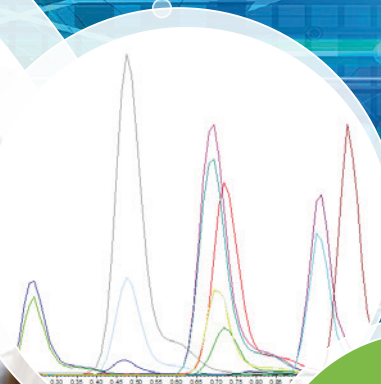


# Double Your Mass Spec Sample Throughput

## Multiplex LC-MS with Automated Carryover Monitoring



**MPX™ 2.0**  
High Throughput  
System



Answers for Science.  
Knowledge for Life.™

# Get Up to 2x the Throughput with your Mass Spectrometer

Today's labs are under constant pressure to increase capacity, while minimizing the time to deliver results.

SCIEX meets these demands with the MPX™ 2.0 High Throughput System – a must-have for labs that are continuously running hundreds of samples at a time. The MPX 2.0 High Throughput System takes advantage of the downtime between injections from your LC and multiplexes two LC systems into one mass spectrometer, doubling your throughput.

Featuring automated carryover management, the MPX 2.0 High Throughput System works to reduce carryover and highlights samples that may need retesting, decreasing your sample analysis time.

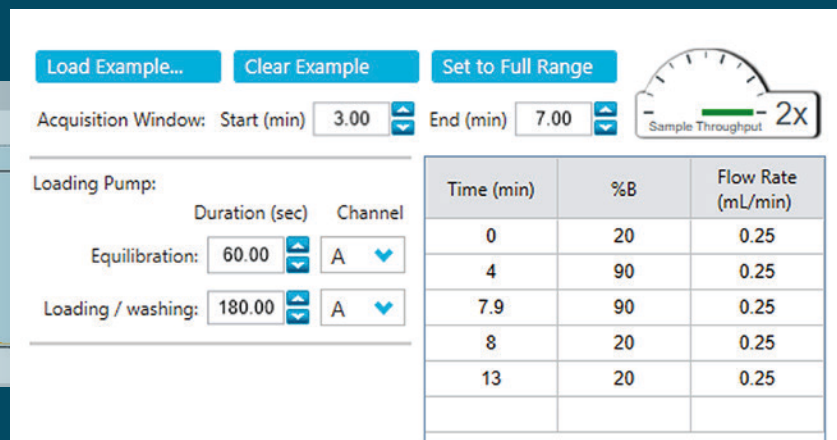
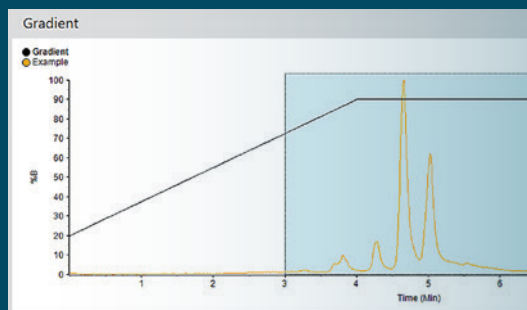
- Get up to twice the sample throughput from a single MS
- Save sample analysis time with automated carryover detection
- Increase sample capacity for extended and unattended operation
- Stay compliant with complete traceability and audit trails
- Run multiple LC-MS modes concurrently
- Maximize uptime with real-time system monitoring

When you need to maximize throughput, the MPX is your solution.



## How much time will you save?

MPX™ software lets you easily calculate time savings. Program your method, highlight acquisition time and MPX will calculate throughput improvement.

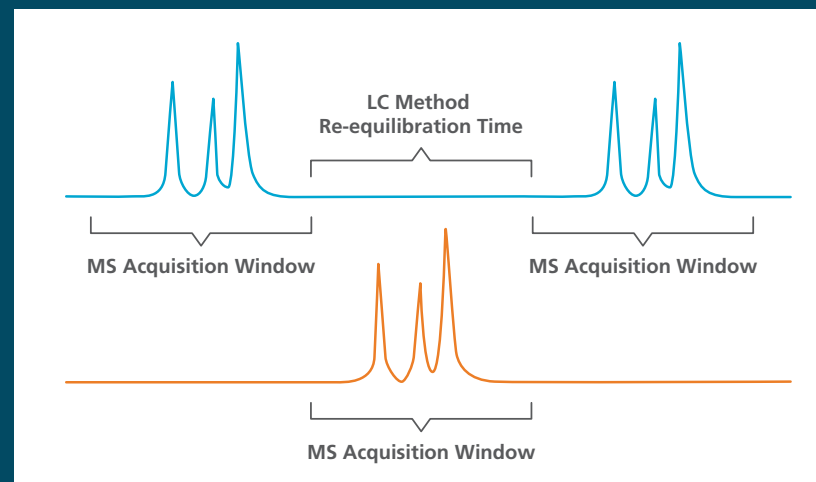


Time (min)	%B	Flow Rate (mL/min)
0	20	0.25
4	90	0.25
7.9	90	0.25
8	20	0.25
13	20	0.25

## Maximize LC-MS/MS Throughput

The MPX 2.0 High Throughput System staggers injections to utilize the down time in your LC method – potentially doubling your throughput for swifter work flows. That's almost twice the speed with half the turnaround time per sample batch.

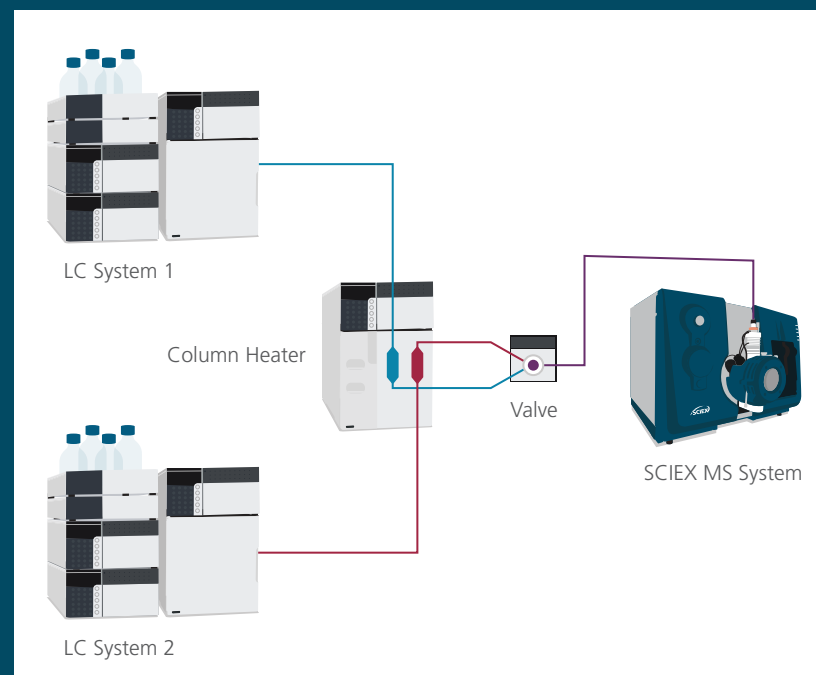
- 100 injections, singleplex >6 hr 30 min
- 100 injections, multiplex run time, 3 hr 30 min
- Time saved: 3 hours



## One System – Three Possible Workflows

There are three different ways to run samples on the MPX 2.0 High Throughput System:

1. Stagger injections from each of two HPLC systems running the same method
2. Stagger injections from two HPLC systems running two different methods
3. Run two sequential sample batches from two HPLC systems





# Minimize Data Review and Reanalysis Time

Dramatically reduce the amount of reinjection and reanalysis time with automated carryover monitoring. The MPX 2.0 High Throughput System detects carryover and automatically injects solvent blanks to clean the stream. Once the stream is clean, the system continues analyzing samples and automatically reinjects any samples that could have been affected by carryover. The MPX™ software also flags any high concentration samples (> Upper Level of Quantitation) so you can easily find those that need to be rerun.



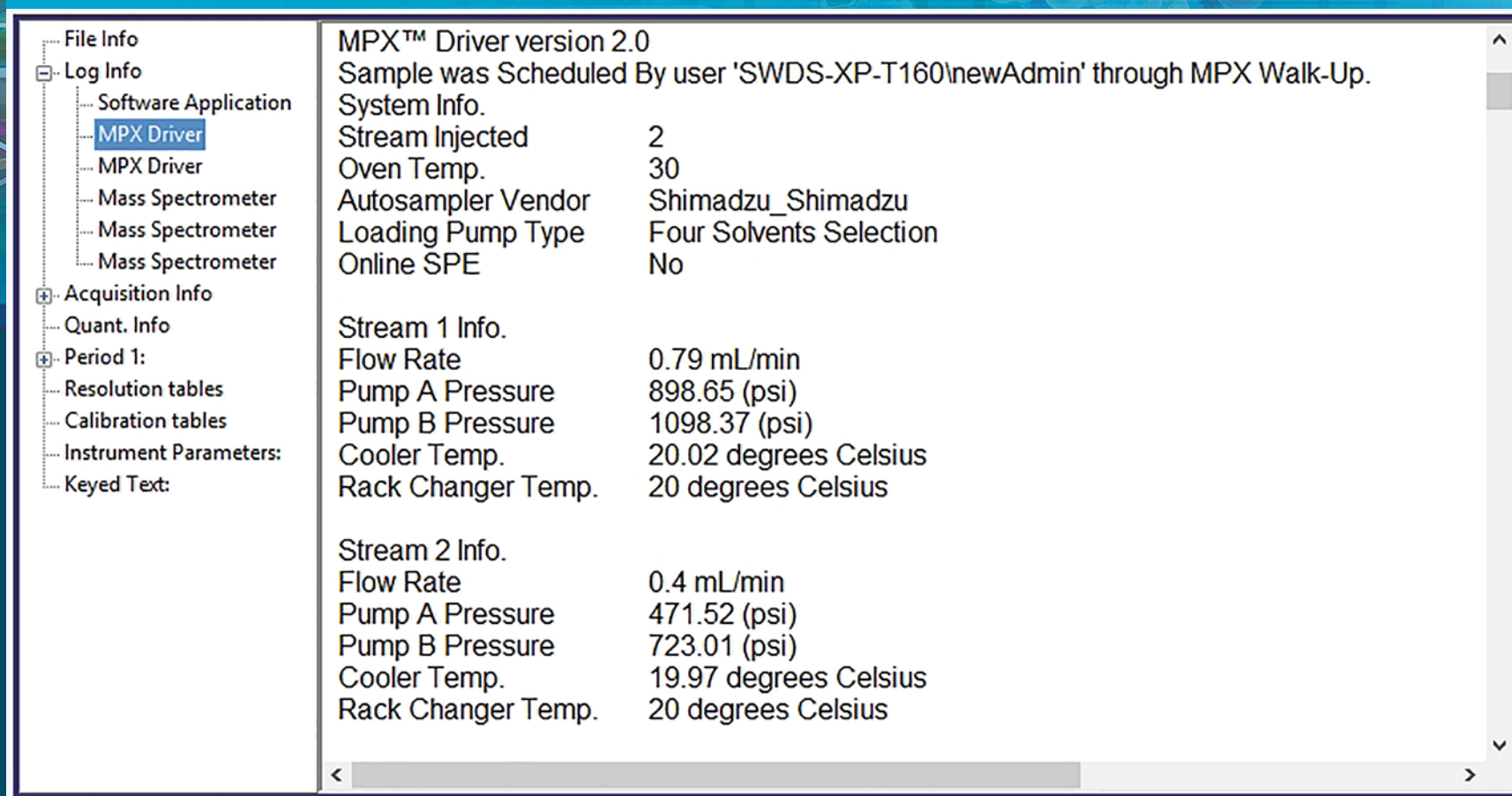
MPX batch table showing carryover messages

Status	#	Time Started	Time Completed	Sample Name	Stream	Assigned Stream	Plate Position	Vial Position	Message
✓	551	2017/08/02 17:15:27	2017/08/02 17:16:27	triazine	2	2	2	7	
▲	552	2017/08/02 17:17:39	2017/08/02 17:18:40	triazine 500	1	1	2	9	Above upper concentration was detected.
▲	553	2017/08/02 17:19:23	2017/08/02 17:20:24	triazine 5b	2	2	2	7	Carryover was detected.
✓	554	2017/08/02 17:21:37	2017/08/02 17:22:38	blank (re-inject 1)	1	1	2	5	
✓	555	2017/08/02 17:23:22	2017/08/02 17:24:23	blank (re-inject 1)	2	2	2	5	
✓	556	2017/08/02 17:26:36	2017/08/02 17:27:37	blank (re-inject)	2	2	2	5	
✓	557	2017/08/02 17:29:53	2017/08/02 17:30:53	triazine 5b (re-inject)	2	2	2	7	

# With Complete Traceability and Audit Trails

With the MPX™ 2.0 High Throughput System, you get detailed start to finish sample tracking, including flow rate, pump pressure and temperature, for each LC stream. The MPX 2.0 High Throughput System takes advantage of the 21 CFR Part 11 functionality of Analyst® software to provide audit trails and traceability, both of which are vital to regulated environments.

## Example – Sample Information



The screenshot displays the 'MPX Driver' software interface. On the left is a tree view with the following structure:

- File Info
- Log Info
  - Software Application
    - MPX Driver** (highlighted)
    - MPX Driver
    - Mass Spectrometer
    - Mass Spectrometer
    - Mass Spectrometer
- Acquisition Info
- Quant. Info
- Period 1:
  - Resolution tables
  - Calibration tables
  - Instrument Parameters:
  - Keyed Text:

The main panel on the right displays the following information:

MPX™ Driver version 2.0  
Sample was Scheduled By user 'SWDS-XP-T160\newAdmin' through MPX Walk-Up.

System Info.

Stream Injected	2
Oven Temp.	30
Autosampler Vendor	Shimadzu_Shimadzu
Loading Pump Type	Four Solvents Selection
Online SPE	No

Stream 1 Info.

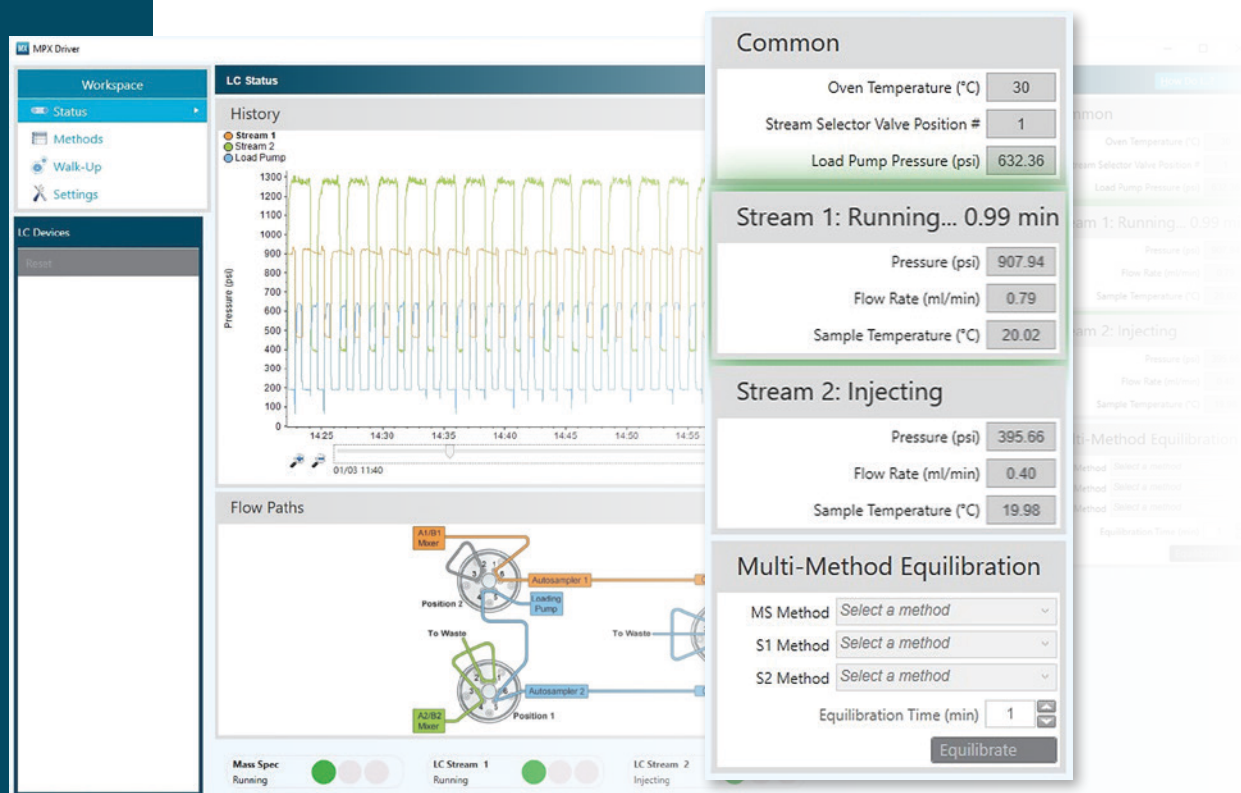
Flow Rate	0.79 mL/min
Pump A Pressure	898.65 (psi)
Pump B Pressure	1098.37 (psi)
Cooler Temp.	20.02 degrees Celsius
Rack Changer Temp.	20 degrees Celsius

Stream 2 Info.

Flow Rate	0.4 mL/min
Pump A Pressure	471.52 (psi)
Pump B Pressure	723.01 (psi)
Cooler Temp.	19.97 degrees Celsius
Rack Changer Temp.	20 degrees Celsius

# Monitor in Real Time for Maximum Uptime

Check system performance at a glance. MPX™ 2.0 High Throughput System takes its cue from Analyst® software which displays dynamic screen views of individual pressure traces, column temperature, and color-coded fault alerts for each HPLC stream. The screen also shows you which stream is flowing into the mass spectrometer and which stream is being diverted to waste. To maximize system uptime, you can use fault recovery settings to automatically shut down the system when over pressure, or you can divert samples to another stream to maintain performance.



## Run up to 2,300 Samples Unattended

The MPX 2.0 High Throughput System is customizable to deliver the sample capacity you need. The standard configurations allow you to run batches of 768 or 1152 samples.

If you need even more throughput, simply upgrade the system with additional plate stacks or rack changers to run up to 2,300 samples in a batch.





# System Options and Specifications

## MPX™ 2.0 Software Specifications

Operating System	Win 7 64 bit or Win 10
Analyst Version	1.7
MultiQuant	Version 3.0.3 or higher
Hardware Compatibility	Shimadzu Prominence CTC PAL-xt CTC PAL3 RSI 850

## Pairs with These Industry-leading SCIEX Mass Spectrometers:

**QTRAP® 4500**

**Triple Quad™ 3500**

**QTRAP® 5500**

**Triple Quad™ 4500**

**QTRAP® 6500**

**Triple Quad™ 5500**

**QTRAP® 6500+**

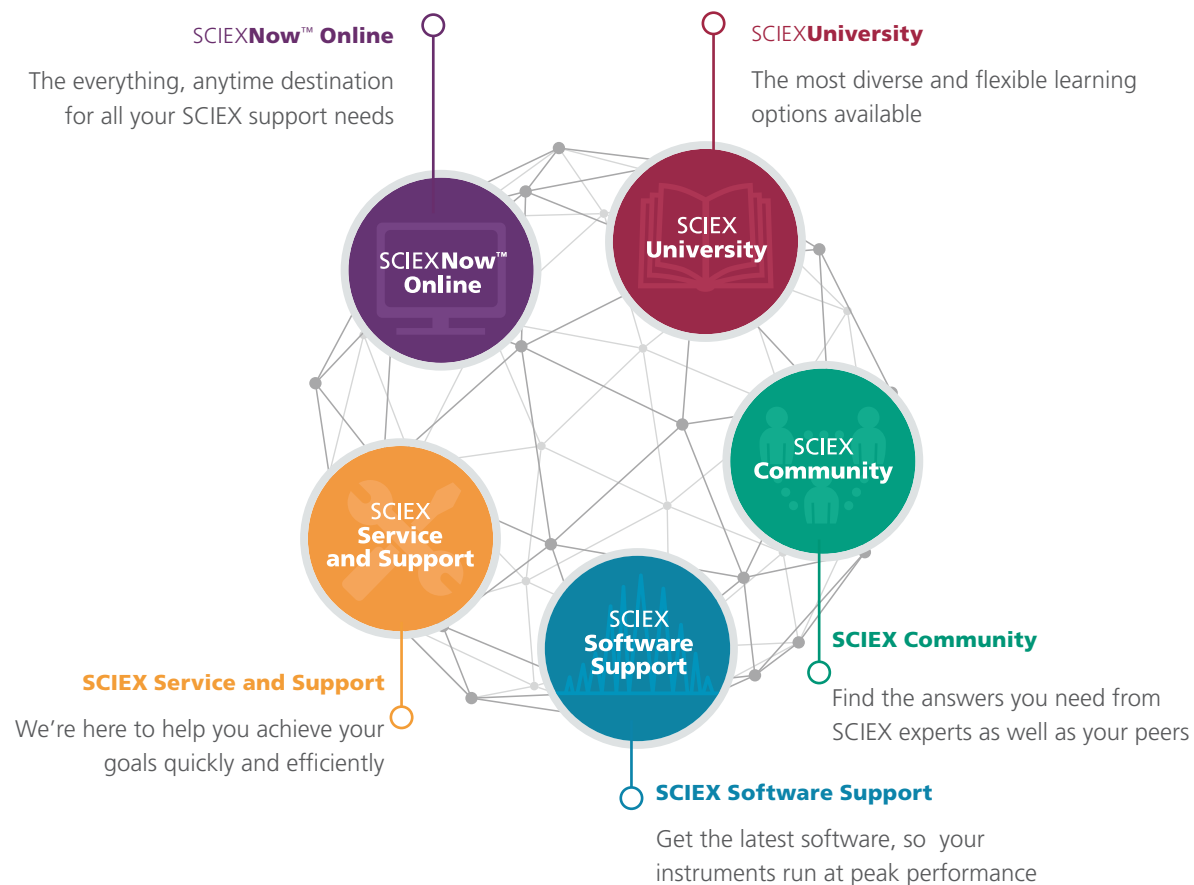
**Triple Quad™ 6500**

**Triple Quad™ 6500+**



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Knowledge for Life.™

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