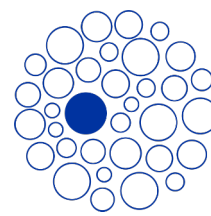
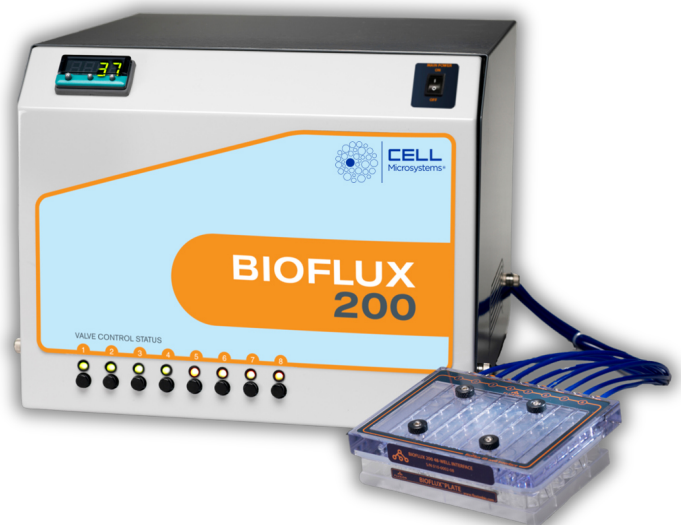
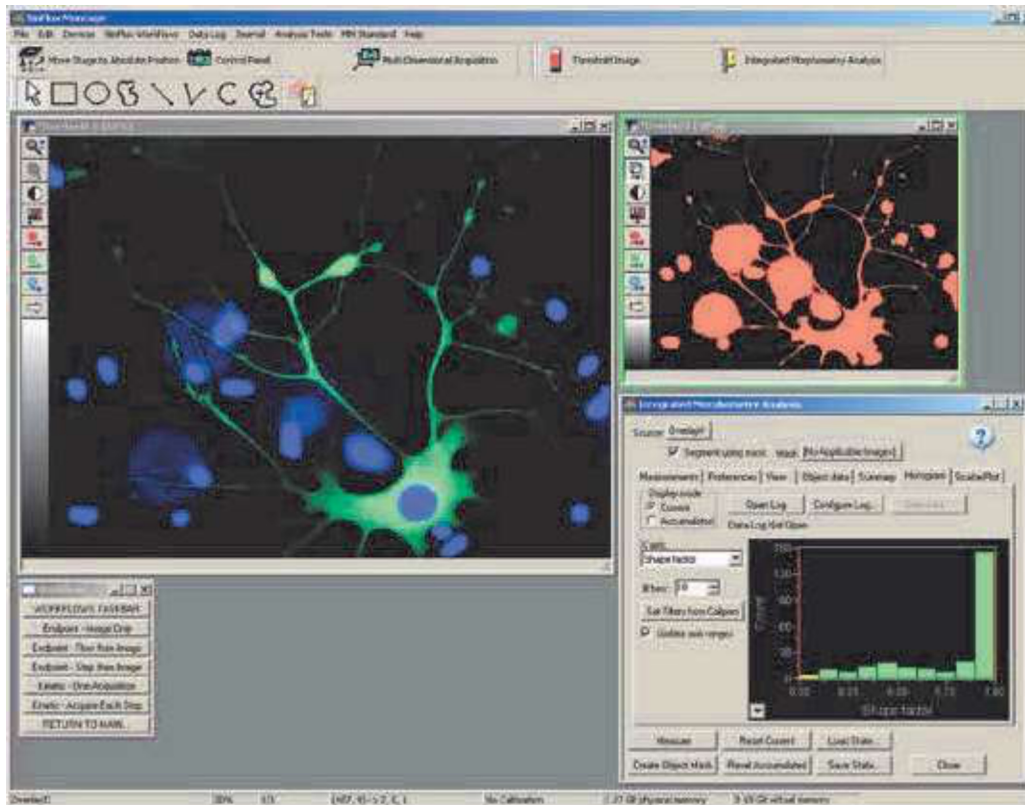


Bringing Physiological
Flow To Live Cell Assays



CELL
Microsystems®



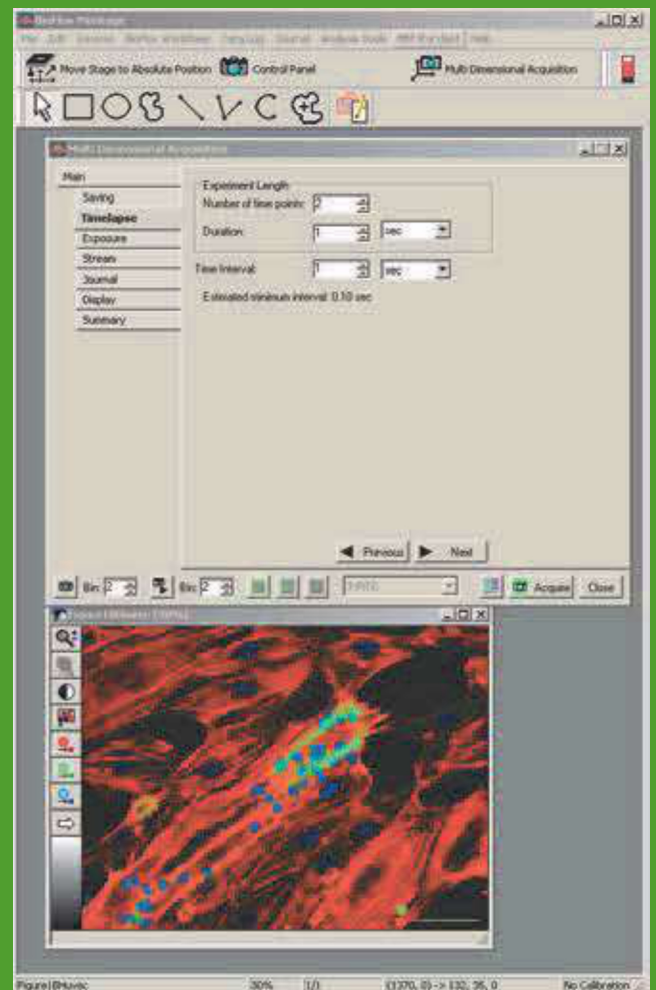
BIOFLUX MONTAGE™ PLUS

Automated software for advanced experimental control and data analysis

BioFlux Montage Plus provides a seamless software solution for automated experimental control

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

BioFlux Montage Plus is built around the industry leading MetaXpress application. Unparalleled hardware control ensures your BioFlux system runs smoothly from a single software application. The MetaXpress 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 Plus - a complete software solution

BioFlux Montage Plus 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 Plus Offline - a flexible addition to your BioFlux

BioFlux Montage Plus 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 1000Z system to enable remote use of the data processing capabilities. Montage Plus Offline can also complement a BioFlux 200 system by adding a complete image analysis solution.

Key Features

	BioFlux Montage Plus	BioFlux Montage Plus 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	■	■

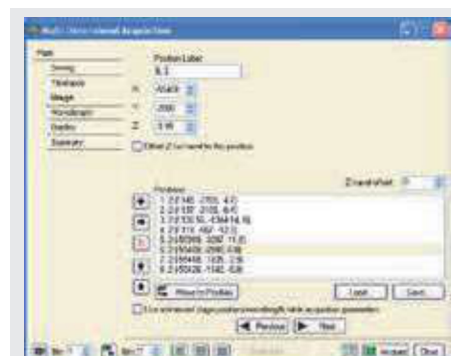
Seamless control of shear flow

Automate BioFlux routines from a single control point

BioFlux Montage Plus provides a simple, intuitive platform for controlling BioFlux shear flow experiments. The BioFlux Control Module within the Montage Plus software is integrated with image acquisition and hardware control for complete access to all data acquisition parameters. Images are synchronized and labeled with experimental 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

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



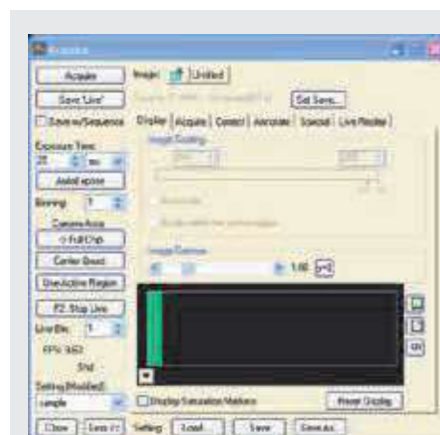
BioFlux Montage Plus provides control for the BioFlux 1000Z automated microscope. All motorized components are supported including fluorescence, stage, shutters, and auto-focus.

Automated image acquisition

Image acquisition is the core capability of the BioFlux 1000Z workstation. BioFlux Montage Plus 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 relevant settings.

Key image acquisition features:

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



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

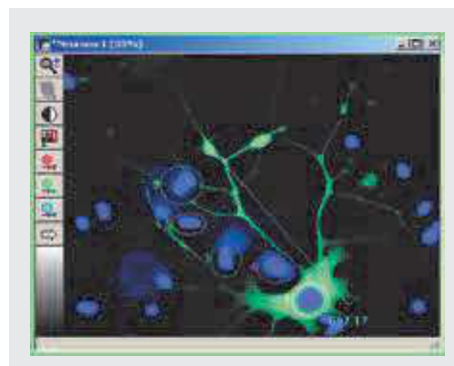
Advanced analysis capabilities

Powerful data analysis toolkit

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. Montage Plus also exports charts and histograms directly into publications and presentations.

Key data analysis features:

- 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

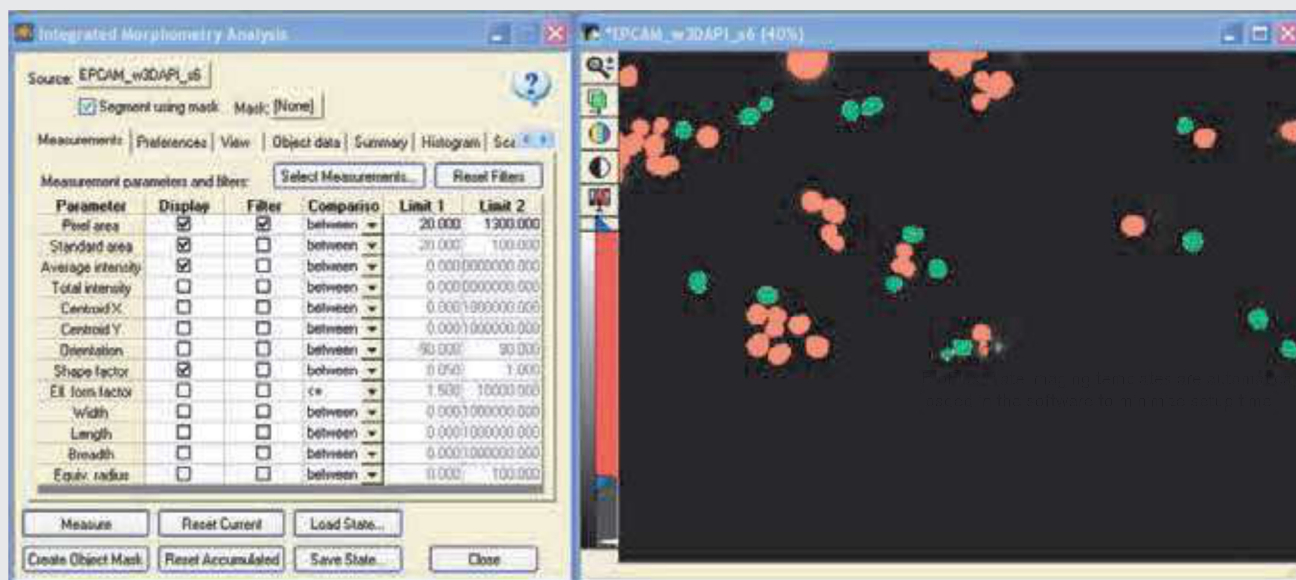
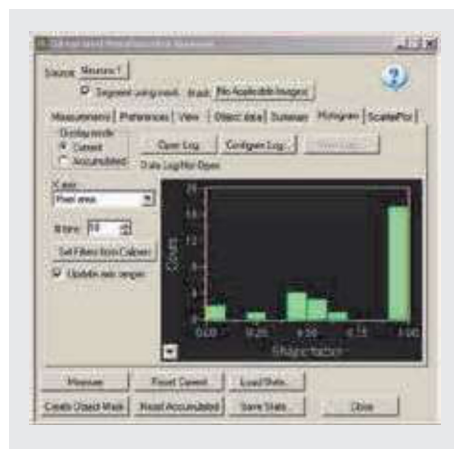


Pre-loaded BioFlux analysis routines

A number of automated analysis routines for common BioFlux applications, such as platelet and cell adhesion, biofilms, and time-lapse recording, are included with Montage Plus. 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



Application modules offer simple, powerful solutions

Optional modules provide application-specific workflows

BioFlux Montage Plus can be further enhanced with several application specific modules, which are available to add-on to the base configuration. Extensive controls allow tailoring of the analyses to the application's requirements. After parameters are defined, these modules can automatically process large data sets. Data is readily usable in tabular or graphical formats.

Available Modules

Viability 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

Neurite Outgrowth Module

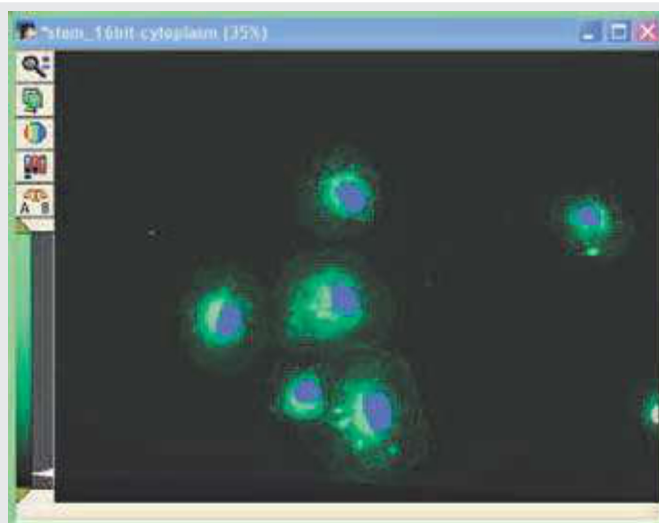
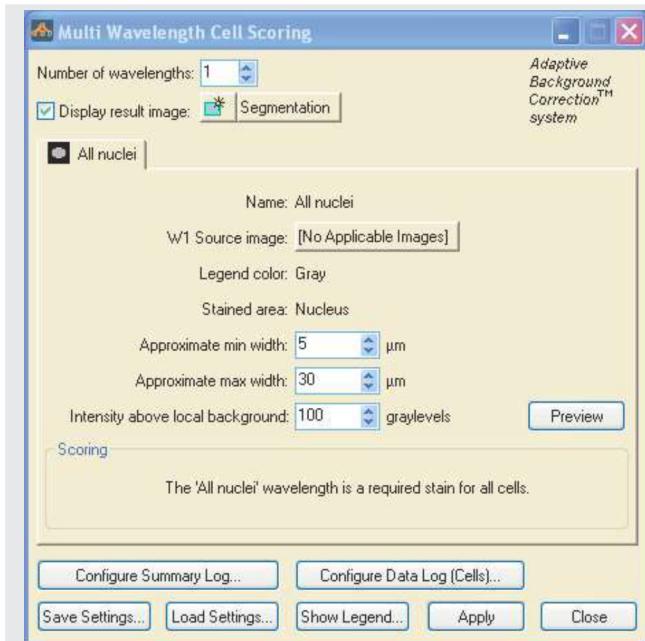
The Neurite Outgrowth Application Module is designed to measure and characterize outgrowths (both length and branching), the extension of axonal processes from the cell body, both of which are natural parts of neuronal development. This module is also useful for evaluating neurotoxicity of compounds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

Angiogenesis Tube Formation

This module analyzes tube formation in angiogenesis experiments. The promotion or inhibition of blood vessel formation is a frequent area of investigation for cancer, diabetes, and other vascular diseases. This module allows for a unique z-series acquisition and the collapse of all the z-series in a single "best focus" image.

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 Plus 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 outside software applications such as Excel and into presentations.

Advanced features for customization and automation

Journal scripts

BioFlux Montage Plus includes a powerful platform for writing custom scripts for commonly used and/or repetitive tasks. Montage Plus uses an easy-to-use script editor, which does not require any programming knowledge. All routine functions for image acquisition, hardware control, and image analysis can be combined with customized programs to run in an automated manner. Furthermore,

Extended hardware control

BioFlux Montage Plus supports all of the cameras and motorized hardware that come with a BioFlux 1000Z platform. Montage Plus also supports a variety of third-party hardware components and cameras. To discuss if your specialized components can be controlled by Montage Plus, please

Data logging via DDE

All analysis data can be tabulated and saved for further 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 provides an efficient workflow, saving you time.

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

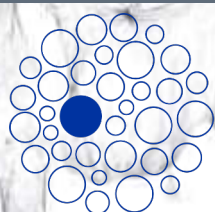
Software

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, please visit **cellmicrosystems.com**



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