

# Factory Communication

# 2024.002 Rev C

**FC Release Date:** March 27, 2024

**Affects Safety:** ☐ Yes ☒ No

**Medical Device:** ☐ Yes ☒ No

**Read and Understood is:** ☐ Required ☒ Not required

**NOTE:** If **Read and Understood** option is marked Yes, please follow the **ULS Technical Communications Process (Document ULS-SPS-0002)**

**Instrument:** All MS Instruments

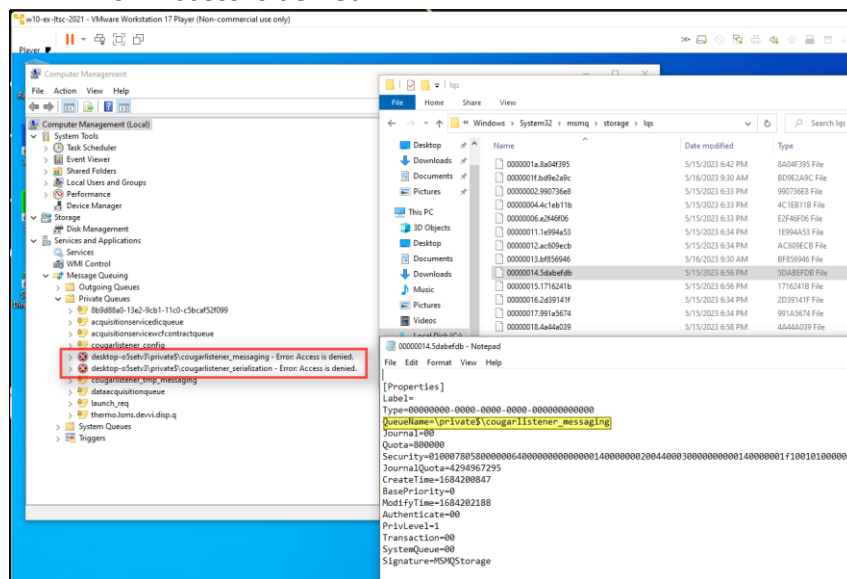
**Topic:** Xcalibur Software Upgrade Installation

**Title:** FC 2024.002 RevC – Upgrade Instructions for Xcalibur 4.5 and 4.6

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**Issue(s):** There have been several random issues reported with Xcalibur software upgrade from 4.5 and 4.6: Xcalibur 4.5 -> 4.6, Xcalibur 4.5 -> 4.7, and Xcalibur 4.6 -> 4.7.

- 1) Foundation log stopped updating. This was observed when upgrading from Xcalibur 4.5 and up.
  - Bug414400 - Foundation Acquisition Service Log Stopped Updating After Upgrading to Xcalibur 4.6 and Foundation 3.1 SP9
    - Foundation acquisition service log stopped updating.
    - Computer Management | Services and Applications | Message Queuing | Private Queues – 2 or more private queues showed “Error: Access is denied”.



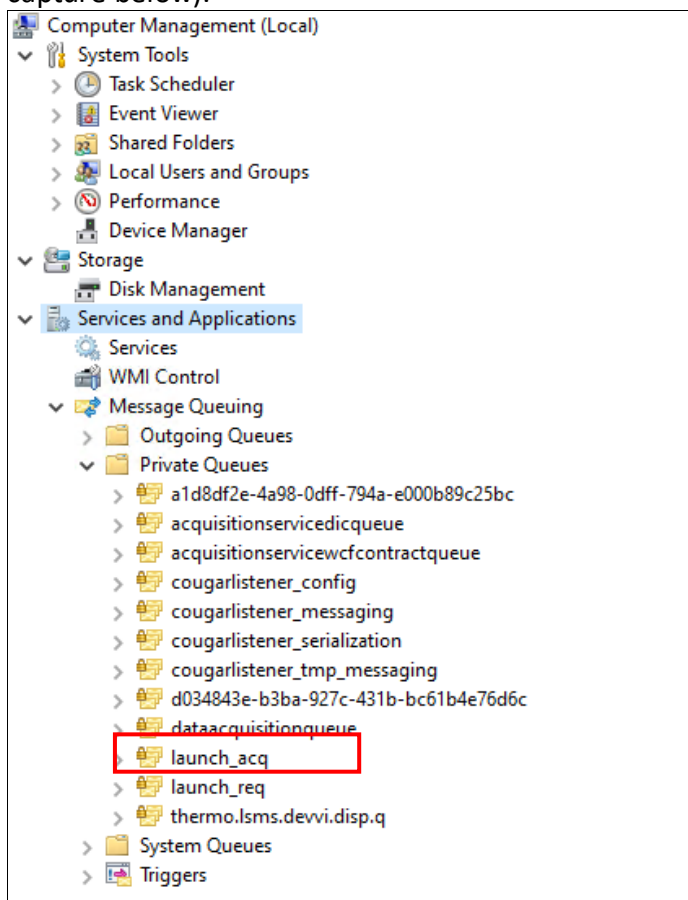
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- 2) Xcalibur Realtime Plot View Sometime Freezes After Software Upgrade.
  - Bug414401 - Xcalibur Realtime Plot, Instrument Status and Queue Freezes After Software Upgrade
- 3) After upgrading to Xcalibur 4.7 from 4.5 or 4.6, AcquireX stopped working. However, following the clean upgrade procedure detailed in FC 2024.002 RevB significantly resolved quite a few AcquireX issues encountered post-Xcalibur upgrade. We attribute these AcquireX issues to faulty installations, and the implementation of the 'deep clean' procedure effectively rectified these problematic installations.
- 4) Post-acquisition Program Not Working After Xcalibur Upgrade.
  - Bug458618 – 'launch\_acq' Private Queue Is Not Created with Post-Acquisition Method Run After Xcalibur Upgrade
    - Computer Management | Services and Applications | Message Queuing | Private Queues, the 'launch\_acq' folder was not created during a sample run with post-acquisition program.
    - The "launch\_acq" folder should be created during a sample run with the pre/post-acquisition program in Xcalibur (see screen capture below).

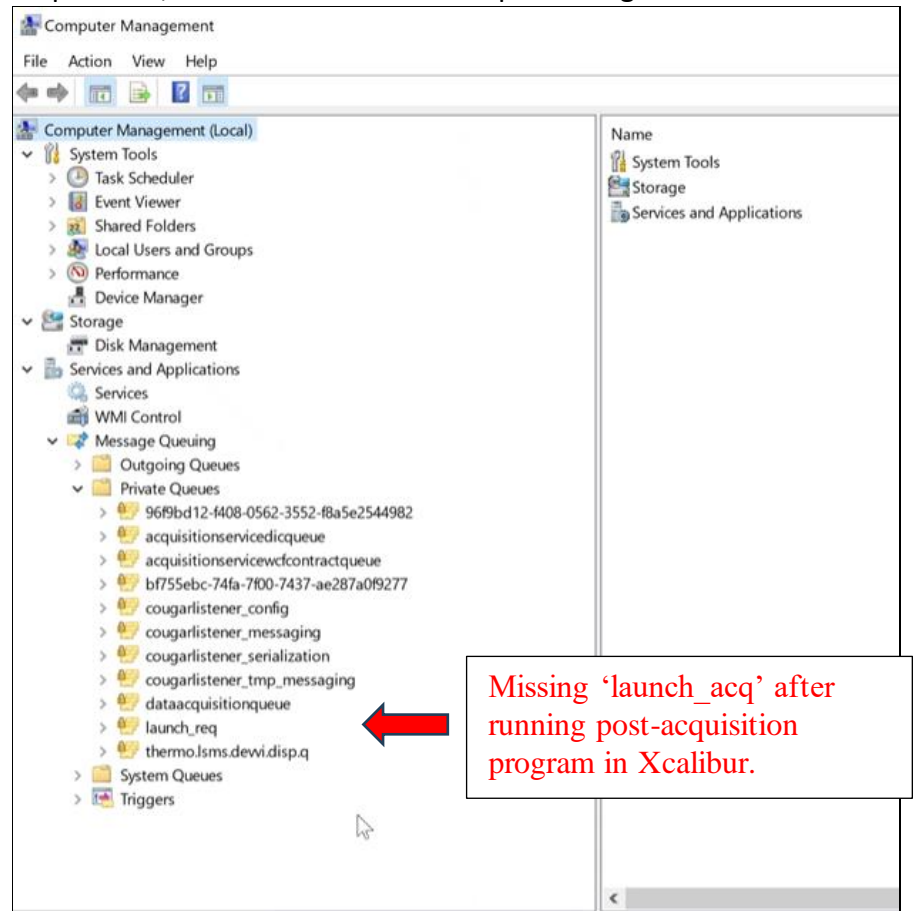


- OptiMSe software uses the post-acquisition program in Xcalibur for automated online data processing. If the missing 'launch\_acq' problem is present on the instrument PC (see

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screen capture below), the installation of OptiMSe will present no problem, but the automated data processing fails.



**Solution(s):** Follow these step-by-step instructions to cleanly upgrade Xcalibur software from either version 4.5 or 4.6.

- Xcalibur 4.5 -> 4.6
- Xcalibur 4.5 -> 4.7
- Xcalibur 4.6 -> 4.7

**Note:** You must have administrator rights to install Xcalibur software on the computer. Refer to the Xcalibur Release Notes for information on supported operating systems (including Windows 10 IoT Enterprise LTSC versions 2016, 2019 and 2021) and system requirements.

**Note:** The upcoming Xcalibur 4.7 SP1 installer will mitigate these identified issues, minimize potential user error and ensure a clean software upgrade.

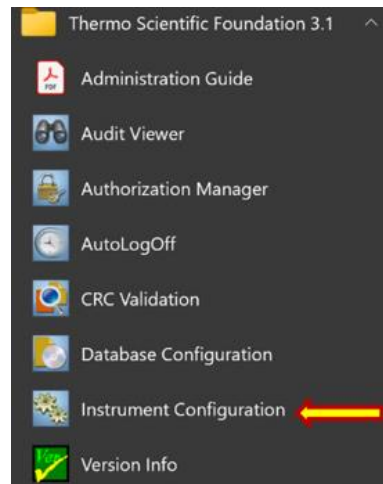
## 1) Remove Older Versions of Xcalibur, Foundation and SII for Xcalibur

1. Unconfigure all the devices from Instrument Configuration.

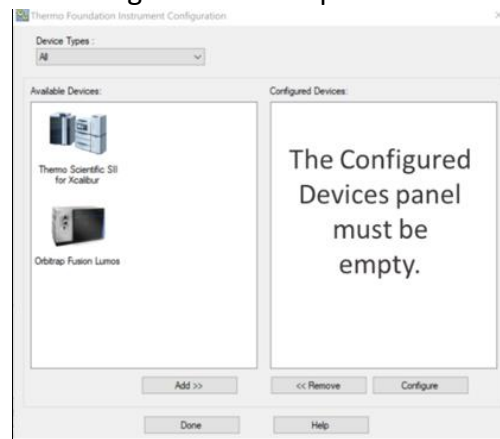
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- 1.1. Start menu/Thermo Scientific Foundation 3.1/Instrument Configuration (see picture below)



- 1.2. If devices are displayed in the Configured Devices panel, click on the device and use the Remove button to move the device from the Configured Devices panel to the Available Devices panel.

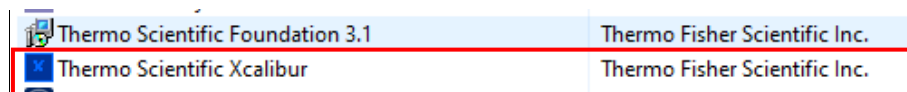


- 1.3. When the Configured Devices panel is empty, click on the 'Done' button.

2. Uninstall *SII for Xcalibur* from Control Panel.

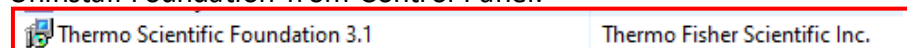


3. MS Instrument Control Software (ICSW) does not need to be uninstalled.  
4. Uninstall Xcalibur 4.5 or 4.6 from Control Panel.



5. **Remove the folder: C:\Xcalibur\System\Programs**

6. Uninstall Foundation from Control Panel.



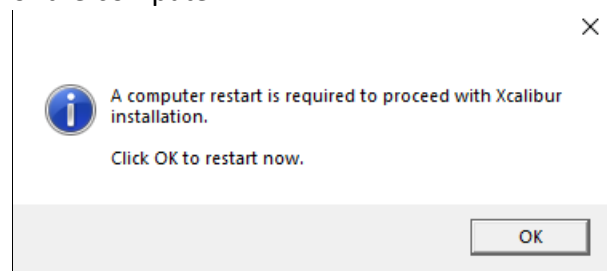
7. Restart the computer.

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## 2) Pre-installation Cleanup

1. Prior to running the pre-installation cleanup tool, go to Computer Management - take a screen capture of the private queues if there are any red marks-> keep the screen capture.
2. Download the **ThermoFisher.PreinstallCleanup.zip** from this link: [ThermoFisher.PreinstallCleanup.zip](#)
3. Extract the **ThermoFisher.PreinstallCleanup.zip** file.
4. Right click on the **ThermoFisher.PreinstallCleanup.exe** and select 'Run as administrator'.
  - The PreinstallCleanup tool will check the readiness of the IPC for Xcalibur installation/upgrade, by checking Instrument Configuration and if older versions of Xcalibur, Foundation and SII for Xcalibur are present. If any of the checks fail, it would prompt the user about it.
  - The PreinstallCleanup tool will find/delete seven private queues, delete/create the 'launch-acq' and 'launch\_req' private queues with the correct permissions.
5. Upon successful PreinstallCleanup script completion, a prompt will appear instructing the user to restart the PC. Click on 'OK'. This will force a restart of the computer.



6. There are 2 logs created in *C:\Program Data\Thermo\Foundation\Logs\* folder to show all the validation checks and private queue files deleted during the cleanup process.
  - MSMQdatetimestamp.log
  - PreinstallCleanup\_date&timestamp.log
7. Keep a copy of these two logs.

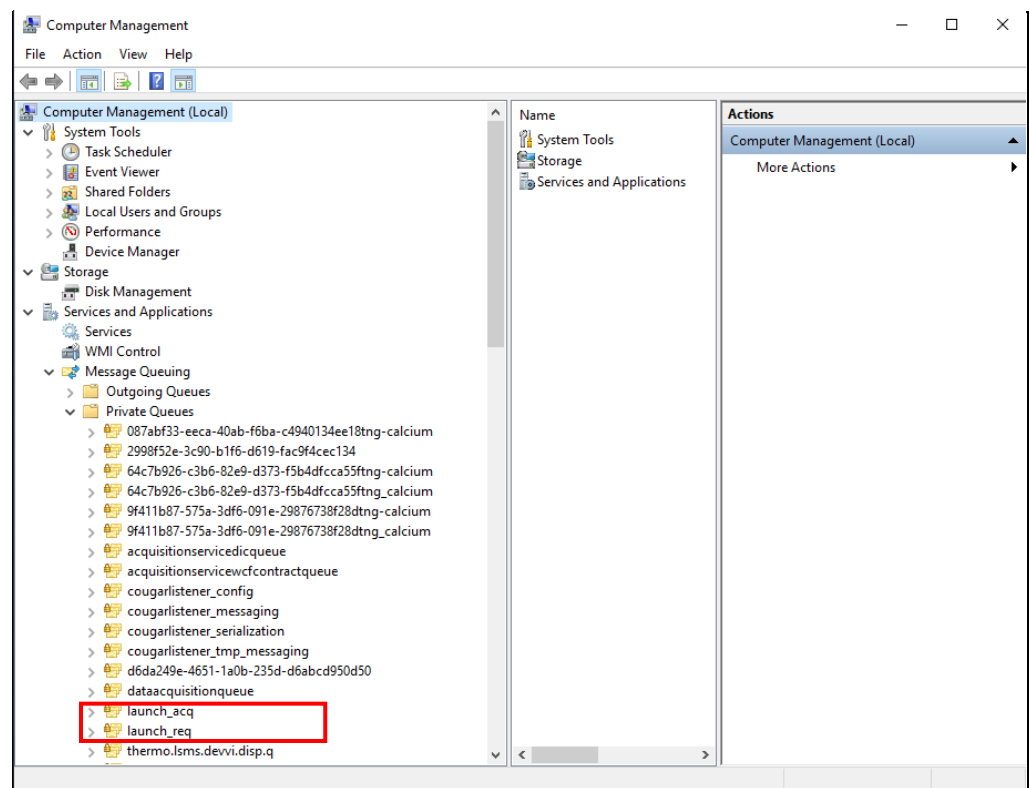
## 3) Xcalibur Installation

1. Check that all Windows updates are successfully completed.
  - Open the Start menu and type 'Windows Update Settings' into the search bar.
  - Select 'Windows Update Settings' from the search results to open the Windows Update page.
  - Click on 'Check for Updates' to ensure your system is up to date.

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- If updates are available, click on 'Install Now' to initiate the installation process.
  - Follow any on-screen prompts to complete the update installation.
2. Install Xcalibur 4.6 or 4.7 from local drive.  
**Important – As a best practice, avoid initiating the installer via desktop, USB stick, network drive or mapped drive to minimize the risk of potential installation issues.**
  3. Follow instructions on the screen.
  4. Go to Computer Management | Services and Applications | Message Queuing | Private Queues and observe the private queues should have no error marks. Additionally, both 'launch\_req' and 'launch\_acq' folders should be present.



5. Install compatible version of SII for Xcalibur.
6. If required, install / update the MS ICSW. Check the latest Xcalibur Compatibility Matrix to ensure compatibility.
7. Configure all the devices from Instrument Configuration.
8. Launch Xcalibur and create/submit a test sequence.
9. The new entries in the Foundation LOG located at C:\Program Files\Thermo\Foundation\LOG\ThermoFisher.Foundation.Acquisition.log should date from the day of the sequence.
10. The Xcalibur Realtime Plot should function as expected during the sequence acquisition.

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11. Verify the functionality of the Xcalibur post-acquisition program by executing a simple test as outlined below. The simple test utilizes the FreeStyle application to trigger the post-acquisition program upon the conclusion of the acquisition process. Note that this rudimentary test serves only as a way to validate the expected performance of the post-acquisition program.

- a. Create a single-row sequence with a 1-minute instrument method and solvent blank sample. Save and submit the sequence.

	Sample Type	File Name	Sample ID	Path	Inst Meth	Proc Meth
1	Blank	data01	1	C:\Xcalibur\Data	C:\Xcalibur\methods\1minTest	
*						

- b. In the *Run Sequence* dialog, next to the *Post Acquisition* edit box, click on 'Browse'.

The screenshot shows the 'Run Sequence' dialog box. The 'Post Acquisition' field is highlighted with a red rectangle, and the 'Browse...' button next to it is also highlighted. The dialog includes sections for 'Acquisition Options', 'Instrument Method', 'Programs', and 'Processing Actions'. The 'Post Acquisition' field contains the path 'C:\Program Files\Thermo\FreeStyle\ThermoFisher.FreeSt'. The 'Browse...' button is located to the right of the field.

- c. Navigate to C:\Program Files\Thermo\FreeStyle. Select *ThermoFisher.FreeStyle.App.exe* as the executable to run as the post-acquisition program.
- d. FreeStyle application should automatically launch upon the completion of the data acquisition.

This technical communication has been reviewed and approved by the Instrument and Enterprise Services Global Services Integration Group. Any technical questions or comments regarding this communication must be directed to the respective product line support group. Any questions regarding the distribution of this communication or administrative questions should be directed to [IES.ServicesIntegration@thermofisher.com](mailto:IES.ServicesIntegration@thermofisher.com)

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