Arctis WebUI 1.3.0
September 10th, 2024

Copyright © 2024, Thermo Fisher Scientific Inc.
All rights reserved.

Trademark Acknowledgments
Microsoft® is a registered trademark of Microsoft Corporation.
Windows 10™ is a trademark of Microsoft Corporation.

Author
Lukáš Král

1 Introduction

1.1 Brief motivation and value statement

The document contains the release notes for automation software WebUI version 1.3.0. Hardware-related issues are not mentioned in this document unless it has an impact on the software. The document also contains a list of known major issues to fix in subsequent releases.

1.2 Target systems

The following system types are supported by WebUI 1.3.0 application:

- Arctis

1.3 User Documentation

User Manual and Best practice document can be opened from the WebUI left side menu by clicking on Manual section.

1.4 System Requirements

Minimum system hardware requirements for the software:

- MPC: HP Z4G4
- SPC: HP Z4G4
- Widescreen monitor 24", 16:10 aspect ratio, resolution 1920 x 1200 pixels.
- Windows 10 x64

2 What's New WebUI 1.3.0

This section lists contain all the major features in WebUI 1.3.0.

UI redesign of Template editor: The entire Template editor has been redesigned. Template structures now use collapsible parameters that only collapse other parameters without holding values themselves.

Template editor section split: The Template editor is now divided into two categories: Grid preparation templates (including Overview image, Deposition, various tilesets, and Finalization workflow) and Lamella milling templates (Conventional, Ion and Targeting workflow).

Template editor Action toggle: Users can now enable or disable specific actions within the milling template, allowing for customization and skipping of certain automatic actions in the workflow.

3D selector split into separate actions: The 3D targeting workflow is now divided into separate actions for lamellae placement, medium mill, fine mill, and polishing, each step available directly in the template workflow list for more intuitive navigation and parameter customization.

Back button for template navigation: Added a back button to navigate from the template detail screen to the template overview screen, enhancing UI intuitiveness and ease of movement.

Quick edit redesign: Improved navigation and usability with the new design for Quick Edit parameters.

On-the-fly template editing: Users can now edit lamella templates on the fly, with direct links to the template editor from the lamella page, enabling quick fixes during lamella preparation.

Grids instead of projects in left menu: Updated the left menu to feature "Grids" in place of "Projects," allowing users to work exclusively with grids in the WebUI.

Grids settings page: Introduced a Grids settings page where users can view and edit grid parameters such as Description, Sample type, Grid type, and Labels selection.

Tag labeling functionality on Grids setting page: Introduced enhanced labeling functionality, allowing users to select from existing labels or create new ones, assign multiple labels to a grid, and edit or delete labels.

Unique Grid ID implementation: Each grid now receives a unique digital ID upon inventory, visible on the Grid settings and Grid history pages, simplifying search and integration across WebUI and future Tomo WF products.

Grid history feature: Added a Grid History button to the left menu, allowing users to list and review older grids. The Grid history table includes ID, Description, Labels, Created date, and Actions. Clicking on a grid row displays the associated lamellae list, exports to Maps list, and general info about the grid for detailed inspection.

Grid history contains tilesets: Users can now open Overview images and Tilesets (SEM, FIB, FLM) from the Grid history.

Enhanced grid history search and sort: Introduced search and sort functionalities in Grid history, allowing users to dynamically search by Grid ID, Description, and Labels, and sort by date, with persistent filter settings for a seamless user experience.

Grid deletion from history: Users can now delete 1-N grids from the Grid history, including all related lamellae and images, to manage sensitive data and adhere to disk space retention policies.

Visualization of Sputter/GIS/Sputter on card: Enhanced card visualization to display the Deposition and time for Sputter/GIS/Sputter processes. Additionally, the default template parameter for GIS deposition time has been changed to 120 seconds for completeness.

Action needed label on Cassette card: Added an "Action Needed" label to the Cassette Card. Users can now click the label to be directly forwarded to the required action step, streamlining navigation and improving workflow efficiency.

Action needed label on Lamellae card: Added an "Action needed" label on the Lamellae card, allowing users to click and navigate directly to the Action overview - User action tab, ensuring a consistent user experience similar to the Grid card label.

Manual Dock/Undock and Inventory refresh: Added a Run inventory button and a Clear cassette button to the WebUI, allowing users to manually dock/undock the cassette and refresh data. Users will receive notifications via a modal window, prompting them to run a new inventory or continue with existing cassette data.

Abort/Stop tileset action: Added the ability to stop or abort an entire tileset with a single action, eliminating the need to stop each tile individually. This enhancement is particularly beneficial for large tilesets, such as optical tilesets with 119 tiles.

Running actions indicator: Added a dominant key indicator of running actions that remains visible on each page, ensuring users are always aware when the tool is working. The Action bar will stay visible while scrolling on smaller displays to provide a seamless user experience.

Loading spinner for long-term actions: Added a loading spinner to indicate the execution of long-term actions, providing users with visual feedback during processing.

Stepwise lamella workflow: Introduced a stepwise approach for lamella preparation, milling, and polishing, ensuring that milling steps do not commence until all preparation steps are completed for all sites.

Automatic fiducial milling action: Added a new automatic action for fiducial milling in the lamella preparation workflow.

Eucentric tilt integration and automation: This release introduces the ability to acquire tilesets in a eucentric position with an automatic eucentric tilt, ensuring lamellae positions are consistently aligned across all tilesets for improved accuracy and efficiency in your workflows.

Grid export to Maps retention: Possibility to save individual executed or executing lamellae templates for future use in Template editor. When the export expires, it is automatically removed from storage and marked as Unavailable.

Creation exports to Maps: The Export to Maps page now allows users to transfer tilesets, final SEM, FIB, 2D projection, and optical stacks from WebUI to TEM.

Security improvements: Enhanced security with HTTPS communication between applications, eliminated the use of WAN IP addresses in production, closed ports on the MikroTik router, and implemented a proxy for sending images to the UI while extending the Nanook service API.

Application logo in left menu: Added the Arctis icon to the left menu, providing users with a clear visual identifier of the application they are working with.

3 Known issues in WebUI 1.3.0

- Quick edit for Ion tileset Eucentric height - Z stage position with turned on auto eucentric search (Ion tileset -> Search eucentric) do not reflect quick edit input. Users must go to the template and turn off "Search eucentric" and then modify "Eucentric height - Z stage position".