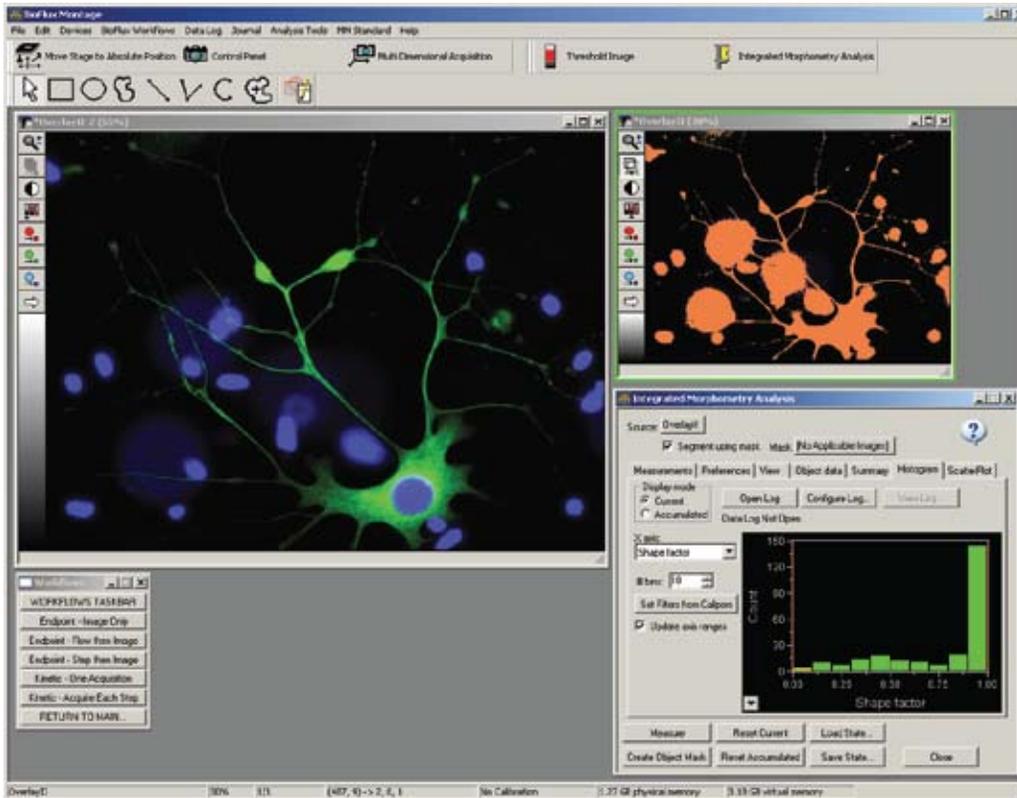


Bringing Physiological
Flow To Live Cell Assays



BIOFLUX MONTAGE™

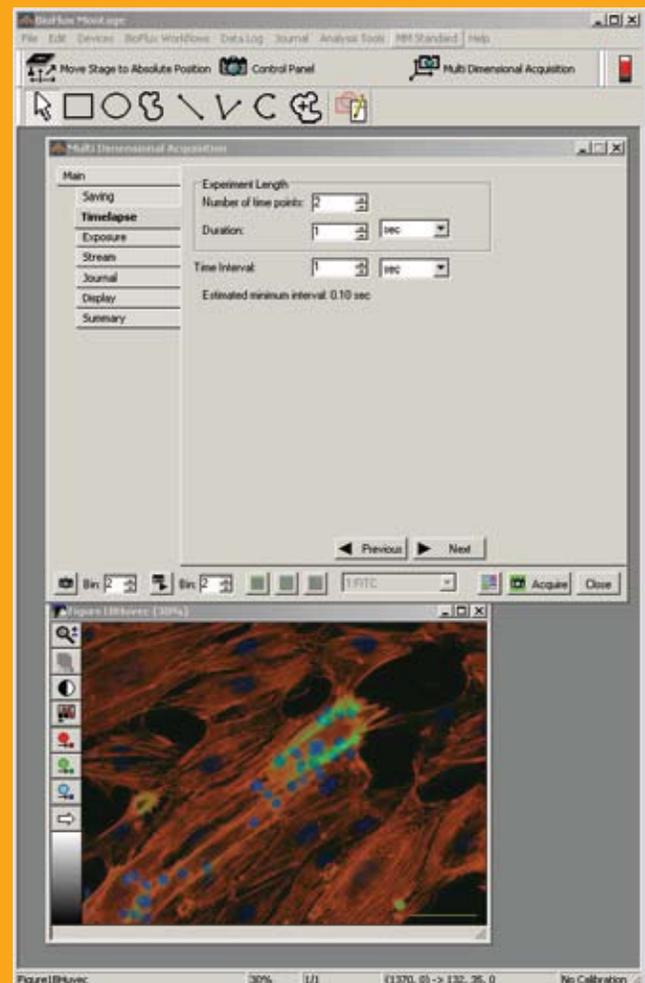
Automated software for advanced experimental control and data analysis

BioFlux Montage provides a seamless software solution for automated experimental control and sophisticated data analysis.

Live cell imaging requires a sophisticated array of hardware devices to produce high quality image data. Managing this can be tricky, but BioFlux Montage software provides a single-point solution to make your live-cell experiments easier to control than ever before. BioFlux Montage takes control of all microscopy hardware and image acquisition devices to produce high throughput, automated data from your BioFlux experiments. When it comes time for analysis, a comprehensive suite of analysis tools makes the process fast, simple, and powerful.

Powered by MetaMorph®

BioFlux Montage is built around the industry-leading MetaMorph application. Unparalleled hardware control ensures your BioFlux system runs smoothly from a single software application. The MetaMorph data analysis toolkit is universally known for its depth of analysis options. Tailor any analysis to your application requirements and automate the process to save time and effort.



BioFlux Montage - a complete software solution

BioFlux Montage enables full hardware control, image acquisition, and data analysis. It features the BioFlux Control Module to synchronize BioFlux experiments with imaging data acquisition. Optional data analysis modules are available to provide application-specific solutions with easy to use interfaces.

BioFlux Montage Offline - a flexible addition to your BioFlux

BioFlux Montage Offline is a process-only software package which performs the full suite of Montage data analysis. This version can be used offline from the BioFlux 1000 system to enable remote use of the data processing capabilities. BioFlux Montage Offline can also complement a BioFlux 200 system by adding a complete image analysis solution.

Key Features

| | BioFlux Montage | BioFlux Montage Offline |
|--|-----------------|-------------------------|
| Hardware Control | | |
| Integrated BioFlux Control Module | ■ | |
| Automated stage control | ■ | |
| Automated fluorescence control | ■ | |
| Automated microscope control (Nikon, Zeiss) | ■ | |
| Customizable acquisition routines | ■ | |
| Software-based autofocus | ■ | |
| Image Acquisition Control | | |
| Integrated drivers for BioFlux cameras | ■ | |
| Time lapse acquisition | ■ | |
| Z-series acquisition | ■ | |
| Data Analysis Tools | | |
| Morphology filters | ■ | ■ |
| Binary operators | ■ | ■ |
| Binary and 8-, 16-, 24-, 48-bit image display and processing | ■ | ■ |
| Stack display and processing | ■ | ■ |
| Over 20 morphology filters, including erode, dilate, and segmentation | ■ | ■ |
| Binary operations including skeletonize, outline, and Euclidean distance | ■ | ■ |
| Arithmetic operations for images and stacks | ■ | ■ |
| Fast Fourier Transform (FFT) | ■ | ■ |
| Shading correction and background subtraction | ■ | ■ |
| Basic filters including sharpen, low pass, unsharp mask | ■ | ■ |
| Morphometry and distance measurements | ■ | ■ |
| Regions of interest tools | ■ | ■ |
| Image histogram | ■ | ■ |
| Data logging and exporting | ■ | ■ |
| Automation through journals and taskbars | ■ | ■ |
| Customizable toolbars and windows | ■ | ■ |
| Presentation tools | ■ | ■ |

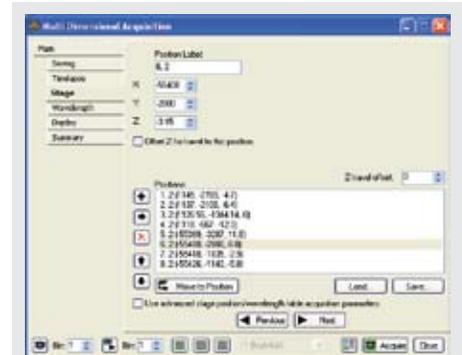
Seamless control for BioFlux experiments

Automate BioFlux routines from a single control point

BioFlux Montage provides a simple, intuitive platform for controlling BioFlux experiments. The BioFlux Control Module is integrated with image acquisition and hardware control for complete access to all data acquisition parameters. Images are synchronized and labeled with BioFlux flow properties to keep track of the physiological conditions.

Key integration features:

- Single point of control
- Synchronization of flow protocols and data acquisition
- Automated calibration routines for BioFlux Plates
- Integrated BioFlux Control Module



BioFlux Plate imaging templates are automatically loaded in the software to minimize setup time.

Advanced hardware control

BioFlux Montage controls all essential hardware components of the BioFlux 1000 automated microscopy platform. This includes advanced control over the motorized scanning stage, fluorescence filter wheels and shutters, objective nosepiece, and auto-focus hardware. The software provides digital algorithms for auto-focus to ensure clean, crisp images over time lapse acquisitions.

Key hardware features:

- Complete control over all motorized microscopy components
- Software- and hardware-based autofocus routines
- Automated scanning of BioFlux Plates with unattended operation



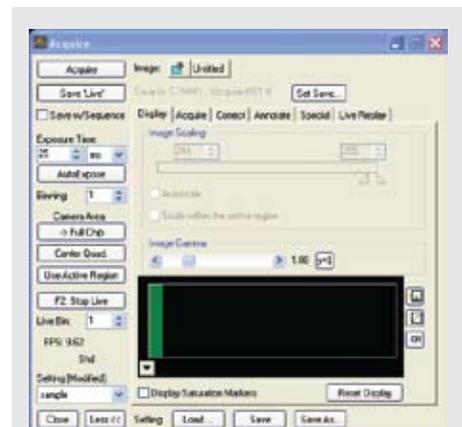
BioFlux Montage provides control for the BioFlux 1000 automated microscope. All motorized components are supported including fluorescence, stage, shutters, and auto-focus.

Automated image acquisition

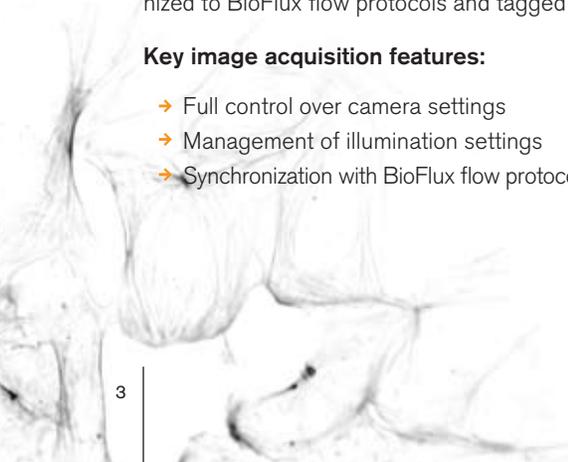
Image acquisition is the core capability of the BioFlux 1000 workstation. BioFlux Montage controls all aspects of this process including camera and time lapse settings. It easily manages and recalls illumination settings in brightfield, phase, and fluorescence applications. Camera controls include gain, regions of interest, and binning. Time lapse settings ensure the proper acquisition rate for extended duration experiments. All images are synchronized to BioFlux flow protocols and tagged with the relevant settings.

Key image acquisition features:

- Full control over camera settings
- Management of illumination settings
- Synchronization with BioFlux flow protocols



BioFlux Montage enables automated image acquisition from the BioFlux 1000 workstation. Full control is provided for camera and time lapse settings.



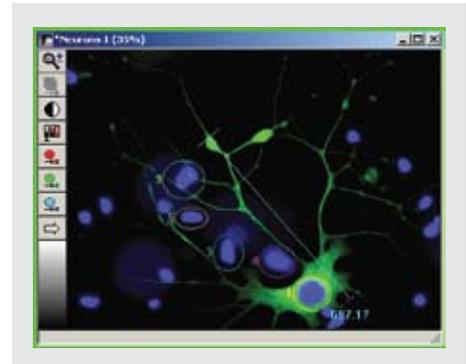
Advanced analysis capabilities

Powerful data analysis toolkit

BioFlux Montage features an extensive image analysis toolkit based on the industry leading MetaMorph application. A wide range of routines are available for analysis of cell number, morphology, fluorescence intensity, and many more advanced options. Pre-processing algorithms are included to enhance contrast and prepare images for more efficient analysis. Data output includes easy export to common formats including Microsoft Excel. It also exports charts and histograms directly in to publications and presentations.

Key data analysis features:

- Extensive analysis toolkit powered by MetaMorph
- Pre-processing routines for enhanced image analysis
- Supports a wide variety of applications for live cell imaging
- Exports charts, plots, and tabular data to common software applications

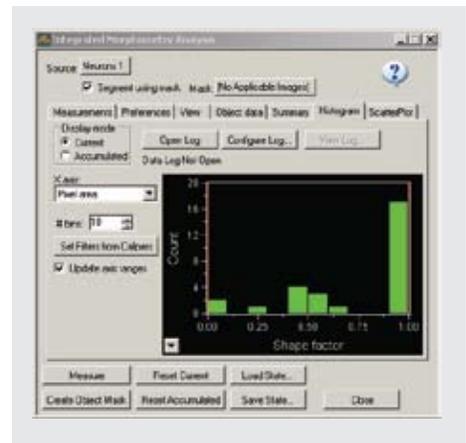


Pre-loaded BioFlux analysis routines

A number of automated analysis routines are included for common BioFlux applications such as platelet and cell adhesion, biofilms, and time-lapse recording. These applications are run from a single button on the taskbar and can process hundreds of images automatically.

Key BioFlux analysis features:

- Pre-loaded analysis routines for adhesion, area coverage, and more
- Single-button activation from the taskbar
- Simple, wizard-style interface enables automatic processing of large data sets



| Parameter | Display | Filter | Comparison | Limit 1 | Limit 2 |
|-------------------|-------------------------------------|-------------------------------------|------------|----------------|-----------|
| Pixel area | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | between | 20,000 | 1,000,000 |
| Standard area | <input checked="" type="checkbox"/> | <input type="checkbox"/> | between | 20,000 | 100,000 |
| Average intensity | <input checked="" type="checkbox"/> | <input type="checkbox"/> | between | 0.000000000000 | |
| Total intensity | <input type="checkbox"/> | <input type="checkbox"/> | between | 0.000000000000 | |
| Centroid X | <input type="checkbox"/> | <input type="checkbox"/> | between | 0.000100000000 | |
| Centroid Y | <input type="checkbox"/> | <input type="checkbox"/> | between | 0.000100000000 | |
| Orientation | <input type="checkbox"/> | <input type="checkbox"/> | between | -90.000 | 90.000 |
| Shape factor | <input checked="" type="checkbox"/> | <input type="checkbox"/> | between | 0.050 | 1.000 |
| Ell. form factor | <input type="checkbox"/> | <input type="checkbox"/> | ca | 1.500 | 10000.000 |
| Width | <input type="checkbox"/> | <input type="checkbox"/> | between | 0.000100000000 | |
| Length | <input type="checkbox"/> | <input type="checkbox"/> | between | 0.000100000000 | |
| Breadth | <input type="checkbox"/> | <input type="checkbox"/> | between | 0.000100000000 | |
| Equiv. radius | <input type="checkbox"/> | <input type="checkbox"/> | between | 0.000 | 100.000 |

Application modules offer simple, powerful solutions

Optional modules provide application-specific workflows

Several application modules are available to add to the base configuration of BioFlux Montage. These modules are dedicated to specific routines which are common to live cell imaging. Extensive controls are provided to tailor the analysis to the application requirements. Once parameters are defined, these modules can automatically process large data sets in an automated, unattended manner. Data is readily usable in tabular or graphical formats.

Available Modules

Several application modules are available to add to the base configuration of BioFlux Montage. These modules are dedicated to specific routines which are common to live cell imaging. Extensive controls are provided to tailor the analysis to the application requirements. Once parameters are defined, these modules can automatically process large data sets in an automated, unattended manner. Data is readily usable in tabular or graphical formats.

Live/Dead Module

The module can be used for assessing cell viability and is compatible with commercially available Live/Dead assay kits designed to study cell proliferation or death. Common applications monitor cell proliferation associated with cancer or premature cell death involved in neuromuscular diseases such as Alzheimer's and Parkinson's, in addition to cytotoxicity and apoptotic events. Probes can target any part of cell and do not require a nuclear marker.

Neurite Outgrowth Module

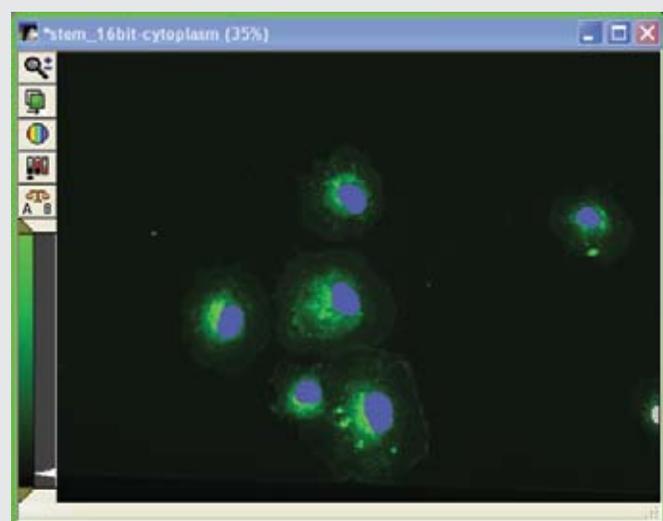
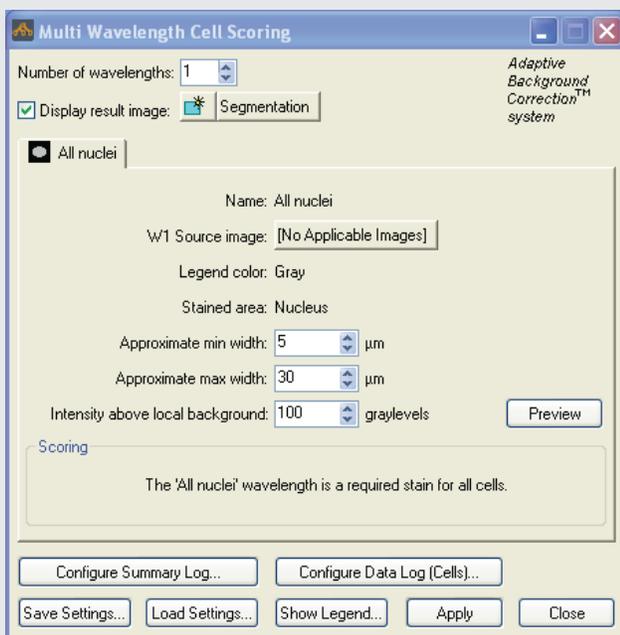
The Neurite Outgrowth Application Module is designed to measure and characterize outgrowths (both length and branching), the extension of axonal processes from the cell body, both of which are natural parts of neuronal development. This module is also useful for evaluating neurotoxicity of compounds intended for other cellular targets. Unique assay that cannot be performed without imaging. Provides consistent results faster than manual tracing and counting.

Multi-Dimensional Motion Analysis Module

This module tracks movement of individual cells or other cell related objects as they move across time-lapse image series. Other common measurements such as object velocity, angular trajectory, spatial distance, distance from origin can then be derived from this information. Useful for leukocyte rolling, cell motility, chemotaxis, and cell migration studies.

Multi-Wavelength Cell Scoring Module

This module enables scoring of individual cells for multi-parametric analyses. Cells are first identified and counted automatically using a nuclear stain. Other fluorescent markers can then be scored to provide population statistics and place the staining results within a specific context. Useful for cytotoxicity and gene expression profiling. Optimize settings for up to 7 probes (including nuclear probe) to customize analysis of 7 markers.



BioFlux Montage Application Modules offer dedicated solutions for commonly-used analyses in live cell imaging. They offer multi-parameter controls using a simple, wizard-style interface. Data can easily be exported to Excel and presentations.

Advanced features for customization and automation

Journal scripts

BioFlux Montage includes a powerful platform for writing customized scripts for commonly-used and repetitive tasks. This features uses a simple script editor and does not require any programming background. All routine functions for image acquisition, hardware control, and image analysis are callable to run customized programs in an automated manner. Scripts can be saved and nested within each other to build a library of routines.

Extended hardware control

BioFlux Montage supports all of the motorized hardware and cameras which comes with the BioFlux 1000 platforms. A variety of other third-party hardware components and cameras are also supported by the software. If you have a specialized component for your research, please consult with a product specialist to see if it can be controlled with BioFlux Montage.

Data logging via DDE

All analysis data can be tabulated and saved for analysis in common database and spreadsheet applications such as Microsoft Excel. Dynamic Data Exchange (DDE) can also be used to export data into supported applications in real-time. This saves time and provides an efficient workflow.

BioFlux Montage Computer Specifications

Recommended Computer Configuration

Intel Core™ Duo Processor with 2.67GHz cores
Windows XP Professional, Vista, Windows 7
4GB RAM
500GB SATA hard drive
320MB EVGA GeForce Video Card
1 LPT port
6 integrated USB 2.0 ports
2 integrated FireWire ports
2 Serial ports
1 available PCIe x1 slot for optional RAID 0 or 1 controller
3 available PCI slots
10/100/1000Mbps Gigabit network adapter
DVD+ /RW/CD-RW
550W Power Supply
Keyboard, optical mouse

Minimum Computer Requirements

PC-compatible 32-bit computer with a 1GHz or faster Intel® Pentium 4 processor
Microsoft® Windows® XP, Vista, Windows 7
CD-ROM drive
512MB or more system memory (RAM)
200MB free hard disk space for program only (image storage requires more space)
24-bit graphics display
256MB video RAM
USB port for software security key

Ordering Information:

Systems

| | |
|------------------------------------|----------------|
| BioFlux 200 with 24-well Interface | P/N 950-0012 |
| BioFlux 200 with 48-well Interface | P/N 950-0010 |
| BioFlux 1000 /1000Z | Please inquire |

Software

| | |
|-------------------------|----------------------------------|
| BioFlux 200 | Included with BioFlux 200 system |
| BioFlux Montage | 940-0002 |
| BioFlux Montage Offline | 940-0004 |

Optional Modules

| | |
|--|----------|
| Live/Dead Module | 940-0005 |
| Neurite Outgrowth Module | 940-0006 |
| Multi-dimensional Motion Analysis Module | 940-0007 |
| Multi-wavelength Cell Scoring Module | 940-0008 |

To request a quote or to place an order:

sales@fluxionbio.com

(866) 266-8380 Toll Free

(650) 241-4777 Main

(650) 873-3665 Fax

www.fluxionbio.com

