Stellar 1.0 QF1 Release Notes

These release notes list the new features of the Thermo Scientific™ Stellar™ 1.0 QF1 instrument control software, the minimum hardware and software system requirements, provides details of resolved issues, and details of the known issues that exist in the software.

The instrument control software, which is used to collect high-quality mass spectrometry data consists of the Tune and Method Editor application packages that enable control of the instrument.

- The Tune application displays acquired mass spectra in a continuous loop and sequentially reports the observed values of various instrument parameters that indicate instrument status. Tune is used not only to view spectra but to provide tools to tune and calibrate the instrument for maximum performance with a variety of scan types, scan modes, ion polarities, scan rates, and resolution settings.

  The Tune application provides a host of diagnostic functions for easy troubleshooting. You can also use features to manage the USB-connected devices, for example, the optional divert valve and the syringe pump. Finally, this application supports report generation so that you can document the outcome of various diagnostics, calibrations, and optimizations.
- In the Method Editor application, you can set up experiments by using the entire complement of scan types, advanced filters, and conditional logic, designing customized sequences of scans to interrogate complicated samples. For example, one method might have a full-scan followed by one or more filters and then a data-dependent MS^n level scan on the reduced mass list. You have the choice of using your preferred fragmentation technique for MS^n scans.

  Using the Method Editor application, you can also specify peripheral device controls as part of an experiment. Methods constructed in the Method Editor can be executed in high-level applications such as the Thermo Xcalibur™ data system.

Additionally, with the Thermo Foundation™ Instrument Configuration options, you can set up conditions specific to your instrument and the experiment run.

For more information, see these topics:

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Features

The Stellar 1.0 QF1 instrument control software incorporates the following new features:

- Adaptive Retention Time experiments
- Hybrid and Quan experiments
- PRM Refiner tool
- tMS^n nested tables
- Next error function for tables
- Auto-Ready robustness
- Auto-Ready scheduling intervals
- Support for Ardia connection

Minimum Requirements

The minimum hardware and software system requirements are as follows:

System	Requirements
Computer	• 3.1 GHz Intel™ Quad-Core processor • 16 GB RAM (32 GB recommended) • 1 TB hard drive • Two Ethernet gigabit network ports • DVD-ROM drive • Monitor display resolution of 1920 × 1080
Software	• Microsoft™ Windows™ 10 Enterprise LTSC 2019 • Thermo Scientific™ software: – Foundation 3.1 SP9 – Xcalibur™ 4.7 – FreeStyle™ 1.8 SP2 QF1

Resolved Issues

The following table lists defects that were resolved between the different releases of the Stellar instrument control software. Engineering fixes have resolved the issues with follow-up testing performed by the Product Evaluation department.

NOTE: The information excludes Help issues and cosmetic fixes. In some cases, the abstract description has been amended or extended from the original to better describe the reported issue.

Table 1 Resolved issues between Stellar 1.0 and Stellar 1.0 QF1

ID	Severity	Abstract
745583	Medium	Calibration Robustness: 125 kDa/s Mass Calibration Failures Resolved the sporadic failure of High Scan rate Resolution and Mass Calibrations and lens driver ramp range

Known Issues

Discrepancies in the documented software are reported as known issues. Items that are not included as part of the known issues are as follows:

- Issues where there is insufficient information logged to successfully reproduce the reported problem.
- Software feature requests, regardless of the reported significance or severity of the request. Our product management team evaluates logged feature requests for future releases.

Follow these recommended recovery actions for general issues, as applicable:

NOTE: Do not reinstall the instrument control software or the operating system as a general fix. Contact Thermo Fisher Scientific Technical support for assistance.

- Restart the instrument control software for connectivity issues.
- Restart the data system computer for issues that arise during data acquisition. Devices that display an error state may also require a power cycle.

The following table describes the terminology that is used for the severity levels of the known issues.

Table 2 Severity levels

Severity	Description
Critical	An issue that renders the system unusable because either an entire function is unusable and no workaround exists, or use of the current system compromises data integrity or results in data loss. Issues might also include significant and non-obvious quantitative errors, and all user and instrument safety issues.
High	A serious issue that does not affect data integrity (meaning data loss, corruption of data, or inaccurate results), but affects the user's ability to use the product as designed. It can be a failure, design issue, or documentation error or omission. A workaround might or might not exist.

Severity	Description
Medium	A minor error or poor behavior of a product feature. A workaround might exist.
Low	An issue that has a limited effect on the product usage with the visibility so low that a user might never see it. It can also be for ease of use issues or other items not causing any performance degradation.

The following table lists the known issues in the instrument control software. The table is categorized with an ID (the internal number assigned to the issue), a severity level, and a brief abstract description of the issue. Some issues may include a remedy, if applicable.

Table 3 Known issues

ID	Severity	Abstract
292845	Low	Default AGC target range out of recommended range
467524	Low	Precursor Mass Range tool tip combines scenario of single entry and range entry
394760	Medium	Importing CSV columns don’t match warning due to Windows auto save as ANSI **Remedy:** Save CSV as text or non ANSI CSV
443306	Medium	Instrument Setup low on memory error due to virtual memory of application limit of 2GB **Remedy:** Decrease method file size by reducing mass list or simplify method
459959	Medium	Acquisition Server fail with multiple Dynamic Exclusion in branched series or parallel **Remedy:** Restart PC and reboot MS electronics
493678	Medium	If Calibration or Check procedure is shorter than 10 minutes the syringe will not automatically stop flowing
593273	Medium	Rtbin file with CV = 0 import will turn FAIMS off
610218	Medium	Uninstallation failure due to .NET 8.0 **Remedy:** Restart Instrument PC and ensure .NET 8.0 installation
611531	Medium	Scheduled calibration will run 11:59am previous day if scheduled for 12am on first of month
632770	Medium	Stellar instrument manual link in Xcalibur doesn't work **Remedy:** Open Stellar manuals from the Thermo Instrument location
633821	Medium	Flow sensor not connected **Remedy:** Reboot MS electronics
639287	Medium	Auto-Ready status is missing from readbacks on a clean install **Remedy:** Reboot PC
639996	Medium	Rtbin file too small to be used as for alignment **Remedy:** Rtbin file should be from a method that is longer than 1 minute