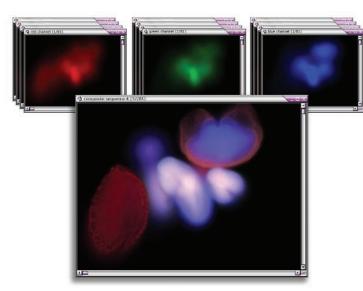


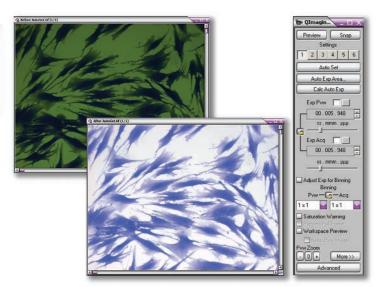
# **IMAGE-PRO® PLUS**

THE ULTIMATE IMAGE ANALYSIS SOLUTION FROM THE IMAGE-PRO FAMILY



# **Experience the Power and**





Organize, extract, and navigate multiple image sets with Set Manager.

### **From Images to Answers**

mage\_

Image-Pro Plus is the ultimate image analysis software package for fluorescence imaging, quality assurance, materials imaging, and various other scientific, medical, and industrial applications. The most powerful member of the Image-Pro software family, Image-Pro Plus includes extensive enhancement and measurement tools and allows you to write application-specific macros and plug-ins.

### Capture

Image-Pro Plus provides support for advanced digital cameras, sophisticated image capture cards, and other devices. As new devices are developed, drivers are made available on our website at www.mediacy.com. Capture features include:

- New streamlined capture interface
- *New* AutoSet feature takes the guesswork out of setting color balance exposure parameters
- *New* semi-transparent live preview feature assists in tiling, stitching, and aligning images
- Acquire, create, and playback a sequence (stack) of images

### **Workflow Management**

Create customized workflows and interfaces that work the way you do.

- *New* floating toolbar builder allows you to create unique toolbars for your specific work process
- *New* built-in configurations customize Image-Pro Plus for your industry needs, life science or industrial

Quickly access important capture tools with the streamlined capture interface. The new AutoSet feature assists in setting optimal color balance exposure parameters.

## **Composite Imaging**

Advanced composite imaging features include:

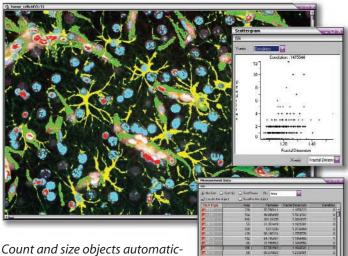
- New image stitching and tiling tools
- *New* automatic alignment of image stacks to correct for stereo, rotational, and other types of shifts
- Extended Depth of Field (EDF) to create focused composite images from a series of unfocused images
- *New* EDF Test Strips automatically tests all EDF options on your images with a single click
- Sequence Gallery provides easy image preview
- *New* Set Manager allows you to easily organize, extract, and navigate multiple image sets
- *New* N-dimensional viewer lets you choose variables to display from image sets
- Color Composite tool creates a composite image from source gray scale images
- *New* Dye Manager lets you apply dye tints to gray scale images by choosing emission wavelength
- *New* Local Zoom tool allows you to simultaneously view your entire image in one window, while viewing a magnified area of that image in a second window

## Enhance

Image-Pro Plus offers a wide array of enhancement and image processing tools including:

- Background subtraction and correction
- Fast Fourier Transform (FFT)
- Extensive list of filters including enhancement, edge, morphological, and large spectral filters
- User-definable kernel sizes

## Functionality of Image-Pro Plus...



ally and display measurements as scattergrams and histograms.

Image courtesy of Alex C. Stan, M.D., Ph.D., Institute of Neuropathology, Hannover Medical School, Germany.

### Measure

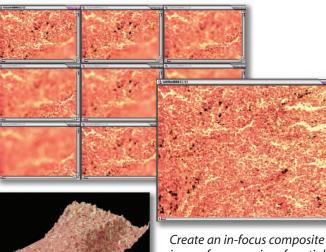
Guarantee fast, accurate, and repeatable results with measurement options including:

- New tracking tools allow you to automatically follow objects in a sequence image and measure distance traveled
- New Snap feature allows you to automatically save measurements into images for documentation
- New Calibration Wizard helps you to calibrate an active image and create reference and system calibrations
- Length, area, perimeter, and angle tools
- Best-fit line, arc, and circle metrology tools
- · Automatic count and size tools include over 50 measurement options
- Watershed, auto-split, and cluster analysis tools to resolve clustered objects
- Caliper tool for edge detection and measurement

### Analyze

Test, compare, and analyze your data for maximum results.

- Visualize image data with scattergrams, histograms, line profiles, and surface plots
- Produce gray scale, color, and 3D representations of co-localization with automatic measurements
- Analyze RGB, HSI, HSV, or YIQ content of color images
- · Add, subtract, or mask images with Boolean or arithmetic functions
- Export data to statistical and spreadsheet packages



Display image intensity values in a 3D plot with surface plot.

## image from a series of partially in-focus images with Extended Depth of Field (EDF).

## **Track your Work**

When combined with a robust company compliance system, the following features allow you to address concerns of governmental regulatory agencies:

- Audit Trail logs application events in Image-Pro Plus and records them to a printable text file
- File and Image Signature create "fingerprints" for individual files and images

## **Customize with Auto-Pro**

Automate your research with the Auto-Pro programming language

- · Compress lengthy operations into a single keystroke or mouse click
- Integrate and customize macros or plug-ins with Microsoft® Visual Basic® or Visual C++® with our free SDK

## Image Informatics

Transform the data you receive from images into answers with powerful image informatics tools:

- Highlight details in your images with annotation tools · Generate customized reports with images, data,
- and text
- Use the built-in Image-Pro Database or choose to archive, manage, and extract knowledge from your images with the powerful and intelligent new IQbase<sup>™</sup> (see back panel for more information)

### Add Multi-dimensional Imaging to Image-Pro Plus

Extend the functionality of Image-Pro Plus with seamlessly integrated plug-in modules.

## Scope-Pro

**Scope-Pro** enables you to control and program the movement of your automated microscope, stage, and peripherals in a simple, repeatable manner.

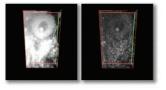
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AFA allows you to easily setup and manage all combinations of acquisition modes and image sets including: - Time - Channel - Focus (Z-stack) - Stage position

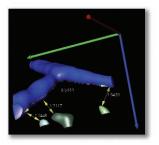
## <u>SharpStack</u>®

**SharpStack** removes haze and improves resolution in two- and three-dimensional image stacks using deconvolution/deblurring algorithms.



## <u>3D Constructor</u>®

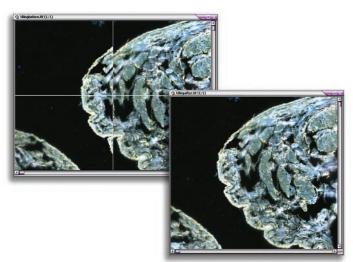
**3D Constructor** enables you to explore threedimensional relationships within and among objects and includes interactive and automatic measurement capabilities in three and four dimensions.



## The World's Leading Image Analysis Software

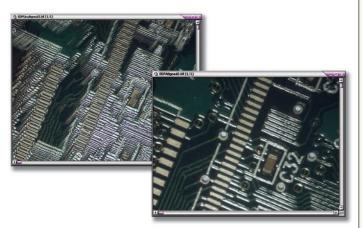
Now Even More Powerful With The Following New Features:

## **Stitching and Tiling**



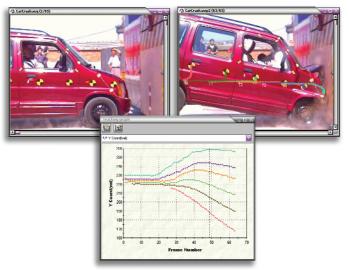
Build a large image from multiple, smaller location acquisitions with **Stitching and Tiling** tools. Use the tiling feature with an automated stage and the stitching feature with or without an automated stage.

## **Alignment Correction**



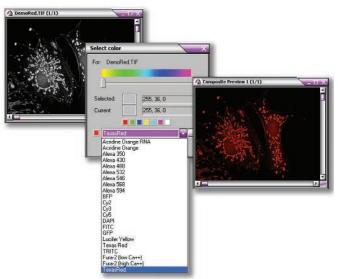
Align individual or sequence images for translation, rotation, or scaling with **Alignment Correction.** This feature is especially useful for images taken over time, images with some camera movement, or if you are aligning channels in multiple images from a beam splitter or correcting for offset angles through a stereo microscope.

## **Object Tracking**



Follow objects in image sequences as they move through time and space with the **Object Tracking** feature. You have the ability to track objects automatically, semi-automatically, or manually.

## **Dye Management**



Apply lookup tables to monochrome fluorescence images using the **Dye Management** tool. You can use pre-defined lookup tables for many of the popular fluorescent probes or create unique lookup tables for more specialized probes.



## Join an Imaging Community

By taking advantage of all Image-Pro Plus has to offer, you will find yourself part of a worldwide imaging community.

#### **Email Users' Group**

The Image-Pro Email Users' Group allows for easy communication between users located around the world. Once you are part of the Email Users' Group, you and other users can share ideas and information while you are working.



#### **Hands-on Training Courses**

Our image analysis training courses will provide you with valuable information to apply towards your imaging research. Whether you are new to Image-Pro Plus or you are a more experienced imaging professional, our courses are designed to help you make optimum use of the latest image analysis

software techniques. Visit our website for course descriptions, dates and locations.

#### **Technical Support Site**

If you have some questions while using Image-Pro Plus, visit our Technical Support site, which is easy to reach from our homepage at www.mediacy. com. This site includes FAQs about Image-Pro Plus, technical support bulletins, device driver updates, and downloadable product updates.

#### **Applications and Solutions** Zone Sites

As an Image-Pro Plus user, you will find a wealth of information on our Applications and Solutions Zone websites. Our Applications site includes product notes, white papers, success stories, and application examples that demonstrate how others are working with Image-Pro Plus. The Solutions Zone is an easily searchable online database of macros, device drivers, plug-in modules, application programs, and development consultants that support Image-Pro Plus.

## Archive Seamlessly with IQbase

IQbase is an intelligent database designed especially for managing and archiving information derived from images.

- Archive seamlessly from Image-Pro Plus
- Never repeat research due to lost data
- Eliminate separate spreadsheet logs and paper notebooks
- View images and related data simultaneously
- Mine new knowledge from existing images and data
- Share images via email or Web directly from IObase
- Generate reports in a variety of document or Web formats

For more information on IQbase, contact your Image-Pro Plus dealer or visit www.mediacy.com/ igbase.



## System Requirements

Operating System	Computer	
Windows® 2000 Windows®XP Pro	500 MHz or better 750 MHz or better	

	Storage
B RAM	10 GB*
B RAM	20 GB*

IBM compatible PC

• A VGA (or better) resolution 256 color display device • Windows-compatible mouse, keyboard, and CD-ROM drive

\* Suggested storage size for large image files generated by advanced cameras.

## **HEADQUARTERS**

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