





# **Version 10**

### Image Analysis Starts with Image-Pro®

Image-Pro from Media Cybernetics® delivers the power and flexibility that you need in a modular image analysis platform, to address any application.

- Add Image-Pro Modules to expand the functionality
- Download APPS from the Image-Pro APP Store to simplify your analysis
- Customize the system to best meet your image analysis needs

Regardless of the application, Image-Pro functionality can be easily expanded or contracted to target your exact analysis need and deliver results.

To learn how Image-Pro can work for you, obtain a free 14-day trial of Image-Pro at: www.mediacy.com/freetrial



The Image-Pro platform offers simplified, flexible 2D solutions for any application.

#### **Modules**

Augment Image-Pro with additional modules to expand the product functionality



#### Apps

Simplify your analysis workflow by implementing a standard APP or develop your own solution.

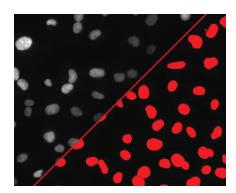
#### Customization

Configure product interface toolbars, and reports to meet your specific needs.

### **Image-Pro Applications and Solutions**

Go beyond the 2D analysis capabilities of Image-Pro with the addition of Image-Pro Modules. Modules open a new level of functionality for Image-Pro. Include them in your initial configuration or add them later, as your needs change.

To determine the best configuration, visit our application pages for suggested modules and other application specific information to optimize Image-Pro for your work.



# Life Science



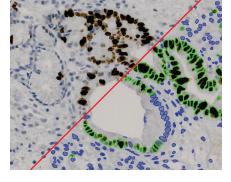
- Cell Counting
- Counting Markers within Cells
- **Angiogenesis**
- Wound Healing
- Cell Tracking
- 3D Cell Analysis
- 3D Colocalization



## Manufacturing 🌯



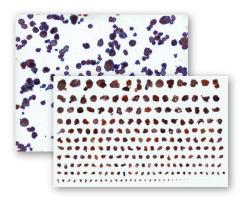
- Inspection with Extended Depth of Field
- Quality Assurance
- **Aerosol Spray Analysis**
- Intermetallic Corrosion
- Particle Size Analysis
- 3D Visualization and Volume **Analysis**



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- Percent Area Staining
- Cell Classification
- Microglia/Brain Tissue
- Color Deconvolution
- Whole Scanned
- Slides/Tissue Analysis

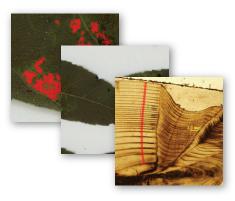


#### Materials Sciences



- Ceramics, Composites and **Plastics**
- Metals
- Cosmetics
- Glass, Films and Coatings
- R&D of New Materials

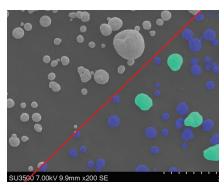
- Food Quality Assurance
- Fiber Analysis
- Particle and Porous Materials **Analysis**
- Layer Thickness



#### Natural Resources



- Entomology
- Forestry and Plant Disease
- Agriculture
- **Remote Sensing**
- **Population Analysis**
- Otolith Analysis and Morphology
- Egg and Larvae Counting
- **Fisheries**



# Electron Microscopy 💄



- Particle Size Analysis Metals
- **Fiber Analysis**
- Phase Analysis
- **Image Tiling**
- FIB-SEM 3D Volume Rendering and Analysis



# **Security**



- · Forensic Image Optimization
- Fiber Analysis
- **Tool Marks Analysis**
- **Remote Sensing**

### **Image-Pro Modules**

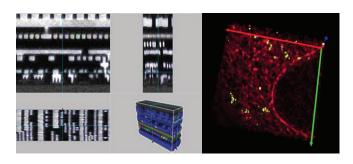
### 2D Image Capture Module 10



The Image-Pro Capture Module goes far beyond image capture and camera support. It contains a variety of specialty capture options such as High Dynamic Range (HDR) capture, Live Tiling, Live Extended Depth of Field (EDF), Live Measurements, Live Image Comparison, and Live Calibrated Grids.







### 3D Module 😭

Add the Image-Pro 3D Module to your platform and unleash a new level of image analysis for your research. Advanced 3D visualization and analysis options based on the same philosophy as the Image-Pro platform, allow you to perform complex analysis methods without learning a new platform.

### **License Options**

Image-Pro offers two different licensing options to meet your organizational and laboratory needs. Available either as a single licensed copy or a network license. An Image-Pro single seat license is contained on the PC where Image-Pro has been installed, while in contrast, a network license supports multiple instances of Image-Pro across your internal network, through a license hosted on a central server.

	Single Seat License	Network License
License Type	USB Hard License (Dongle)	Soft License on Network Server
Base Functionality	Image-Pro	Image-Pro (per seat)
Number of Seats	1	>1
Modules Supported	Linked to USB License at Login	Assigned through a License Manager

Network licenses implement the modularity of Image-Pro among the instances running on the internal network. Each instance is an independent copy of the Image-Pro Software, each capable of having a unique configuration. Through the server licensing tool, the system can be reconfigured to move a module from one instance of Image-Pro to another or add a new module to a single instance or multiple instances.

#### **Example of Image-Pro Network Configuration:**

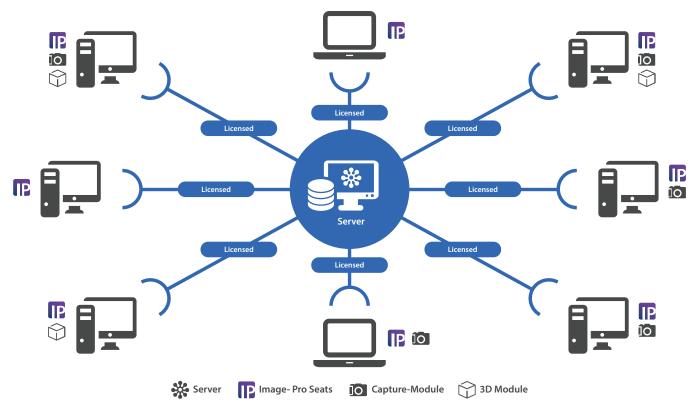


Image-Pro Modules Feature Chart	Image-Pro	Image Capture Module	3D Module
Image Acquisition & Live Analysis			
Live preview			
Time lapse acquisition		•	
Streaming to disk		•	
Crosshair grid overlay		•	
Live image comparison		•	
Full-screen live preview Live measurements			
Live object counting			
Automatic exposure / white balance			
Live Extended Depth of Focus (EDF)			
Live tiling			
Live Tiling & Live EDF			
Saturation Warning		•	
Capture interface enhancements (for specific cameras)		•	
Image Display			
Local Zoom - simultaneously view entire image and magnified area of interest	•		
Load and analyze image sets larger than your available RAM memory	•		
Time-based image sequence playback Slide Scanner Images (VLI)			
64-bit support for large image handling			
Just-in-Time image loading for image sets and sequences			
Image Processing —			
Morphological filters	•		
Enhancement filters	•		
Filter preview on-image Filter Preview: faster, whole image, region based	•		
Pseudo-color tool	•		
Fast Fourier Transform (FFT) features	•		
Extended Depth of Field (EDF)	•		
Extended depth of field (EDF) - Test Strips	•		
Color composite tool  Edge filters, large spectral filters, and custom kernel editing			•
Easily draw multiple ROIs			
ROI Inverse (Donut ROI)			
Features Manager - Save ROIs, measurements, annotations, line profiles			
Auto Align images	•		
Auto Tile images			
Dye list / image tinting	•		•
Multi-Channel image alignment			•
Image registration, and spatial and image alignment	•		
Measurement & Classification Tools			
Manual measurement tools Automatic count and size tools			
Count by ROIs			
Smart Segmentation: Machine Learning based segmentation			
Smart Segmentation: Segmentation based on mulitple image sets	•		
Improved Object Splitting	•		
Learning Classification: Training-based object classification.	•		
Voronoi Maps: distribution and nearest neighbor analysis	•		
Parent/Child Analysis-Count Objects within Objects	•		
Manually tag, count, and classify objects	•		
Maximum count number extended to over 100,000 objects (memory dependent)	•		
Display measurements as histograms & scattergrams	•		
Metrology tools measure features such as best-fit line, arc, and circle	•		
Measure - Snap to Edge Measurements  Measure - Incremental Distances between two lines or polygons			
Measure - Grow or Shrink counted objects or measured polygons			
Measure - Close and Merge counted objects or measured polygons			
Polygon Nudge Tool - Adjust the shape of polygon measurements or ROI's			
Auto-trace feature			
Caliper tool for edge detection and measurement			
2D Co-localization of probes	•		
3D Co-localization of probes			•
Enhanced Co-localization of probes: Parent Object Based, Zero Pearson Thresholding	•		•
Calibration wizards	•	1	

Image-Pro Modules Feature Chart	Image-Pro	Image Capture Module	3D Module
Object Tracking Tools			
Manual and automatic object tracking tools	•		
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Make morphological measurements on the objects being tracked	•		
Correlation tracking			
Define reference track			
iompare tracks			
BD Rendering and Analysis ———————————————————————————————————	•		
D filters			
Additional 3D filters (Top-hat Plus, Minus & Ring, Local Max & Min, & Gradient)			
BD viewer			•
inchanced 3D viewer and volume rendering			•
Clipping plane viewing			
licer viewing			
so-Surface based object analyis			
olume"Pseudo-surface" based object analysis			
Guiided Segmentation for complex samples			•
Automated 3D volume measurements			•
3D object based manual measurements			•
Batch processing of 3D volumes			•
Simple Key Frame Animation movie making			•
mage Analysis Tools ———————————————————————————————————			
Data Collector collects data from multiple images from various tools	•		
Data Collector Class Statistics	•		
urface Plot displays image intensity values in a 3D plot	•		
Aeasurement equation editor	•		
export data tor Microsoft® Excel	•		
Data graphing features include tools to dynamically link to image overlays	•		
ive data collecting and charting	•		
Auditing and Authentication Features ————————————————————————————————————			
Audit trail			
mage and file signature "fingerprint" images for authenticity	•		
mage Management and Reporting —	•		
nnotation tools	•		
create customized reports with images, data, and text	•		
export measurements to statistical and spreadsheet package	•		
Automation & Customization Tools			
Aacro programming tools	•		
Graphical macro programming			
Customize workflow toolbars	•		
Customizable Apps			
Customize your application with the interactive menu editor	•		
ntelligent macro editor with command recognition	•		
ime-saving "Extras" macros in Macro Menu	•		
Oownloadable Apps from the Apps Center	•	1	
Aacro browser	•		
ulit in Batch Processing Features	•		
atch process - Folder Monitoring			
ink to online tutorials	•		
ustomizable Ribbon			
Operating System Support ————————————————————————————————————			
Vindows® 7 Professional and up, (64-bit)			
Vindows® 8/8.1 Professional and up, 64-bit			
vindows هره ۲۰ اتانوع ماه ماه طال به ۱۹۰۵ کار ۱ Vindows® 10 Anniversary Upate, Professional and up, 64-bit			-
Vindows® 10 Anniversary Opate, Professional and up, 64-bit Vindows®32-bit version are supported but not recommended			•
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ile Format Support ————————————————————————————————————			

#### **System Requirements**

	Recommended	High Performance for 3D Module
Operating System	Windows 10 (64bit) - Anniversary Update, Professional and up Windows 8.1 (64bit) - Professional and up Windows 7 (64bit) - SP1, Professional and up *32bit versions are supported but not recommended.	Windows 10 (64bit) - Anniversary Update, Professional and up
Free Disk Space	Multi high-speed SATA hard disks or SSDs; 8GB free on installation drive + free space for images (20 GB+)	Multi high-speed SATA hard disks or SSDs configured in RAID 5; 16GB free on installation drive + free space for images (1 TB+)
Processor	2.8 GHz CPU Intel quad-core processor or better	3.0 GHz CPU Intel quad-core processor or better
RAM	16 GB memory or higher	48 GB memory or higher
Graphics Card	NVIDIA GeForce GTX Cards with 4GB graphics memory & Open GL 4.2 or higher	NVIDIA GeForce GTX Cards with 8GB graphics memory & Open GL 4.2 or higher
Drives	DVD-ROM drive if optional DVD purchased	DVD-ROM drive if optional DVD purchased
USB Port	Required for hard licenses and offline license activation	Required for hard licenses and offline license activation
Internet Connection	Internet connection required for online services*	Internet connection required for online services*
Internet Browser	Internet Explorer version 9 or higher	Internet Explorer version 9 or higher

#### Resources

#### Maintenance

Receive installation and configuration troubleshooting from our technical support engineers via phone or email. Purchase an Image-Pro Maintenance Agreement to receive a full year of software updates.

#### **Training**

Our image analysis training courses provide valuable information you can apply towards your imaging work. Whether you are new to imaging or are a more experienced imaging professional, our courses are designed to help you make optimum use of the latest imaging software techniques.

#### **Get Started with Free Video Tutorials**

As an Image-Pro user, you'll have access to a growing library of free 3 to 5 minutes video tutorials. Learn timesaving tips and familiarize yourself with the wide range of analysis tools available to you - without ever having to leave your computer.

#### **Image-Pro forums**

When you choose Image-Pro software, you instantly join a community of image analysis professionals. Join the free Image-Pro users forum to ask questions and learn from other users.

