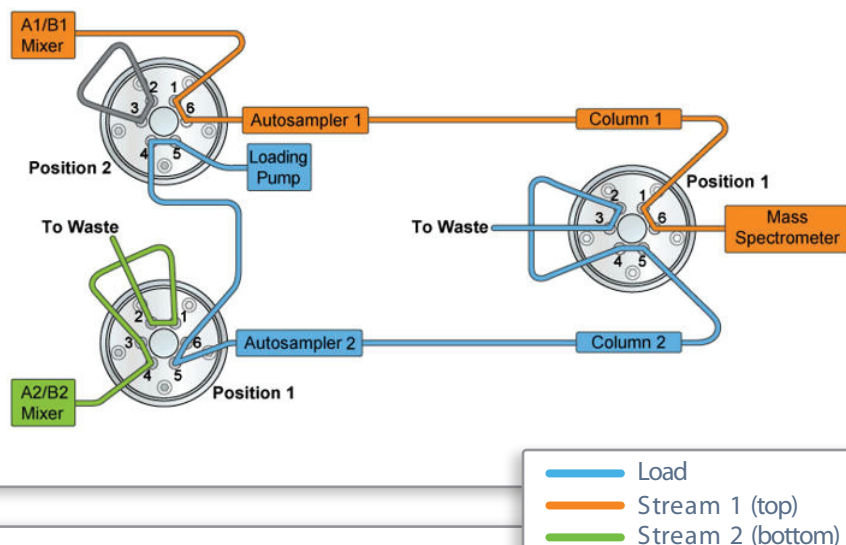
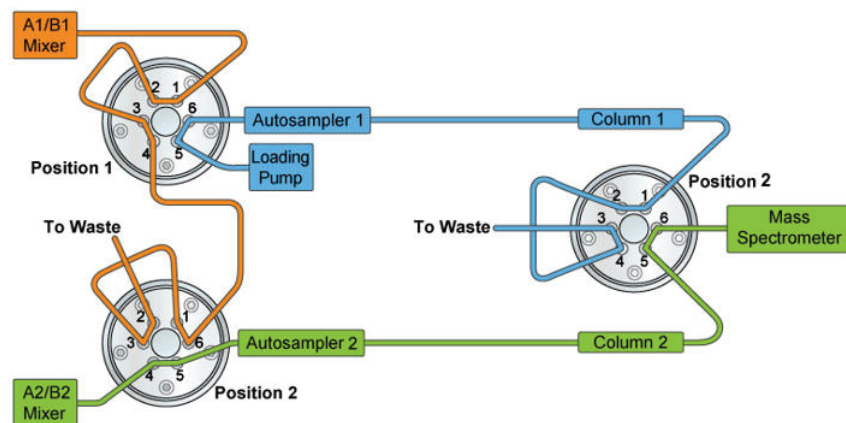


MPX™-2 High Throughput System—Quick Reference Card

Stream 1 Flow into Mass Spectrometer



Stream 2 Flow into Mass Spectrometer



Prerequisites for Multi-Stream Acquisition

- Users must have access rights in the Analyst® software to create acquisition methods and submit batches.
- The active hardware profile in the Analyst® software must contain the software application MPX Driver.

1

Create Methods for Multi-Stream Acquisition

Create the MS Portion of the Method

1. In the Analyst® software, create an MS method for the experiment. Refer to the *Analyst® Software Getting Started Guide* for more information.
2. Adjust and save the MS parameters. All LC parameters will be specified using the MPX™ driver software.
3. Make sure that the synchronization mode is set to **LC Sync**.

Create the LC Portion of the Method

1. If the MPX™ driver software is not open, then in the Navigation bar, under **Companion Software**, double-click **MPX Driver**.
2. In the Workspace pane of the MPX driver software, click **Methods**.
3. In the **Method** list, click the method created in the Analyst® software.
4. In the **Stream #** field of the Options pane, do one of the following:
 - For a method that will only be run on stream 1, click **1**.
 - For a method that will only be run on stream 2, click **2**.
 - For a stream-independent method, click **Any**.
5. In the Gradient pane table, specify the % of solvent B as it changes over time, and specify the related flow rate for the gradient pump in mL/minute.
6. In the Loading Pump section, specify the duration in seconds for the **Equilibration** and **Loading/washing** phases of the pump cycle. When using a Four Solvents Selection pump, users must select a solvent **Channel** for each phase; click **A**, **B**, **C**, or **D**.
7. In the Gradient pane profile, drag to define when the mass spectrometer will acquire data during this LC run.
8. Customize the LC options and then click **Save**. For stream 1 and stream 2 methods, include the stream number in the file name.

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2

Create and Submit a Multi-Stream Acquisition Batch

Create a Multi-Stream Batch

1. In the Analyst® software, click **File > New**.
2. Click **Acquisition Batch** and then click **OK**. The Batch Editor window opens.
3. On the **Sample** tab, in the **Set** field, type the name of the set and then click **Add Set**.
4. Click **Add Samples**, type the number of new samples, and then click **OK**.
5. In the **Acquisition** section, select an acquisition method from the list.
Note: When creating a single batch to be run on both stream 1 and stream 2 with different stream-specific methods, select the Use Multiple Methods check box and then specify the acquisition method for each sample in the Acquisition Method column.
6. Type the sample name, vial position, and data file for each sample.
Note: Mandatory fields must be completed before the batch can be submitted. Make sure that the Submit button is enabled on the Submit tab before saving the batch.
7. To save the batch file, click **File > Save** and then close the file.

Equilibrate the System

1. In the Workspace pane of the MPX™ driver software, click **Status**.
2. In the **MS Method** field of the Multi-Method Equilibration pane, select an acquisition method from the list and then specify an **Equilibration Time**.
When using different methods to equilibrate LC stream 1 and LC stream 2, select the appropriate methods in the S1 Method and S2 Method fields.
3. Click **Equilibrate**.

Submit a Batch

1. In the Workspace pane of the MPX™ driver software, click **Walk-Up**.
2. In the Batches pane, click **Add Batch**. The Select Batch File dialog opens.
3. Select the batch to be submitted and then click **OK**.
4. In the Analyst® software, click **View > Sample Queue**.
5. Click **Acquire > Ready** to put the mass spectrometer into Ready mode.
6. Click **Acquire > Start Sample** to start the sample run.
The acquisition starts. Users can monitor the status of the scheduled batches and associated samples in the Walk-Up workspace. The status of the LC pressures, column details, and stream information can be monitored in the Status workspace.

View Data

To view acquired data or data that is currently being acquired, in the Navigation bar of the Analyst® software, under **Explore**, double-click **Open Data File**.

3

Use RTD³ Carryover Detection in a Multi-Stream Acquisition Batch

Create a Multi-Stream Batch

1. Complete steps 1 through 5 of the *Create a Multi-Stream Batch* topic in section 2.
2. In the **Quantitation** section, select an Analyst® software quantitation method.
3. Complete step 6 of the *Create a Multi-Stream Batch* topic in section 2.
4. On the **Quantitation** tab, type the **Quant Type**, and the corresponding analyte concentrations.
Note: Mandatory fields must be completed before the batch can be submitted. Make sure that the Submit button is enabled on the Submit tab before saving the batch.
5. To save the batch file, click **File > Save** and then close the file.

Create an RTD³ Carryover Detection MultiQuant™ Software Quantitation Method

Tip: When using the RTD³ Carryover Detection feature, we recommend that the SignalFinder™ algorithm be used. In the MultiQuant™ software, click Edit > Project Integration Defaults and then select Signalfinder1 from the Integration Algorithm list.

1. In the MultiQuant™ software, click **File > New Quantitation Method**.
2. Select the appropriate **Sample** file and then click **OK**.
Note: If the required Sample file is not shown, then browse to the appropriate folder and select the file.
3. On the **Components** tab, select the internal standard check box, if applicable.
4. Select the **Group ID** and the **IS** name, if applicable.
5. Verify the **Q1/Q3 Transition** and modify, if required.
6. On the **Integration & Regression** tab, type the appropriate values for the integration parameters.
Note: For single point calibrators, type Linear Through Zero in the Fit field. If applicable, for internal standards, type an area value that is approximately 20% to 30% of the average value for the internal standard in the Min. Peak Height field.
7. On the **Outlier Settings** tab, type the appropriate values for the calculated concentration limits.
Note: For the RTD³ functionality, the Lower Limit of Calculated Concentration (LLCC) and the Upper Limit of Calculated Concentration (ULCC) fields are the most important. These values set the concentration limits used by the RTD³ carryover detection feature to assess the Above Lower Concentration Limit and the Above Upper Concentration Limit flagging comments. The LLCC and ULCC values are used when a selected MultiQuant™ software method is used for carryover detection. The default values in the Carryover Detection pane of the Walk-Up workspace can be modified during batch submission, if required.

Submit an RTD³ Carryover Detection Batch

Note: A Carryover Detection batch can only be submitted through the Walk-Up workspace.

1. In the Workspace pane of the MPX™ driver software, click **Walk-Up**.
2. In the Submit Batch pane, select the batch to be submitted.
3. Select the **Carryover Detection** check box.
4. Select the appropriate MultiQuant™ software quantitation method (qmethod).
5. Confirm that the **Low** and **High** values are correct. Modify the values, if required.
6. (Optional) Type a value for the **Region Height**.
7. (Optional) Clear the appropriate analyte **Transition** check boxes.
Note: Non-selected analytes and QC and Double Blank Quant Types are not evaluated during the RTD³ Carryover Detection.
8. Click **Submit**.