

# Xcalibur 4.8 Release Notes

These release notes briefly list changes in the Thermo Scientific™ Xcalibur™ 4.8 software and Foundation 3.1 SP11 software, fixes to previously reported issues, and known issues still existing in the Xcalibur 4.8 software.

## Contents

- [Features](#)
- [System requirements](#)
- [Important information](#)
- [Resolved issues](#)
- [Known issues](#)
- [Copyright and trademarks](#)

For information on installing the Xcalibur 4.8 application, see the [Installation Instructions](#) in this document. For information on using the Xcalibur 4.8 software, refer to the manuals available at [docs.thermofisher.com](https://docs.thermofisher.com) or the application Help.

## Features

This minor version release includes the following features:

- **Windows 11 Compatibility**
  - Compatible with IoT Enterprise LTSC 2024 (24H2) version.
- **Improved Security**
  - Xcalibur software installs in one of these Windows-recommended secured installation path: C:\Program Files C:\Program Files (x86).
  - The Foundation installer no longer installs the Xcalibur\_System account by default.
  - Incorporates the latest security enhancements provided by Windows 11.
- **Minor Enhancements**
  - The Fill Down menu on the Sequence Setup view now provides Increment Down and Fill Down options for more columns.
  - The File Converter Tool, previously removed in Xcalibur 4.7, is now back in Xcalibur 4.8.
  - Enhanced AcquireX processing engine allows faster processing time and refined ion selection for inclusion and exclusion lists.
  - Superior AcquireX experiments method validation when Enhanced dynamic range (eDR) mode is used (available only on supported hardware).
- **Resolved Issues**
  - For Xcalibur 4.8 see [Resolved Issues - Xcalibur 4.8](#).
  - For Foundation 3.1 SP11 see [Resolved Issues - Foundation 3.1 SP11](#).

**Note** Xcalibur 4.8 is compatible exclusively with Windows 11 and SII for Xcalibur 1.9.

## System requirements

The following table lists the minimum requirements and recommended data system computer hardware and software configurations for operating the Xcalibur 4.8 application.

## Important information

**Table 1.** Hardware and software requirements

System	Requirements
Hardware	<ul style="list-style-type: none"><li>• 12-core processor with processing speeds of 2.1 - 4.9 GHz</li><li>• Installed memory (RAM): 32 GB</li><li>• Video card and monitor capable of 1920 × 1080 resolution</li><li>• 4 TB hard drive</li><li>• NTFS format</li></ul>
Software	<ul style="list-style-type: none"><li>• Microsoft Windows™ 11 × 64 IoT Enterprise LTSC 24H2</li><li>• .NET Framework 4.8 or later</li><li>• Thermo Scientific™ Foundation platform 3.1 SP11</li><li>• Microsoft Office 2019<sup>a</sup></li><li>• Operating system: US English</li><li>• Adobe™ Acrobat™ Reader™ DC</li></ul>

<sup>a</sup> Required if using XReport™ or Quan Browser

### General

The Xcalibur installer will not include the XDK Example Apps, but they are available upon request through the Technical Support team.

Thermo Fisher Scientific recommends that all users avoid saving data type files in the Windows Program Files or Program Files (x86) directories. Users can change the default location for Xcalibur Data, Methods, and Report Templates using the Thermo Xcalibur Configuration Tool, accessible from the Tools Menu in the Roadmap View.

The Xcalibur software installation package is no longer provided as a DVD. Instead, it is available as digital media for download from Thermo Fisher Scientific Life Sciences Mass Spectrometry and Chromatography Software Download Portal (<https://thermo.flexnetoperations.com>). The installer package downloads as a .zip folder from the portal, which must be unzipped and saved on the instrument computer's local drive before proceeding with the Xcalibur installation.

Xcalibur 4.8 does not require a license key but is still subject to the End User License Agreement (EULA). See [System requirements](#) for the minimum requirements and recommended data system computer hardware and software configurations.

(For users of Thermo Scientific Foundation Auditing feature only) The MS Access database is not supported for auditing purposes. Oracle Database 19c is the supported platform for auditing with Thermo Scientific Foundation Auditing feature. Both Oracle Server and Oracle Client software must be installed on the same Xcalibur data system computer. The installation and configuration must follow the guidelines in the [Oracle Database Installation and Configuration Guide](#). Users who previously utilized MS Access database on earlier versions of Xcalibur can access their historical audit trail entries in read-only mode.

**IMPORTANT** Due to security enhancements, users cannot downgrade Xcalibur 4.8 to utilize a pre-existing MS Access database.

**Note** The Foundation 3.1 SP11 solely supports Oracle Network Server for auditing purposes.

(For users of NIST™ only) The Xcalibur 4.8 package does not include the NIST installer software. Users can download the free NIST 17 Mass Spectrometry (MS) Demo and AMDIS 2.7 setup from the National Institute of Standards and Technology (NIST) website. The AMDIS 2.7 setup includes the MS Search program version 2.3, AMDIS, and the NIST 17 Demo Library. Users can purchase the complete NIST 2023 Tandem MS Library and NIST MS Search version 3.0 through [Thermo Fisher Scientific](#) and the NIST website.

(For users of Thermo Scientific™ Quan Browser™ and Thermo Scientific™ Processing Setup™ applications only) The Processing Setup and Quan Browser applications remains accessible, but they will no longer be supported or updated. Thermo Fisher Scientific recommends that users transition to using Thermo Scientific™ TraceFinder™ application and the Thermo Scientific™ Chromeleon™ application for data processing.

## Installation Instructions

You must have administrator rights to install Xcalibur software on your computer.

The Xcalibur 4.8 package installs Foundation 3.1 SP11 (3.1.387), Xcalibur 4.8 (4.8.56.2), and FreeStyle™ 1.8 SP2 QF1 (1.8.65.0).

### ❖ To perform a new installation of Xcalibur 4.8

1. Copy the .zip installer folder into your local drive and then unzip the folder.

**Note** Xcalibur 4.8 cannot be installed from a desktop, a USB drive, a network drive, or a mapped drive.

2. Select **ThermoLauncher.exe**.
3. Select **Adobe Acrobat Reader DC** to install the Adobe Reader application.
4. Select **Xcalibur 4.8**.

The Xcalibur 4.8 installs on the data system computer and includes Foundation 3.1 SP11 and FreeStyle 1.8 SP2 QF1 (1.8.65.0) software.

**Note** During installation, the installer might install .NET 4.8, which requires a computer restart.

5. If the installation does not continue after the computer restart, double-click the installer again.
6. (For users of mzVault™ with FreeStyle only) Select **mzVault 2.3 SP1** to install the Thermo Scientific mzVault 2.3 SP1 application.
7. For the data acquisition system, verify and install the necessary compatible instrument drivers, such as the MS and LC drivers.

**Note** These drivers can be obtained from the [Software Download and Licensing site](#). Thermo Fisher Scientific recommends to contact your field service engineer for the correct version of the instrument drivers.

8. (For users of Ardia Platform only) Clear the **Internet Explorer 11** option under Windows Features.

**Note** The Ardia Platform only supports Google™ Chrome™ and Microsoft Edge™ browsers.

## Resolved issues

Table 2 and Table 3 describe the defects that were resolved in the Xcalibur 4.8 and Foundation 3.1 SP11 release. These two tables exclude Help issues and any cosmetic fixes. In some cases, the abstract has been amended or extended from the original to better describe the reported issue. Both an engineering fix and follow-up testing (verified by our product evaluation department) have resolved these issues.

**Table 2.** Resolved Issues - Xcalibur 4.8

Item ID	Abstract	Severity
487055	Inconsistent default directory behavior for downloading raw files from Xcalibur's Ardia Acquisition and Upload Status View page.	Low
744316	AcquireX data processing error related to processing engine start up wait time.	Major
815547	AcquireX error related to no component ion being detected for the inclusion sample.	Major
611497	Problem signing in to the Ardia Platform from the Xcalibur application when the default browser is Edge.	Low
766612	The log4net.txt file under Xcalibur grows excessively large and consumes storage space on local hard drive.	Medium
744317	Ardia Platform Link software blocks Xcalibur software installation.	Low

**Table 3.** Resolved Issues - Foundation 3.1 SP11

Item ID	Abstract	Severity
771132	Improvement on the Foundation installer to prevent suboptimal installations.	Major
505598		
766640	Improved Foundation repair functionality.	Medium

## Known issues

### Suggested recovery actions

- For some issues, restarting the application is the appropriate recovery action.
- In some cases (particularly issues that arise during data acquisition), restarting applications such as the Home Page might not ensure complete recovery. Typically, restarting the data system computer or opening and then closing the Foundation Instrument Configuration resolves the issues, but some devices with error conditions might require power cycling.
- Before launching the Xcalibur Installer, all Windows updates need to be successfully installed and the PC must be restarted. Additionally, the user might need to recheck and reinstall any Windows updates and restart the computer after a successful installation.
- If the Xcalibur application is installed on a data system computer that shares the same name as another on the domain, an error message might pop up during installation. Select **OK** to close the error message and complete the installation. Ideally, ensure all the names of computers in the domain name are unique.
- In some instances, when Xcalibur and Thermo Scientific Biopharma Finder™ are both installed on the same data system computer, opening both applications simultaneously may cause failures. Thermo Fisher Scientific recommends either installing data processing software on different systems or opening only one application at a time if installed on the same system.
- In some cases, Instrument configuration may fail to launch on the first attempt, after installing or uninstalling Xcalibur and instrument drivers. It is recommended to restart the computer and relaunch the instrument configuration.
- Instrument Configuration might not open if more than one Windows user account is active. Sign off from additional Windows user accounts to open Instrument Configuration.
- If auditing is enabled and the computer is restarted, then it is recommended to wait for all applications to complete loading before launching the Xcalibur application.
- In some instances, when encountering a warning message indicating that ‘Thermo Foundation Database Services’ have not started upon launching the Xcalibur application, it is recommended to restart the computer and wait two to five minutes before attempting to launch the application again.
- When viewing the legacy MS Access database, it is possible that the History tab and Event tab might not display any previous entries. To resolve this issue, it is recommended to configure the Oracle database.
- The Administrator Guide accessed through the **Start Menu > Thermo Scientific Foundation 3.1 > Administrator Guide** displays an outdated manual. To access the current version of the Administrator Guide, *Foundation\_Admin\_2025.pdf*, navigate to the *C:\Program Files\Thermo\Xcalibur\system\programs* folder.
- Occasionally, launching and closing Xcalibur multiple times without signing out from Ardia Platform within the application causes the registration tile to become active, suggesting the need to re-register even though the system is already registered. To recover from this issue, close and relaunch the application without re-registering. This will restore the correct Xcalibur registration status and allow users to sign in to the Ardia Platform.
- Submitting sequences that contain a large number of injections into Ardia Platform will take more time than submitting them to the local instrument computer.
- In some instances, the Acquisition and Upload Status view will not update properly. To resolve this issue, sign out from the Ardia Platform and sign back in, alternatively restart the computer.
- The progress bar in the Acquisition and Upload Status view might not be accurate due to inconsistent Internet bandwidth.
- In some instances, users might encounter sequence submission errors due to pending Microsoft Windows updates. To resolve this issue, install the updates and restart the instrument computer.
- Due to changes in Microsoft Windows, the Xcalibur installation cannot associate RAW files with FreeStyle. This must be changed manually by the user.
- If power is lost during AcquireX acquisition, the system will revert to running the sequence without data processing related automation. Restart the system and resubmit the AcquireX experiment for acquisition.
- AcquireX uses port 28400 to listen for incoming connections. Ensure port 28400 on the Xcalibur data system is enabled for AcquireX to work properly.

- The Xcalibur application requires Microsoft Office 2019 to export reports to Microsoft Excel format. Office applications from other vendors and Office 365 are not supported.

#### Feature requests and other removed items

- Issues are excluded when there is insufficient information logged to successfully reproduce the reported problem.
- Feature requests are not listed as software issues regardless of the reported significance or deemed importance of the request. Product managers evaluate logged feature requests for future releases.
- Only discrepancies in the documented software are reported as known issues.

#### Terminology

Table 4 describes the terms and meanings of the severity levels used in this document. Table 5 describes the terms and meanings of the risk levels used in this document.

**Table 4.** Severity level terminology

Severity	Interpretation
Critical	A problem 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. Catastrophic problems also include significant and non-obvious quantitative errors, and all human and instrument safety issues.
High	A serious issue that does not affect data integrity (meaning data loss, corruption of data, or the wrong answer), but affects the customer'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.
Medium	A minor error or poor behavior of a product feature. There is probably a workaround.
Low	An issue that has a limited effect on customer usage of the product; for defects with visibility so low that a customer might never see it; or for ease of use issues or other items not causing any performance degradation.

**Table 5.** Risk level terminology

Risk	Interpretation
High	Occurrence is likely to happen and can compromise operation.
Medium	Occurrence is uncommon, but could compromise operation if it occurs.
Low	Issue is minor; however, the software could operate differently from a user's expectations. A workaround might be available.
No Risk	This issue causes no problem but is commonly an inconsistency or cosmetic issue.

#### Known defects

Table 6 contains known software defects, identified by ID number, a brief abstract, and risk level. The Item ID is the internal number assigned to each issue. Product management assesses risk, which can differ significantly from the reported severity.

**Table 6.** Known defects

Item ID	Abstract	Risk
866006	Audit Viewer does not display the username of removed users from user groups in the Foundation Authorization Manager.	Low
862113	Opening Xcalibur and Biopharma finder in the same computer simultaneously causes failures.	Medium
859064	Mismatch in number of keys between Xcalibur IQ report and IQ logs after installation.	No risk
855241	Repeated launching and closing of Xcalibur without signing out from Ardia makes Registration Tile active.	Low
854899	Acquisition and upload status view fails to update properly during large file acquisitions.	No risk
641502	Thermo Foundation Database Service warning message requires additional details.	Medium
452605	Clicking on the Administration guide from the Start menu opens an outdated Foundation Admin guide.	Low
371320	Long sequences submitted to Ardia Platform may have status refresh issues.	Medium
360769	Instrument Configuration may not open if more than one Windows user account is active.	Low
251447	Print option is not available from the sequence view.	Low
150890	Incorrect method is referenced in Acquire X error message during submission failure.	Low

## Copyright and trademarks

© 2025 Thermo Fisher Scientific Inc. All rights reserved.

All trademarks are the property of Thermo Fisher Scientific and its subsidiaries unless otherwise specified.

Microsoft, Windows, Access, and Excel are trademarks of Microsoft Corporation.

Adobe, Acrobat, and Acrobat Reader are trademarks of Adobe Systems Incorporated.

Oracle is a trademark of Oracle Corporation.

NIST is a trademark of the National Institute of Standards and Technology.