MEDIA CYBERNETICS

Image-Pro®

by Media Cybernetics, Inc.

IP

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.

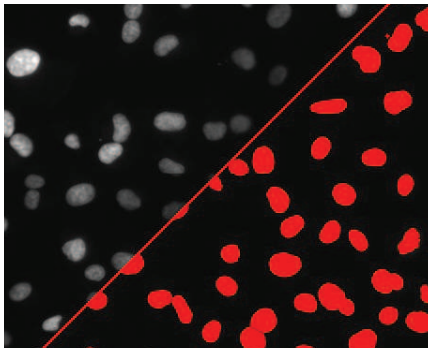
Customization

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

Image-Pro Applications and Solutions

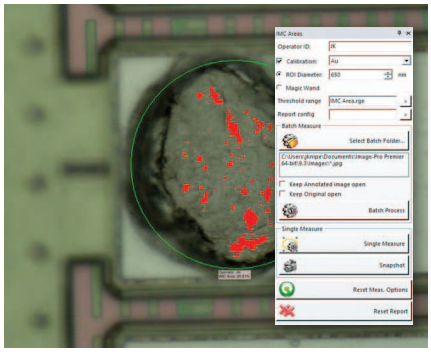
Go beyond the 2D analysis capabilities of Image-Pro with the addition of Image-Pro Modules. Modules open a new level of functionality for Image-Pro. Include them in your initial configuration or add them later, as your needs change.

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



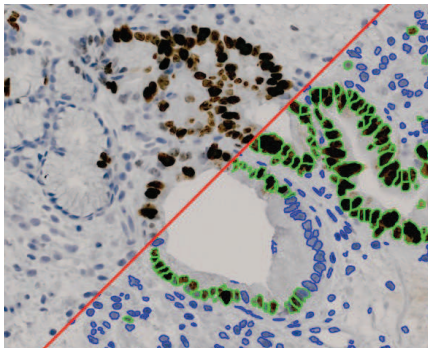
Life Science

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



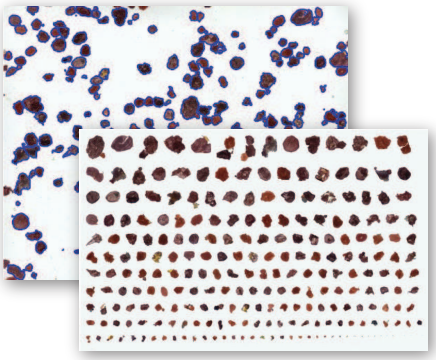
Manufacturing

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



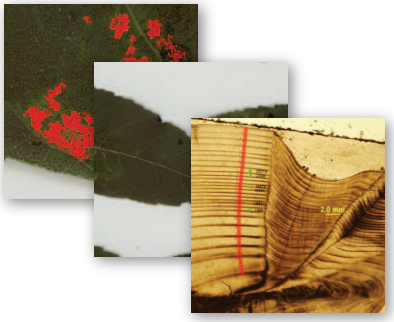
Digital Pathology

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



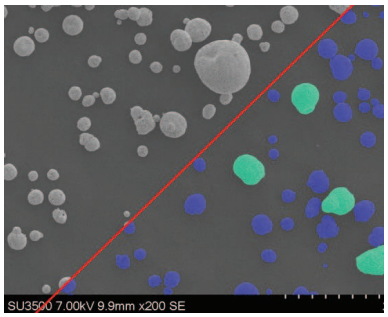
Materials Sciences

- 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

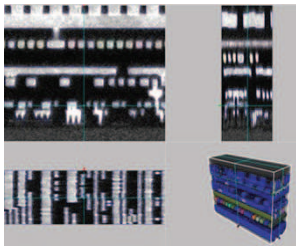
Security

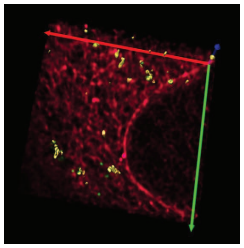
- Forensic Image Optimization
- Fiber Analysis
- Tool Marks Analysis
- Remote Sensing

Image-Pro Modules

2D Image Capture Module

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.



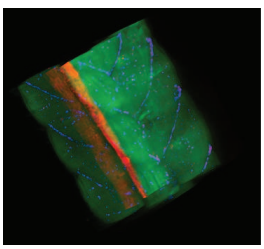


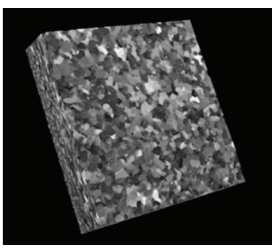
3D Module

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.

3D Module with Big Data Visualization

The Image-Pro 3D Module for Big Data Visualization offers all the functionality of the standard Image-Pro 3D Module but with the ability to display Large Volumes easily by using a combination of GPU processing with your current system to easily display large data sets*.
*Large images will require disk space





License Options

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:

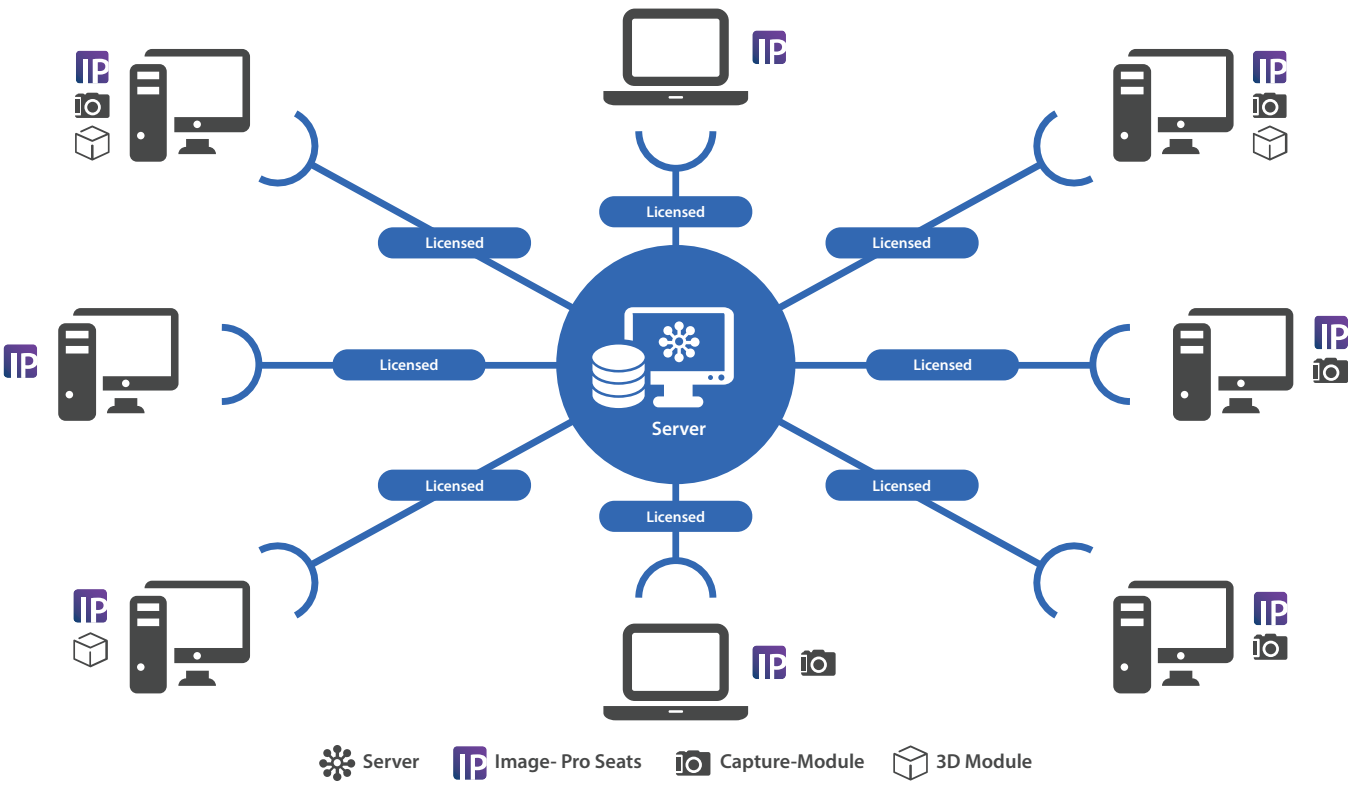


Image-Pro and Modules Feature Chart

	Image-Pro	Image Capture Module	3D Module
Image Acquisition & Live Analysis			
Live preview		•	
Single-frame instant acquisition		•	
Time lapse aquisition		•	
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)		•	
Background Correction		•	
Dark Frame Subtraction		•	
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) (for specific scanners)	•		
64-bit support for large image handling	•		
Just-in-Time image loading for image sets and sequences	•		
Image Processing			
Morphological filters & Enhancement filters	•		
Edge filters, large spectral filters, and custom kernal editing	•		
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	•		•
HDR image creation - post process	•		
Easily draw multiple ROIs	•		
ROI Inverse (Donut ROI)	•		
Features Manager - Save ROIs, measurements, annotations, line profiles	•		
Image Math	•		
Auto Align images	•		
Auto Tile images	•		
Image registration, and spatial and image alignment	•		
Dye list / image tinting	•		•
Multi-Channel image alignment			•
Measurement & Classification Tools			
Calibration wizards	•		
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, and pie charts	•		
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	•		

Image-Pro Modules Feature Chart

	Image-Pro	Image Capture Module	3D Module
Measurement & Classification Tools (continued)			
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	•		•
Display 3D measurements as histograms, scattergrams, and pie charts			•
Object Tracking Tools			
Manual and automatic object tracking tools	•		
Make morphological measurements on the objects being tracked	•		
Correlation tracking	•		
Define reference track	•		
Compare tracks	•		
3D Rendering and Analysis			
3D filters	•		
Additional 3D filters (Top-hat Plus, Minus and Ring, Local Max and Min, and Gradient)	•		
Basic 3D viewer	•		
Advanced 3D viewer and volume rendering			•
Clipping plane and X, Y, Z Slicer viewing			•
Iso-Surface based object analyis			•
Volume"Pseudo-surface" based object analysis			•
Guided Segmentation for complex samples			•
Automated 3D volume measurements			•
3D object based manual measurements			•
Batch processing of 3D volumes			•
Simple Key Frame Animation movie making			•
Image Analysis Tools			
Data Collector collects data from multiple images from various tools	•		
Data Collector Class Statistics	•		
Surface Plot displays image intensity values in a 3D plot	•		
Measurement equation editor	•		
Export data for Microsoft® Excel	•		
Data graphing features include tools to dynamically link to image overlays	•		
Live data collecting and charting	•		
Auditing and Authentication Features			
Audit trail	•		
Image and file signature "fingerprint" images for authenticity	•		
Image Management and Reporting			
Annotation tools	•		
Create customized reports with images, data, and text	•		
Export measurements to statistical and spreadsheet package	•		
Automation & Customization Tools			
Macro programming tools	•		
Graphical macro programming	•		
Customize workflow toolbars	•		
Customizable Apps	•		
Customize your application with the interactive menu editor	•		
Intelligent macro editor with command recognition	•		
Time-saving "Extras" macros in Macro Menu	•		
Downloadable Apps from the Apps Center	•		
Macro browser	•		
Bulit in Batch Processing Features	•		
Batch process - Folder Monitoring	•		
Link to online tutorials	•		
Customizable Ribbon	•		
Network Server License Support - *Optional Configuration*			
Access to Image-Pro license by multiple users across connected networks	•		
Access to Image-Pro license through Remote Desktop	•		
User assigned configuration of modules	•		
Operating System Support			
Windows® 7 Professional and up, (64-bit)	•	•	•
Windows® 8/8.1 Professional and up, 64-bit	•	•	•
Windows® 10 Anniversary Upate, Professional and up, 64-bit	•	•	•
Windows®32-bit version are supported but not recommended	•	•	
File Format Support			
http://www.mediacy.com/imagepro/system-requirements	•		

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+) Large images will require more disk space. *File size is limited to the Hard Drive Free Space/2.5. Example: 4TB Free
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	48GB-100GB memory, depends on # of open images
Graphics Card	NVIDIA GEForce GTX Cards with 4GB graphics memory & Open GL 4.2 or higher	NVIDIA GEForce GTX or above cards with 8GB graphics
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 time saving 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 email list to ask questions and learn from other users.