



**MediaCybernetics**  
From Images to Answers®

INDUSTRIAL APPLICATIONS



# Image-Pro<sup>®</sup> Premier

Image Analysis  
Starts Here

# Image Analysis Starts with Image-Pro®

Incorporating more than 25 years of user input, Image-Pro Premier provides intuitive tools that make it easy to capture, process, measure, analyze, and share your images and valuable data. Rely on our worldwide network of Image-Pro partners, superb training tools, and technical support team to help you get started and keep your work moving forward. Try Image-Pro Premier today and discover what makes Image-Pro from Media Cybernetics® the leading image analysis software.

Designed for applications requiring automated measurement and analysis tools:

- Aerospace
- Automotive Manufacturing
- Ceramics
- Coatings & Corrosion
- Cosmetics
- Failure Analysis
- Forensics
- Geology
- Materials Science
- Metallurgy
- Pharmaceutical Development
- Polymers
- Quality Control & Assurance
- Semiconductors
- Textiles

## Easily Capture Single-Frame Images & Time-Lapse Experiments

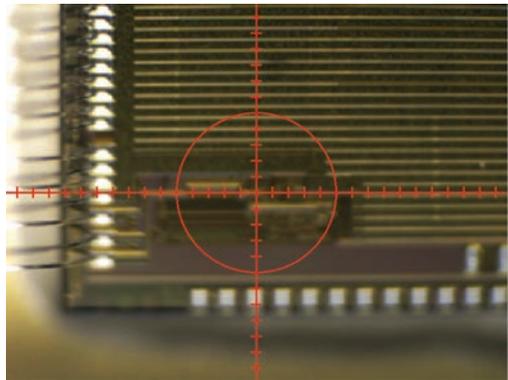
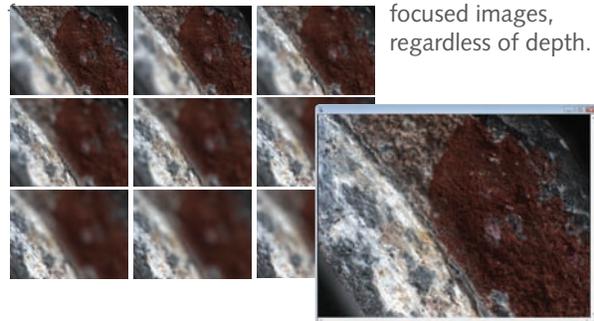
Successful analysis begins with high-quality images. Image-Pro Premier supports an ever-growing list of cameras to ensure a superior capture experience.

## Fast Acquisition & Streaming to Disk

Acquire rapid events or those that last for longer periods of time. Image-Pro Premier is not only able to utilize the memory (RAM) available on your computer, it can also stream multi-gigabyte movies directly to your hard drive.

## Live Extended Depth of Field – No Automation Needed

Capture beautifully focused images, regardless of depth.



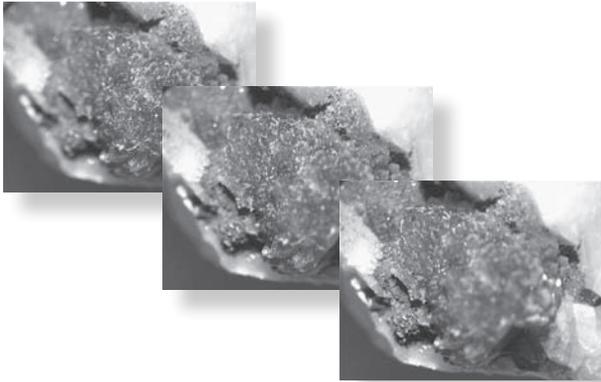
## Overlay Previously Acquired Images and Crosshair Grids on Top of Your Live Images

See how objects have changed over time by overlaying previously acquired images on top of your live preview image. Use the crosshair overlay to ensure that images are correctly aligned while capturing. Select from a range of patterns, colors, and sizes.

# Process & Analyze

Implement sophisticated image processing and enhancement functions with two clicks or less. Image-Pro Premier makes it easy to analyze and reveal important details within your images.

Free Online  
Tutorials and  
Webinars



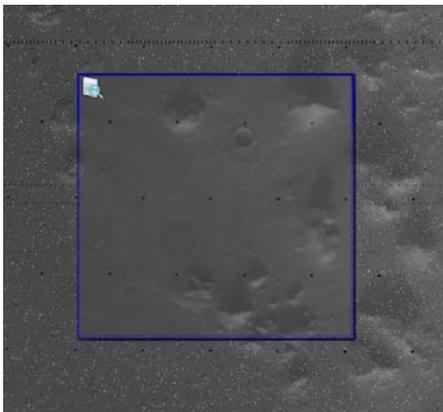
## Auto-Alignment & Extended Depth of Focus

Correct for microscope shift with post-acquisition auto-alignment tools. Extended Depth of Focus (EDF) creates a focused image from a series of images captured at different z planes.



## Navigate & Edit Movies in Gallery View

Navigate through time-lapse and image sequence files with the Gallery View tools.



## Correct for Noise & Enhance Detail with Filters

Remove background noise and reveal hidden details with an extensive set of image processing filters. Preview filters on your active image for instant results.



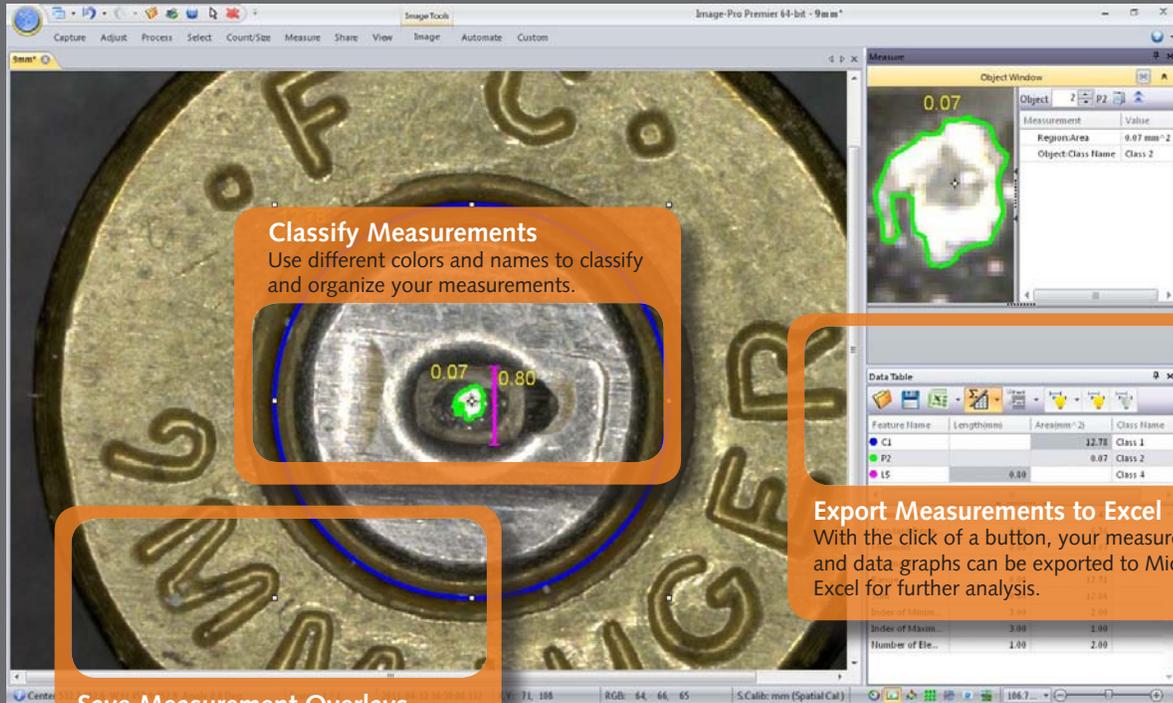
## Batch-Process Multiple Images

Apply your image processing steps to all opened images or entire folders of images utilizing Image-Pro Premier's easy-to-use Batch Processing tools.

# Measure & Quantify

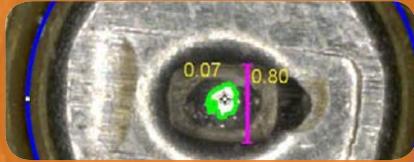
Extract quantifiable data from your images with a variety of measurement tools. Easily measure distances, regions, angles, and more.

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## Classify Measurements

Use different colors and names to classify and organize your measurements.

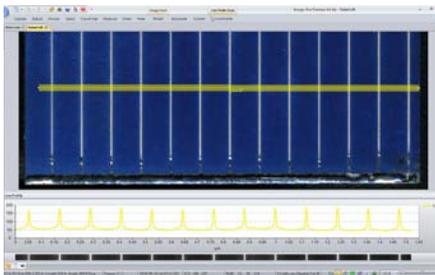


## Export Measurements to Excel

With the click of a button, your measurement and data graphs can be exported to Microsoft Excel for further analysis.

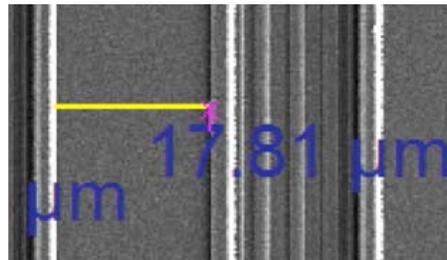
## Save Measurement Overlays

Measurements are saved in your image's meta data and are recalled the next time you open the image in Image-Pro Premier.



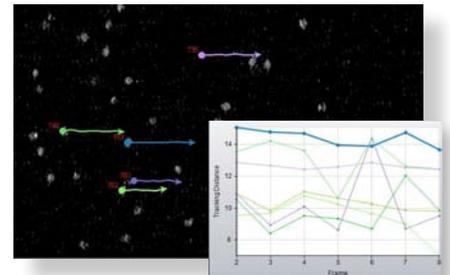
## Detect & Measure Distances between Edges

The Caliper/Line Profile tool automatically detects edges along a defined line. Measure distances between these changing intensity levels.



## Magnetic Snap Measurements

Draw accurate line measurements every time with the Snap Measurement tools. Simply draw and the measurement will accurately snap along object edges.



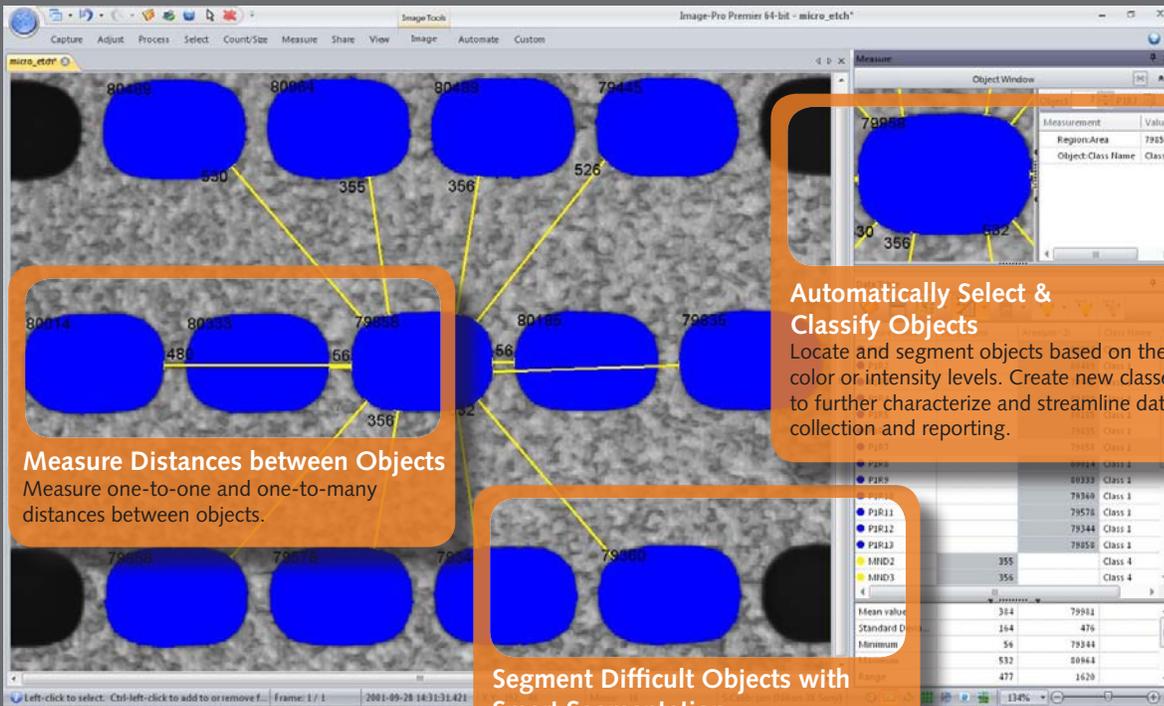
## Particle Tracking

Manually or automatically follow particles as they move over time. Measure the velocity, distance traveled, orientation of each track, and more. You can even track challenging objects that faded out of view and move out of the image workspace.

# Count & Classify

Count and characterize objects using more than 50 manual and automatic measurement tools, including areas, perimeters, lengths, roundnesses, major and minor axes, angles, centroids, holes, and population densities.

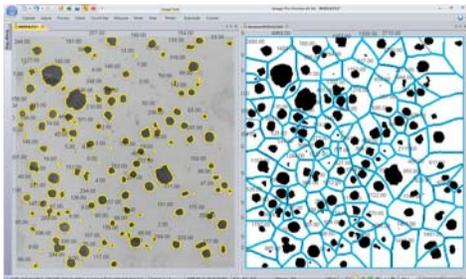
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**Measure Distances between Objects**  
Measure one-to-one and one-to-many distances between objects.

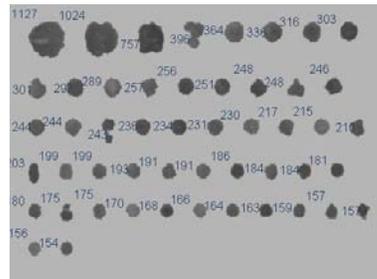
**Automatically Select & Classify Objects**  
Locate and segment objects based on their color or intensity levels. Create new classes to further characterize and streamline data collection and reporting.

**Segment Difficult Objects with Smart Segmentation**  
Use Smart Segmentation to identify and segment challenging images with faintly colored objects, textured objects, and uneven backgrounds.



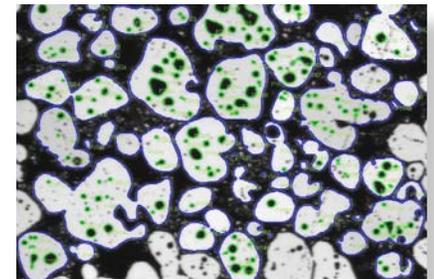
## Analyze the Spatial Distribution of Objects

Use the Voronoi Map feature to analyze and display the spatial distribution of objects.



## Sort Counted Objects

Create a new image displaying all counted objects arranged by size.

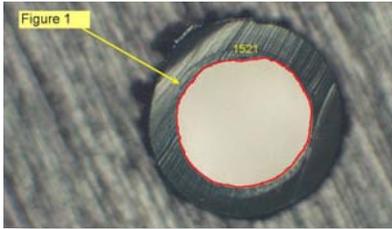


## Measure Objects within Objects

Analyze parent/child relationships with tools that allow you to automatically measure and group objects within objects.

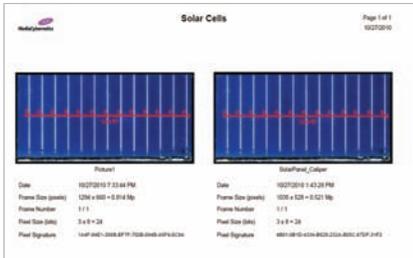
# Report & Share

Now that your analysis is complete, you need to be able to share your findings. With Image-Pro Premier, it's easy to prepare your imaging research to share with others.



## Annotate & Copy Images

Add descriptive annotations to single images or within movie frames. Choose to save annotations as independent overlays or as part of the image data. Create zoomed-in copies of your images and measurement overlays to use in print or web publications.



## Create Reports in PDF, Microsoft® Word®, PowerPoint® & Excel®

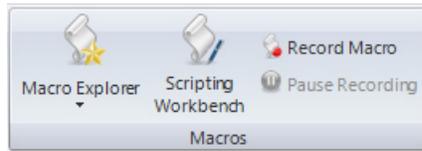
Sharing your images and data is simple with easy-to-use report templates. Export images, graphs, and measurements to Excel. Send single images or groups of images directly to PowerPoint slides.



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# Automate Your Imaging Processes

Image-Pro Premier's automation tools not only save time by eliminating repetitive steps, but more importantly, they minimize the chance of errors or inconsistencies.



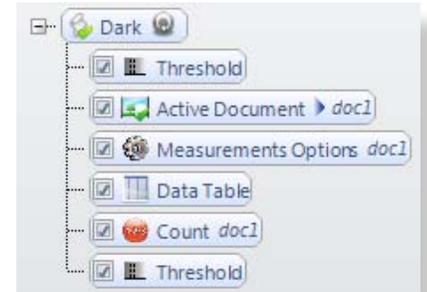
## Record Your Work

Automate your imaging tasks with simple macro recording tools. Play back macros or combine multiple macros to ensure accurate results every time.

Session	Software	Finished	User	Identity
Smart Segmentation		4/3/2012 9:25:07 AM		
Options		4/3/2012 9:27:27 AM		
Measurements Options		4/3/2012 9:27:58 AM		Image_1_TUNEL.staining 20x
Smart Segmentation		4/3/2012 9:28:26 AM		
Add		4/3/2012 9:28:26 AM		Image_1_TUNEL.staining 20x
Count		4/3/2012 9:28:46 AM		Image_1_TUNEL.staining 20x
Add		4/3/2012 9:28:50 AM		Image_1_TUNEL.staining 20x
Options		4/3/2012 9:29:11 AM		
Add		4/3/2012 9:29:13 AM		Image_1_TUNEL.staining 20x
Count		4/3/2012 9:29:24 AM		Image_1_TUNEL.staining 20x

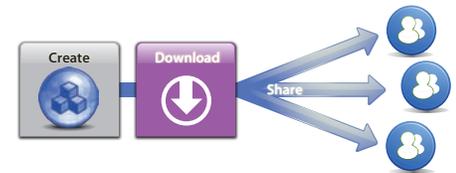
## Document Your Steps Using the Audit Trail

Save and document your image processes with the Audit Trail. Document entire sessions as well as steps performed on specific images. Export your audit trail as an XML file or to Microsoft Excel.



## Graphical or Code-Based Macro & App Editing

Macros and apps are easy to edit with Image-Pro Premier's graphical drag-and-drop editing interface. You can also use the code-based editing tools to test, edit, and debug your scripts.



## Create, Download & Share Custom Apps

Image-Pro Premier's custom apps allow you to easily design step-by-step workflows that walk you through your image analysis processes. Download apps from Media Cybernetics' Solutions Zone website or choose to develop and package your own apps to share with colleagues.

# Image-Pro Premier Features



## Capture

- Single-frame & movie acquisition
- Streaming to disk
- Instant acquisition
- Crosshair grid overlay
- Live image comparison
- Live tiling & Live EDF acquisition
- TWAIN acquisition



## Process & Analyze

- Post-acquisition alignment & EDF
- Post-acquisition tiling
- Image overlay & comparison tools
- Fast Fourier Transform
- Frame averaging
- Color composite
- Pseudocolor
- Image math
- Filters – enhancement, edge, large, morphological, 3D
- Binary mask
- Sequence/movie editing
- Bitmap analysis
- High-dynamic-range processing
- Overlay Features Manager
- Background subtraction/correction
- Auto trace and magic wand
- ROI inverse (donut ROI)
- Batch-process folders of images
- Grid tool



## Measure & Quantify

- Advanced line profile analysis
- Manual measurements
- Measure live images
- Snap-to-edge measurements
- Best-fit measurements
- Track moving objects
- Track merging & fading objects
- Measure intensity over time
- Auto calibration
- Collect data from multiple images & image frames
- Manually tag objects



## Count & Classify

- Automatically find, count & measure objects
- Classify objects
- Smart Segmentation
- Sort objects
- Automatic object splitting
- Parent/child analysis
- Percent area analysis
- Count objects on multi-frame image
- Measure distances between counted objects
- Measure distance of objects from reference object
- Create Voronoi map to measure neighboring objects



## Automate Imaging Tasks

- Automate tasks with recorded macros
- Macro programming for more advanced users
- Macro packaging for easy sharing
- Custom application builder



## Report & Share

- Annotate
- Quick save for publication & analysis
- Export to Excel, PowerPoint & Word
- Create automatic reports (including PDF)
- Create snapshot of zoomed image
- Create snapshot with overlays



## View

- Surface plot view & movie creator
- Gallery view
- Lock & zoom multiple images
- Full-screen mode
- 3D viewer & movie creator
- Slicer view

# Supported File Formats

Description	Extension	Read	Write
TIFF	*.tif, *.tiff	•	•
JPEG	*.jpeg, *.jpg	•	•
JPEG 2000	*.jp2, *.jpf	•	•
Microsoft Windows bitmap	*.bmp	•	•
PNG file	*.png	•	•
Raw binary data file	*.raw	•	
Flat file	*.flf	•	
Flex. Image Transport System	*.fts, *.fit, *.fits	•	•
OME-TIFF	*.tiff	•	
Media Cybernetics Image-Pro sequence	*.seq	•	•
AVI movie file	*.avi	•	•
Microsoft Windows Media Video	*.wmv	•	
StreamPix sequence	*.seq	•	
PerkinElmer®	*.tim	•	

Description	Extension	Read	Write
Applied Precision® DeltaVision®	*.dv	•	
Image Cytometry	*.ics	•	
Media Cybernetics Image-Pro Plus set	*.ips	•	
Media Cybernetics set	*.mcs	•	•
Media Cybernetics AutoQuant®	*.deb	•	
Micro-Manager	*.metadatatext	•	
Olympus® FluoView® FV1000	*.oif, *.oib	•	
Molecular Devices® MetaMorph®	*.nd, *.stk	•	
Nikon® NIS-Elements	*.nd2	•	
Carl Zeiss®	*.lsm, *.zvi	•	
Leica®	*.lei, *.lif	•	
Aperio®	*.svs	•	
BigTIFF	*.btf	•	

# Exceptional Service & Support

## 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.

## Technical Support

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

## Get Started with Free Video Tutorials

As an Image-Pro Premier user, you'll have access to a growing library of free 3- to 5-minute 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 Users Email List

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.

## Share Tools on the User-Contributed Solutions Zone Website

Explore our Solutions Zone website to find a wealth of useful information about Image-Pro Premier. 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 Premier and other Media Cybernetics software programs.

## System Requirements

### Supported Operating Systems:

Microsoft Windows XP® SP 3 and later – 32 bit  
Microsoft Windows® 7 Professional and Ultimate – 32 and 64 bit

### Minimum Requirements:

- Dual-core processor
- 4 GB RAM
- 5 GB of available hard-disk space
- 1,024x768 display with 32-bit video card
- DVD-ROM/CD-ROM drive
- Full Microsoft.NET Framework 4.0 (automatically installed by application)
- USB port required for hard licenses and offline license activation
- Internet connection required for online services

### Recommended Requirements:

- Four-or-more-core processor
- 64-bit operating system
- 16 GB RAM or more
- 20 GB or more of available hard-disk space
- 1,280x800 display with 1 GB video card
- DVD-ROM/CD-ROM drive
- Full Microsoft.NET Framework 4.0 (automatically installed by application)
- USB port required for hard licenses and offline license activation
- Internet connection required for online services

*Specifications are subject to change. Please contact Media Cybernetics or your local reseller for the latest features.*



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