Thermo Scientific Orbitrap Exploris 4.2 Instrument Control Software (OES 4.2 ICSW) –

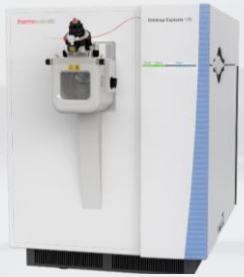
Overview – Updated With Defect Fixes in SP

November 2023

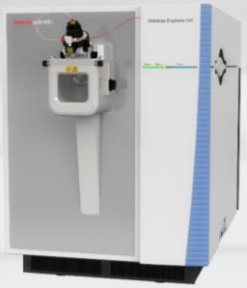
The world leader in serving science

Thermo Scientific Orbitrap Exploris MS Portfolio – one ICSW

Thermo Scientific™ Orbitrap Exploris™ MX
Mass Detector



Thermo Scientific™ Orbitrap Exploris™ 120
Mass Spectrometer



Thermo Scientific™ Orbitrap Exploris™ 240
Mass Spectrometer

Thermo Scientific™ Orbitrap Exploris™ 480
Mass Spectrometer

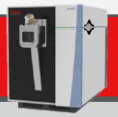
Thermo Scientific™ Orbitrap Exploris™ GC
Mass Spectrometer

For Research Use Only. Not for use in diagnostic procedures.

Thermo Scientific™ Orbitrap Exploris™ GC 240
Mass Spectrometer

Comparison of Orbitrap Exploris Portfolio

ThermoFisher SCIENTIFIC

	 Orbitrap Exploris MX	 Orbitrap Exploris 120	 Orbitrap Exploris 240	 Orbitrap Exploris 480
Max Resolution (FWHM) @ *m/z* 200	**180,000**	**120,000**	**240,000**	**480,000**
Mass range	**40 – 3,000 (8,000 *)**	**40 – 3,000**	**40 – 6,000 (8,000 *)**	
Precursor ion selection	**n/a**	**≤ 2,500**		
Sensitivity		**S/N 250 @ 200 fg reserpine (tSIM)**		**S/N 150 @ 50 fg reserpine (tSIM)**
MSMS scan rate (Hz)	22 Hz (Full Scan)	22 Hz		**40 Hz**
Mass accuracy - external	< 3 ppm RMS drift over 24 hours			
Mass accuracy w/ EASY-IC - internal	< 1 ppm over 5 days			
Spectral multiplexing	n/a	20		
Polarity switching * : one cycle equals (pos./switch/neg./switch)	60 k Full Scan* < 700 ms (equals > 1.4 Hz)	60 k Full Scan* < 700 ms (equals > 1.4 Hz) 60 k tSIM Scan* < 600 ms (equals > 1.6 Hz)		
Calibration	One-click calibration with FlexMix and dedicated calibration probe - with **harmonization and improved user experience across all TNG platforms** (TSQs, Hybrids, Tribrids)			
One-Point Mass Calibration	One-Point (Self) Mass Calibration achieves < 3 ppm RMS drift over at least 4 weeks			
Scan modes **Full MS** **AIF** **t-SIM** **DIA** **MS2** combinable within in one single experiment, such as:	• Full Scan In addition, multiple experiments can be created combining various Full Scan experiments	• Full Scan ddMS2 (Top1-4) • tSIM (targeted mass list) ddMS2 (Top1-4) • Full Scan ddMS2 (targeted list) (Top1-4) In addition, up to 5 experiments can be created combining the above listed scan types	• Full Scan ddMS2 (topN) • Full Scan ddSIM • tSIM (targeted mass list) ddMS2 • Full Scan ddMS2 (targeted mass list) With options for • 'Number of Scans' (= TopN) • 'Cycle Time' In addition, multiple experiments can be created combining the above listed scan types	• Full Scan ddMS2 (topN) • Full Scan ddSIM • tSIM (targeted mass list) ddMS2 • Full Scan ddMS2 (targeted mass list) With options for • 'Number of Scans' (= TopN) • 'Cycle Time' • 'Scans per Outcome' (branching) In addition, multiple experiments can be created combining the above listed scan types
Advanced acquisitions	APD	AcquireX (chargeable option)	AcquireX, APD, AcquireX AB TMT @ 45k resolution setting	• 16 msec transient (7,500 min resolution) • System Templates supporting BoxCar and SureQuant approaches • TurboTMT with TMT reagents up to 18-plex

Software Release

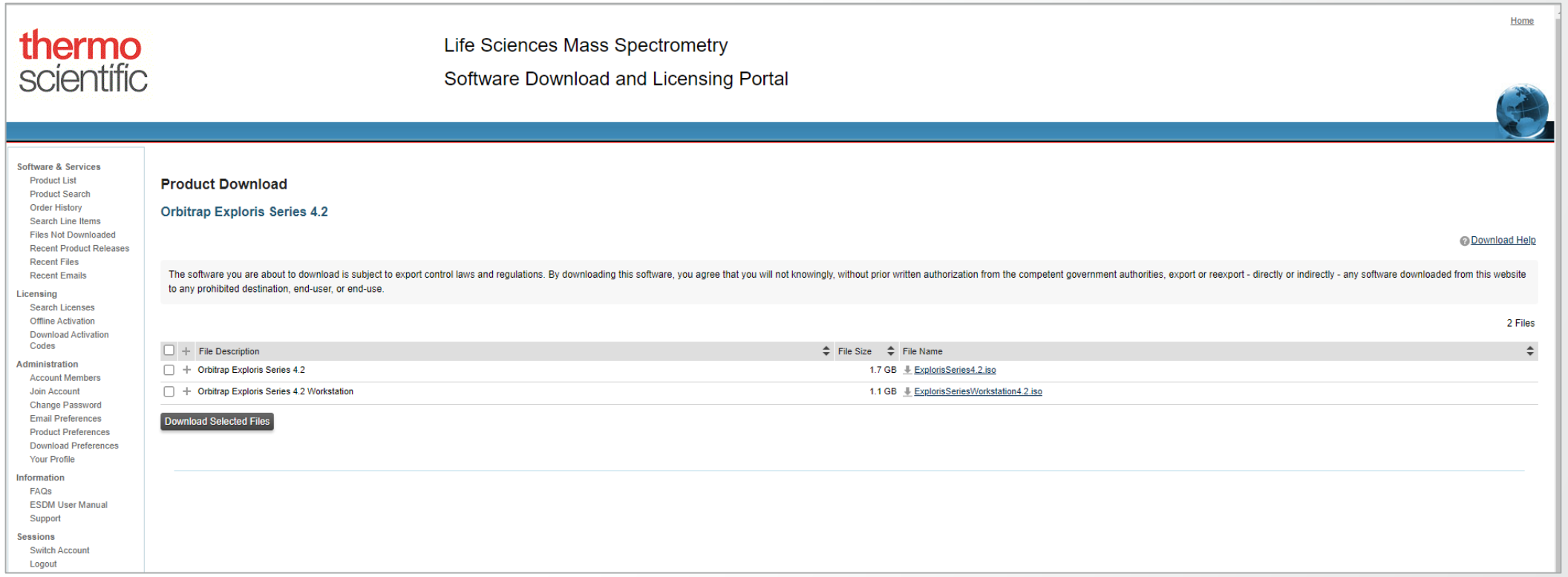
Flexera

Orbitrap Exploris Series ICSW 4.2 SP4 is available to customers using Flexera software distribution site.

Customers new to the Flexera site should use the following link:
https://thermo.flexnetoperations.com/control/thmo/RegisterMemberToAccount

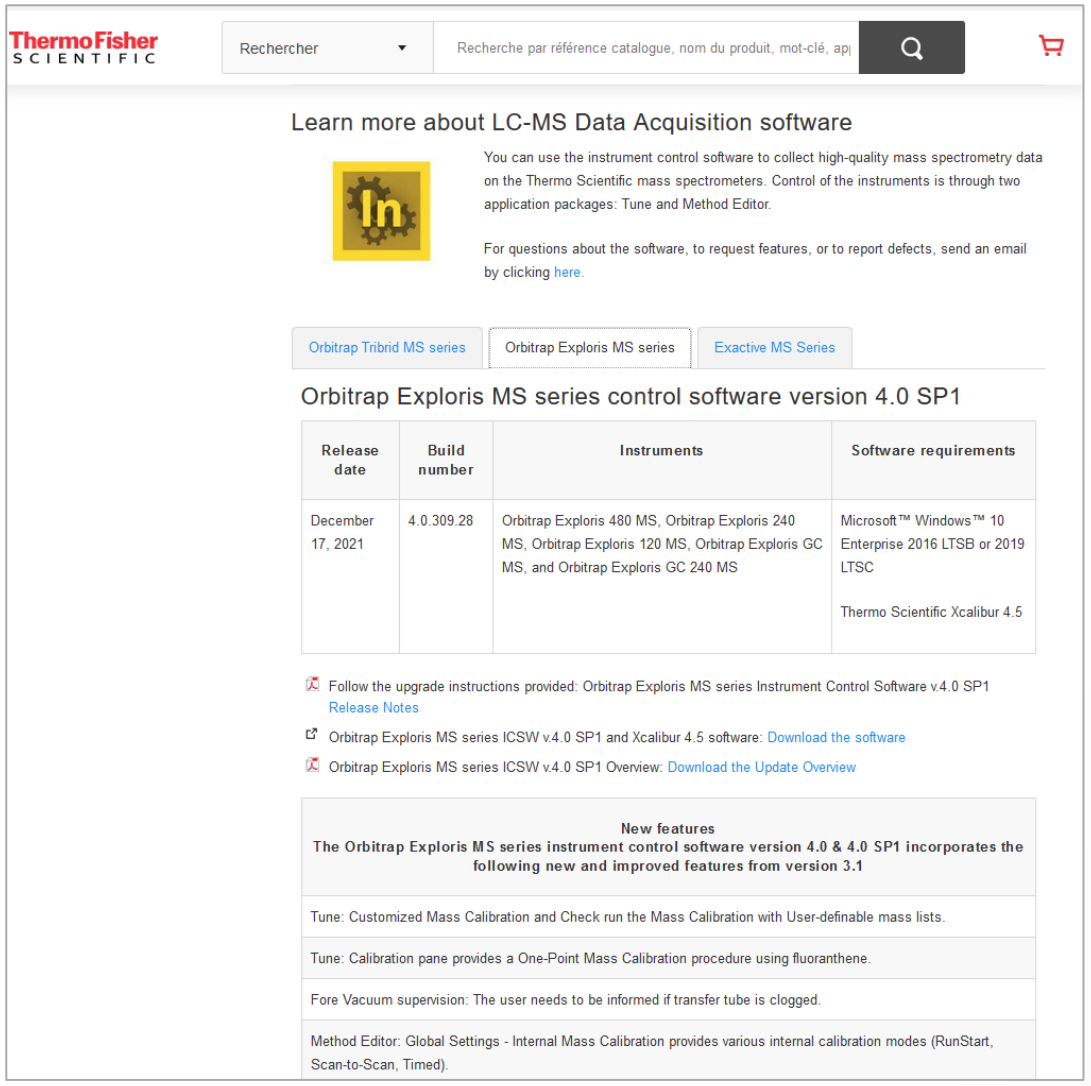
After setting up an account, customers can access the site using the following link:
https://thermo.flexnetoperations.com/control/thmo/login

In the ‘Product List’ page, find ‘Instrument – Orbitrap Exploris Series’ and identify Orbitrap Exploris Series 4.2 SP4 in the subfolder.



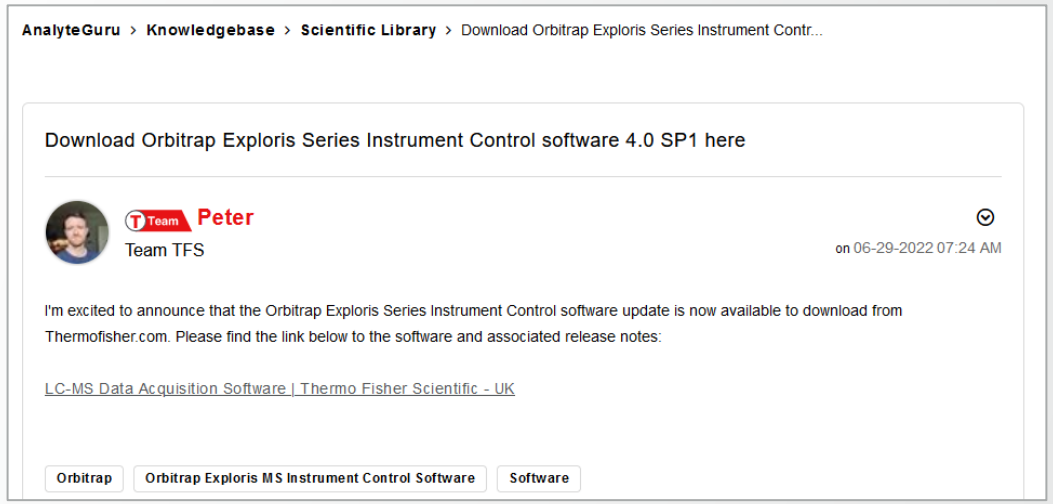
Software Release

Thermofisher.com & AnalyteGuru



- Updates: AnalyteGuru.com

  To receive focused updates, subscribe to the pertinent labels (e.g., *Orbitrap Exploris MS Instrument Control Software*)



- Information: Thermofisher.com
  - Software information
  - Links for download
  - New Features
  - Known Issues
  - Discovered issues
  - Fixed Defects

Release Notes

Thermo Scientific Orbitrap Exploris Series 4.2 SP4 Instrument Control Software Release Notes

This document lists installation notes, new features and improvements regarding the Thermo Scientific™ Orbitrap Exploris™ Series 4.2 SP4 Instrument Control Software release. For information regarding the installation, features, functionality, and use of this product, refer to the following sources of information:

- *Orbitrap Exploris Series Operating Manual*
- *Orbitrap Exploris GC and Orbitrap Exploris GC 240 Operating Manual*

Version	Version No.	Orbitrap Exploris 480	Orbitrap Exploris 240	Orbitrap Exploris 120	Orbitrap Exploris GC	Orbitrap Exploris GC 240	Orbitrap Exploris MX
1.0	1.0.77.7	✓	—	—	—	—	—
1.1	1.1.117.22	✓	—	—	—	—	—
1.1 SP1	1.1.117.26	✓	—	—	—	—	—
2.0	2.0.182.18	✓	✓	✓	—	—	—
2.0 SP1	2.0.182.25	✓	✓	✓	—	—	—
2.0 SP2	2.0.182.35	✓	✓	✓	—	—	—
3.0	3.0.261.13	✓	✓	✓	✓	✓	—
3.1	3.1.279.9	✓	✓	✓	✓	✓	—
4.0	4.0.309.27	✓	✓	✓	✓	✓	✓
4.0 SP1	4.0.309.28	✓	✓	✓	✓	✓	✓
4.1	4.1.335.19	✓	✓	✓	✓	✓	✓
4.2	4.2.362.16	✓	✓	✓	✓	✓	✓
4.2 SP1	4.2.362.21	✓	✓	✓	✓	✓	✓
4.2 SP2	4.2.362.26	✓	✓	✓	✓	✓	✓
4.2 SP3	4.2.362.36	✓	✓	✓	✓	✓	✓
4.2 SP4	4.2.362.42	✓	✓	✓	✓	✓	✓

Source: Release Notes for OES 4.2 SP4 ICSW

System Requirements

Thermo Scientific Orbitrap Exploris Series 4.2 SP4 Instrument Control Software Release Notes

Installation Notes

Supported Target Systems

Thermo Scientific Orbitrap Exploris 120 mass spectrometer

Thermo Scientific Orbitrap Exploris 240 mass spectrometer

Thermo Scientific Orbitrap Exploris 480 mass spectrometer

Thermo Scientific Orbitrap Exploris MX mass spectrometer

Thermo Scientific Orbitrap Exploris GC mass spectrometer

Thermo Scientific Orbitrap Exploris GC 240 mass spectrometer

System Requirements

The minimum hardware and software configurations required for the Orbitrap Exploris Series 4.2 SP4 Instrument Control Software operation are as follows:

System	Requirements
PC	3.0 GHz Quad Core Intel™ Processor 32 GB RAM 512 GB SSD Hard Drive Display Monitor Resolution of 1920 × 1080 Two Network Interface Cards (NIC), 1000 MBit/s
Software	Microsoft™ Windows™ 10 Enterprise 2016 LTSB, 2019 LTSC or 2021 LTSC Thermo Scientific Xcalibur 4.7

Tip The Orbitrap Exploris Series 4.2 SP4 Instrument Control Software was only tested within the delivered composition.

Note:
Xcalibur 4.7 software applies Foundation 3.1 SP9.

Source: Release Notes for OES 4.2 SP4 ICSW

List of New Features and Improvements in OES 4.2 ICSW

New Features

General

- Operating Manual, Pre-Installation Requirements Guide, and Software manuals are updated
- AcquireX support is provided for peptide mapping (AcquireX Ab) with OE 240 and OE 480
- Scheduled one-point mass calibration (via Tune Preferences)
- Additional resolution settings are accessible for OE 240 and OE 480 (11.25k, 22.5k, and 90k) in Tune and Method Editor

Tune

- OE GC: Tune Calibration pane provides a Manual Calibration panel
- OE GC: Method Editor provides a “Run Start Mass Calibration” template in system template

Method Editor

- New management of tables in DIA scan
- New table format is available for SIM scan. SIM with multiple broad scan ranges is provided for OE 120, 240 and GC
- Options are provided to select the order with which precursors are selected for data-dependent scans
- TMT 18-plex is supported by TurboTMT on OE 480
- New option “Auto-Extended” is provided for MS2 Scan Range Mode (Small Molecule Application Mode)

Improvements (selection)

Tune and Method Editor : Optimized default ESI/HESI gas flow settings for OE 120, 240, and MX

Tune Diagnostics : FlexMix Spray Optimization (neg+pos) applies Source Gases independent from polarity

Tune

- Calibration pane enables One-Point Mass and Customized Mass procedures which are compatible with FAIMS attached
- Source gas and temperature are set independently from polarity
- OE GC: Tune and ion source optimization reports contain a leak check history plot, filament current and emission current plots, and an emission current set value plot
- Calibration Status panel: reworked the update of Recommended Calibration dates depending on the procedure outcome
- Calibration Status panel: clarified display of Last Successful Calibration to ‘Outdated’ after Venting and Bake-out

Method Editor : User experience is enhanced when changing “Max. number of multiplexed ions”

Method Execution : Spray Voltage stays “On” during the execution of Run Start EASY IC

General : The Orbitrap Exploris Series 4.2 Installer updates the MongoDB from version 4.0.6 to version 4.0.28

Note: MongoDB needs to be uninstalled manually when downgrading from version 4.2 to an older version. The ISO image contains a MongoDB uninstaller.

Note: It is recommended upgrading the system to benefit from these improvements

Source: Release Notes for OES 4.2 SP4 ICSW

Resolved Issues in OES 4.2 SP1, SP2, SP3, and SP4

- **Resolved Issues between OES 4.2 and OES 4.2 SP1**

- Method execution Full Scan DDA with Targeted Mass Filter with CE per compound and Fixed/Stepped Collision Energies (CEs) in the properties pane of the MS2: fixed CEs in the Targeted Mass Filter are erroneously executed as stepped CEs
- Method transfer: Cannot open certain older methods with Orbitrap Exploris Series 4.2 ICSW – index out of range error message
- Orbitrap Exploris GC: License Error with 60k GCHCD license prevents running methods
- Orbitrap Exploris GC: Method Editor: Corrected acquisition delay tooltip in Global Settings
- Orbitrap Exploris GC: Method Editor: Factor 10x UI recommendation rule is erroneously applied to all GC System Templates
- Orbitrap Exploris GC: Method Editor: Restore Default context menu does not work for parameters under Ion Source Properties
- Full Scan acquisition with Mild Trapping option (Small Molecule Application Mode) leads to signal drop in positive mode

- **Resolved Issues between OES 4.2 SP1 and OES 4.2 SP2**

- System Calibration: C-Trap RF frequency calibration selects a frequency outside the optimum
- System Calibration: Exploris GC: C-trap RF Amplitude Min. Calibration failed with SW failure during run time
- Tune Status pane: Improved Turbo Pump readback robustness

Resolved Issues in OES 4.2 SP1, SP2, SP3, and SP4

- **Resolved Issues between OES 4.2 SP2 and OES 4.2 SP3**

- FAIMS Cooling Gas flow jumps to 20 L/min
- System Calibration: During Quad DC offset calibration, one point is sometimes too far off
- System Calibration: Quad isolation shape m/z 1034 iso 500 is not always detected
- System Calibration: Quad RF DDS frequency does not get set always on instrument boot

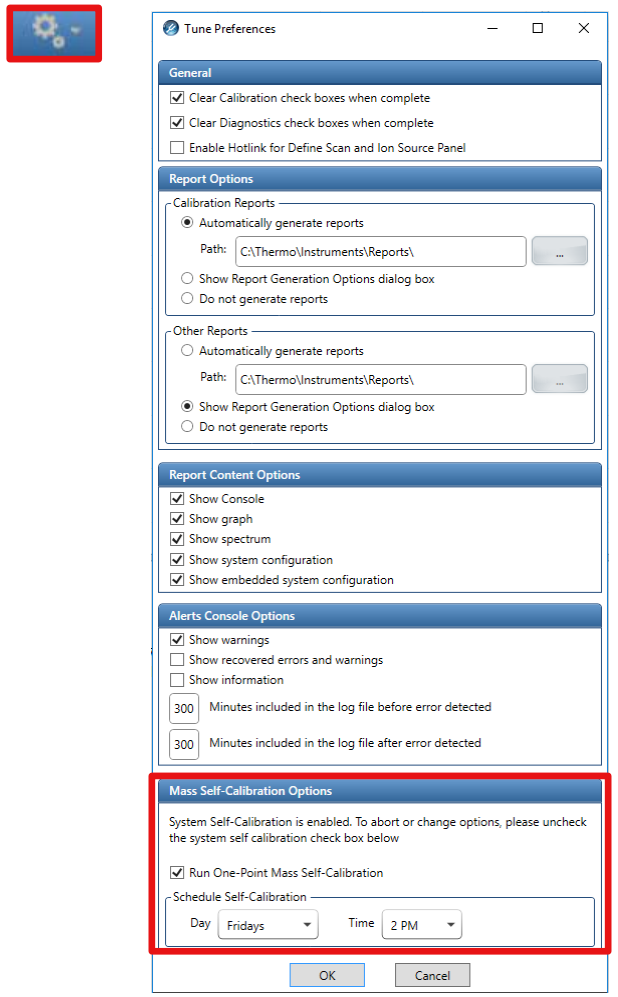
- **Resolved Issues between OES 4.2 SP3 and OES 4.2 SP4**

- Software upgrade to version > 4.2 SP2 may result in a severe issue with loss of instrument configuration
- After software upgrade from version 4.2 to a newer version, Tune displays obsolete warning alerts ([SSPI Link] – Reconnect during run-time) after firmware has been updated

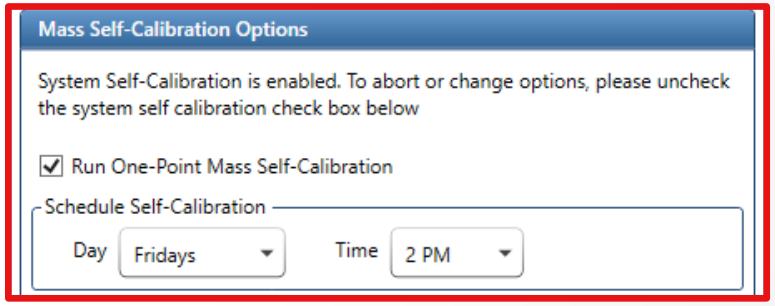
Scheduled One-Point Mass Calibration

Setting up Mass Self-Calibration

Under Tune Preferences



- 'One-Point Mass Self-Calibration' Procedure calibrates positive and negative ion mode - <u>Unattended</u>
- Fluoranthene from the EASY-IC source is used for the 'One-Point Mass' calibration procedure
- Infusion of FlexMix solution is not needed
- Running the 'One-Point Mass Self-Calibration' procedure updates the master calibration file. Its updated content is applied to upcoming scans and raw data files without further user interaction. The *Recommended Calibration* date (and color indicator) is updated accordingly.



Mass Self –Calibration Options

- 'Run One-Point Mass Self-Calibration' can be activated
- Day and time for Self-Calibration is defined

Scheduled One-Point Mass Calibration

Self-Calibration Pre-Conditions

- Self-Calibration procedure is pursued only if
  - The instrument is in standby or scanning (“On”)
  - ‘Run One-Point Mass Self-Calibration’ can be activated in Tune Preferences

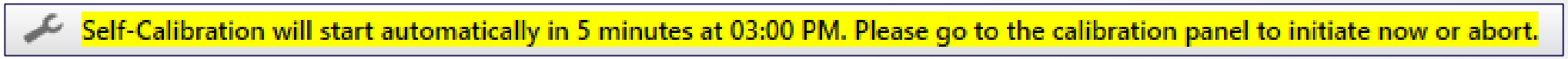
- Self-Calibration procedure is deferred and subsequently run if
  - There is an acquisition in progress (acquisition sequence or tune recording) at the time of scheduled Self-Calibration
  - Acquisition queue gets empty within the next 24 hours of scheduled Self-Calibration (check every 5 min)

- Self-Calibration is executed when MS is controlled under Xcalibur or Chromeleon

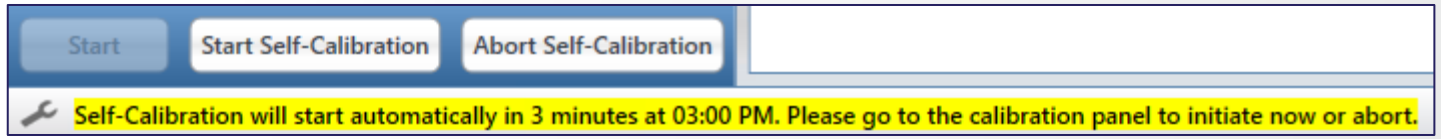
Scheduled One-Point Mass Calibration

Self-Calibration Procedure

- 5-min delay Self-Check preparation
  - Notification is displayed in Tune bottom panel that Self-Check is about to start; text is updated every minute



  - ‘Start Self-Calibration’ / ‘Abort Self-Calibration’ buttons displayed and ‘Start’ button in calibration panel disabled



- Self-Calibration execution
  - Started after 5-min preparation has elapsed
  - Instrument is switched to ‘On’ if currently in standby
  - During preparation, calibration UI is disabled
  - During Self-Calibration execution
    - Tune operations are disabled, procedure can be aborted by pressing relevant button (aborted Self-Calibration not run until next scheduled calibration)
    - Self-Calibration running status is displayed (progress bar, notification panel)

Scheduled One-Point Mass Calibration

After Completion of Self-Calibration

- PDF report is generated

Self-Calibration Report thermoscientific

Date & Time	Wednesday, October 5, 2022 09:15:01 AM
Instrument Model	Orbitrap Exploris 240
Instrument Serial	MM10003C
Software Version	4.2.357.0

Name	Result	Comment
OnePointMass Calibration (positive and negative Mode)	Passed	

OnePointMass Calibration (positive and negative Mode)

Name	Result	Value	Range	Comment
Type		–	–	Calibration

ICS Mass Calibration passed.

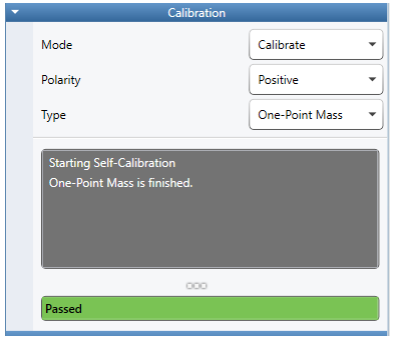
System Configuration

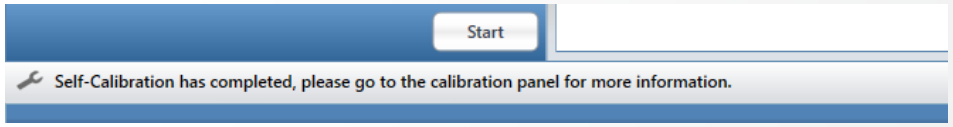
Name	Value
Ion Source Type	ESI
Internal Calibration (EASY-IC) Source	enabled
Options	EASY-IC, BioPharma

Embedded System Information

Label	Version
Instrument Embedded Software	4.2.316.0
Instrument Hardware Hash	c9463e6c4c2a1872414bd80b2d74da4e4f5c724a

- Notification in Tune bottom panel and notification area of calibration tab

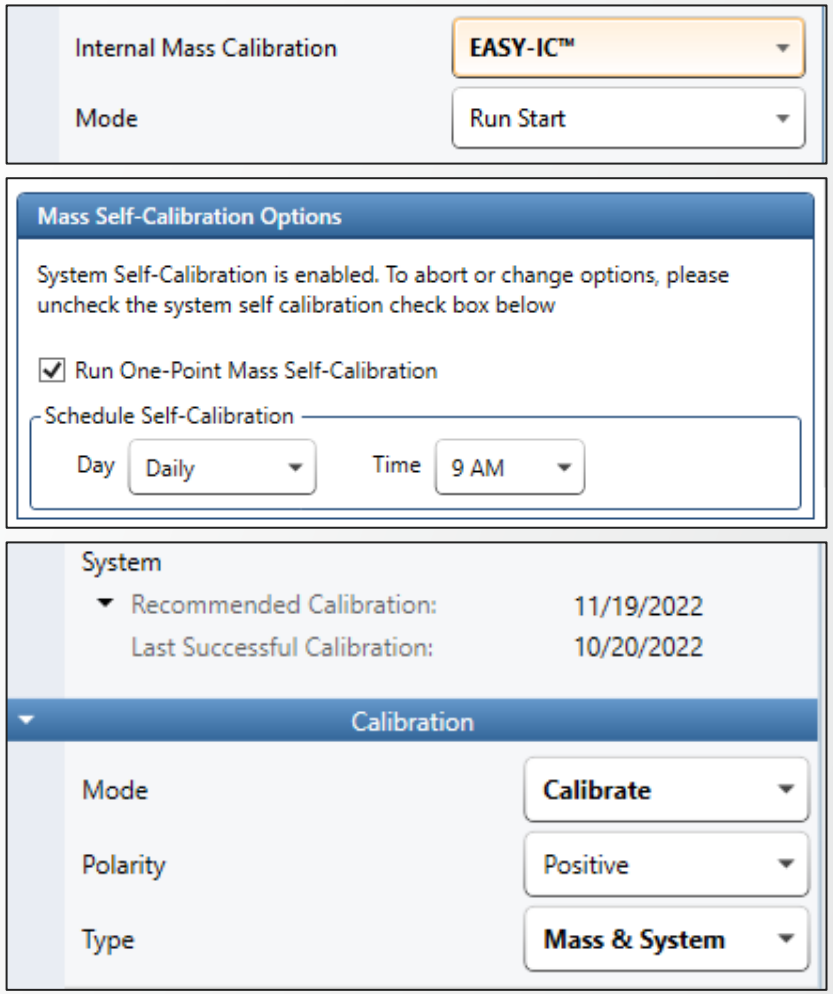




Best Practice to Work With One-Point Mass (Self) Calibration and EASY-IC

For a good and reliable mass accuracy/stability:

- Run experiments with RunStart EASY-IC
- Schedule unattended self-calibration: daily
- Run a system calibration once per month

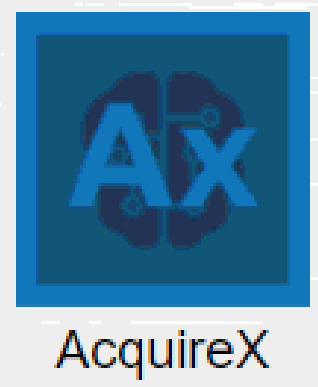


AcquireX Data Acquisition Workflow Enhancements

New Features

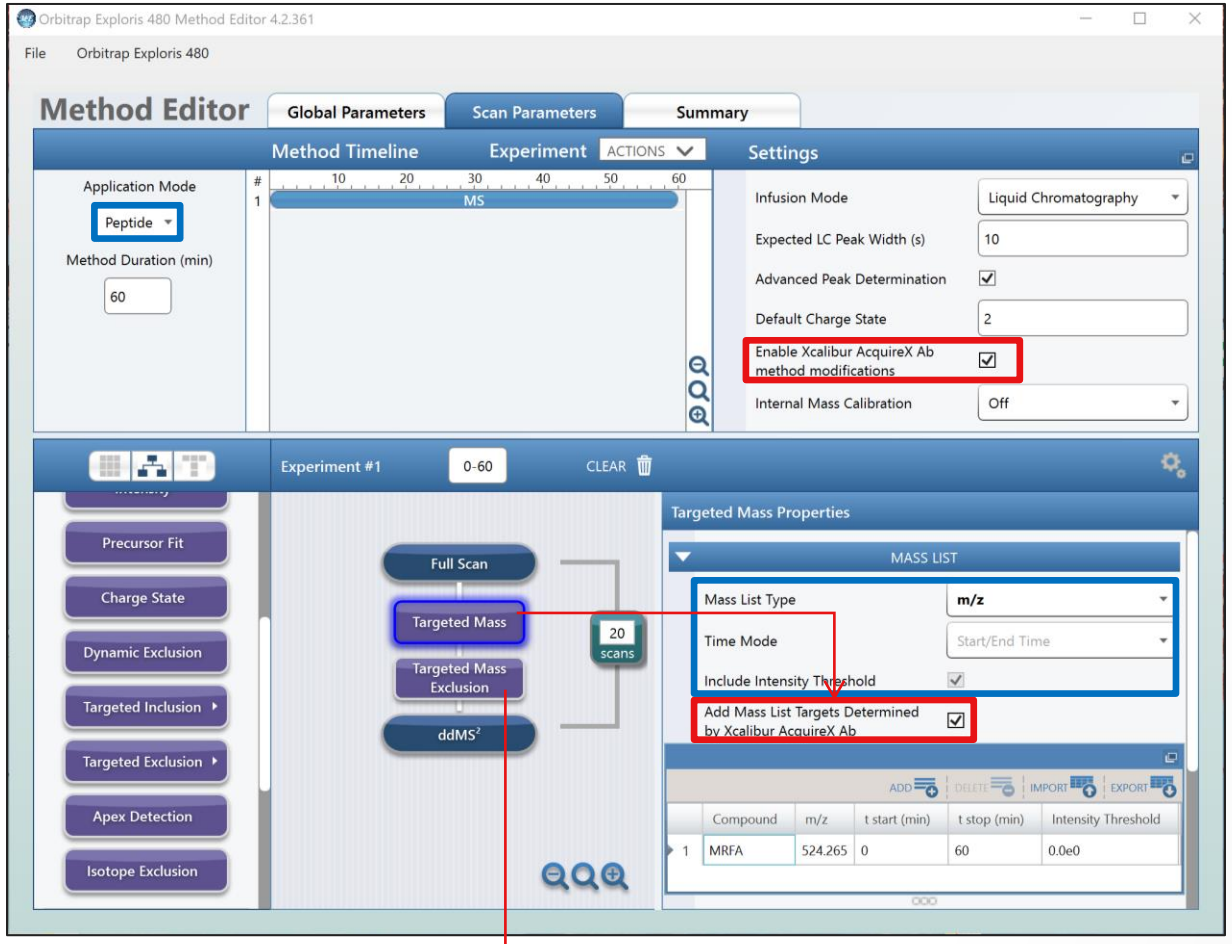
- New intelligent data acquisition workflow for Biopharma applications: AcquireX Ab
  - Available with Xcalibur 4.6 in Peptide Application Mode of Orbitrap Exploris 240 and 480 MS systems
  - One AcquireX Ab workflow: Custom Workflow

- New AcquireX workflow for Small Molecule applications: Custom Workflow
  - Available with Xcalibur 4.6 in Small Molecule Application Mode of Orbitrap Exploris 240 and 480 MS systems (chargeable option for Orbitrap Exploris 120)
  - Custom Workflow replaces Advanced Deep Scan Workflow

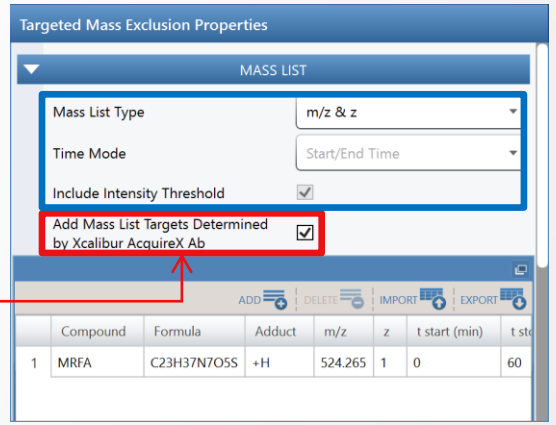


New AcquireX Ab Workflow for Peptide Mapping

New Features in Method Editor



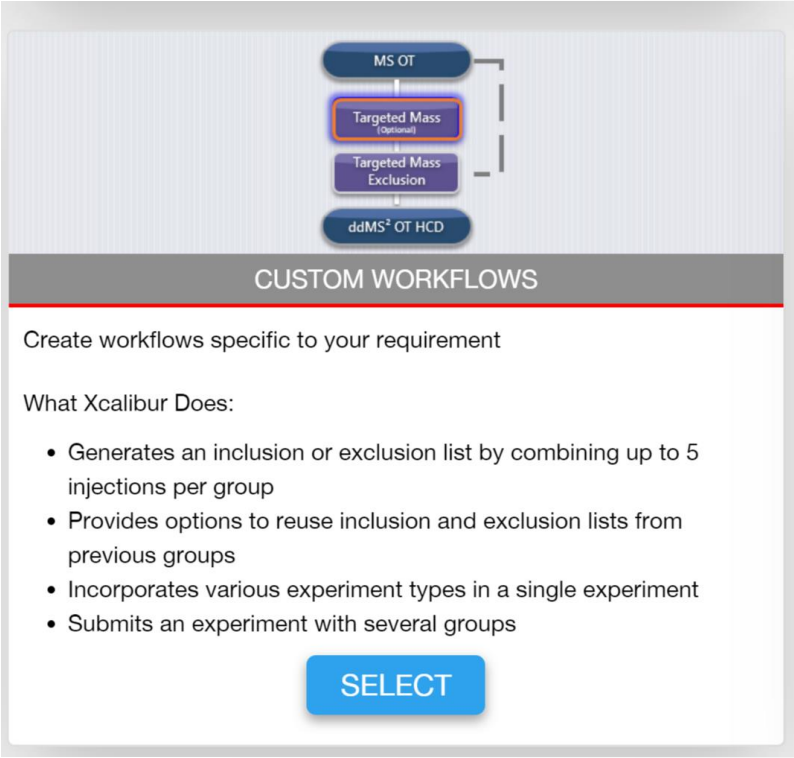
- AcquireX Ab workflows introduced with Xcalibur 4.6
- AcquireX Ab available in Peptide Application Mode
- Controls implemented in
  - Global Settings
  - Targeted Mass and Targeted Mass Exclusion filters
- Constraints
  - Time Mode = Start/End Time
  - Include Intensity Threshold = TruePrecursor Mass Range
  - Mass List Type = m/z OR m/z & z



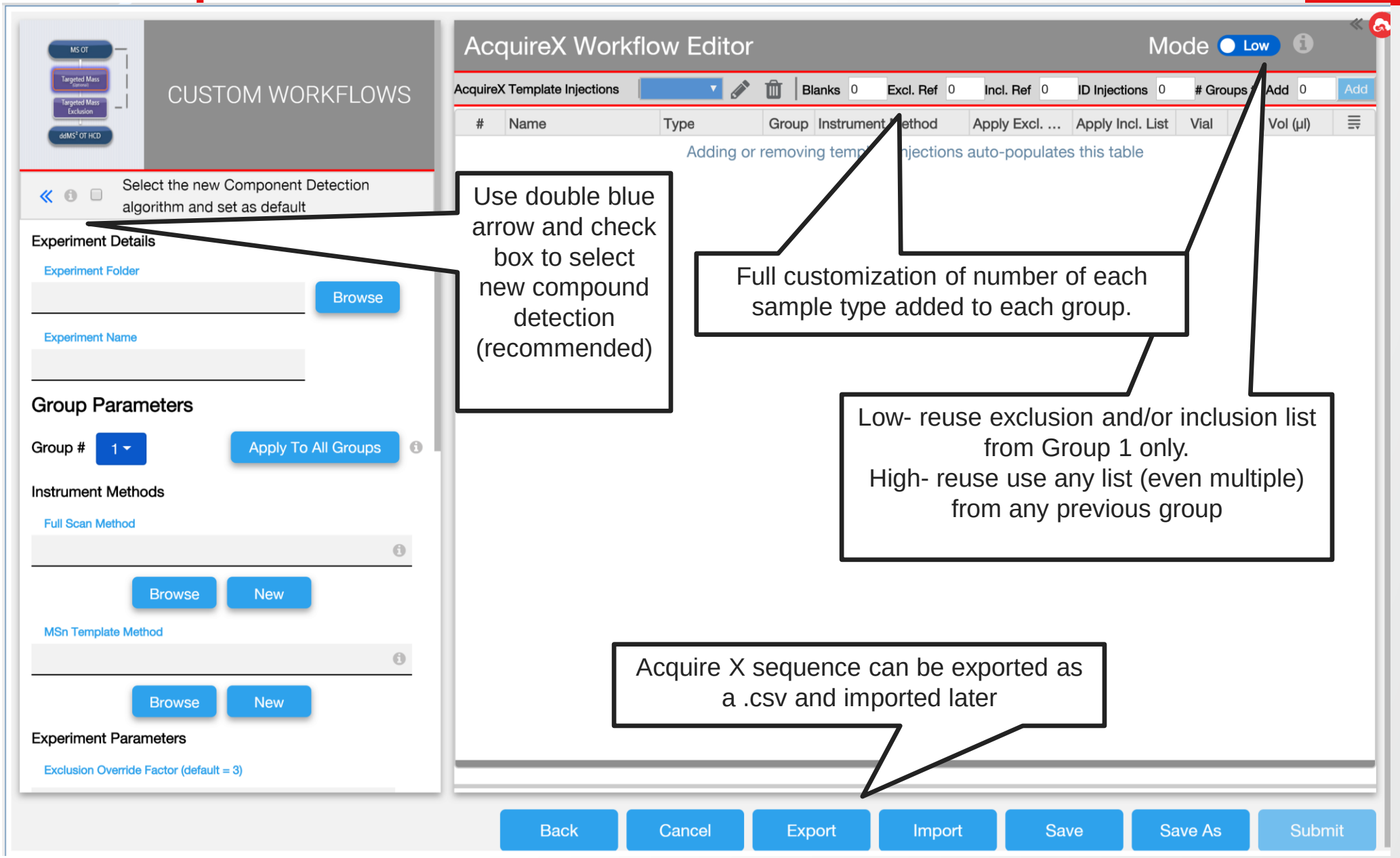
Xcalibur: Acquire X Custom Workflows

Small molecules

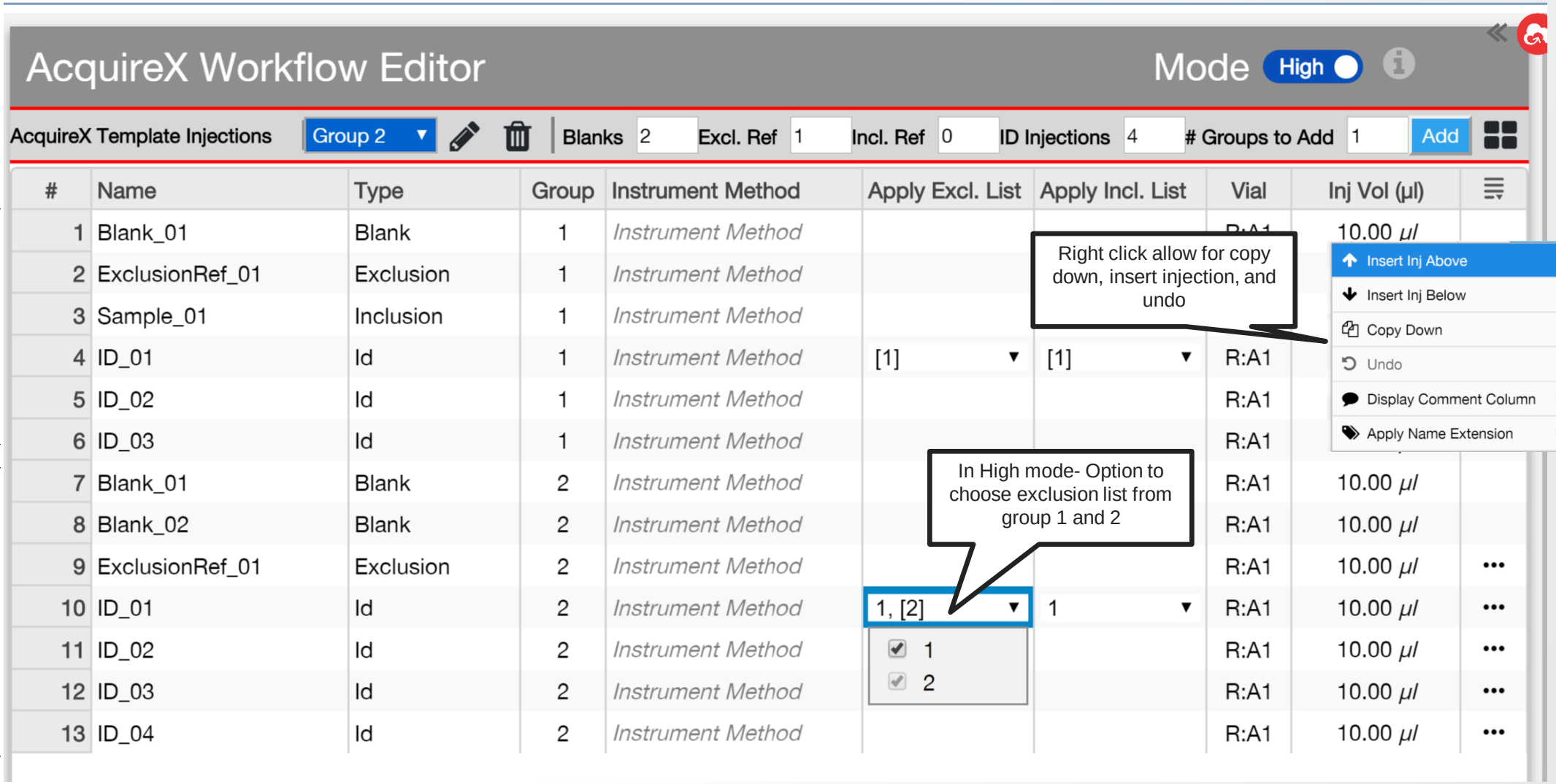
- Advanced Deep Scan has been replaced by Custom Workflows
  - Allows for the use of multiple groups in a single workflow
  - Reuse and combine inclusion and exclusion lists from previous groups
  - Reminder: option to use new component detection from Thermo Scientific™ Compound Discoverer™ software



Xcalibur: Acquire X Custom Workflows



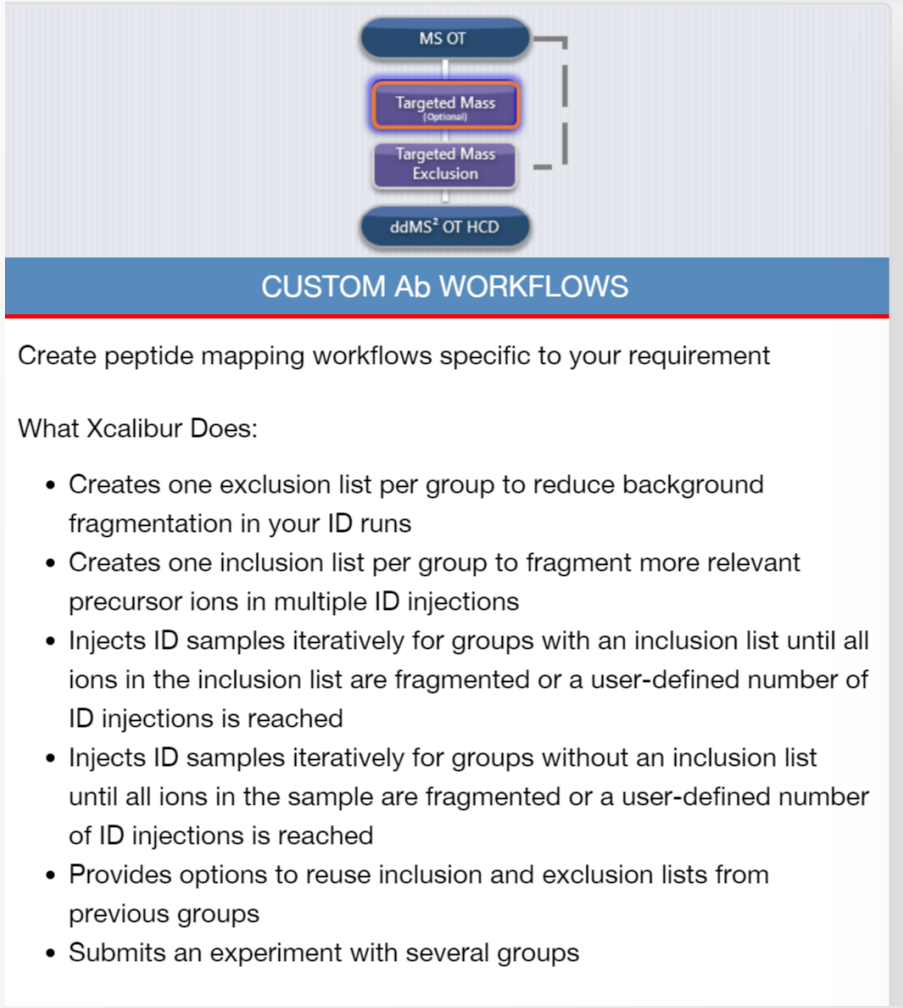
Xcalibur: Acquire X Custom Workflows



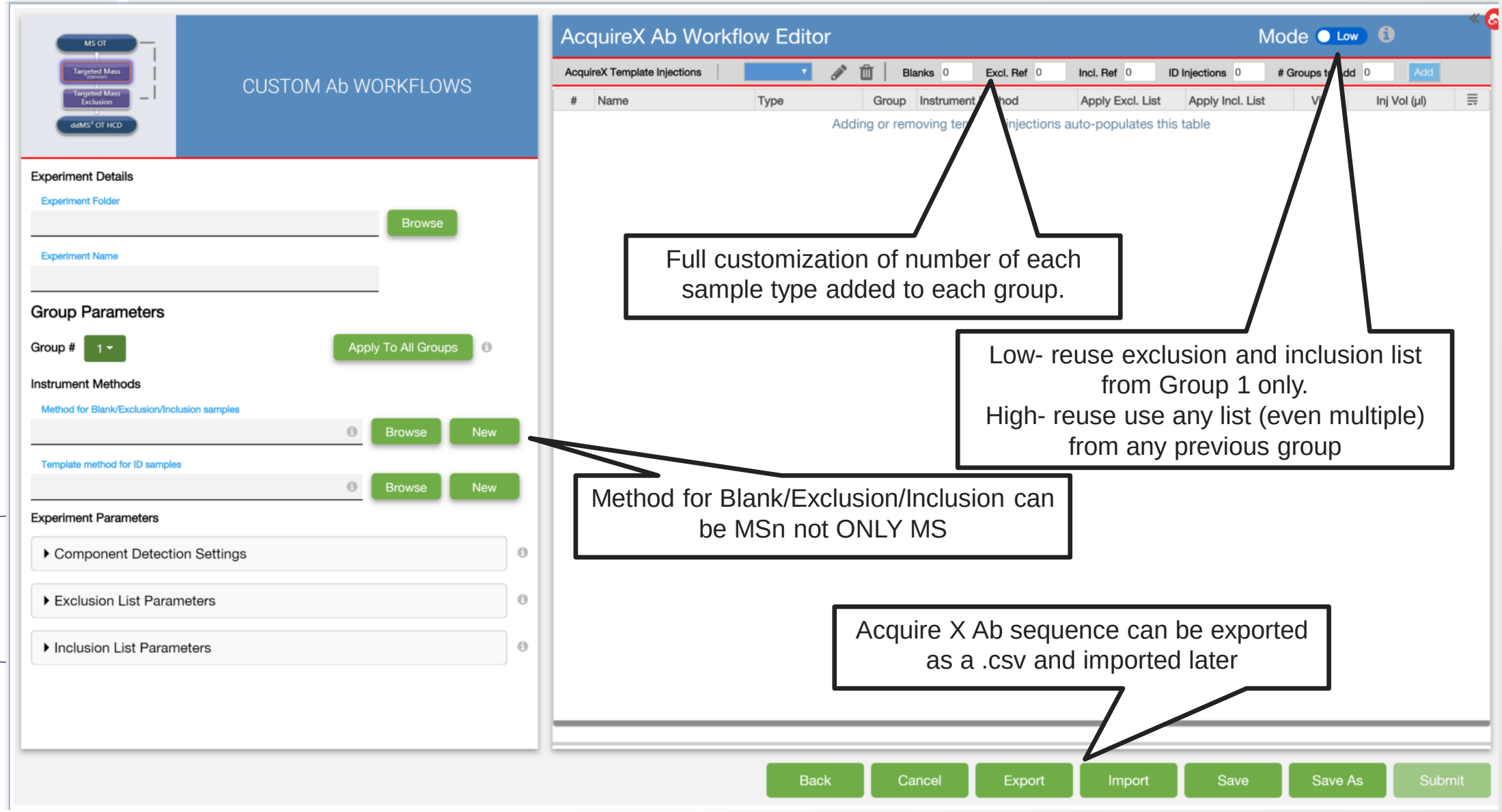
Xcalibur: Acquire X Ab Custom Workflows

Peptide and protein workflows

- New workflow for peptides/proteins, and other biopharma applications
- 1 workflow called “Custom Ab Workflow”
- Component detection is based on Thermo Scientific™ Biopharma Finder™ software Mass Analyzer algorithm
- Use MSn methods for exclusion/inclusion generation
- Reuse and combine exclusion and inclusion lists from previous groups

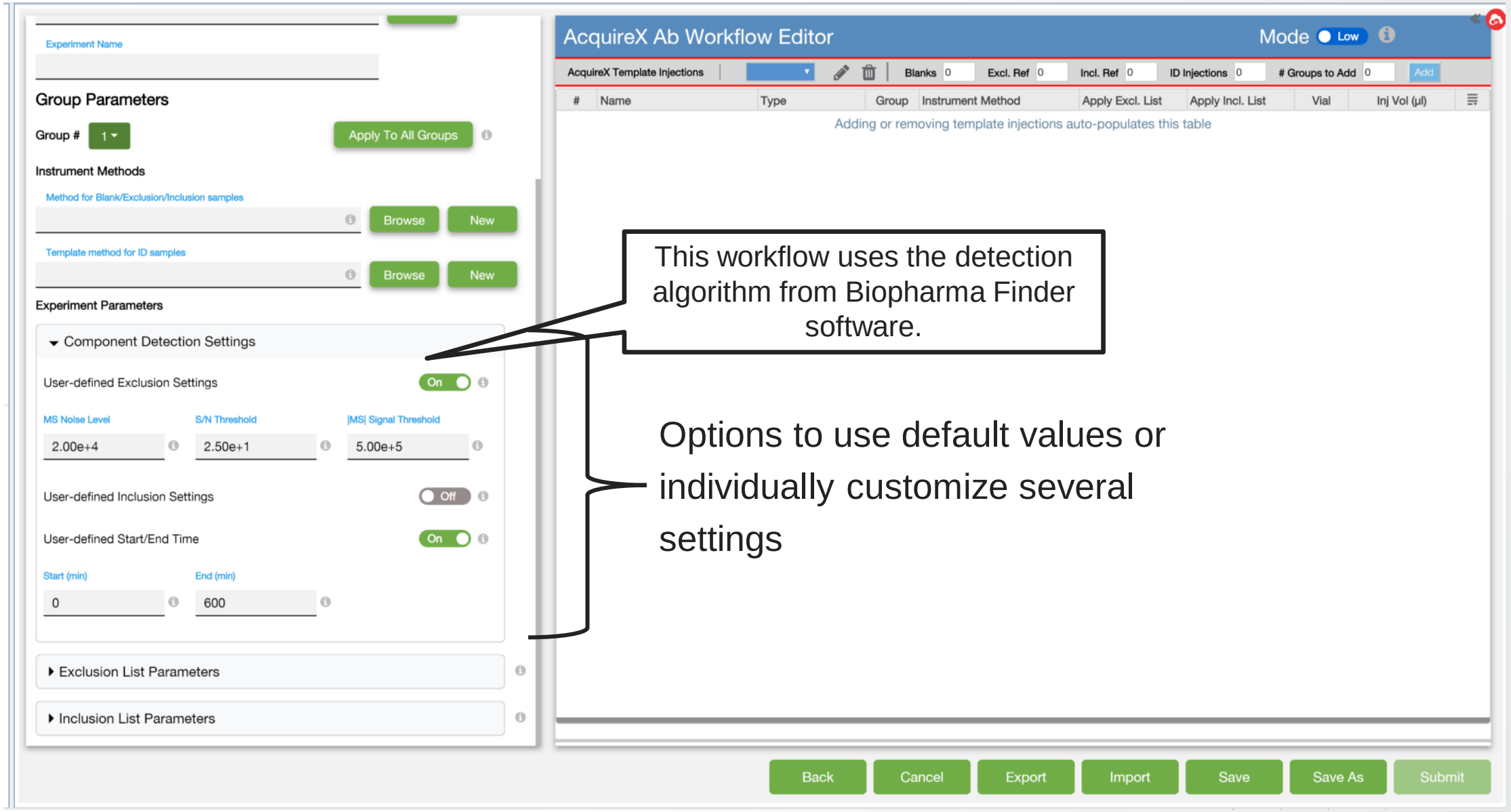


Xcalibur: Acquire X Ab Custom Workflows

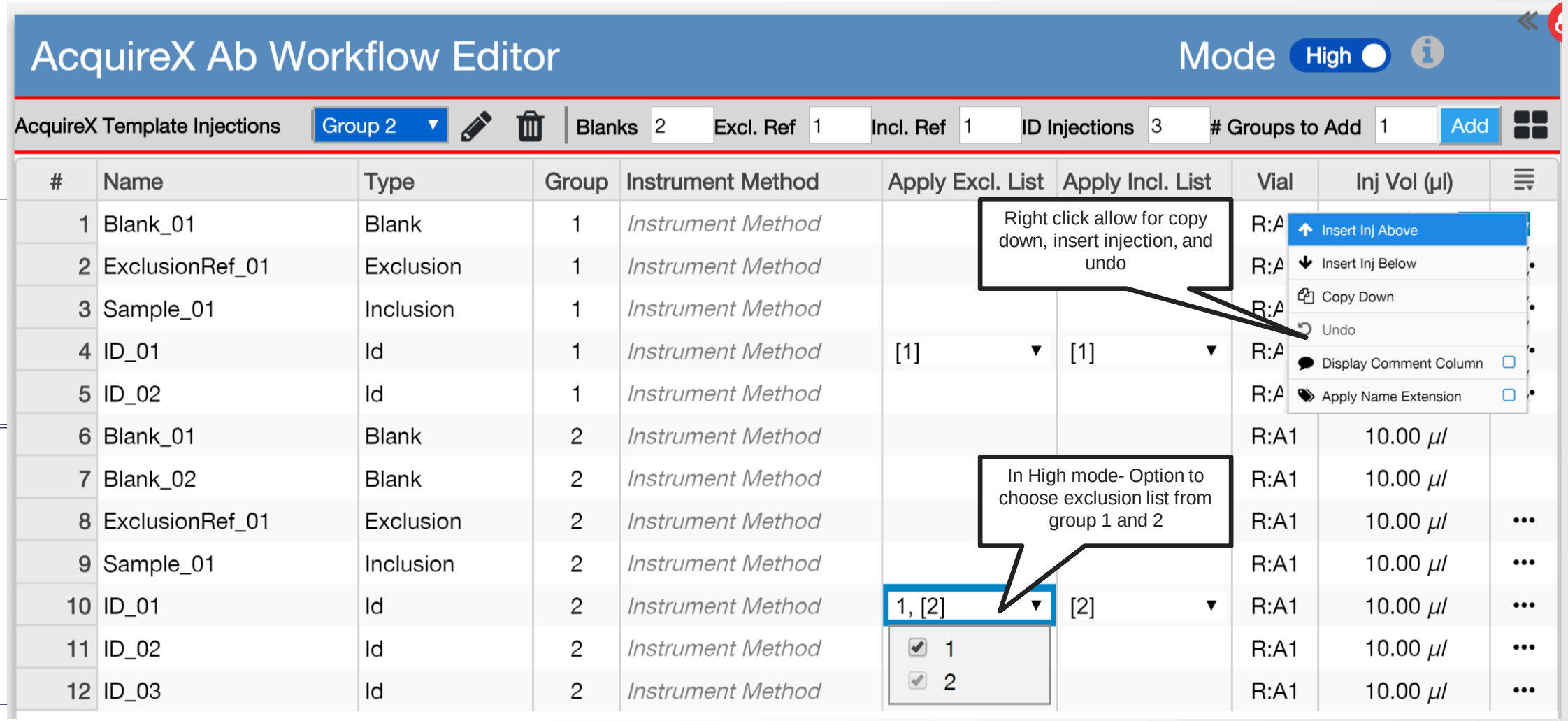


Fully customizable detection parameters

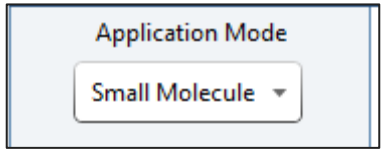
Xcalibur: Acquire X Ab Custom Workflows



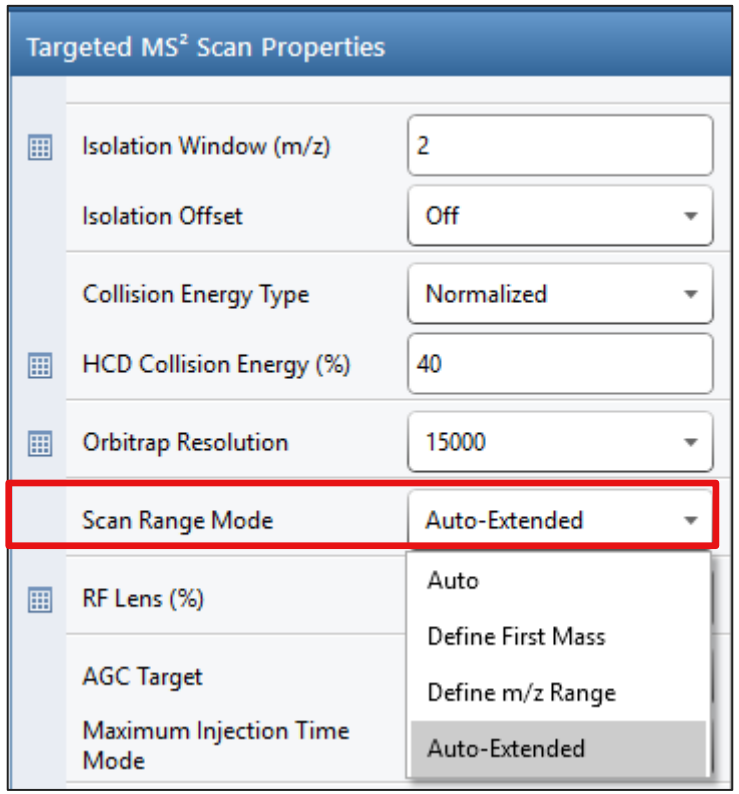
Xcalibur: Acquire X Ab Custom Workflows



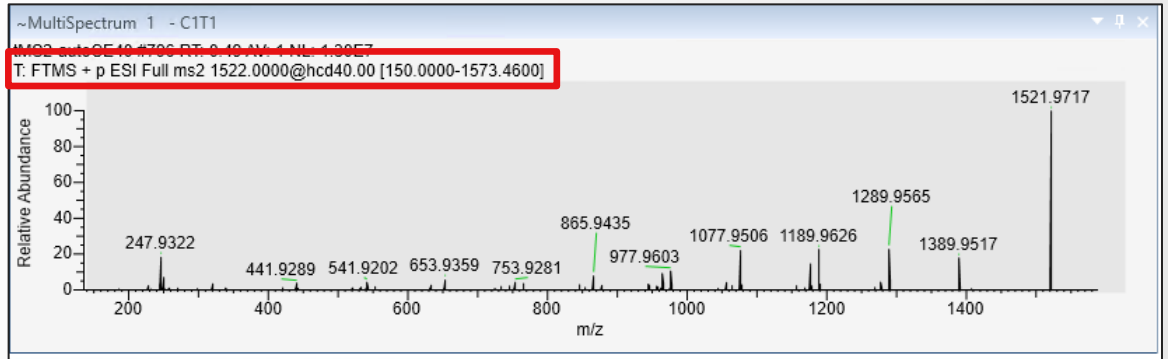
Scan Range Mode - Auto-Extended (tMS2 or ddMS2)



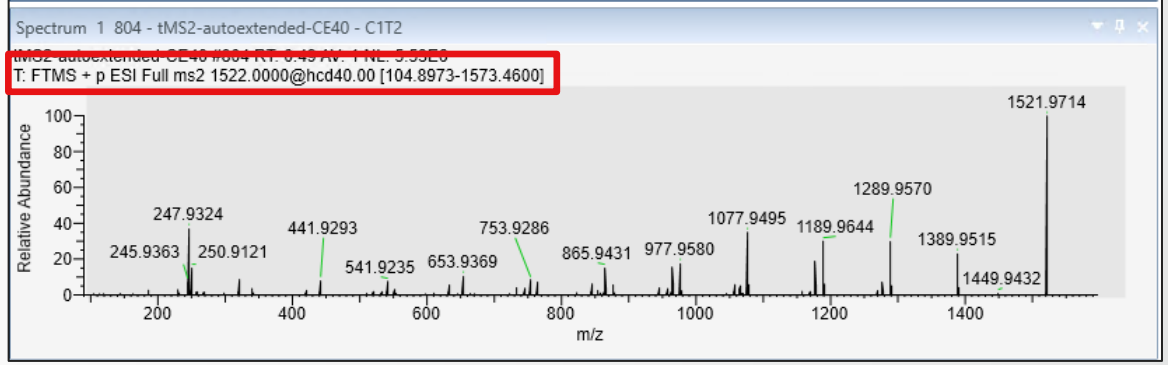
- Scan Range Mode „Auto-Extended“
- Applies factor 15 rule for all precursor masses
- Low fragments for precursor masses between 500 and 1500 are integrated in the scan filter (better comparability with Q Exactive spectra for low fragment masses)



Auto



Auto-extended



Examples – Auto vs. Auto-Extended

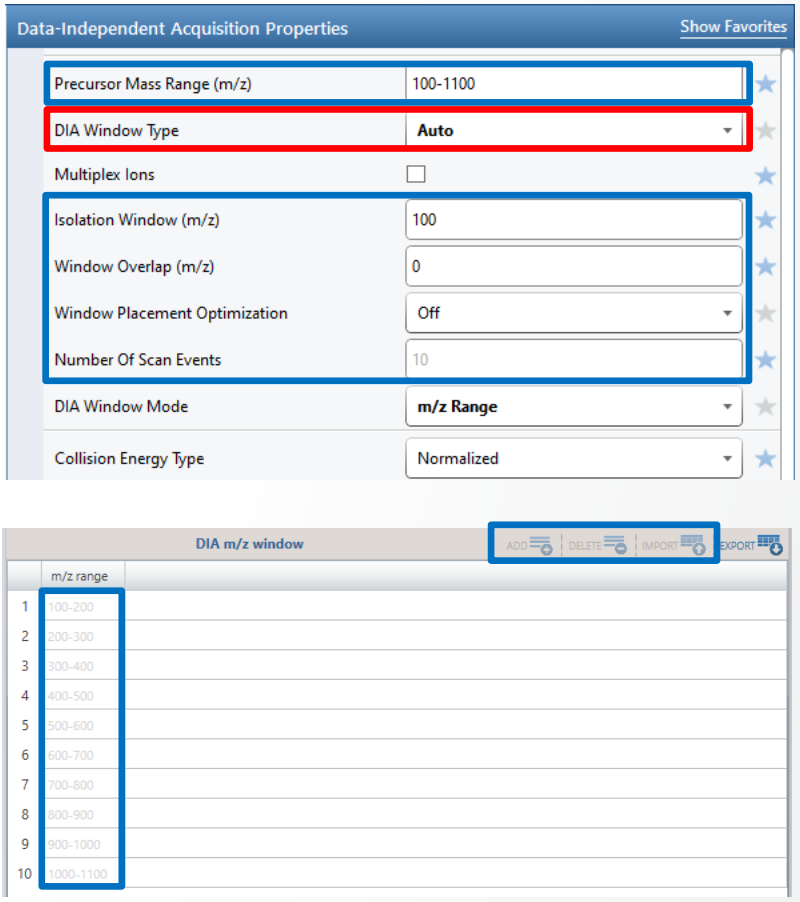
Last mass/ Precursor Mass [m/z]	Rule in Scan range mode „Auto“	Scan Range Mode „Auto“	Scan Range Mode Auto “Auto-Extended” (Factor 15 rule)
200	Factor 5	40	40
240	Factor 5	48	40
250	Factor 5	50	40
260	Factor 10	50 < 50 → fm increase to 50 (note not to 40!)	40
400	Factor 10	50 < 50 → fm increase to 50	40
900	Factor 10	90	60
1000	Factor 10	100	67
1500	Factor 10	150	100
1600	Factor 15	150 < 150 → fm increase to 150	107
2000	Factor 15	150 < 150 → fm increase to 150	133

Management of Tables in DIA Scan

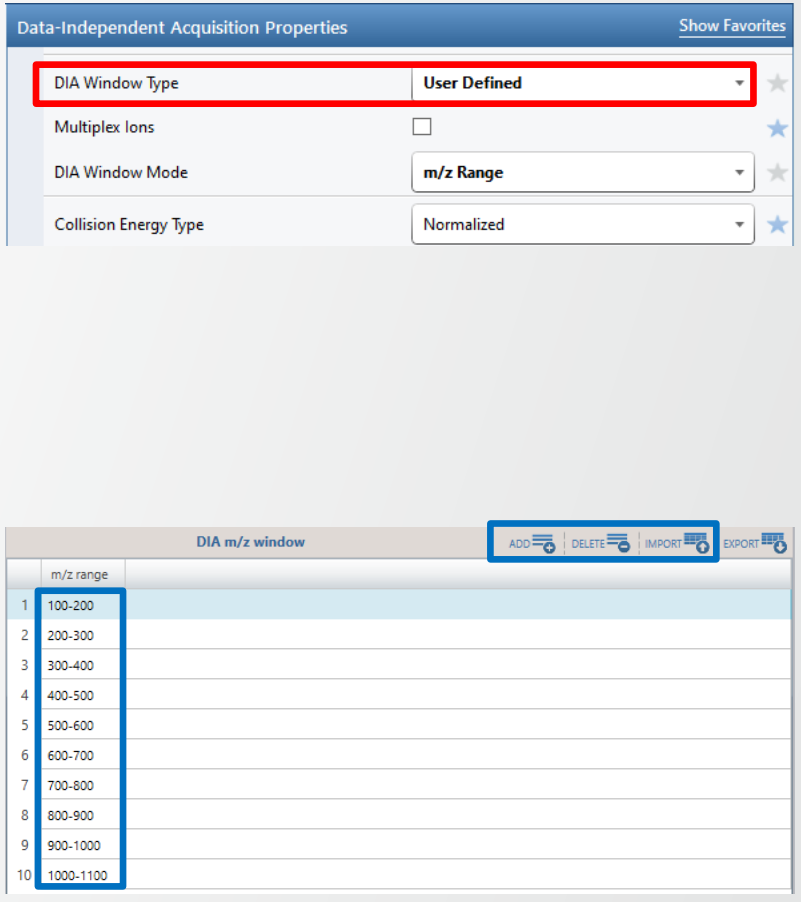
New DIA Window Type

- DIA Window Type = Auto
  - DIA windows calculated from
    - Precursor Mass Range
    - Isolation Window
    - Window Overlap
  - DIA windows in Table cannot be
    - Modified by direct typing
    - Modified by adding / deleting rows
    - Modified by importing files
- DIA Window Type = User Defined
  - DIA windows defined by
    - Direct typing
    - Adding / deleting rows
    - Importing files

DIA Window Type = Auto



DIA Window Type = User Defined

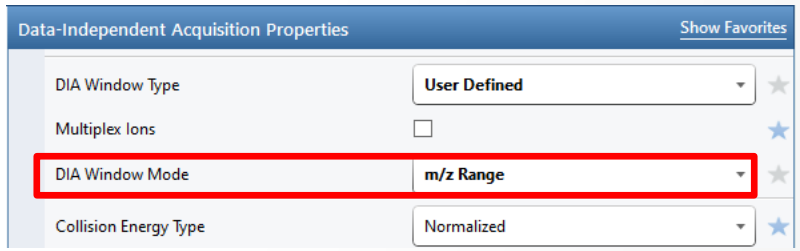


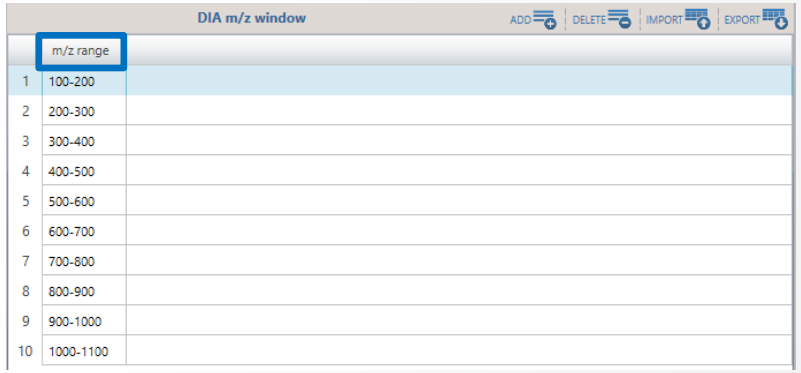
Management of Tables in DIA Scan

New DIA Window Mode

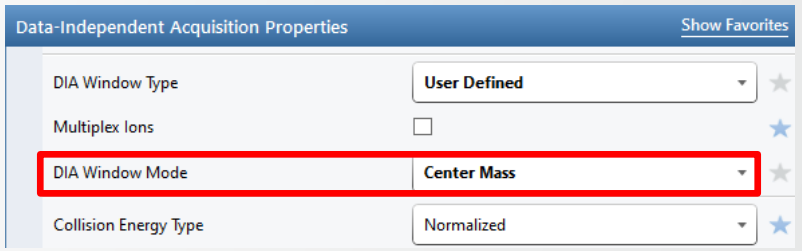
- DIA Window Mode = m/z Range
  - One column in Table
    - m/z Range
- DIA Window Mode = Center Mass
  - Two columns in Table
    - Center Mass
    - Window Width
- DIA Windows are converted when switching between the two modes
- The two DIA Window Modes are compatible with the two DIA Window Types

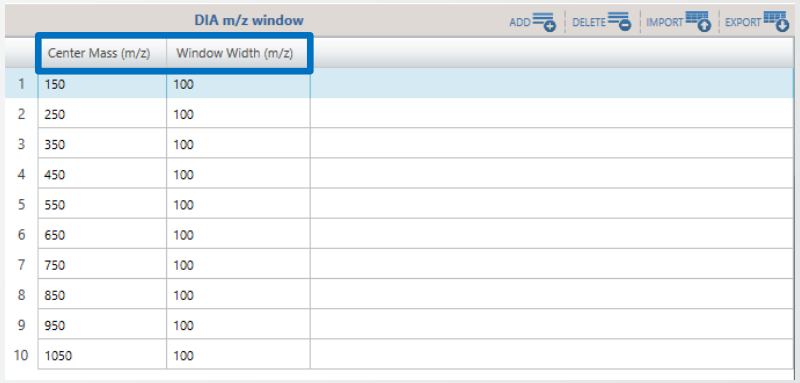
DIA Window Mode = m/z Range





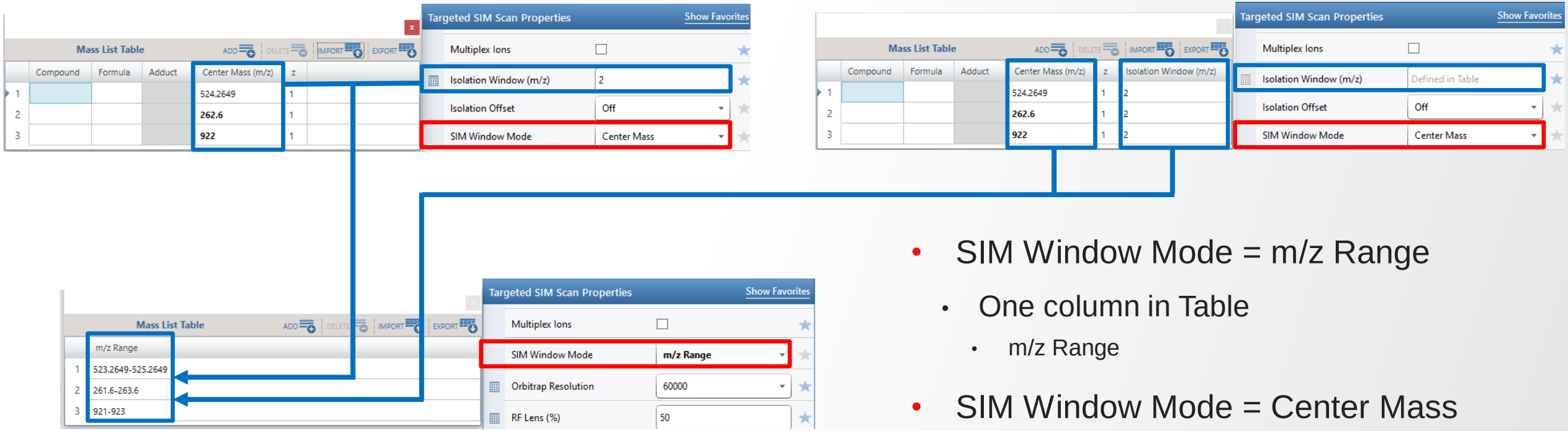
DIA Window Mode = Center Mass





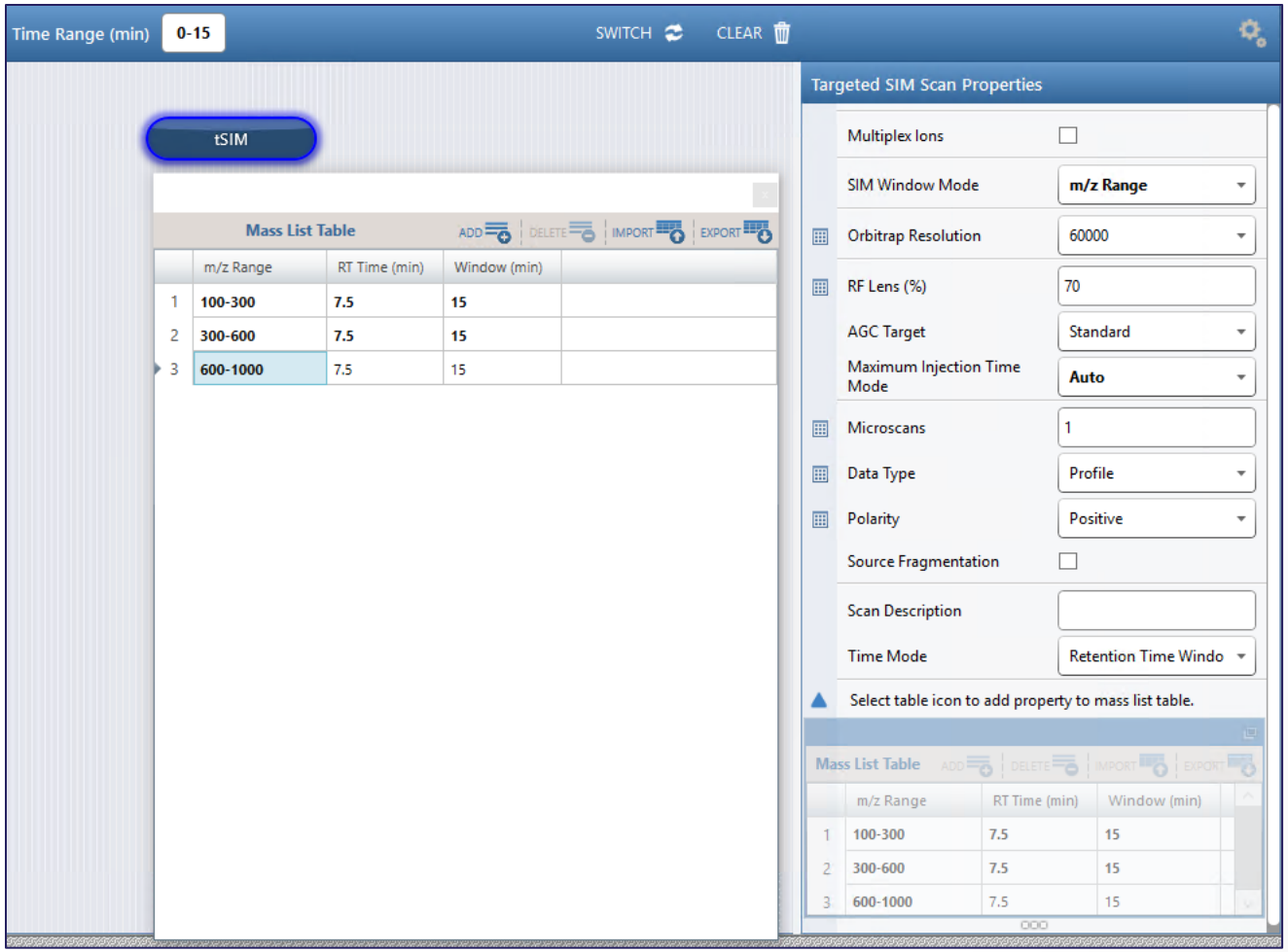
New Table Format For SIM Scan

New SIM Window Mode



- SIM Window Mode = m/z Range
  - One column in Table
    - m/z Range
- SIM Window Mode = Center Mass
  - Two columns in Table
    - Center Mass
    - Window Width (with Table icon selected)
- SIM Windows converted when switching between the two modes

Multiple Full Scan Ranges (tSIM)



- Multiple Scan ranges can be entered in the new table format for tSIM
- Extension of "Isolation Window" width from 0.4-50 to 0.4-2000 m/z units on OE120 and OE240
- Possibility to set parameters scan range dependent

Advantages:

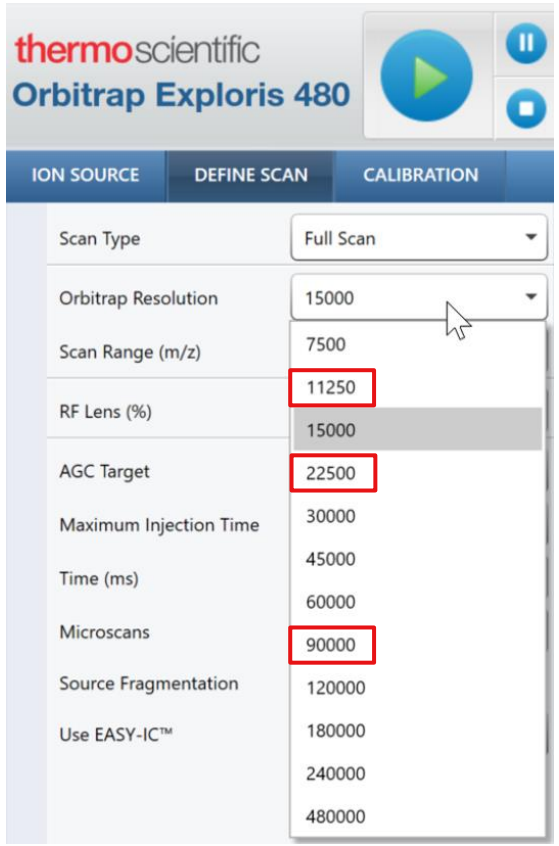
- Increase dynamic range of the calibration curve
- Better overview – parameters for all scan ranges are on one view (opposed to setup the experiment with different experiments in the timeline)

Note: For Full Scan ranges consider to set the AGC Target value to 1000 (1e6). Standard = 100 ≙ 1e5

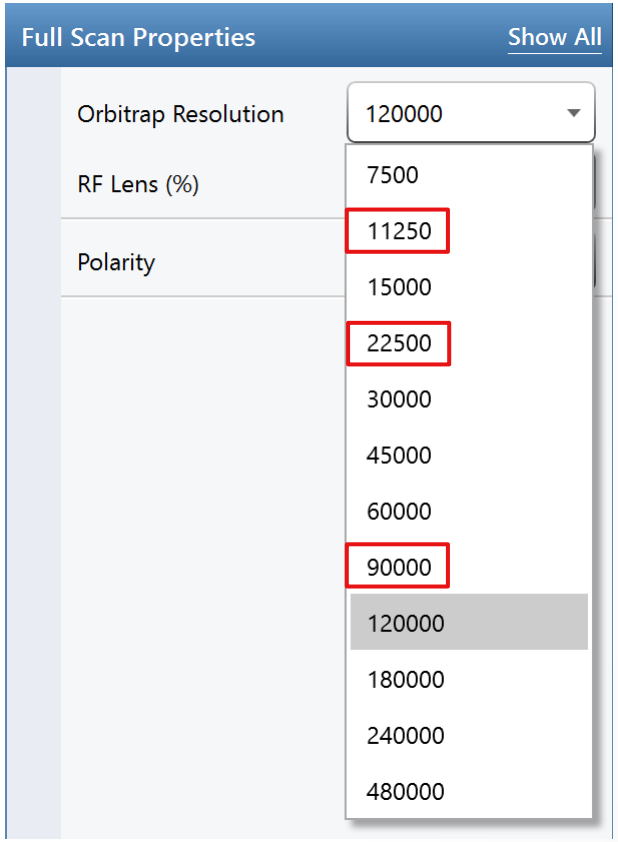
Additional Resolution Settings

Added Resolution to Provide More Flexibility in Short LC Gradient Analysis

Tune



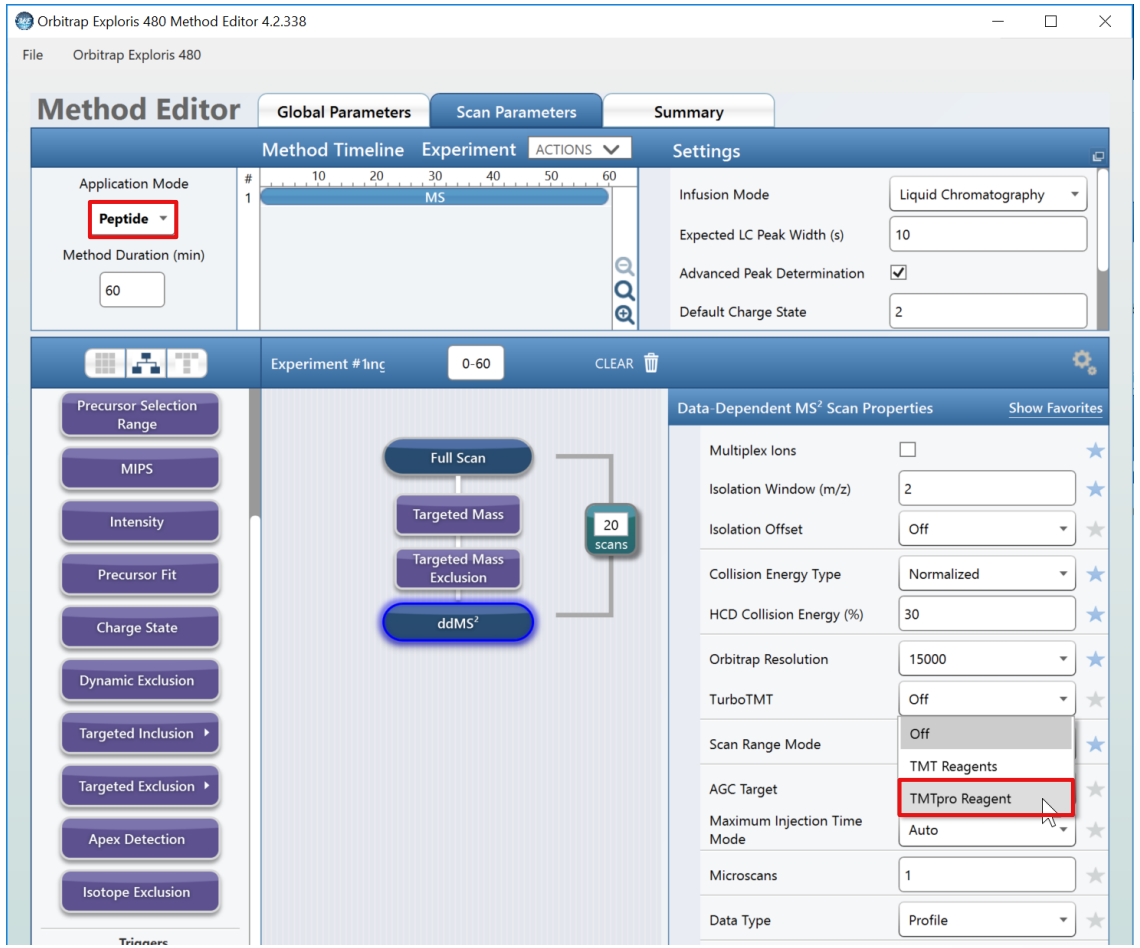
Method Editor



- Available for OE 480 and OE 240
- Available for all scan types

TMT 18-plex Support by TurboTMT

One More Window Covered by TurboTMT / TMTpro Reagent



- TurboTMT only available for OE 480
- Additional reporter ions
  - TMTpro-134C: 134. 154565 (covered by existing window 134.0414 – 134.2614)
  - TMTpro-135N: 135.151600 (covered by new window 135.0446-135.2646)

TurboTMT is specifically applied to increase the resolving power to six windows of 0.22 Da width, centered around the reporter masses for TMT and TMTpro in the mass range of 125-136 Da.

Learn more...

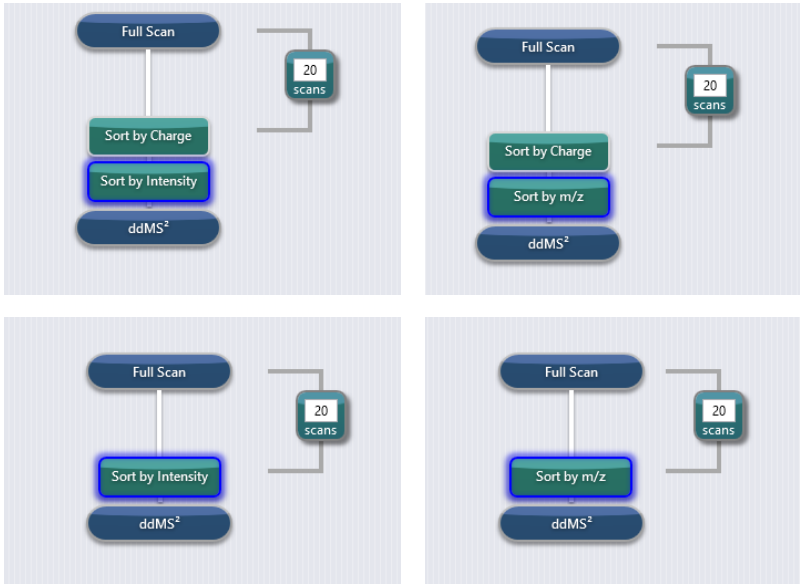
TurboTMT uses an advanced spectral processing algorithm that increases resolving power within a specified reporter ion mass range without requiring a longer transient acquisition. Using TurboTMT specifically to the Tandem Mass Tags™ (TMT™) reporter ions increases the resolution sufficient to baseline resolve isotopologues even when using transients that produce a 30,000 resolution.

For TMT Reagent, Turbo TMT is specifically applied to 6 windows of 0.22 Da centered around the masses 126.1309, 127.1279, 128.1313, 129.1346, 130.1380, 131.1413.
For TMTpro Reagent, Turbo TMT is specifically applied to 10 windows of 0.22 Da centered around the masses 126.1309, 127.1279, 128.1313, 129.1346, 130.1380, 131.1413, 132.1447, 133.1480, 134.1514, 135.1546)
Note: Using 15,000 resolving power may require additional data analysis tools.

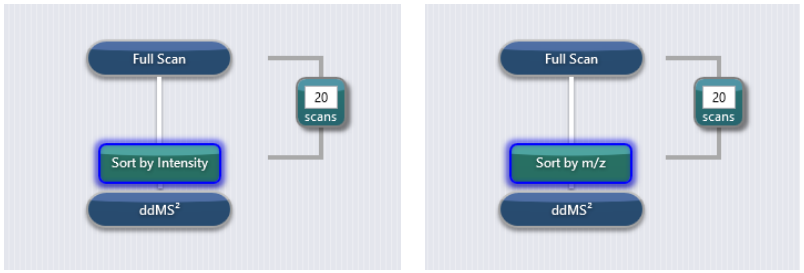
Alternate Precursor Sorts

Additional Options to Define Precursor Selection Priority in DDA

OE 480, OE 240



OE 120

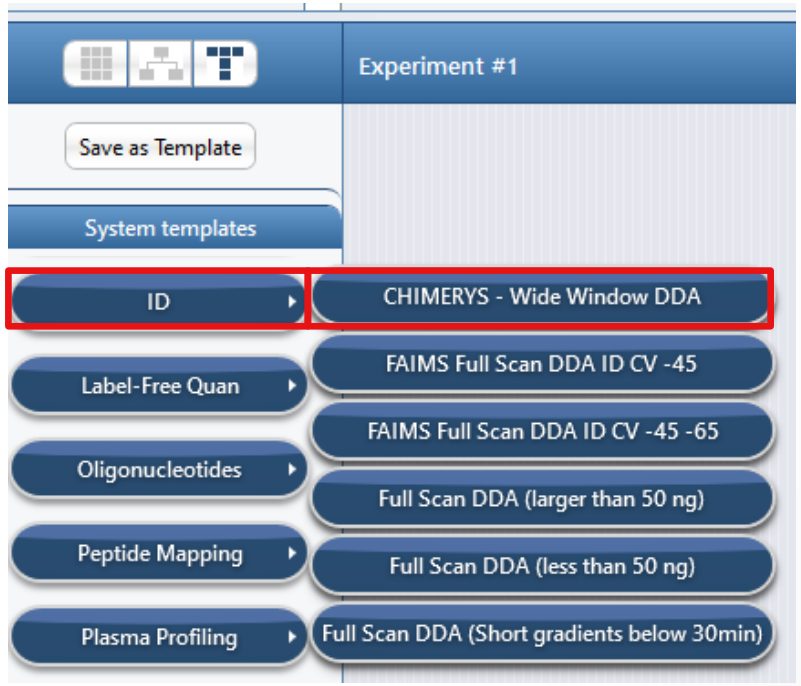


- Alignment with Orbitrap Tribrid Series ICSW
- No sorting for OE MX
- No Charge State Sorting for OE 120
- Allowed combinations
  - OE 480, OE 240: Sort by Charge (1st) AND Sort by Intensity OR Sort by m/z
  - OE 120: None

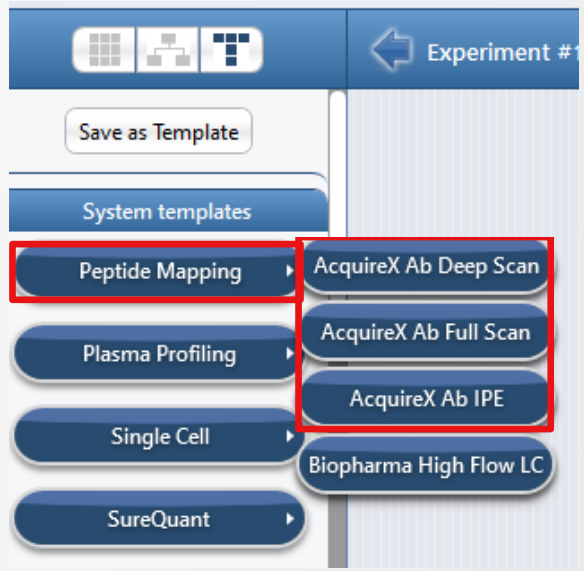
New and Updated Templates

- New Chimerys templates (Peptide Application Mode)
- New AcquireX Ab templates (Peptide Application Mode)
- Updated/Corrected Ion Source settings for several small molecule templates

Chimerys



AcquireX Ab



Updates to Manuals for Orbitrap Exploris Series

Pre-Installation Requirements Guide

Operator Manuals

Model specific Software Manuals and online help

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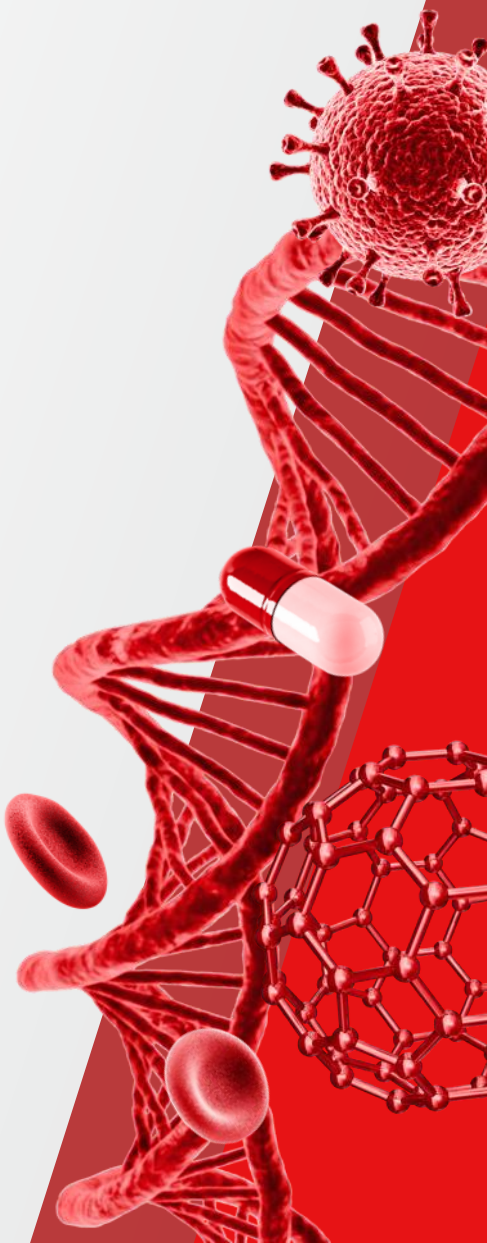
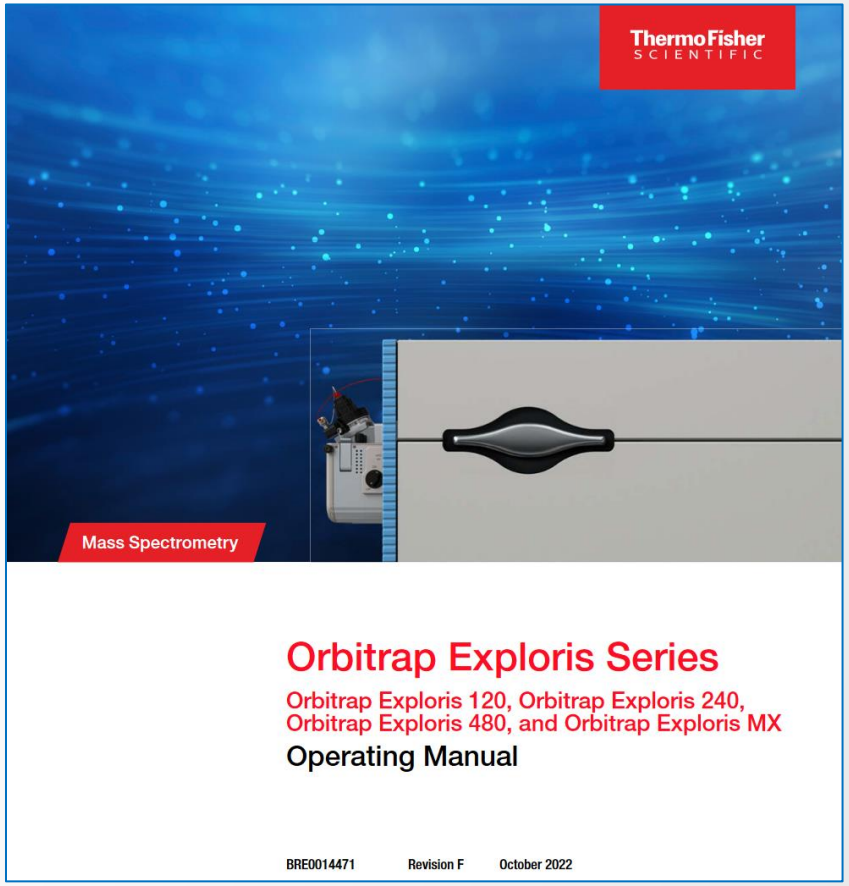


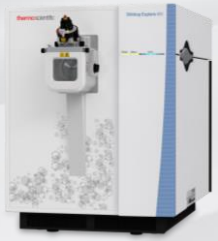
Pre-Installation Requirements Guide And Operating Manual

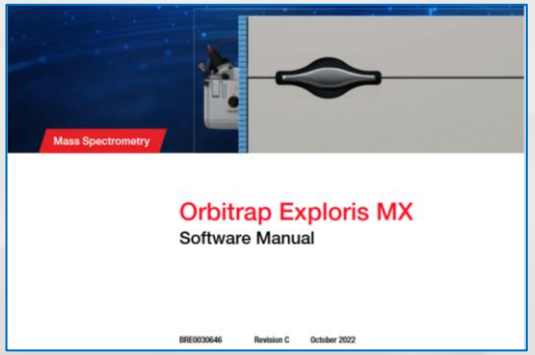
Pre-Installation Requirements Guide

Operating Manual

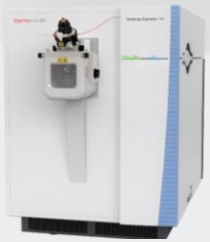


Software Manuals for these Orbitrap Exploris models

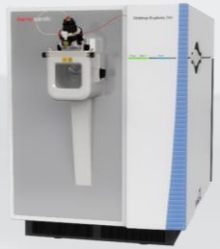




Thermo Scientific™
Orbitrap Exploris™ MX Mass Detector



Thermo Scientific™ Orbitrap Exploris™ 120
Mass Spectrometer



Thermo Scientific™ Orbitrap Exploris™ 240
Mass Spectrometer

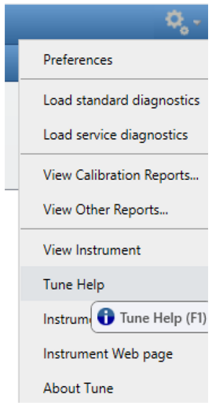
Thermo Scientific™ Orbitrap Exploris™ 480
Mass Spectrometer

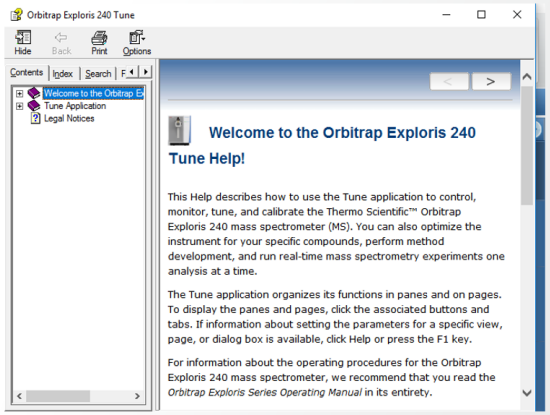
Updated Software Manuals and updated online help are part of the delivered ISO-Image and installed upon the installation of OES 4.2 SP4 ICSW

Display Online Help – of Tune – and – of Method Editor - via Fct F1 Key

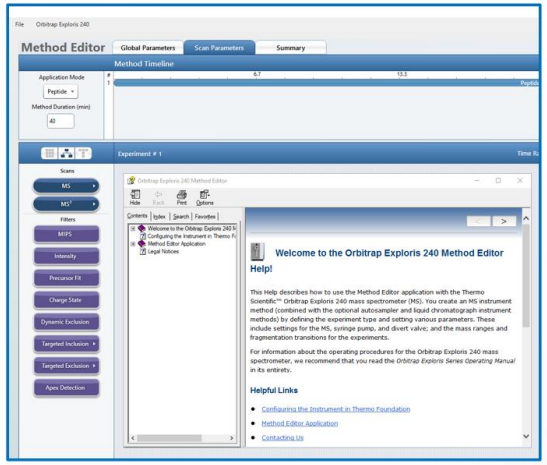
Display online help – of Tune - via Fct F1 key

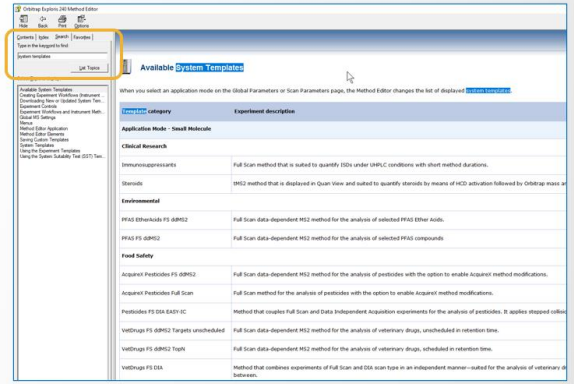
or via the gear wheel symbol in Tune – located to the right (top) corner in Tune

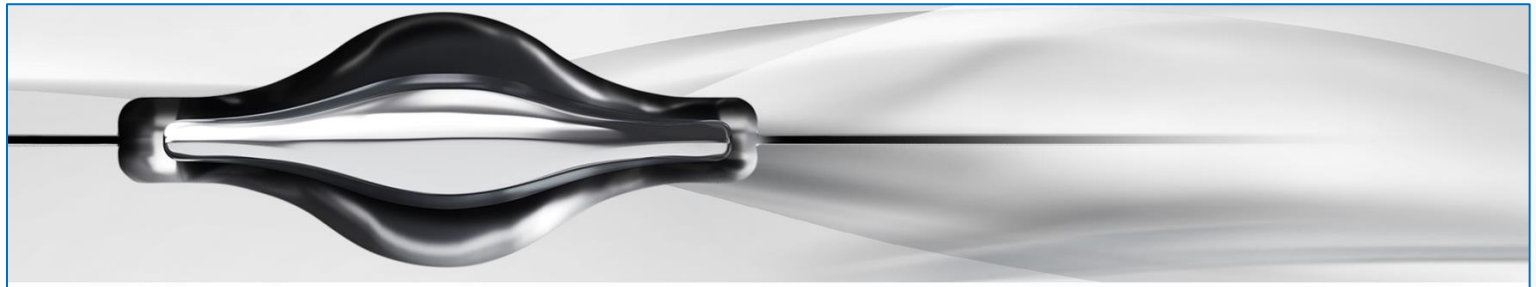




Display online help – of Method Editor - via Fct F1 key







- **Working under Chromeleon CDS * software**

* CDS = Chromatography Data System

The world leader in serving science

OES 4.2 SP4 ICSW and Chromeleon CDS Software

LC-MS data acquisition under Chromeleon

- **OES 4.2 SP4 driver** validated for use with Chromeleon CDS 7.2.10 MUg software and Chromeleon CDS 7.3.2

- Improvements : Method Editor menu bar is now available and allow
  - Import Method from Raw Data File
  - Import Mass Lists from Q Exactive Method File

- Defect fixes: The previous issue observed with Orbitrap Exploris Series 4.1 ICSW, which prevented Workstation Method Editor to be launched without Foundation installed and therefore the use of the MS client driver on Chromeleon enterprise systems using Terminal Server / Citrix clients, has been fixed.

- The Chromeleon Driver Compatibility matrix is updated when new combinations of software versions are tested. For more information and to view the compatibility matrix, sign on to https://support.thermoinformatics.com/downloads/default.aspx, and then select **Chromeleon > Chromeleon > Related Drivers > Driver Compatibility Matrix**.