

Document name

AutoTEM Cryo 2.4.5 release notes

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Author

Pavel Tomasek

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1 Introduction

This document contains the release notes for the application AutoTEM Cryo, bugfix release containing bug-fixes listed in this document.

1.1 Contents & Audience

This document is intended for internal ThermoFisher departments such as NanoPort departments, Application Development teams and Global Technical Support team.

2 Brief motivation and value statement

AutoTEM Cryo 2.4.5 is the bug fix release of existing product.

2.1 Target systems

Version 2.4.5 is officially compatible with these microscope families:

- Aquilos G2+ with xT version 32.0.0 and newer
- Hydra Bio with xT version 17.41.0 and newer

Exact compatibility matrix with XT platform versions is available on SWArchive web site (accessible from ThermoFisher Scientific intranet).

2.2 Upgrades

Upgrade is possible from previous versions - AutoTEM Cryo 2.2.0 and AutoTEM Cryo 2.4.x

But there is a known issue with template compatibility. See the known issue section in this document.

2.3 Install directory

The software will be installed into `C:\Program Files\Thermo Scientific AutoTEM Cryo 2.4\`

Application configuration will be installed into `C:\ProgramData\Thermo Scientific AutoTEM Cryo\2.4\`

2.4 User documentation

User Manual can be opened from the Help menu after the product is installed.

2.5 System Requirements

- Operating system: Windows 10 x64
- If cooperation with MAPS is required, then at least version Maps 3.20 must be installed on the system. But recommended is to update to the newest version of Maps.

3 Solved issues in AutoTEM Cryo 2.4.5

This section lists all the main fixes in AutoTEM Cryo 2.4.5.

- Remove unnecessary dependency to GIS

4 Solved issues in AutoTEM Cryo 2.4.4

This section lists all the main fixes in AutoTEM Cryo 2.4.4.

- Support of the Hydra Bio

5 Solved issues in AutoTEM Cryo 2.4.3

This section lists all the main fixes in AutoTEM Cryo 2.4.3.

- Support MyMicroscope installation
- Add check to lamella positions if stage is in FLM position
- Fix moving to the lamella which is at the edge of the tile
- Minor fixes in documentation and best practice document

6 Solved issues in AutoTEM Cryo 2.4.2

This section lists all the main fixes in AutoTEM Cryo 2.4.2.

- Fix of the communication issue between applications Maps and AutoTEM Cryo
- Enable possibility to setup beam current and high voltage for imaging activities

7 Solved issues in AutoTEM Cryo 2.4.1

This section lists all the main fixes in AutoTEM Cryo 2.4.1.

- Minor fixes in documentation and best practice document
- Fix patterns definition bug in the artificial fiducials activity
- Improve help text in tooltips
- Fix disabled form fields with overlap factors
- xT 32.x initial support

8 Solved issues in AutoTEM Cryo 2.4.0

This section lists all the main fixes in AutoTEM Cryo 2.4.0.

- Support of the ROI (Region of Interest) targeting using images from fluorescence light microscope
- Artificial fiducials activity implemented in the preparation step
- Improved drift-correction robustness in Preparation step (valid namely for very blotted cells)
- Support of the new 35-degree pre-tilted shuttles
- Support of the new platform version xT 32.0.0
- Image viewer added as an independent product available to the customer
- User interface redesign
- Updated tooltips
- Updated manual
- Added detailed best practice document
- Delay activity enhancement (beams off, safe stage position)
- Eucentric tilt activity enhancement
- RCS pattern is now supported in all milling activities
- Various smaller changes and improvements that lead to better usability and stability of the application

9 Known issues in AutoTEM Cryo 2.4.4

This section lists all known issues in AutoTEM Cryo 2.4.4 application.

- Templates created in the AutoTEM Cryo version 2.2.0 can be used in AutoTEM Cryo 2.4.4 and newer. But activity *Electron reference definition* must be disabled in these templates. Otherwise, lamella placement precision can be affected. **To avoid this issue, we strongly recommend using only templates based on templates from AutoTEM Cryo 2.4.4.**
- When Nav-Cam is not working then AutoTEM Cryo workflow can fail with exception: Detector type 'NOC' is not yet supported. To fix this problem select different image source (e.g. Ion beam) in the quad with Nav-Cam.