

### NEW SIGNIFICANT FEATURES

- **Use Stereo Investigator to perform sophisticated stereological analysis of 2D and 3D whole slide images, virtual slides, and image stacks over the web using our new product, Biolucida®.** *Collaborators from your department, your institution, and around the world can view and analyze all your image data using Stereo Investigator—right from their labs.*
- **Added bi-directional counting estimate to the Physical Fractionator results and export.**
- **Allow a calculation for missing sections to be used with Physical Fractionator and the Connectivity Assay.**
- **Added the ability to perform “Resample Oversample” on Fractionator probes.**
- **Improved Z alignment when creating 3D mosaics with the virtual tissue 3D module**
- **New support for confocal microscopes:**
  - **Our new technology fully integrates with Zeiss LSM confocal laser scanning microscopes running Zen software, so you can have the most advanced and streamlined confocal stereology solution available.** *Now with support for ZEN 2011 Black.*
- **Batch image deconvolution using Huygens.** *Performs unattended image deconvolution on multiple image stacks.*
- **Improved acquisition of 2D and 3D virtual slides.** *A new focus map and live preview makes creating focusable 3D virtual slides even better.*
- **New graphical scale bar.** *Significant improvements for preparing publication graphics.*
- **Now draw more graphical annotations, including arrows.** *Great for preparing publication graphics.*
- **Added ability to view image XMP data and Biolucida® Information.** *Easily see the microscope and camera settings used to acquire an image.*
- **Improved 3D Visualization:**
  - **Added support for 3D hardware.** *Create mind-blowing displays on 3D monitors and televisions.*
  - **Added surface texture-mapping.**
  - **Better 3D visualization of markers.**
  - **Better rotation performance, smoothness, and user-interactivity when using GPU rendering with large color stacks.**

### INCREASED PRODUCTIVITY

We've incorporated dozens of suggestions from users around the world to make *Stereo Investigator* the fastest, most accurate, and easiest to use stereology solution in the world.

- **Improvement in Cavalieri Estimator user interface.** *Start the process of collecting data faster.*
- **Improvement in the nearest neighbor probe.** *Now you can discriminate between parent and daughter cells within each probe by easily using multiple markers*
- **Improved Area Fraction Fractionator interface.** *Improved design makes it easier and quicker to set up the probe.*
- **Added Section Sample Fraction to the Physical Fractionator calculations.** *Gives you the calculations so you don't have to do them by hand.*
- **Improved graphic export.** *Speeds exporting your image and tracing information into other products for publication.*
- **Improved imaging operations management, including selection and adjustment of multiple images.** *Easier and quicker operation, processing hundreds of images simultaneously.*
- **Select objects of a particular color.** *Objects traced the same color can all be edited or analyzed as a group.*
- **Improved Mouse Wheel focusing.** *Automatically focuses differently for different objective lenses.*
- **Crop Virtual Tissue files image stacks in all three dimensions (X, Y, and Z).**
- **Rapid stacking of serial sections.** *Quickly place many serial sections on top of each other for rapid serial section reconstruction.*
- **Resize/resample images and image stacks.** *Display and save them in a desired publishable DPI.*
- **New tools for acquiring images with differential brightness across sections for virtual slides and image stacks**
- **Excel export for Nearest Neighbor analysis, including Sample Distances and Merz probe results.**

- **Connectivity Assay Workflow** now saves the reference and look up images to the data file.
- In the **SRS Acquire Workflows**, added the ability to allow users to zoom in and out of the contours. *Makes it easier to select the intended region.*
- **Added ability for the Physical Fractionator and Connectivity Assay to be able to support multiple contours when capturing reference images.** *Do more of the interactive tasks at the same time and let the software and hardware do the work unattended.*
- **New features to manage the settings for multiple users of the microscope system.** *Core facility and lab administrators can change and update the settings of all individual users to simplify system configuration.*
- **New option to fit images to current window during file import.** *See your entire file or image on screen the moment you load it.*
- **Added support for nanometers and display formatting.** *Makes it easier to understand the calculated results.*
- **Updated handling of sections and images.** *Vastly improved moving images and tracing in world space.*
- **Improved movement correction for (X, Y) motorized stages.** *Increase accuracy.*
- **Save Deep Focus Virtual Slides.**
- **Improved functionality and simplified use in image acquisition dialog box.**

### NEW HARDWARE AND FILE SUPPORT

- **Full software control for new model microscope stands:**
  - Olympus BX53, 63, IX83 motorized microscope stand and components
  - Nikon Ti-E, Ni-U, Ci-E, NI-E, TE2000 motorized microscope stand and components
- **New microscope components added:**
  - Leica LAS controlled stages
  - Nikon NI-Stage motorized stage
  - Olympus BX53,63, IX83 controlled stages
  - Zeiss Optovar
  - Leica Magnification Changer
  - Improved support for Qioptiq OptiGrid
  - Prior automatic slide loader
  - Prior automatic slide oiler
  - TurboScan for faster virtual slide acquisition
  - Objective imaging Glide motorized stage
  - US Digital QSB-D encoder controller
- **New cameras added**
  - Leica FX cameras
  - Photometrics CoolSNAP HQ2 camera
  - Cooke Sencam (QE or EM) cameras on 64-bit systems
  - 64-bit Windows 7 support for legacy cameras (i.e., Optronics MicroFire and MBF CX9000) that use the IIDC interface protocol
  - Olympus DP-7X cameras
- **New file formats added:**
  - Aperio SVS
  - Leica LIF
  - Janelia Farm ScanImage TIFF
  - Hamamatsu Nanozoomer
  - ImageJ composite hyperstack images