Neurolucida® 360 software

Release Notes

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