

AutoQuant X3



ADVANCED DECONVOLUTION TECHNOLOGY

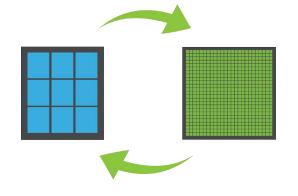
Graphics Processing Unit Based Deconvolution

Introducing Graphics Processing Unit driven deconvolution for AutoQuant X3. The easiest to use, most reliable deconvolution package on the market just got better. Adding the GPU module to the current AutoQuant X3 platform maintains the current ease of use, while adding the speed of GPU processing to your current platform. Microscopy experts worldwide trust AutoQuant for the accuracy and beauty of its stunning quantitative results, while newcomers to the product love the user-friendly workflow and intuitive interface that helps make learning a breeze. Now with the GPU module, AutoQuant can be optimized to fit your applications and research without sacrificing your time for breathtaking results.

UTILIZING GPU FOR INCREASED PERFORMANCE

Step 2: Transfer Data to GPU

Step 1: Initial Setup Allocate memory Initialize math libraries



Step 3: Perform iterations
Convolve image guess with PSF guess
Compare the result with the original data
Update the image and (if blind) PSF guess
Continue to the next iteration

Step 4: Retrieve Result from GPU

Features	Benefits	
Intuitive Four-Step Process	AutoQuant is truly the most intuitive deconvolution software in the industry, using a simple yet elegant workflow to direct any user through the necessary steps to achieve repeatable image restoration.	
Microscopy Modalities	Work with all widefield, brightfield, spinning disk & laser scan confocal, multi-photon, Light Sheet, STED, Structured Illumination image sets and more.	
PSF Refinement	Create an optimal PSF iteratively derived from an entire volume of beads with just a single click.	
PSF Modeling Algorithms	The newest Gibson & Lanni modeling algorithms refine your theoretical PSF for stunning results.	
Automatic SA Correction	Tune your optical system's unique theoretical PSF with spherical aberration detection and correction.	
Multi-Time/Channel Support	Load, view, and control multiple channels and timepoints to create vibrant multidimensional results.	

DECONVOLUTION TOOLS



New GPU Based Deconvolution for increased performance and better response times.



ROI deconvolution preview quickly tests for optimal settings



Save optical parameters and deconvolution settings



Batch-process your image sets sequentially in an instant or on a timer Quickly load and configure hundreds of image sets for batch without waiting for all frames to load



Spacing calculator computes the optimal XY and Z optical spacing

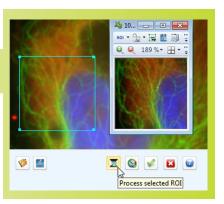


IMAGE CORRECTION



Stabilize your sample using:

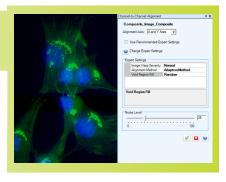
- Slice-to-slice alignment
- Channel-to-channel alignment



Advanced cropping and reshaping



Image correction tools for photobleaching, attenuation, optical density variability, and many other imaging problems



VISUALIZATION



View 5D datasets (X, Y, Z, time, and channel)



Display multiple viewers simultaneously



Multiple volume projection modes (max, min, and sum projections)



Slicer view compares XY, YZ, XZ, ortho, and oblique slice views



Surface-render objects to measure individual volumes



Synchronize multiple viewers for easy comparison



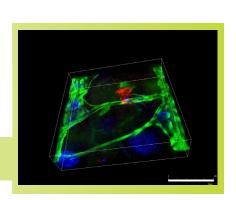
Movie Maker and Save to AVI Movie for easy sharing of results

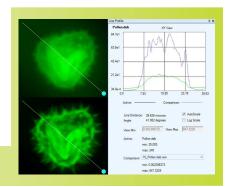


Individual channel controls for brightness, contrast, and gamma



Sync multiple line profiles and measurements to facilitate comparison





SYSTEM REQUIREMENTS

Recommended Requirements

- Processor: 2.8 GHz Intel® quad-core 64-bit processor (Core™ i7 series) or better
- RAM: 16 GB memory or higher
- Free disk space: 2 GB on installation drive plus dedicated data drive (500 GB or higher)
- **OS:** Windows 7 (64 bits)
- Graphics card (GPU Module): NVIDIA® GeForce® GTX™ series (8GB, CUDA 2.0 or higher, and OpenGL 4.2 or higher) at a minimum.

High Performance Requirements

- Processor: 3.0 GHz Intel quad-core 64-bit processor or dual Intel quad-core 64-bit processor
- RAM: 48 GB memory or higher
- Free disk space: 2 GB on installation drive plus one or more dedicated SATA 6 Gb/s data drives (2 TB or higher)
- **OS:** Windows 7 (64 bits)
- Graphics card (GPU Module): NVDIA Quadro series (12GB, CUDA 2.0 or higher, OpenGL 4.2 or higher) or Tesla series (12GB, CUDA 2.0 or higher)

SUPPORTED FILE FORMATS

Description	Extension(s)	Read	Write
AutoQuant X Dataset	*.xml	×	
Legacy AutoQuant Dataset	*.aqh	X	
TIFF Image	*.tif, *.tiff	×	X
Raw Binary Data File	*.raw, *.deb, *.avz	×	X
Microsoft Windows Bitmap	*.bmp	×	X
Image-Pro® Sequence	*.seq	×	X
Image Cytometry Standard	*.ics, *.ids	X	Х
Bio-Rad® PIC	*.pic	X	Х
Bitplane® Imaris®	*.ims3 and .ims5	X	Х
Leica® LEI	*.lei	×	
Leica LIF	*.lif	X	
Olympus® FluoView® FV1000	*.oif, *.oib	X	Х
Carl Zeiss® AxioVision® ZVI	*.zvi	X	
Carl Zeiss LSM	*.lsm	×	X
Carl Zeiss CZI	*.czi	×	
Nikon® NIS-Elements	*.nd2	×	
Scanalytics IPLab™	*.ipl, *.iplab	×	X
Molecular Devices® MetaMorph®	*.stk	×	Х
Molecular Devices MetaMorph	*.nd	X	

Please visit our website

www.autoquant.com

for updated information
on file formats and system
requirements.

Specifications are subject to change. Please contact Media Cybernetics or your local reseller for the latest features.



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