

CryoFlow 1.25

Release Notes

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Technical Publications

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Document History

Rev A, July 2024

Introduction

Purpose

This document provides a description of the Thermo Scientific CryoFlow software package.

Audience and Scope

These release notes are intended for:

- Those who manage the configuration of Thermo Scientific CryoFlow installations.
- Users of the Thermo Scientific CryoFlow software.

This document describes the content and dependencies of the most recent and historic CryoFlow releases.

This document does not describe the installation, licensing, or use of the CryoFlow software.

System, Software and Configuration Compatibility

Although CryoFlow software is backward compatible with a limited set of microscope software versions, it is preferred to update the microscope to the most recent compatible release to make use of all the latest features and improvements.

The tables below show the compatible and preferred software versions, and the system configuration compatibility.

Compatibility Matrix Between LS Applications

CryoFlow	EPU	Tomography	EQM	Tomo Live	eCL	SDP
1.25.0	3.9	5.19	1.18.0	1.9.0	4.6.0	2.12+, 3.1, 3.2
1.24.0	3.8	5.18	1.17.0	1.8.0	4.5.0	2.7+
1.23.0	3.7	5.17	1.16.0	1.7.0	4.5.0	2.7+
1.22.0	3.6	5.16	1.15.0	1.6.0	4.3.0	2.7+

CryoFlow	EPU	Tomography	EQM	Tomo Live	eCL	SDP
1.21.0	3.5	5.15	1.14.0	1.5.0	4.3.0	2.7+
1.20.0	3.4	5.14	1.13.0	1.4.0		2.6+
1.19.0	3.3	5.13	1.12.0	1.3.0		2.6+
1.18.0	3.2	5.12	1.11.0	1.2.0		2.6+
1.17.0	3.1	5.11	1.10.0	1.1.0		
1.16.0	3.0		1.9.0			
1.15.0	2.14		1.8.0			
1.14.0	2.13		1.7.0			
1.13.0	2.12		1.6.0			
1.12.0	2.11		1.5.0			
1.11.0	2.10		1.4.0			
1.10.0	2.10		1.4.0			
1.9.2	2.9		1.3.0			
1.9.1	2.9		1.2.0			
1.9.0	2.9		1.2.0			
1.8.2-1.8.4	2.7		1.2.0			
1.8.0-1.8.1	2.7		1.1.0			
1.7.0	2.6		1.0.0			

CryoFlow Portal Browsers Compatibility

- Chrome up to 120 (minimum required version 98)
- Edge up to 126 (minimum required version 98)
- Safari 16.5 (18615.2.9.11.4)

CryoFlow 1.25 - EQM 1.18 - Tomo Live 1.9 - eCL 4.6.0

Mandatory and Breaking Changes

Core
Description
There are no mandatory and breaking changes for this release.

New Features

CryoFlow Introduction

Athena rebranded to CryoFlow

Our former platform Athena for Life Science has been re-branded to "CryoFlow" to emphasize the specificity of this data integration platform to Cryo-EM workflows. A few visual elements have changed:

- In the workspace, we have added a tree view navigation to simplify the navigation of the workflow.
- On all Single Particle Analysis workflows, the unused steps have been removed.
- The login screen has been updated.

Embedded CryoSPARC Live

eCL Multigrid support

eCL 4.6.0 now supports EPU Multigrid. CryoSPARC Live now starts and stops automatically on each grid without any manual intervention. Moreover, the 2D classification job is launched automatically with a default of 50 classes when at least 5000 particles are picked.

Two additional parameters have been added to the Dataset Selection Window in EPU to increase the chance of success of the processing from Motion Correction to 2D Classification. Those two parameters are:

- Particle Downsampling (Desired Approx. Pixel Size).
- Picking shape.

Discovery Viewer

Ruler

A ruler has been added to the Discovery Viewer to measure distances on images.

Solved Issues

The following table lists the main issues this release fixes. Smaller corrections might have been excluded from this text to keep this detail as complete and useful as possible.

This list might also include problems that had been listed as Known Issues in preceding releases.

CryoFlow Platform
Description
After exporting a dataset, user cannot delete the exported directory from windows.
When deleting an element in the atlas table, the pagination re-initialization is not performed.
I am not able to delete workflow if it is in the bottom of the page.

Tomo Live
Description
[Dataviz] Combination of two filters > et < on the same property do not correctly display the limits on the chart.

Known Issues

The most recent release of CryoFlow has the following known issues.

This list does not include already reported known issues from previous historic releases.

Summary	Decision for Release	Workaround
Sometimes the Tomo Live aligned stack does not include the last tilt angle.	Postpone fix to CryoFlow 1.26.0	No workaround. Need to reprocess the data outside of Tomo Live.

Deprecated Features

This section lists features and capabilities that have been marked as deprecated.

Summary
There are no deprecated features for this release.