Neurolucida® 360 software
Release Notes

Version 2024.2.2 (December 2024)

LICENSING UPDATE

- Update to offline software licensing. Neurolucida 360 software requires reactivation on systems that do not have access to the internet. Instructions for offline software activation are included in the Neurolucida 360 user guide.

NEW FEATURES AND ENHANCEMENTS

- Improvements to the vessel tracing options in the 2D window
- Automove will now reposition focus when Continuous tracing is being used
- Color channel selection in puncta setup will begin at number 1
- Improvements to synchronization of contours delineated in 2D and 3D
- Image file paths are displayed in the Image Organizer
- During a movie, you can now change image-display settings for image slice and partial projections
- New ability to display the 3D scale bar while recording a Movie
- Other improvements and updates to the Movie mode interface have been implemented

ISSUES RESOLVED

Neurolucida 360 3D environment

- Resolved an issue exiting quad view
- Fixed tracing with center after each click in user-guided with subvolume and partial projection
- An image will close properly if one channel was selected prior to closing all images

Version 2024.2.1 (August 2024)

NEW FEATURES AND ENHANCEMENTS

- New Puncta-detection user interface improves and expands capabilities for specifying puncta detection settings
  - Detect puncta based on proximity to other structures, such as trees, spines, and varicosities using rule sets
  - Employ powerful And/Or criteria in your rule sets to find specific puncta easily
  - Save your settings and reuse your puncta-detection criteria for multiple images, including in the batch pipeline for processing entire directories of image data
- Measure Intensity export will now report the centroid coordinate of any puncta
- You can now enable or disable the detection of spines and varicosities in the same location
- New ability to detect somas in the same location in different color channels
- The typical process width setting is now available in the automatic tracing setup

- New image filters added to the batch process pipeline
  - ExM image filter includes three model options to use to optimize modeling of your expansion-microscopy images
  - Tone Mapping image filter to reveal details in both bright and dim regions of your image
- The 3D Environment has an added option to eliminate the display of edge artifacts at the surface of 3D volumes
- Automatic stitching of overlapping fields of view in the Montage tool is now available to optimize the visual information of compiled image montages
- Improvements to the image support in the Measure Intensity tool
- Image support for the .czi format has been improved
- Slide scans from MBF Bioscience acquisition software can now be compiled
- Improvements to the movie creation tool:
  - You can now generate movies at high resolution for large data sets
  - Use the image slice and partial projection views during movies to showcase important information
  - Simple drag and drop to open.xml movie files

ISSUES RESOLVED

Neurolucida 360 3D environment

- Improved support for image file formats
- Fixed an issue with editing vessel thickness in points mode
- During user-guided tracing the option to place an ending using right click is respected in the 3D window
- Vessel directionality display now respects all origins for the correct coloring

Version 2024.1.1 (January 2024)

NEW FEATURES AND ENHANCEMENTS

- New editable visualization legend for traced objects in the 3D environment
- New visualization legend has transparency controls for selected objects/structures
- Added ability to exclude detection of puncta in locations with existing puncta
- Improvements to post-batch filtering to allow for tracing
- Added ability to save an image crop as .tif
- Updates to the image scaling window

SPARC Users

- Term search added to the tree and vessel classification

ISSUES RESOLVED

Neurolucida 360 3D environment

- Vessel will retain the proper color when classified
- Fixed refresh issue when editing new markers
- Resolved issue of incorrect node connections during editing
- Fixed pivot point issue becoming a traced object
- Reopening image files will reset tracing mode
- Resolved issue where selected somas were not highlighted
- Updates to resolve some offline activation issues