AutoDeblur® & AutoVisualize®

Advanced Image Deconvolution and 3D Visualization Software

MediaCybernetics®
**AutoDeblur®**

**Restore Your Datasets’ Vital Details**

AutoDeblur is the life science industry’s leading image deconvolution software. Retrieve better data from your images using the most complete suite of 2D and 3D algorithms available, including the industry’s only Blind Deconvolution Algorithm. Using the AutoQuant Algorithms technology, the advanced image processing tools in AutoDeblur reflect years of research, development and user feedback.

Unlike other image processing programs that tie up your computer, the multi-dimensional and multi-processing capabilities in AutoDeblur will allow you to start working on another dataset once processing has begun. You no longer need to process time-series data one by one. With AutoDeblur you can load and process your datasets all at once.

Let AutoDeblur show you what you’ve been missing in your images, because better data means better science.

<table>
<thead>
<tr>
<th>Features</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extensive Algorithm Selection</td>
<td>Choose from an abundant menu of algorithms, tailored to suit your imaging needs. Includes 3D Blind, Non Blind, Inverse Filter, No/Nearest Neighbor, and Gold’s Method.</td>
</tr>
<tr>
<td>Automatic Spherical Aberration Detection and Correction</td>
<td>Save time and guesswork with the Spherical Aberration, Detection and Correction tool.</td>
</tr>
<tr>
<td>Multi-threaded Application</td>
<td>Work on more than one task at a time.</td>
</tr>
<tr>
<td>Multi-channel Compatible</td>
<td>Load and process a nearly infinite number of channels, not just red, green and blue. Assign each channel a color, wavelength or dye for a customizable view of your image data.</td>
</tr>
<tr>
<td>Data Correction Tools</td>
<td>Correct for photobleaching, attenuation, optical density variability and many other imaging problems.</td>
</tr>
<tr>
<td>Sequence Detector</td>
<td>Easily load multi-channel data and time-series datasets.</td>
</tr>
<tr>
<td>Multi-timepoint Capability</td>
<td>Easily load and process time series and multidimensional data with the click of a button.</td>
</tr>
<tr>
<td>Spacing Calculator</td>
<td>Calculate your image spacing for time saving and accurate image analysis.</td>
</tr>
</tbody>
</table>
AutoVisualize®

Bring Your Multi-channel Data to Life

AutoVisualize will give you an exciting and in-depth understanding of your images. See complex datasets come to life with easy-to-use 3D visualization and manipulation tools.

View your time-series datasets through time and from multiple angles to locate important features. Navigate through your 3D datasets with orthogonal slices. Simultaneously view before and after 3D time-lapse volumes.

Create impressive AVI files of your 3D data rotating through time. Share these 3D movies with others through PowerPoint presentations or via the Internet. See your data in a new way with AutoVisualize 3D visualization software.

<table>
<thead>
<tr>
<th>Features</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-timepoint Capability</td>
<td>View and rotate both stationary and time-based 3D datasets.</td>
</tr>
<tr>
<td>Multi-viewer Capability</td>
<td>Simultaneously view before and after 3D time-lapse volumes.</td>
</tr>
<tr>
<td>Multi-channel Compatible</td>
<td>Load, view and control multiple channels to create vibrant and detailed volumes.</td>
</tr>
<tr>
<td>Synchronizer</td>
<td>Scroll through slices of multiple datasets simultaneously. You can also synchronize and rotate multiple 3D time-series datasets, for a striking side-by-side comparison.</td>
</tr>
<tr>
<td>Movie Maker</td>
<td>Create a movie of your volume rotation and save it as an AVI file.</td>
</tr>
<tr>
<td>Sequence Detector</td>
<td>Easily load multi-channel data and time-series datasets.</td>
</tr>
<tr>
<td>Multiple Volume Projection Modes</td>
<td>Display volumes in Isosurface, Alpha Blending, Max, Min and Sum projections. Different channels can be displayed in different projections to highlight objects.</td>
</tr>
<tr>
<td>Individual Channel Controls</td>
<td>Change channel color, brightness/contrast, display range and gamma remix in real time.</td>
</tr>
</tbody>
</table>
**Advanced Imaging Modules**

Extend the Power of AutoDeblur & AutoVisualize

### Ratiometrics Module

**Features**
- Precise engineering for intercellular ionic imaging.
- Easy-to-Use Ratiometrics Dialog
- Concise Statistics
- Image Alignment
- Image Smoothing and Spot Noise Removal
- Multi-dimensional Imaging

**Benefits**
- Simplify the process for generating and obtaining accurate results.
- Use ROI’s and threshold controls to obtain statistics about relative changes or concentration within datasets.
- Correct for registration or sample movement.
- Reduce systemic noise within your source images and improve the accuracy of your results.
- Work with time-series data to perform ratio imaging over time.

### FRET Module

**Features**
- User-friendly tools to study protein-to-protein interactions.
- Maximum Likelihood Estimation FRET
- Channel-to-Channel Alignment
- Background Subtraction
- AutoLoad

**Benefits**
- Work with a variety of methods including the popular Gordon/Herman algorithms.
- Remove crosstalk and bleedthrough from FRET signal and achieve statistically accurate treatment of FRET data.
- Align shifts between channels for more accurate analysis.
- Eliminate background artifacts for more accurate results.
- Remember filter set and dialog associations for easy and consistent reprocessing.

### Colocalization Module

**Features**
- Complete Graphical User Control
- Extensive Statistics
- Exportable Statistics
- Vivid Colocalization Preview
- Multiple Rendering

**Benefits**
- Interact with each step in the process for more accurate results.
- Work with multiple algorithms including Pearson’s Correlation Coefficient and Manders Overlap Coefficient.
- Export statistics into .csv format for further analysis.
- View graphic depiction of colocalized areas.
- Work with both single slice and full volume depictions of colocalized areas.

### Counting & Tracking Module

**Features**
- Pre-processing Tools
- Interactive Data Display of Counted and Tracked Objects
- Extensive Statistics
- Multi-dimensional Imaging
- Movie Maker

**Benefits**
- Remove noise and improve object tracking accuracy.
- Interact with counted and tracked objects.
- View, graph and analyze data for each object.
- Process and analyze multi-channel and 3D time-series datasets.
- Create AVI movies showing object motion and track overlays.