog output settings and Advanced Parameters

The screenshot displays a software interface with four main sections:

- 3D data acquisition settings:** Includes a checked checkbox for "3D data acquisition". The "Wavelength range" is set to 190 - 700 nm, and the "Step" is set to 1 nm.
- Reference settings:** The "Reference wavelength" is 350 nm and the "Reference bandwidth" is 40 nm.
- Analog output settings:** Features an "Import 2D Ch1-4 settings" button. Under "Data acquisition setting", there are four channels (Ch1-Ch4), each with a dropdown menu showing "Absorbance, 254 nm/Bw:8 nm, Output range:1.0 AU/V". A "Use reference" checkbox is present and unchecked.
- Advanced:** The "Lamp" is set to D2, "Slit width" is 8 nm, and "Polarity" is set to +.

23. In the **Analog output settings** section, click ▼ in the **Ch1** field. Parameters for Ch1 are shown. If required, modify the parameters.

Figure 3-44 Parameters for the Ch1 Field

Analog output settings

Import 2D Ch1-4 settings

Data acquisition setting

Ch1 Absorbance, 254 nm/Bw:8 nm

Ch2 Absorbance, 254 nm/Bw: Output range:1.0 AU/V

Ch3 Absorbance, 254 nm/Bw: Output range:1.0 AU/V

Ch4 Absorbance, 254 nm/Bw:8 nm, Output range:1.0 AU/V

Chromatogram type: Absorbance

Wavelength: 254 nm

Bandwidth: 8 nm

Output range: 1.0 AU/V

Use reference

24. Click the **System Controller** tab.

The parameters for the System Controller are shown.

Figure 3-45 System Controller tab — Parameters

Acquisition method

Binary Gradient Autosampler Column Oven Detector A System Controller

Controller

Execute autopurge before analysis

External output settings:

Power on

Event 1

Event 2

Event 3

Event 4

Time program

If required, modify the parameter values. Press F1 for help.

25. Click  next to **Autopurge settings**.

The parameters for Autopurge settings are shown. If required, modify them.

Figure 3-46 Autopurge settings Parameters

Autopurge settings

Warm up

Wait time: min

Binary Gradient flow: mL/min

Execute after autopurge

Turn oven(s) on after autopurge

Turn pump(s) on after autopurge

Time program

26. Click **»** above **Time program** to configure the time program.
The parameters are shown.

Figure 3-47 Time Program Parameters for the System Controller

Time	Command	Value	Comment
1			

Time program

Modify the parameters if required.

27. Click **«** above **Time program** to return to the System Controller parameters.
28. Click **Equilibrate** in the **Acquisition method** pane.
The parameter to specify Equilibration is shown. Modify the parameter if required.

Figure 3-48 Equilibrate Parameter

Acquisition method

- Acquisition Method
 - Sciex LC System
 - Equilibrate
 - Injection
 - Mass Spec 5.001 min
 - Period 5.001 min
 - +Q1

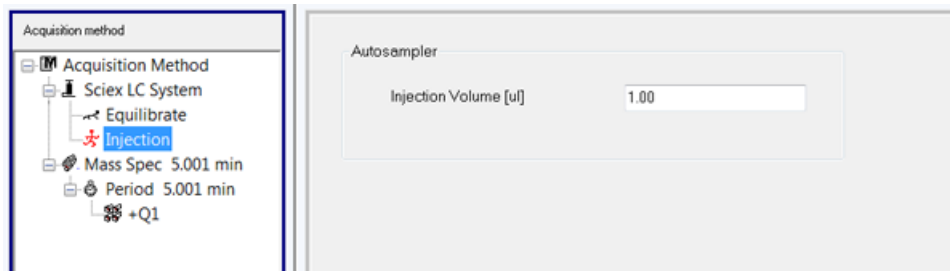
Pump

Step 0 (Equilibration) time [min]

29. Click **Injection** in the **Acquisition method** pane.

The parameter to specify the injection volume is shown.

Figure 3-49 Injection Parameter



30. Click **Mass Spec** in the **Acquisition method** pane.

The MS and Advanced MS tabs are shown.

31. If required, populate the different fields on the **MS** and **Advanced MS** tabs.

32. Save the acquisition method.

Using the methods created in the Acquisition Method Creation section, create batches and submit samples for acquisition. Refer to *Operating Instruction - Batches* section in the appropriate *System User Guide*.

View ExionLC™ System related Information in File Info

5


When a sample is acquired using an ExionLC system, information about the LC system can be viewed in the File Info of the .wiff file.

1. In the Analyst® software, under **Explore**, double-click **Open Data File**.

The Select Sample dialog opens.

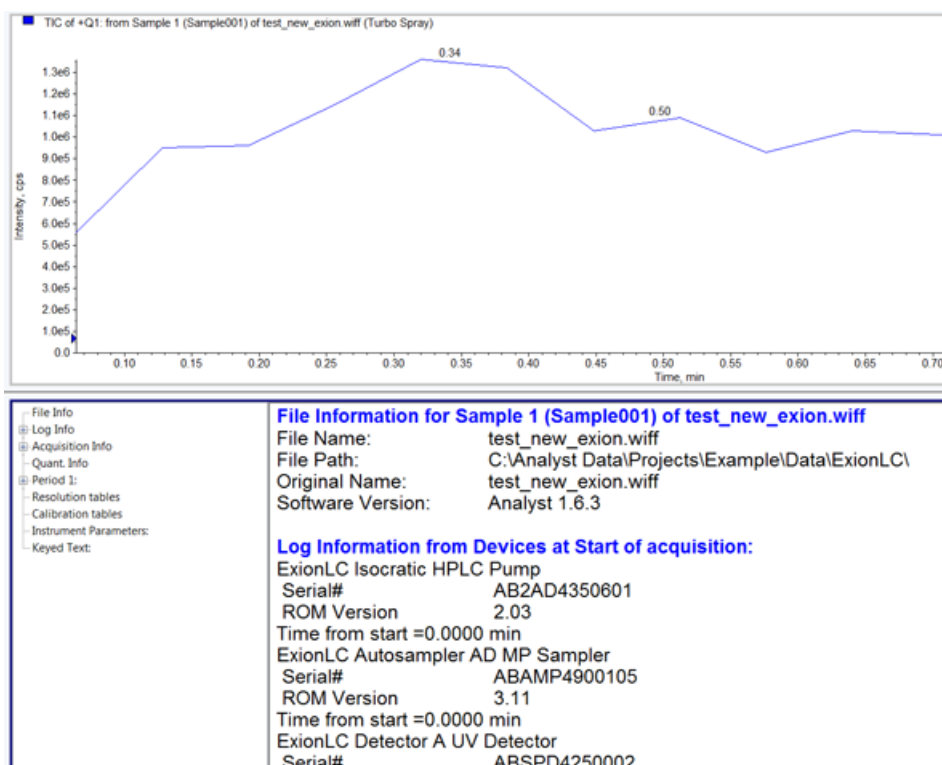
2. Select .wiff file to be opened and then click **OK**.

The .wiff file opens.

3. Click  on toolbar in the Analyst software window.

The File Info opens under the chromatogram.

Figure 5-1 TIC for a Sample .wiff File and the Related File Info



4. In the left pane of File Info, click  next to the **Log Info** to expand it.

View ExionLC™ System related Information in File Info

ExionLC system-related information is shown in the right pane of File Info. Scroll up or down in the right pane to view the information.

Figure 5-2 ExionLC System-Related Information in Log Info Section of File Info

The screenshot shows the 'File Info' window with the 'Log Info' section expanded. The left pane lists various system components, and the right pane displays their details. The 'Software Version' is Analyst 1.6.3. The 'Log Information from Devices at Start of acquisition:' section lists the following:

Device	Serial#	ROM Version	Time from start
ExionLC Isocratic HPLC Pump	AB2AD4350601	2.03	=0.0000 min
ExionLC Autosampler AD MP Sampler	ABAMP4900105	3.11	=0.0000 min
ExionLC Detector A UV Detector	ABSPD4250002	2.03	=0.0000 min
ExionLC System Controller Controller	ABCBM1511111		

5. In the left pane of **File Info**, click  next to **Acquisition Info** to expand it.

ExionLC system-related information is shown in the right pane of File Info. Scroll up or down in the right pane to view the information.

Figure 5-3 ExionLC System-Related Information in Acquisition Info Section of File Info

The screenshot shows the 'File Info' window with the 'Acquisition Info' section expanded. The left pane lists various system components, and the right pane displays their details. The 'Sciex LC Method Properties' section lists the following:

Property	Value
Sciex LC system Equilibration time	= 0.00 min
Sciex LC system Injection Volume	= 1.00 ul
Model	HPLC Pump
Stop time	1.00 min
Flow	0.1000 mL/min
Pressure limits Maximum	1451 psi
Pressure limits Minimum	0 psi
Pump A	None
Purge order Mobile phase name	Purge time
	min

View ExionLC™ System Status

6

The status of the devices in the ExionLC system while batch acquisition is ongoing can be viewed in real time in the Status window in the Analyst® software.


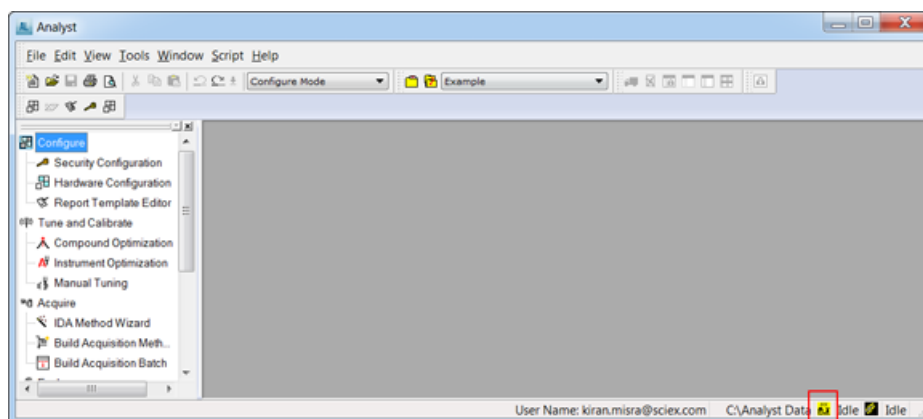
1. In the Analyst software window, on the Status bar, double-click  to open the Sciex LC Controller status dialog.

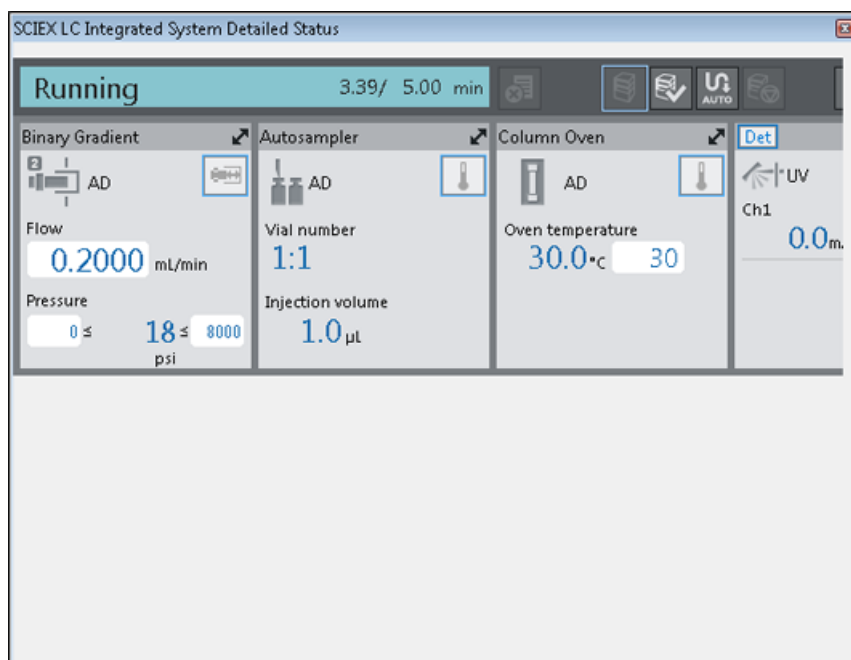
Figure 6-1 LC System Status in the Analyst Software



The SCIEX LC Integrated System Detailed Status Dialog opens. The realtime status of the devices in the ExionLC system is shown. Press F1 for help.

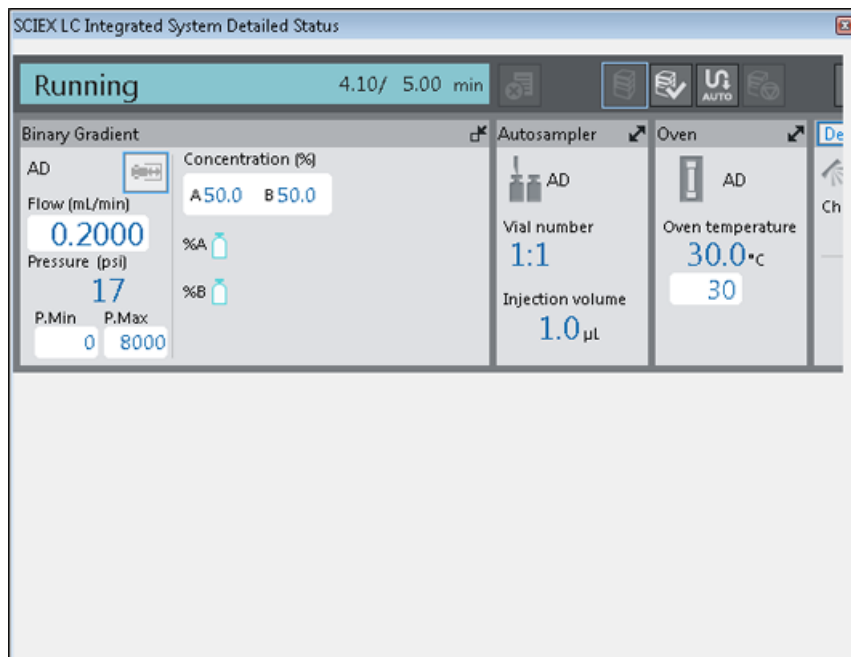
View ExionLC™ System Status

Figure 6-2 SCIEX LC Integrated System Detailed Status Dialog



2. Click  in the **Binary Gradient** section to expand it.

Figure 6-3 SCIEX LC Integrated System Detailed Status Dialog — Binary Gradient Pump Section Expanded





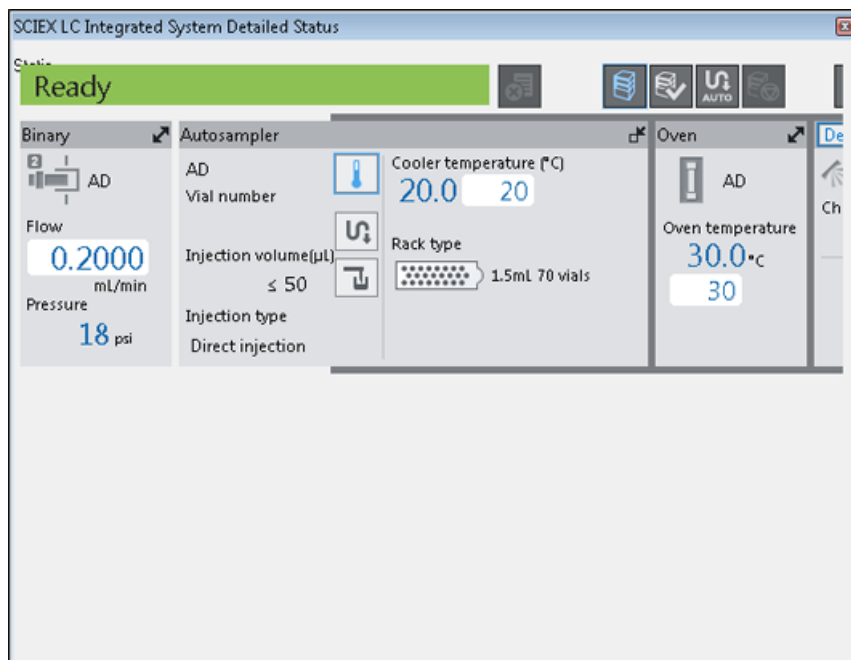
3. Click  in the **Binary Gradient** section to return to original size.
4. Click  in the **Autosampler** section to expand it.
Press F1 for help.

Figure 6-4 Autosampler Section Expanded





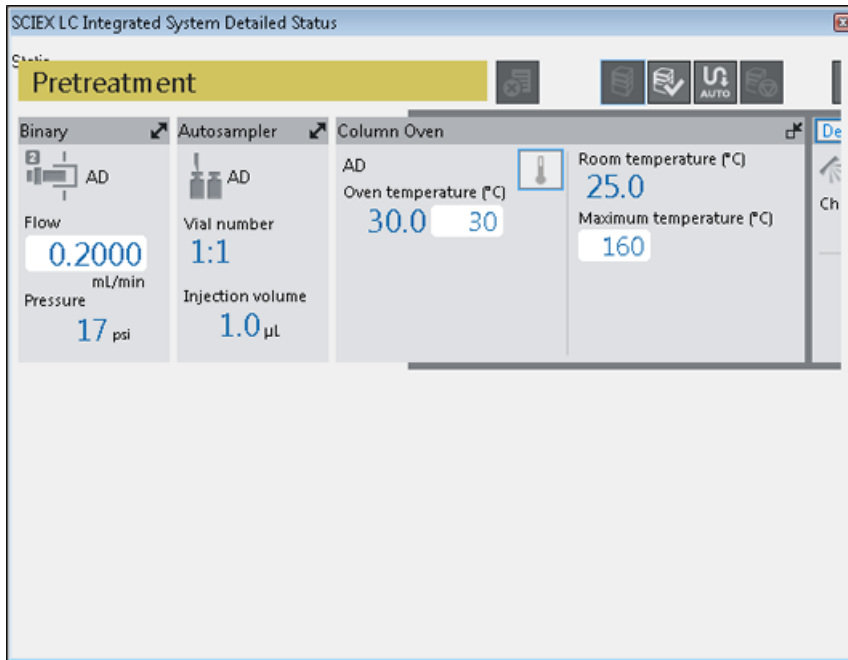
5. Click  in the **Autosampler** section to return to original size.
6. Click  in the **Column Oven** section to expand it.
Press F1 for help.

Figure 6-5 Column Oven Section Expanded



Revision History

Revision	Description	Date
A	First release of document.	September 2015