

NeuroDeblur™

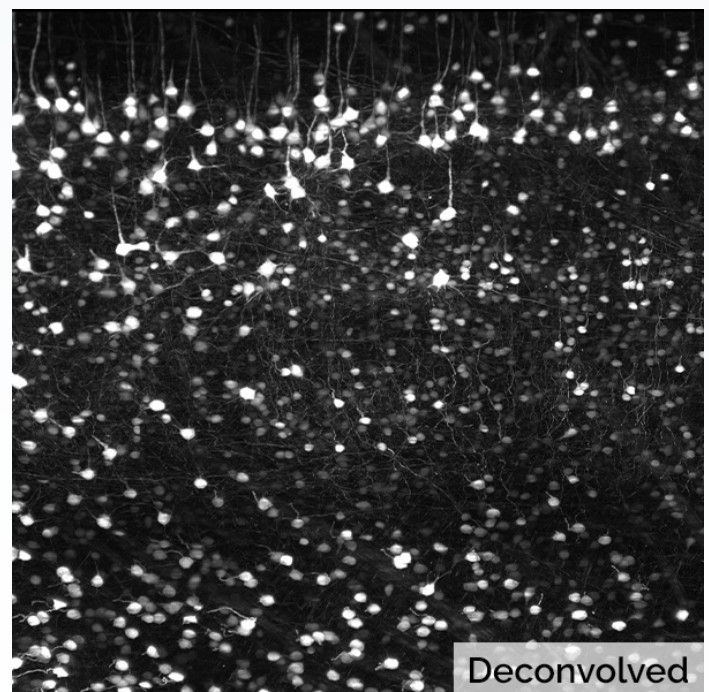
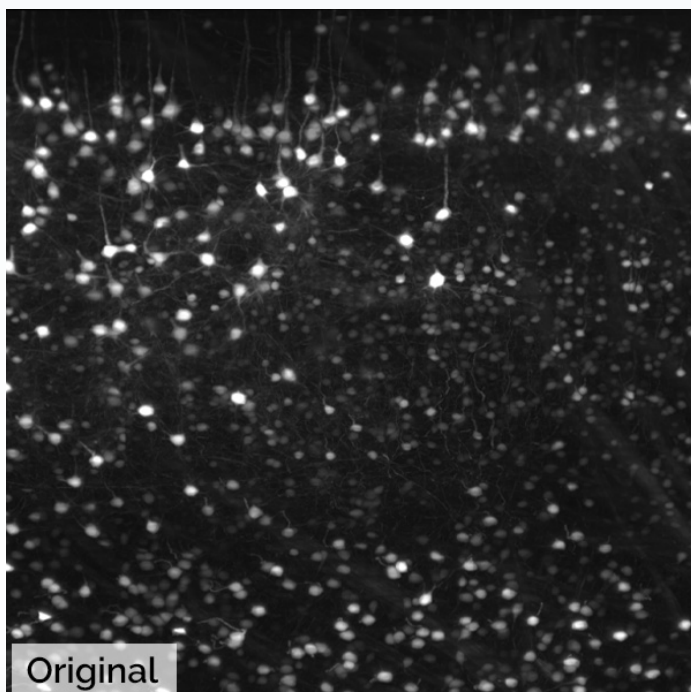
The Highest Performance Deconvolution Software



NeuroDeblur is the premier deconvolution and artifact removal software for large 3D microscopy datasets. It supports a wide range of microscopy modalities, including light sheet, laser scanning confocal, spinning disc confocal, two-photon, widefield fluorescence, and brightfield. NeuroDeblur uses advanced algorithms and GPU acceleration to produce images that are clearer than the raw images obtained by the microscope.

Key Benefits

- Produces optimal clear deconvolved images on even the largest light sheet data sets
- Ultra-fast GPU based processing provides enormous increase in speed (>100x) compared to conventional CPU-based processing
- Excellent deconvolution results with light-sheet and confocal microscopy without the need to measure the imaging system's point spread function (PSF)
- Stripe-artifact removal for light-sheet microscopy data
- Sophisticated adaptive image background removal algorithm
- Easy to use GUI with 3D visualization
- Powerful command-line for embedding deconvolution into complex workflows
- Works with images from most common microscope manufacturers



NeuroDeblur™

The Highest Performance Deconvolution Software



NeuroDeblur is the leading solution for deconvolution and artifact removal for microscopy images. It is particularly useful for working with large data sets from light sheet and confocal microscopes. With computational optimizations for the fastest performance using GPU.

NeuroDeblur is engineered by experts in microscopy and deconvolution to produce optimal results from a wide array of microscopes. Even images from the best microscopes can be further improved using NeuroDeblur.

NeuroDeblur contains the following important features:

- Excellent deconvolution results with light sheet and confocal microscopy without or without PSF measurements
- Deconvolution using matching accurate PSF models for light sheet and confocal microscopy
- Deconvolution using a PSF measured from the imaging system
- Powerful adaptive background artifact correction
- Fast multiprocessor aware deconvolution with excellent regularizing for noise minimization
- Ultra-fast GPU based processing with modern Nvidia graphic cards (> 100 million voxels/min)
- Batch deconvolution for building an automated imaging workflow
- Automatic block-wise processing of large data sets even on computers with limited RAM
- Sophisticated stripe-artifact removal for light sheet microscopy data
- Side-by-side comparison of original and deconvolved data in synchronized display windows
- Process select ROIs and color channels of proprietary 4D- or 5D-input formats (e.g. Zeiss, Evident, Leica, etc)
- Optimize the display of deconvolved results via additive and subtractive color channel mixing
- Image post-processing by adaptive histogram equilibration (CLAHE) and unsharp masking

Learn more at: mbfbioscience.com/products/neurodeblur



About MBF Bioscience

A rich history of creating the future of neuroscience.

MBF Bioscience is a leader in neuroscience research technology. We develop cutting-edge tools that enable scientists to collect and analyze data from fixed tissue and living organisms with high precision and accuracy. This data helps scientists understand brain diseases and processes at the system, cellular, and subcellular levels.

Our products have been used in over 17,000 peer-reviewed papers.

What our customers say

“ We’ve been very happy for many years with MBF products and the course of upgrades and improvements. Your service department is outstanding.
William E. Armstrong, Ph.D.
University of Tennessee

“ MBF Bioscience is extremely responsive to the needs of scientists and is genuinely interested in helping all of us in science do the best job we can.
Sigrid Veasey, M.D.
University of Pennsylvania