

Agilent 500 Ion Trap LC/MS with the Agilent 1200 Infinity Series

Quick Start Guide

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Use this guide to learn how to set up the Agilent 1200 Infinity Series to automatically inject samples for analysis on Agilent 500 Ion Trap LC/MS and MS Workstation software. See [Figure 1](#) for an overview of the workflow.



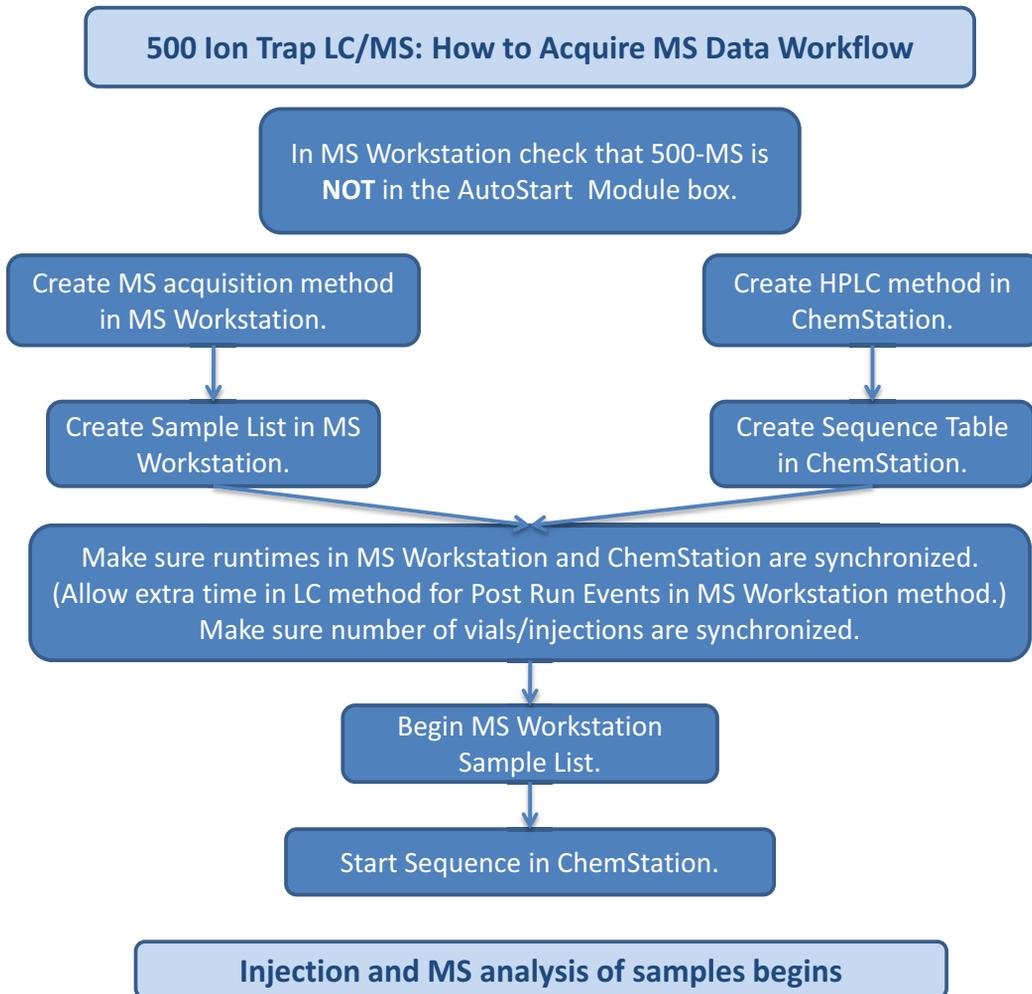


Figure 1 Workflow overview

Step 1. Set up and learn about the system

- Refer to the Agilent 1200 Infinity Series and ChemStation user guides, the Agilent 500 Ion Trap LC/MS operator manuals, and online Help to become familiar with the two systems.
- Refer to the *Agilent 500 Ion Trap LC/MS with the Agilent 1200 Infinity Series Set-Up Guide* for an overview of how the two systems are physically integrated.
- Open the MS Workstation Configuration Window and make sure that the **500-MS** icon is *not* in the AutoStart Module box. See for [Figure 2](#).

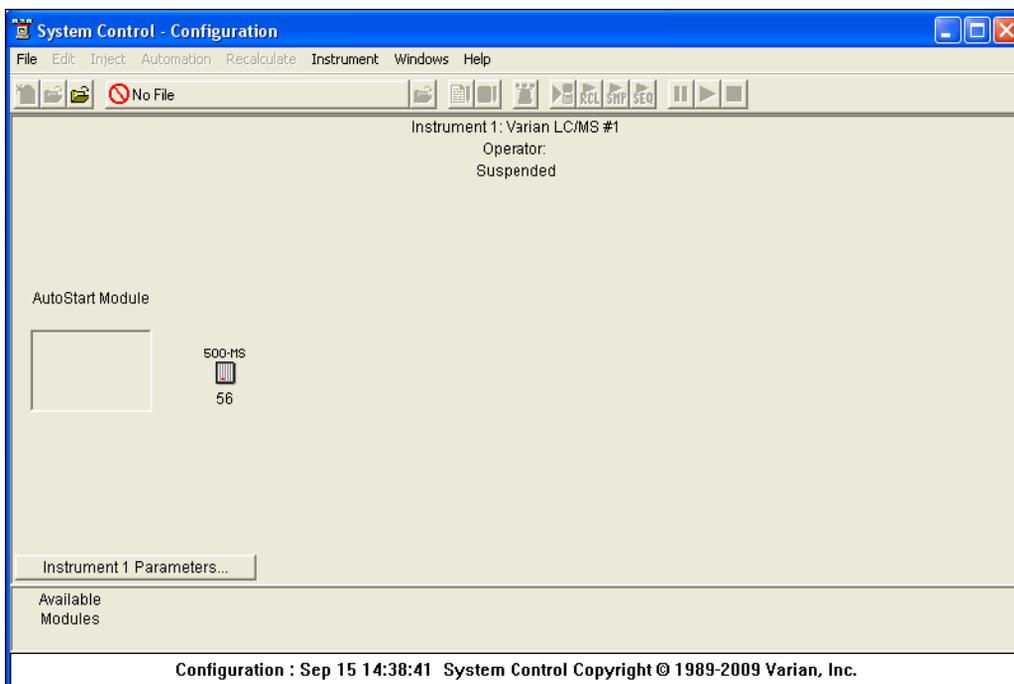


Figure 2 MS Workstation Configuration Window with empty AutoStart Module box

Step 2. Create method and Sequence Sample List

- 1 Make sure the Sample List (MS Workstation) and the Sequence entries (ChemStation) are synchronized, including number of injections per vial.

Refer to these documents:

- *500-MS LC/MS Quick Reference Guide* and *500-MS Software Operation Manual* for method development guidelines
 - *500-MS Software Operation Manual* for MS method and Sample List creation
 - Agilent 1200 Infinity Series user guides and ChemStation online Help for LC method and Sequence creation
- 2 Make sure the LC program run time is equal to or longer than the MS program run time.

The LC run time needs to account for the time taken by MS Workstation to do post-run processing actions (such as autolink or data processing). In general, when a post-run action has been selected, you can set the LC method post-run time in ChemStation to 2 minutes.

When multiple post-run processing actions are done in MS Workstation, you may need to extend the LC method post-run time. Do a test run to measure the time taken from sample injection to the completion of the MS post-run processing actions.

Step 3. Start the Sample List in MS Workstation and Sequence in ChemStation

Step 3. Start the Sample List in MS Workstation and Sequence in ChemStation

- 1 In MS Workstation, in the Sample List window, click **Begin** to start the Sample List in MS Workstation

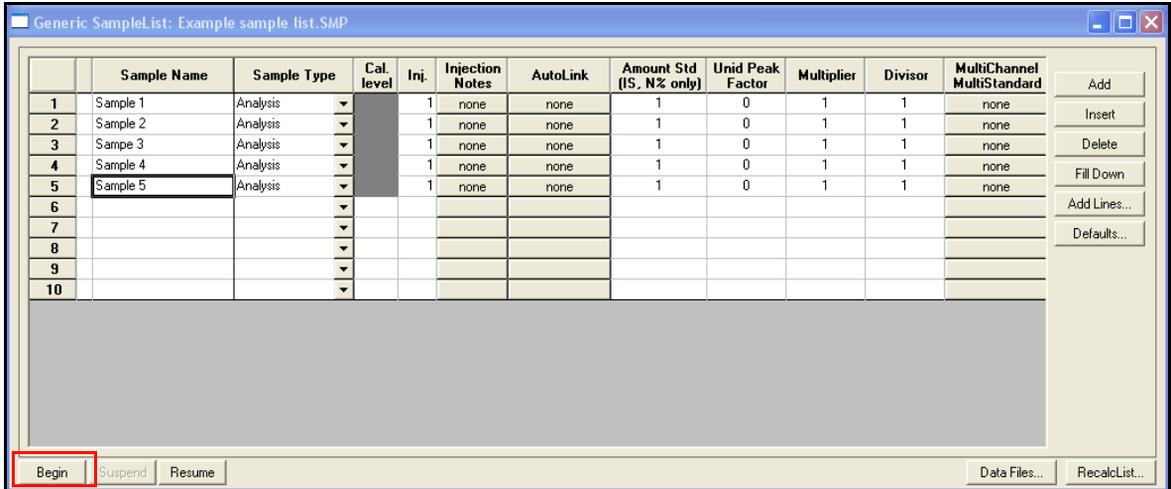


Figure 3 MS Workstation Begin button in Sample List window

Step 3. Start the Sample List in MS Workstation and Sequence in ChemStation

When the yellow Waiting indicator flashes, the LC/MS has achieved equilibration. The LC/MS is now waiting for sample injections. See Figure 4.

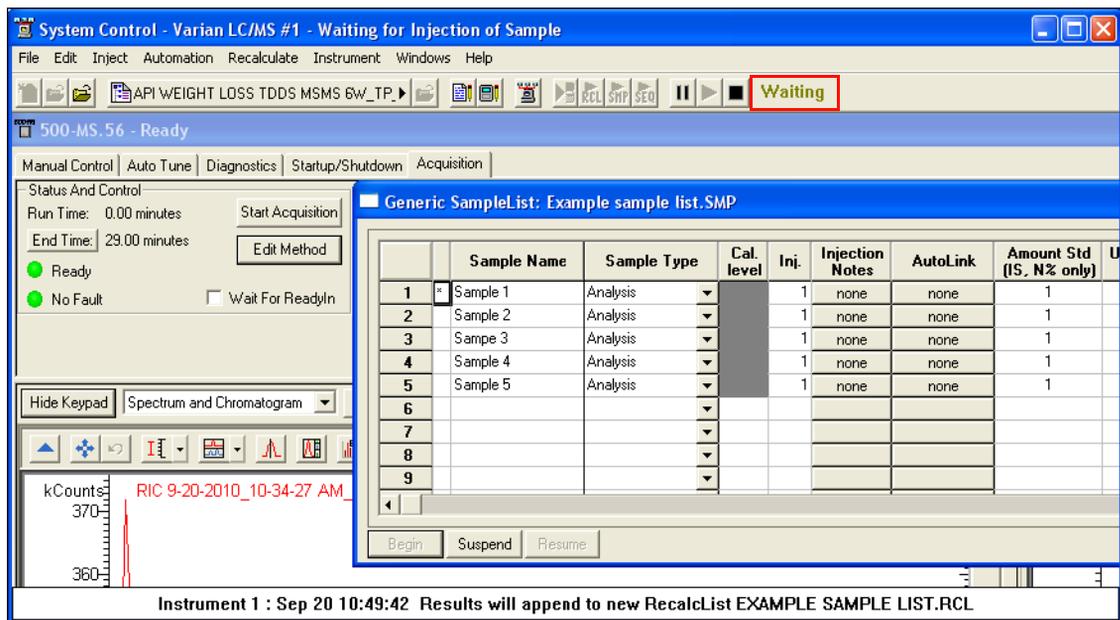


Figure 4 MS Workstation System Control window with yellow flashing Waiting indicator

Step 3. Start the Sample List in MS Workstation and Sequence in ChemStation

- 2 In the ChemStation program, in the Instrument Control tab, click **Start** to start the Sequence.

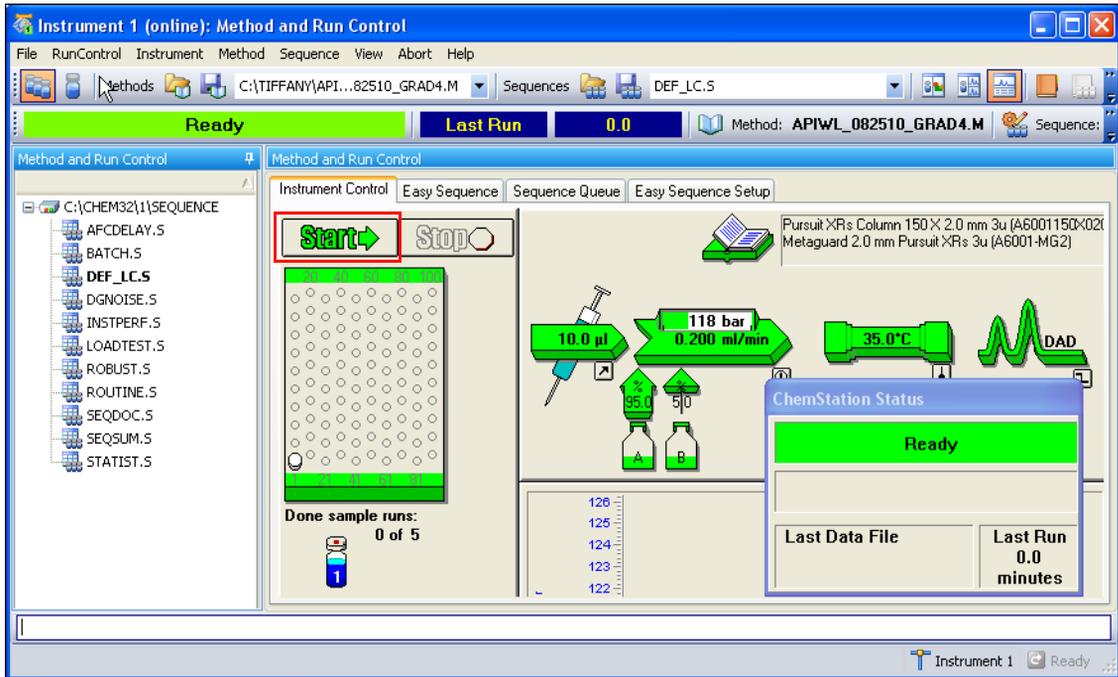


Figure 5 ChemStation Start button in the Instrument Control tab

Step 3. Start the Sample List in MS Workstation and Sequence in ChemStation

The Automated Liquid Sampler (ALS) prepares to inject the sample as specified by the ChemStation method. See Figure 6.

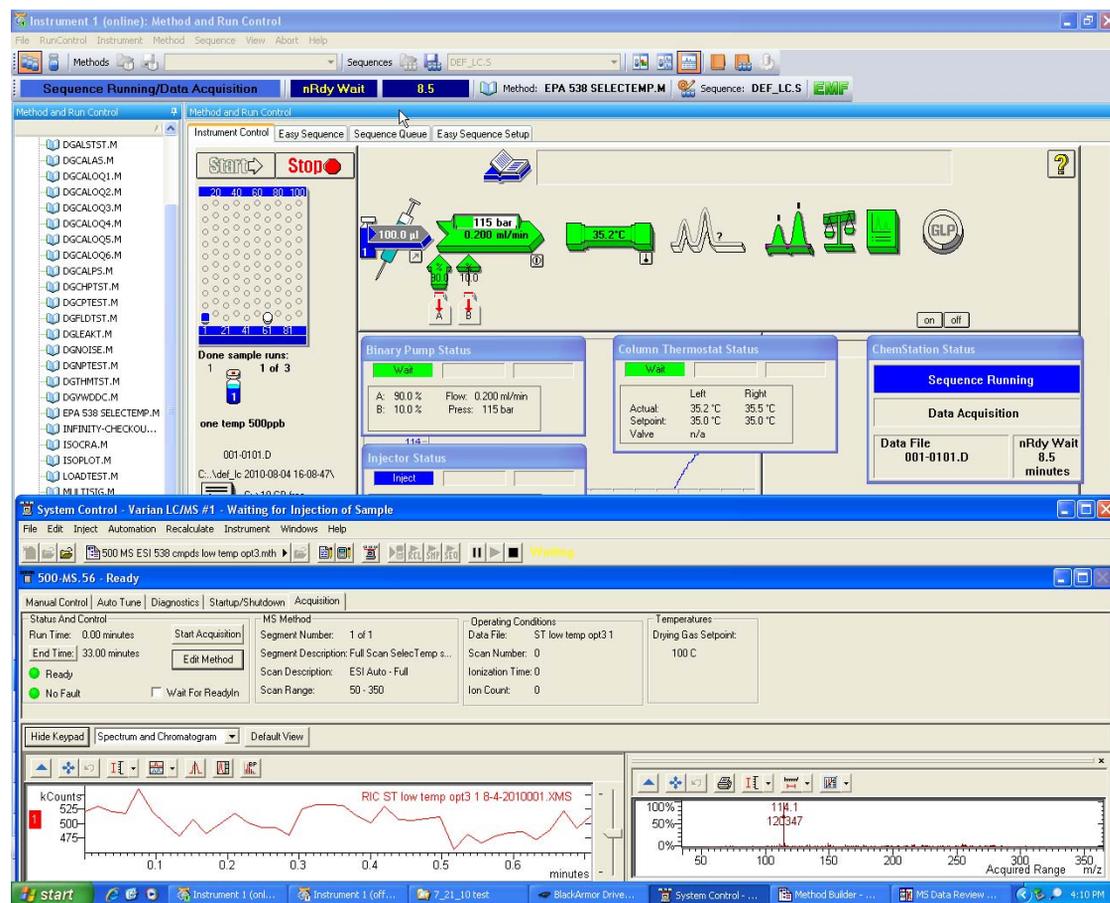


Figure 6 ALS prepares to inject the sample

Step 3. Start the Sample List in MS Workstation and Sequence in ChemStation

When the sample is injected, the LC method (specified by ChemStation) and the LC/MS method (specified by MS Workstation) is started. See [Figure 7](#).

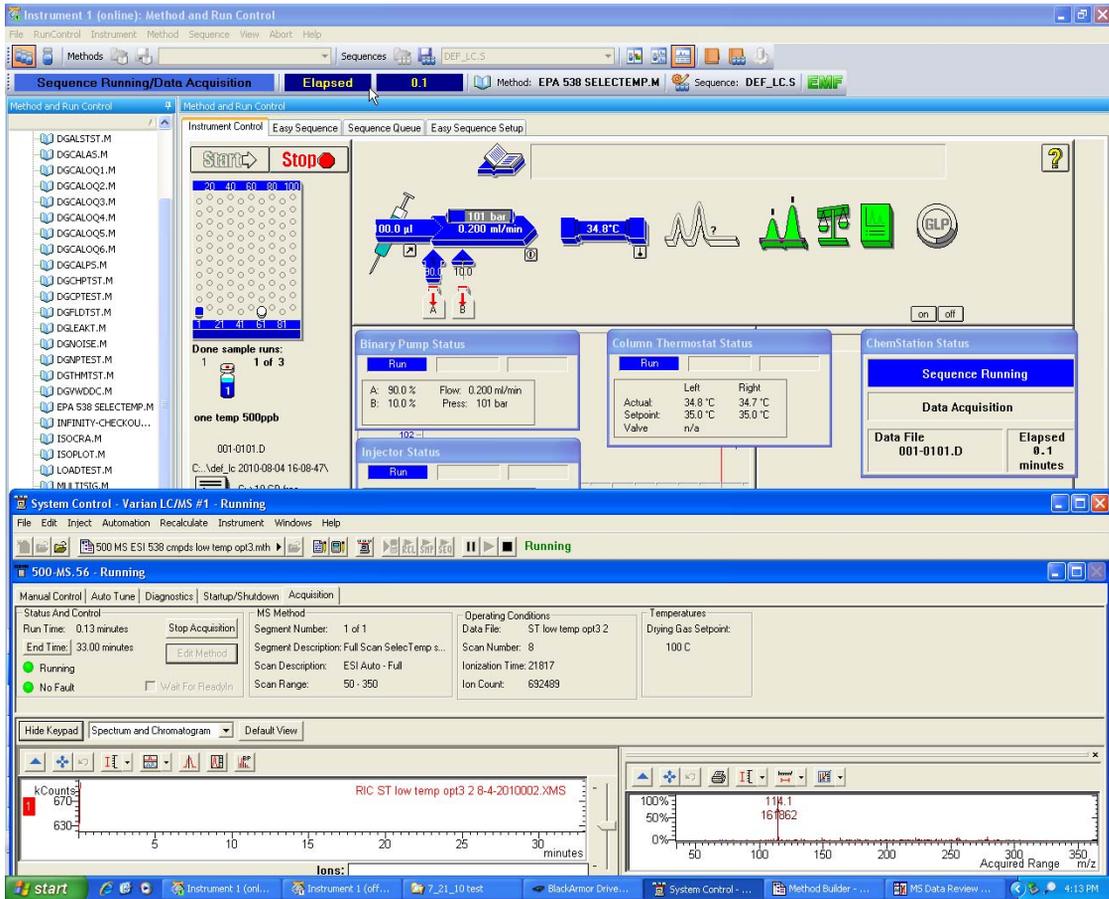
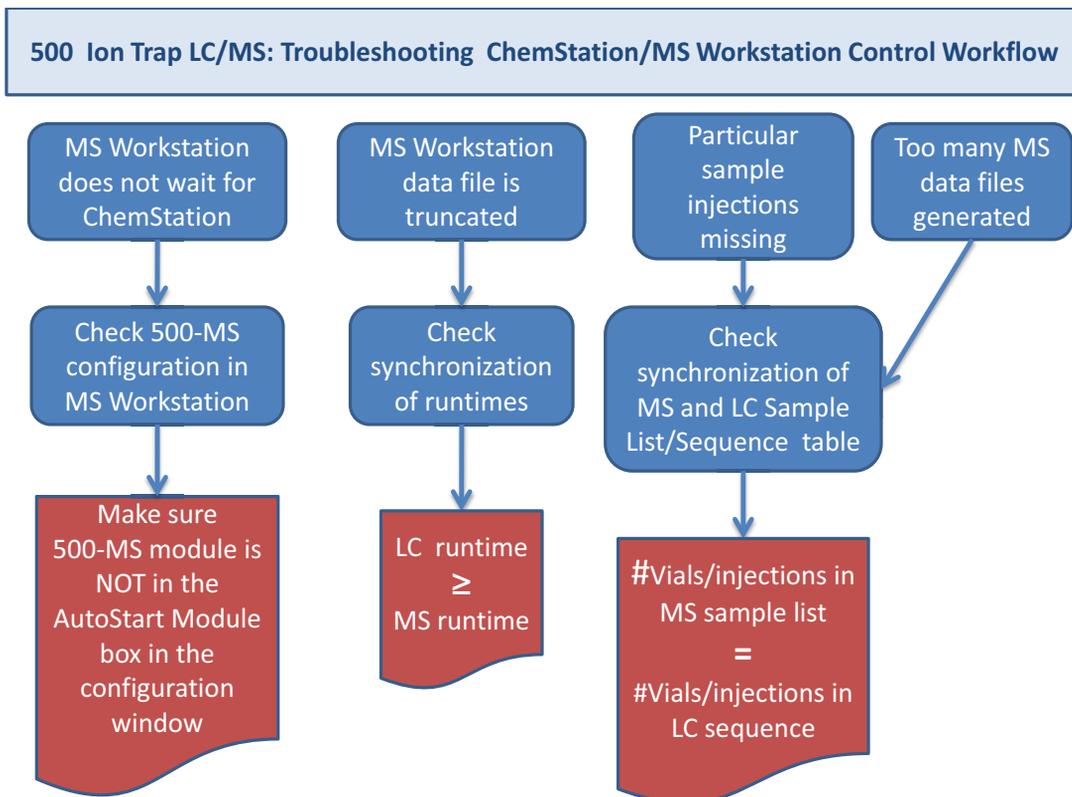


Figure 7 Sample injection starts the ChemStation method and the MS Workstation LC/MS method

Troubleshooting

If you have problems with the injection automation, please refer to this chart.



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In This Book

This guide describes how to set up the Agilent 1200 Infinity Series to be used with the Agilent 500 Ion Trap LC/MS and the MS Workstation software.

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