

ImagePartner Features

ImagePartner™



ImagePartner™ Image Measuring & Analysis

ImagePartner™ is an advanced Image measuring and processing software providing powerful easy-to-use solutions for Image Analysis. With ImagePartner™, you can process various unique solutions in Image Measuring, Processing, Analyzing, and Managing.

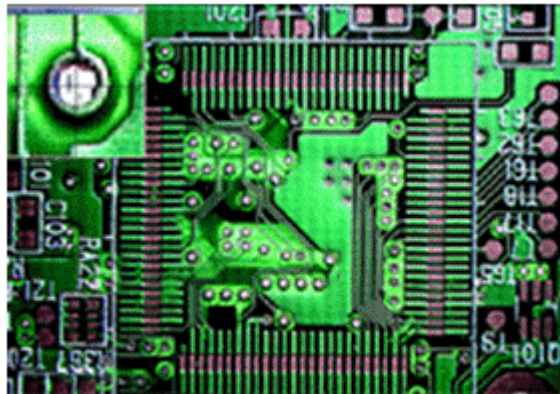
Specific functions such as Auto Count function are provided in plug-in module types for more professional and diverse Imaging Solutions.

Minimum | Pentium II 750Mhz, 128Mb RAM, 8Mb High Color(16Bit)
Maximum | Pentium IV, 512Mb RAM, 32Mb True Color (24 or 32Bit)
OS | Windows NT/2000, Windows XP, Windows 7

Imagepartner_Lite™

- All TWAIN / WDM Supporting devices
- Analogue CCD Camera, Digital Camera and etc.
- Full screen mode
- Live video recording
- Multi frame capture

- Open images from local disks and other applications
 - Basic editing functions - copy, paste, undo/redo, cut and etc
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- User convenient environment with component window system
 - Measurement tool, Annotation tool, Navigator / zoom / thumbnail / measurement report windows
 - Zooming dialog : simple zoom function by one touch wheel scroll
 - Insert text : Insert and flatten text on the captured image
 - AOI Selections : Flexible AOI(Area of interest) settings for copy & paste



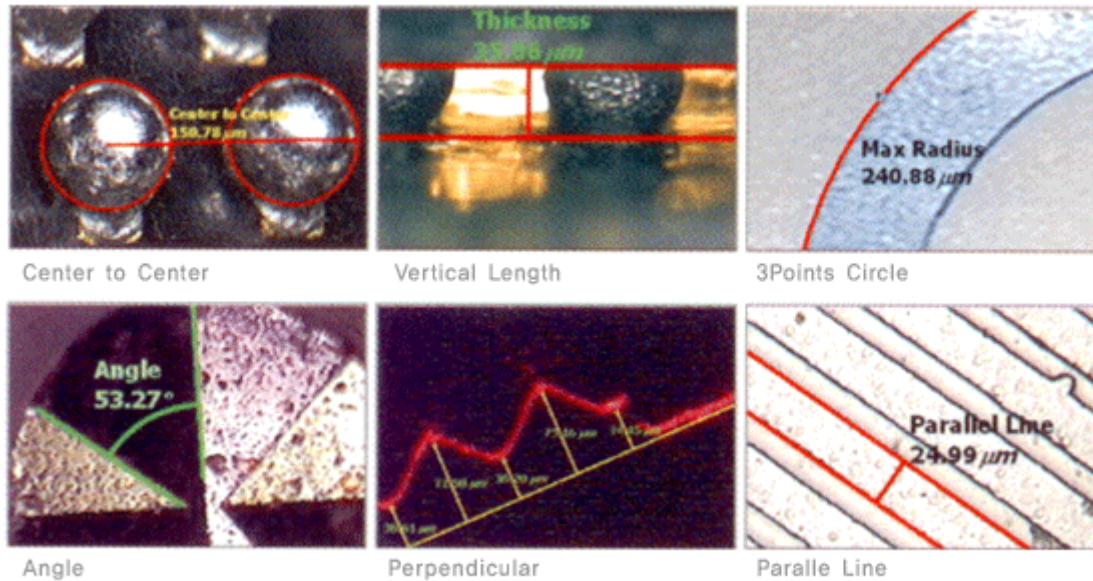
Zooming dialogue



Insert text

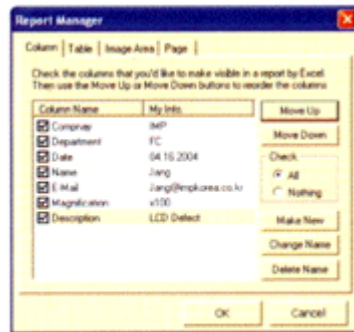
- Length : Line, Point to point, Point to point, Perpendicular, Das, Poly line, Center to Center, Best fit, Diagrams tools to measure objects in the Image Length, Height, Width, Area, Angle, Location
 - Circle: Circle, Center circle, 3 Points Circle
 - Angle: 2 line angle, 3 points angle, Curvature(굴곡률)
 - Area : Arc, Rectangle, Polygon

- Etc : Target, Point
- Support Auto-color rotation
- Modify text, line style format



- Support send to excel
 - Statistic mode : Max, Min, Average and etc
 - Backup sheet window for important data insure
 - Send to clipboard / Notepad : Measurement data
 - Report manager : transfer statistics data, text and images to excel

- Send email : image with or without flattened measurement data

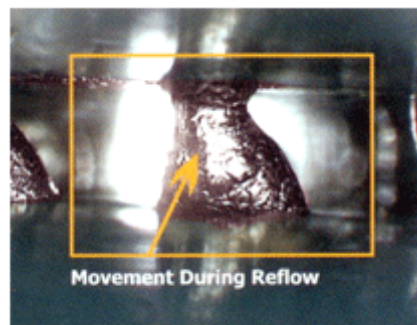


Report Manager



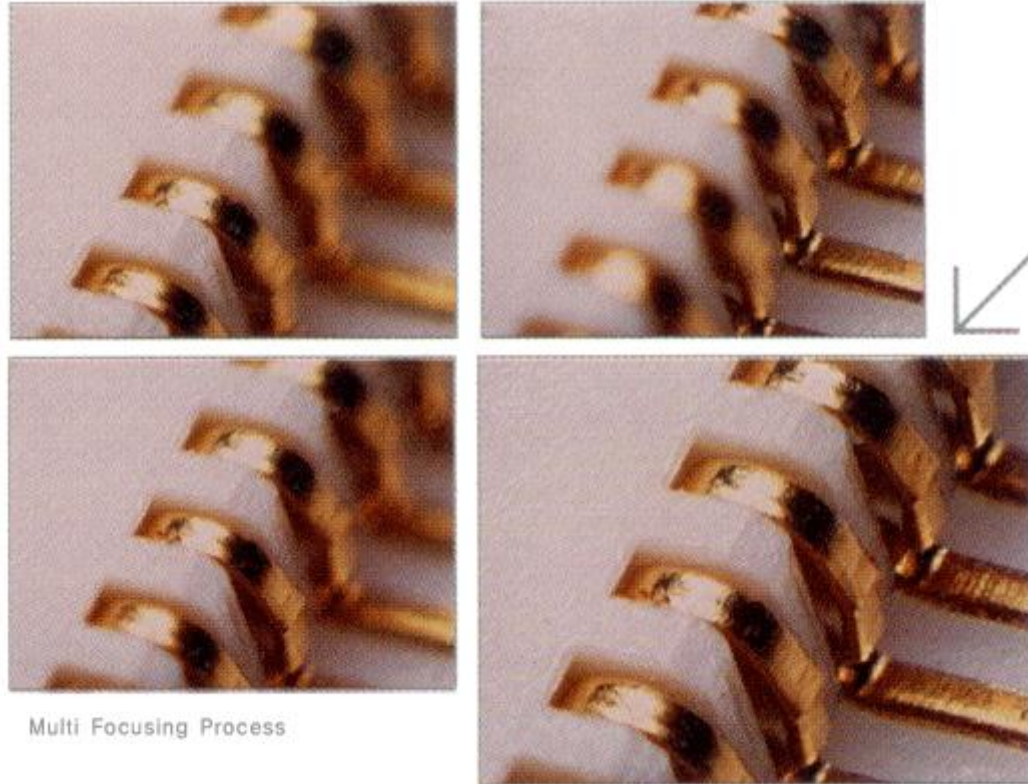
Excel Export

- Describes image with various text and others tools.
 - Live overlay for X-Y cross-line indicator
 - Position / Box / Marker / Area
 - Grid for pixel or calibrated unit



An Image with Line and Text annotations

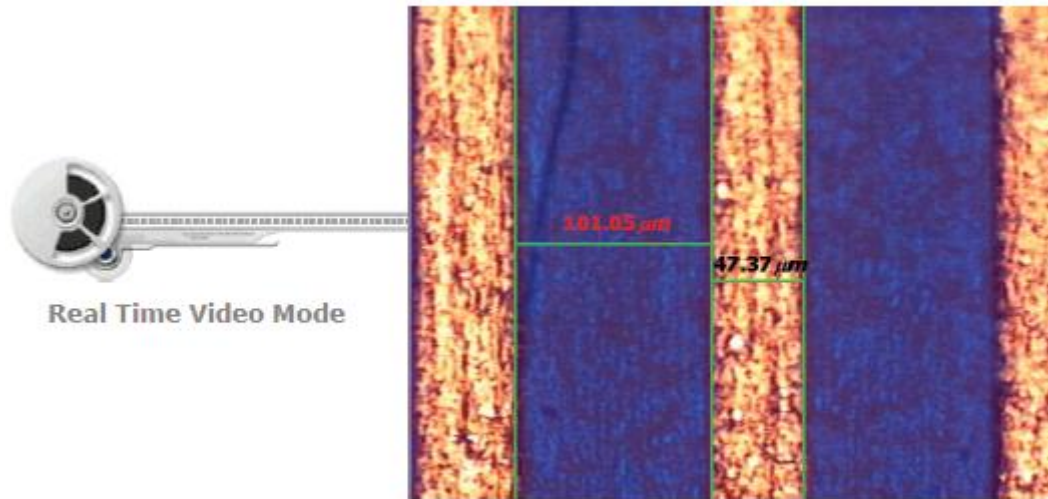
- Overcomes the focal-depth problem and provides one clear multi-focused image
 - Combines different focal-depth images into one multi-focused image

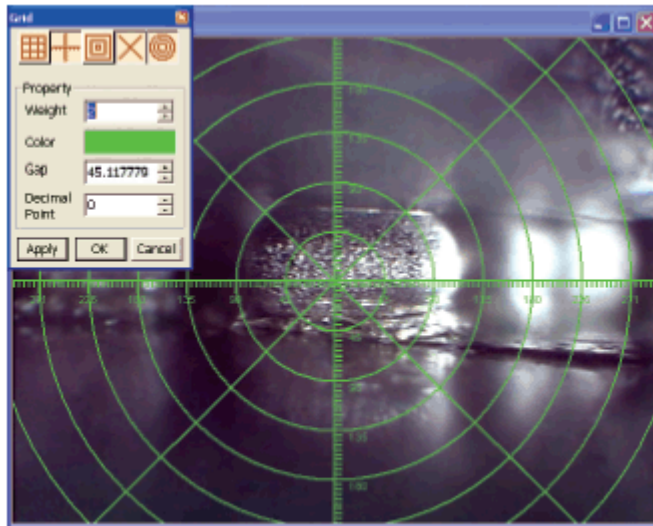


- Display Scale-Bar over the image.
-
-

Imagepartner_Standard™ (Includes Imagepartner_Lite™ functions)

- You can measure real-time on Live video

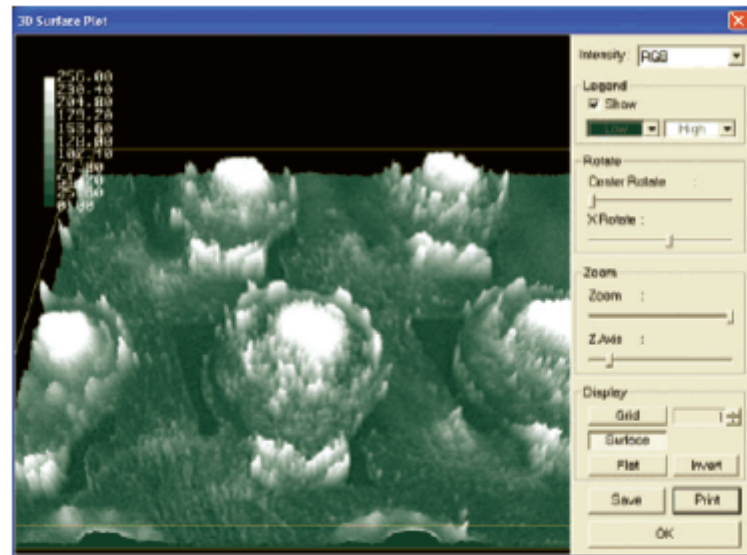




Combination of plural grids

-
- **3-Dimensional feature of image**
 - Luminance intensity level
 - Intensity : RGB planes based
 - Legend : Intensity level / Color
 - Rotate : Center / X axis
 - Zoom : Whole size / Z axis

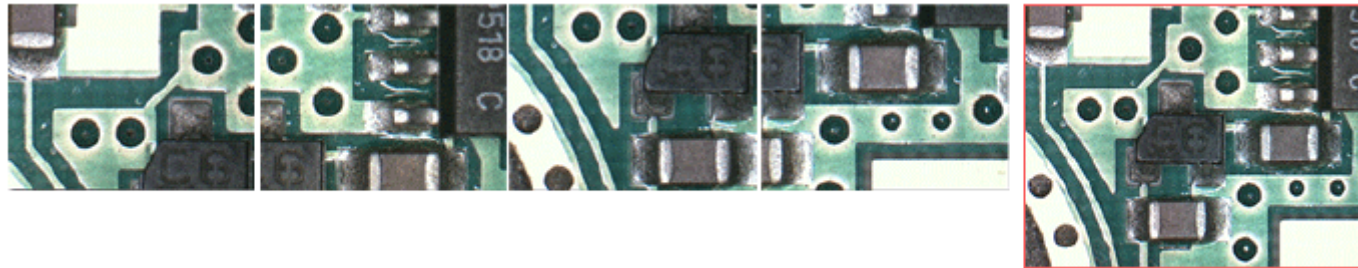
- Display : Grid / Surface / Flat / Invert



3D Surface Plot Window

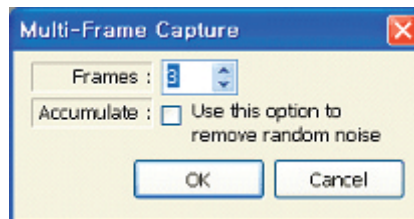
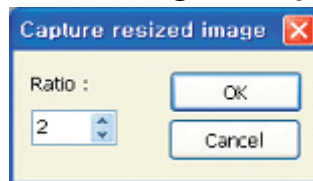
- Overcomes the visible size limitation in high magnification
 - Provides one large image in high resolution
 - Tiling small captured are into one large image
 - Supports both captured image mode / real-time video mode

- Mmanual tiling / Auto tiling



[All mosaiced image]

- Resize image at captured automatically



- Save image file at captured automatically.

The screenshot shows a 'Capture Preference' dialog box with a blue title bar and a red close button. It contains two main sections: 'AutoSave Configuration' and 'Crop Capture Configuration'. In the 'AutoSave Configuration' section, the 'Use AutoSave Capture' checkbox is checked, the 'Folder' is set to 'C:\Documents and Settings\Wprdcho\My Docu...', the 'Prefix' is 'New acquire Image', and the 'Suffix' is 'DATE'. The 'Crop Capture Configuration' section also has 'Use AutoSave Capture' checked, with 'X' and 'Y' coordinates set to 0, 'Width' and 'Height' set to 100, and a 'Get AOI' button. At the bottom, the 'Save File Type' is set to 'TIFF (*.tif)', and there are 'OK' and 'Cancel' buttons.

Capture Preference

AutoSave Configuration

☒ Use AutoSave Capture

Folder : C:\Documents and Settings\Wprdcho\My Docu... ..

Prefix : New acquire Image Suffix : DATE

Crop Capture Configuration

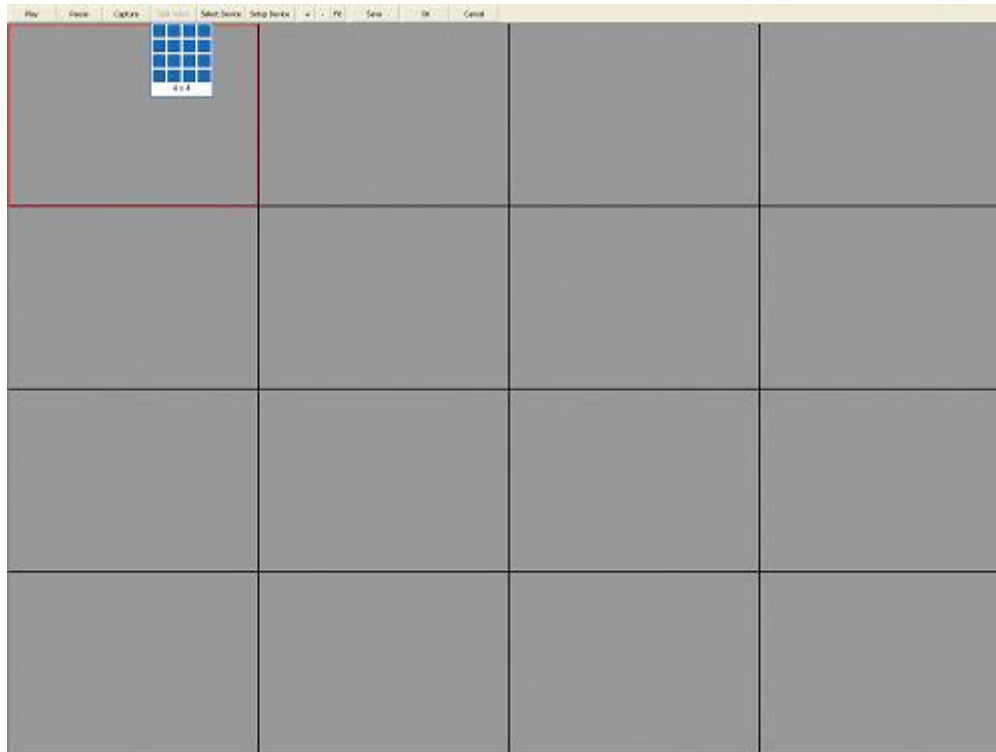
☒ Use AutoSave Capture

X: 0 Width: 100 Y: 0 Height: 100 **Get AOI**

Save File Type : TIFF (*.tif)

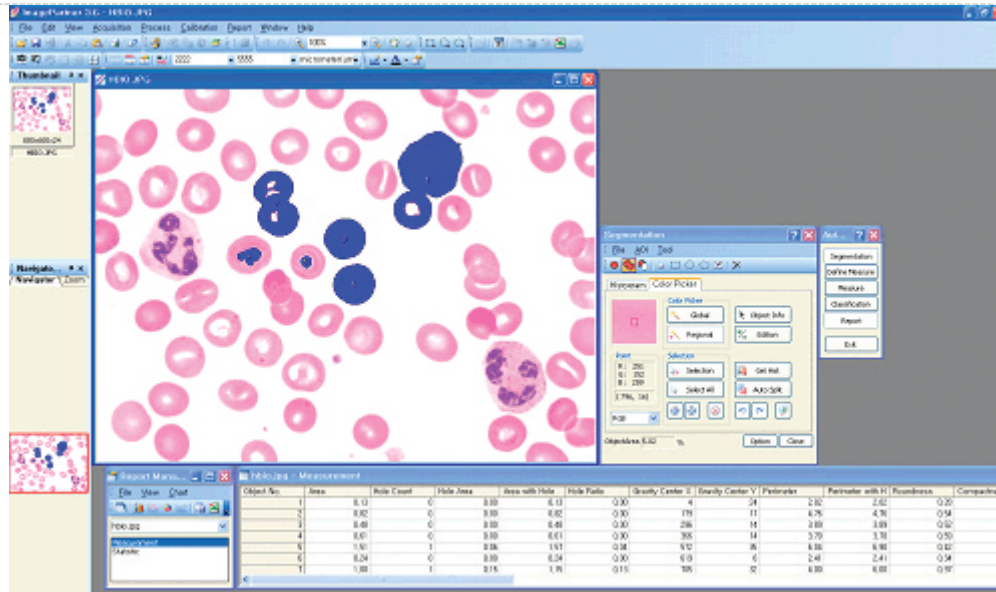
OK **Cancel**

- **Allows multi-view with live video.**

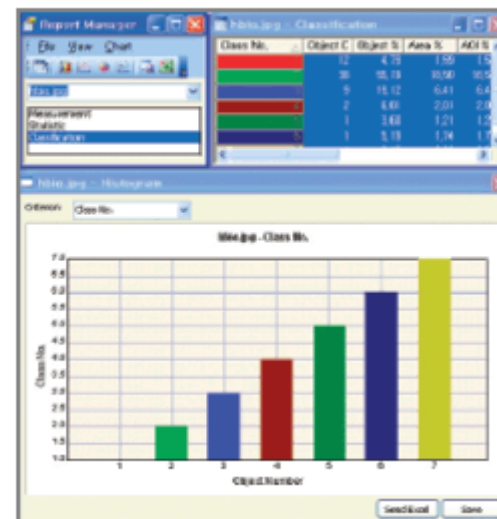
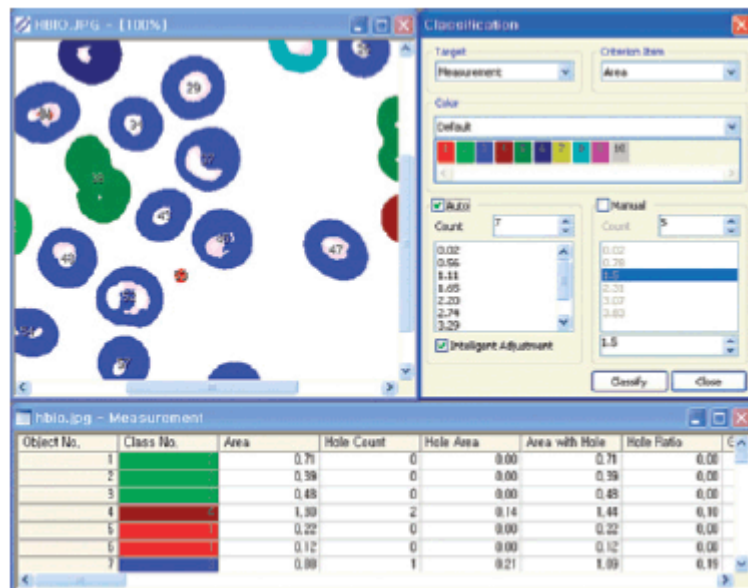


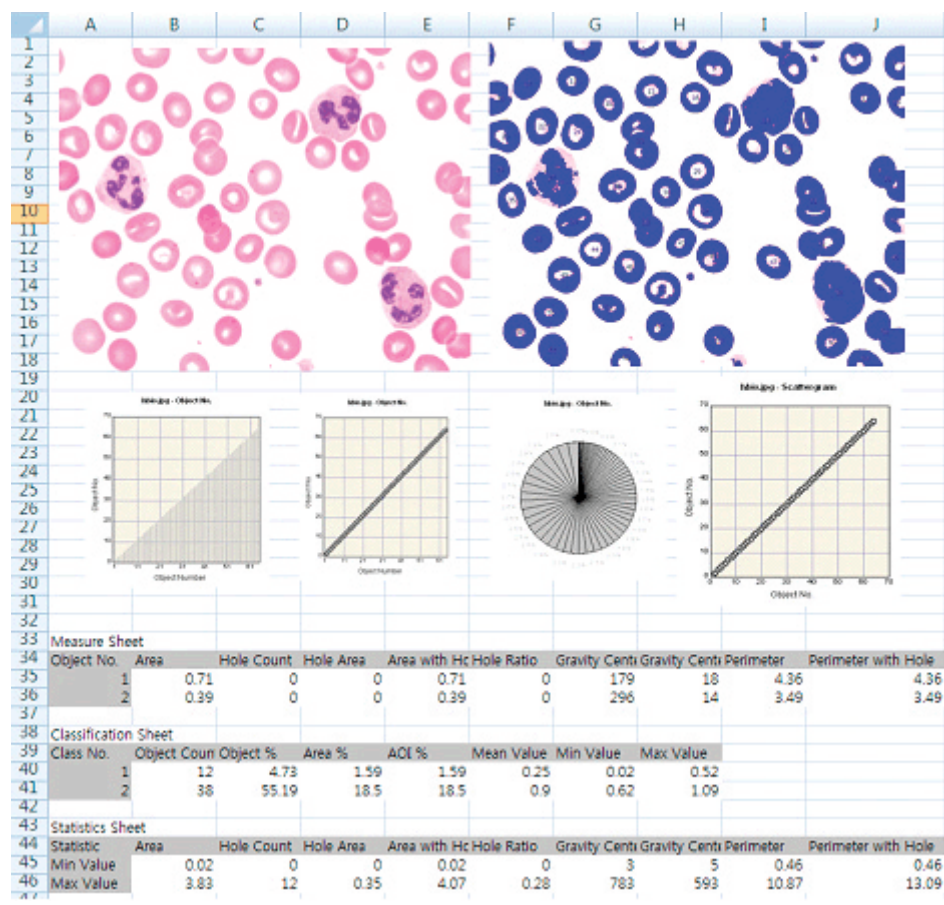
- **Supported record video.**
 - **Color Enhance**
 - **Split Planes, Image Filters, Merge Planes**
-

Imagepartner_Auto™ (Includes Imagepartner_Standard™ functions)

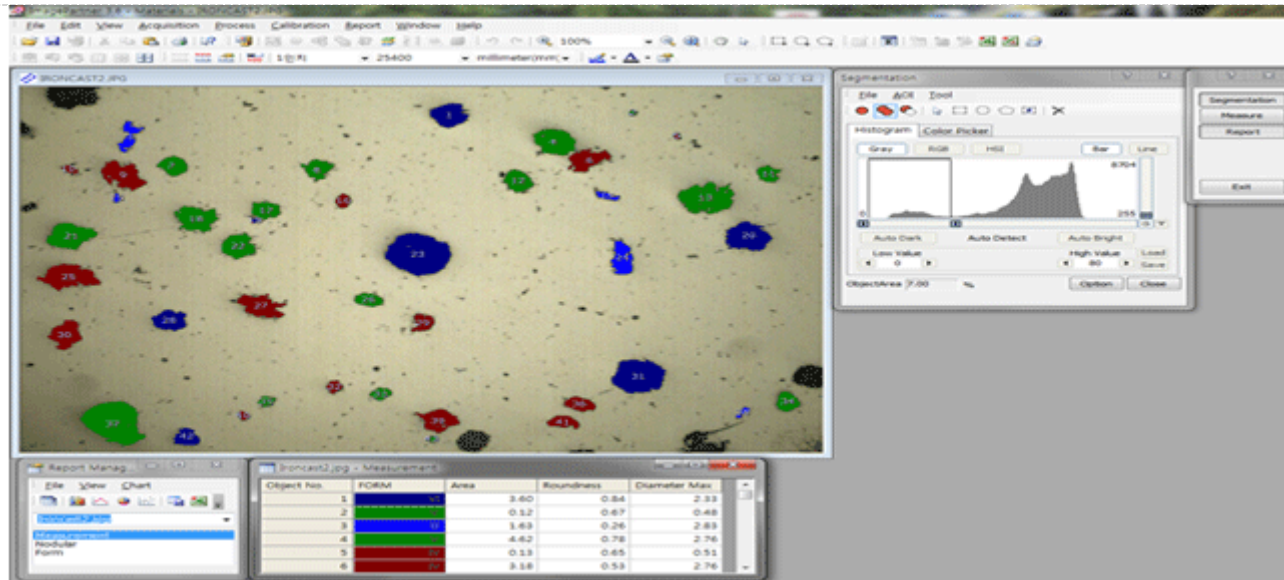


- Auto count
- Various Analysis chart
- Microsoft excel support





ImagePartner_Materials™ (Includes ImagePartner_Auto™ functions)

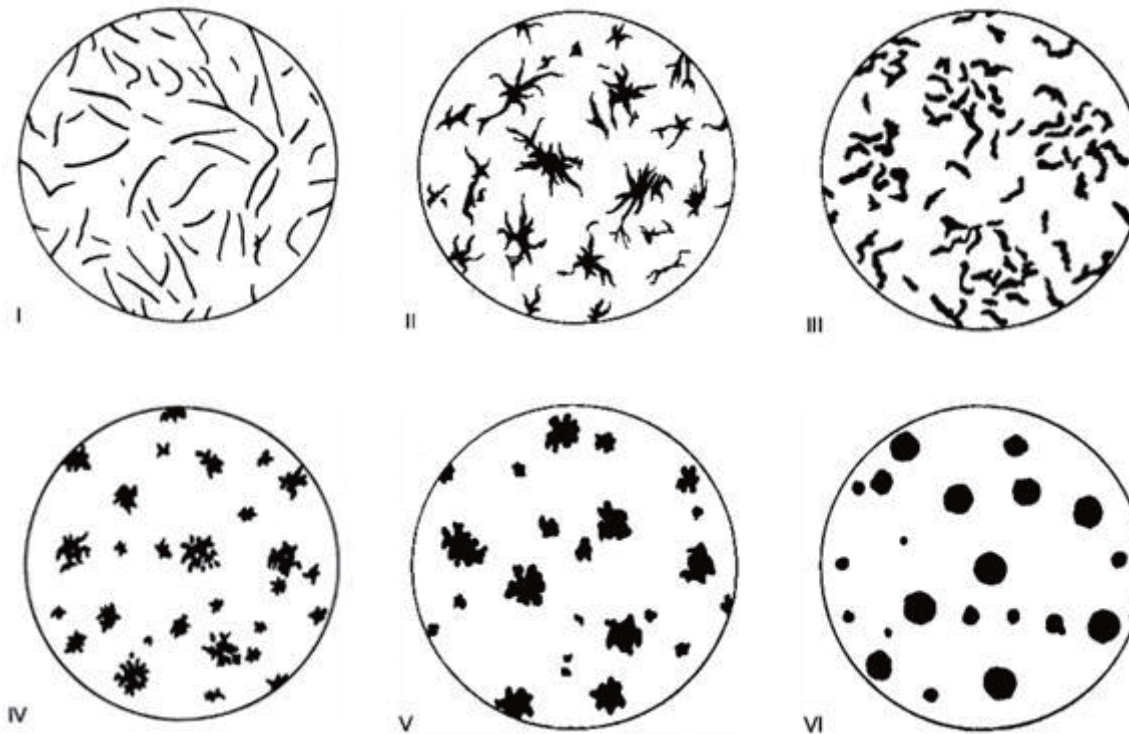


According to the standard of ASTM, JIS, KS, ImagePartner-Materials™ measure Nodular-graphite analysis through a microscope image analysis.

>>> Main features of Nodular-graphite analysis

- Graphite roundness and size measurement

- Nodularity measurement
- Six step Standard Formclassification automatically



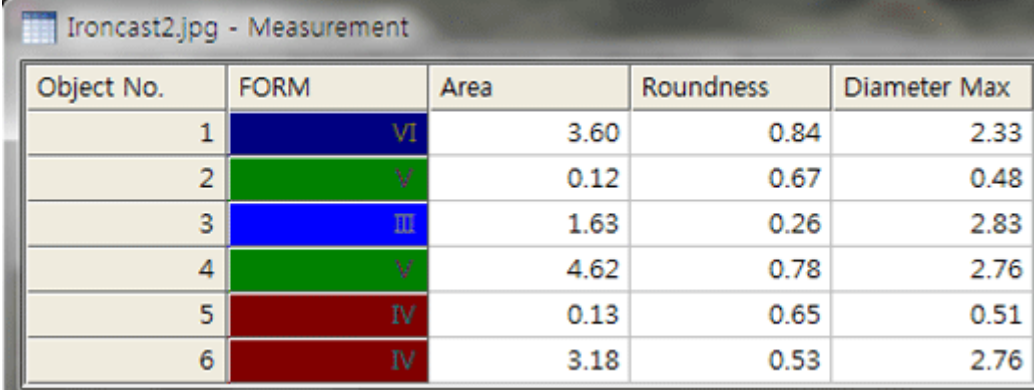
>>> Simple measurement method

1. Prepare the sample
2. Obtain a cast-iron image on the ImagePartner

3. From the tool bar, click cast-iron icon
4. Segmentation task: Use the section automatically assigned or you can select properly
5. Click [Measurement] button
6. Results for Measurement / Nodular / Form is generated

>>> [Measurement] Result

- Displays the object detection and the number of gigits written about it
- Display and classify standard shape classification of I~VI step by different color at each step
- Displays the area, roundness, maximum diameter of each of the object



The screenshot shows a software window titled "Ironcast2.jpg - Measurement". Inside the window is a table with five columns: "Object No.", "FORM", "Area", "Roundness", and "Diameter Max". The table contains six rows of data. The "FORM" column uses Roman numerals (VI, V, III, V, IV, IV) and is color-coded: VI is dark blue, V is green, III is blue, and IV is dark red.

Object No.	FORM	Area	Roundness	Diameter Max
1	VI	3.60	0.84	2.33
2	V	0.12	0.67	0.48
3	III	1.63	0.26	2.83
4	V	4.62	0.78	2.76
5	IV	0.13	0.65	0.51
6	IV	3.18	0.53	2.76

>>> [Nodular] Result

- Displays the ratio(%) and area of Nodular, Ferrite, Perlite
- Ratio of Nodular are highlighted in yellow because it is the most important factor
- In image, Ferrite area is a gray-area which is not nodularized and Perlite area is the other

Ironcast2.jpg - Nodular

	Ratio(%)	Area
Nodular	76	120.64
Ferrite	93.00	1601.92
Perlite	7.00	120.64

>>> [Form] Result

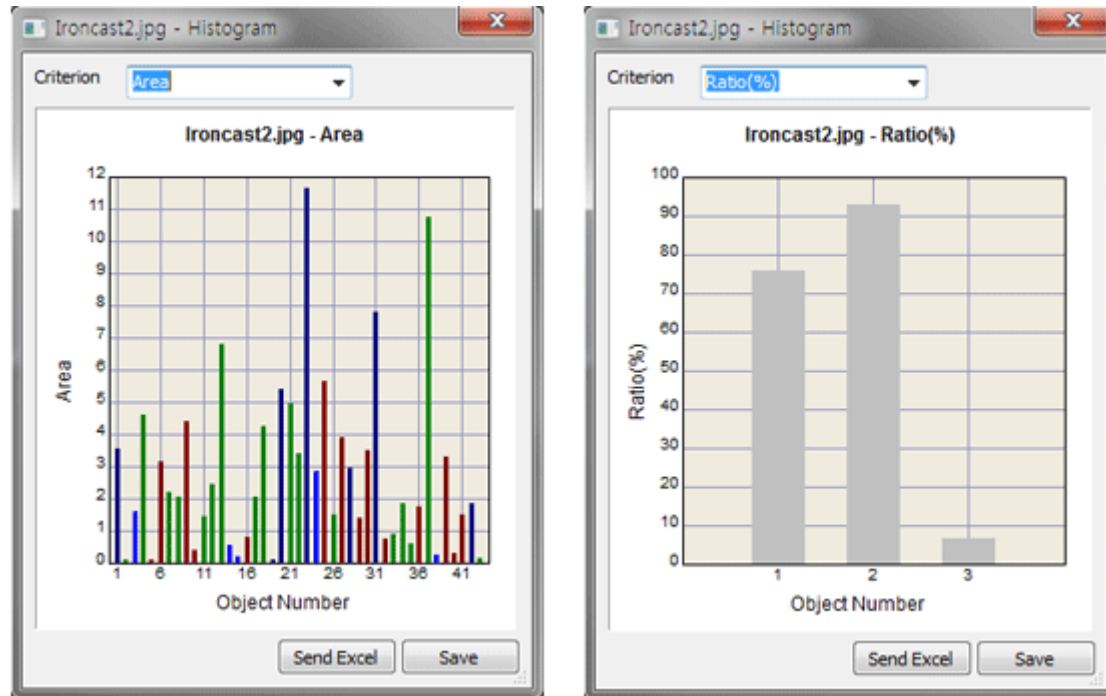
- Displays item count and ratio(%) of each form from I to VI steps

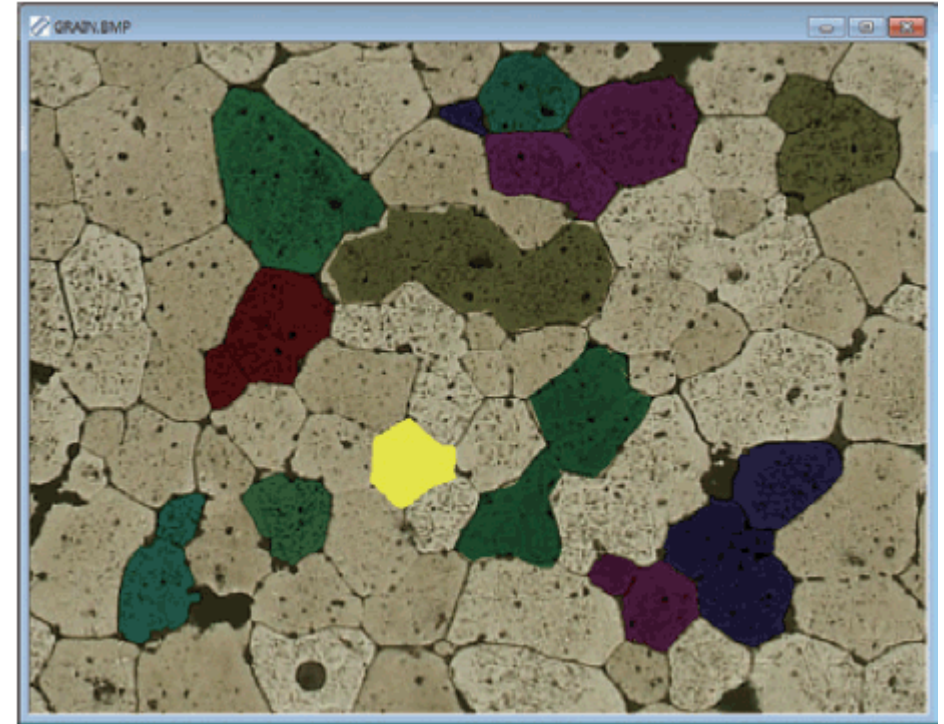
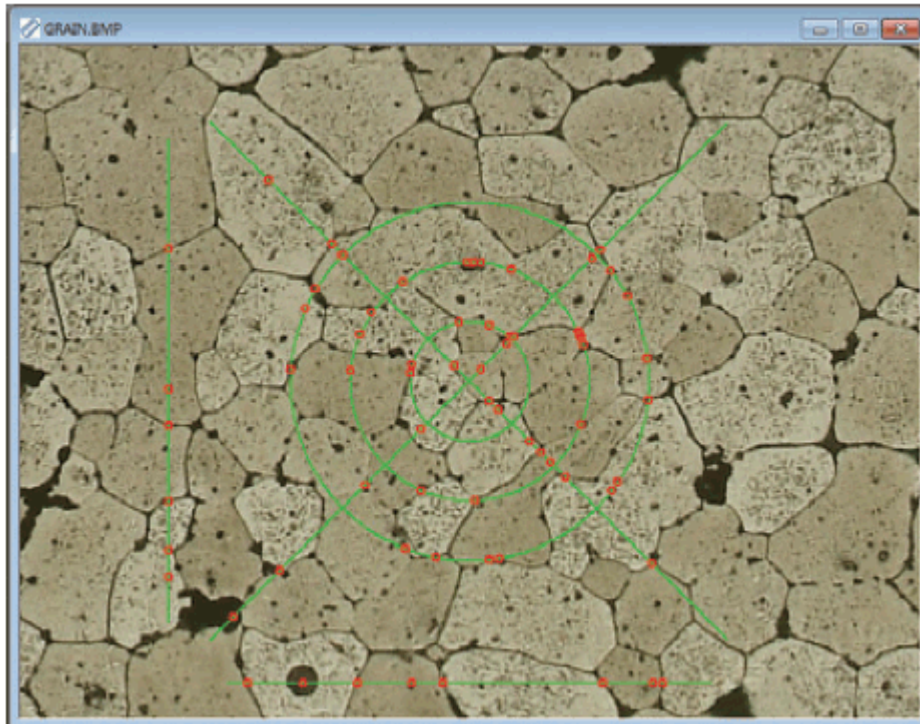
Ironcast2.jpg - Form

FORM	Item Count	Ratio(%)
I	0	0
II	0	0
III	5	6.01
IV	14	28.99
V	17	43.47
VI	7	21.54

>>> Display chart

You can get histogram graph as below





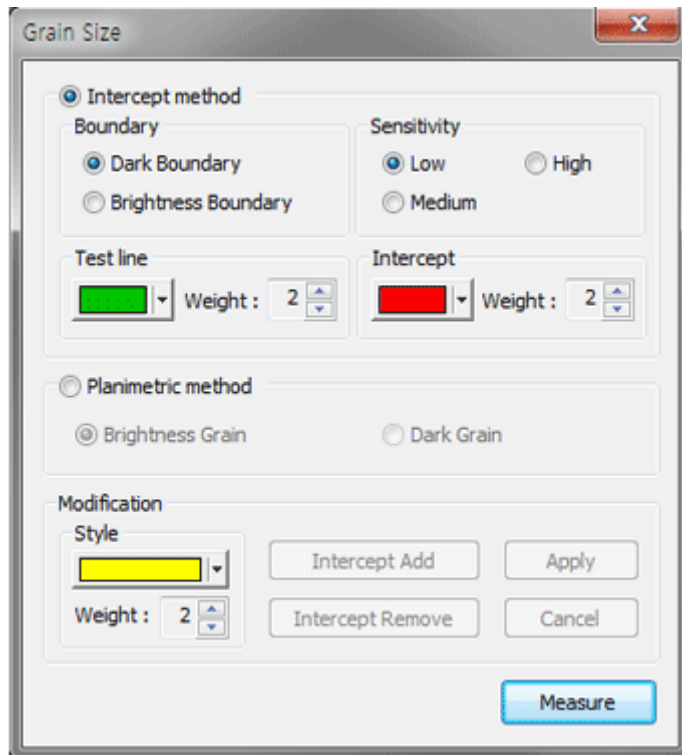
According to the standard of ASTM, JIS, KS, ImagePartner-Materials™ can measure Grain size and grain size Number. You can select one method out of intercept method or planimetric method.

>>> Main features of Grain size analysis

- You can measure easily and quickly through the most intuitive and simple user interface
- Provides Intercept method : ries can be calculated as the average lot is a way to use the Intercept,

as the number of detected crossing the line by the length of the ASTM test to measure the degree of grain

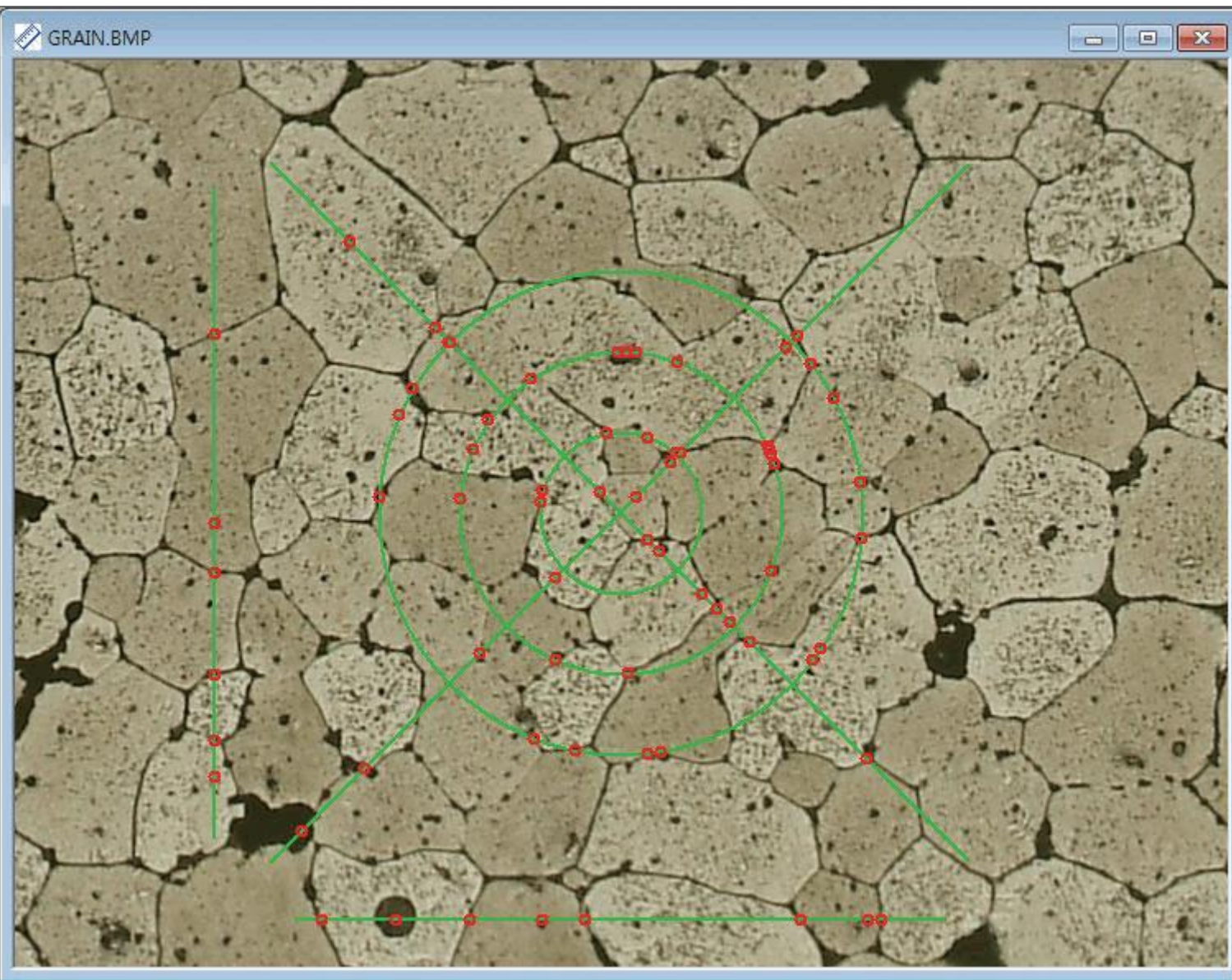
- Intercept method can be calculated directly, and is most commonly used.
- ASTM grain size number is measured by the length of the line and the number of the detected intersection point
- Provides Planimetric method : since using the average grain size and in accordance with ASTM E 112 standard, so you can easily and quickly measure without boundary reconstruction procedures.
- You can select one method out of Intercept method or Planimetric method.
- Automatic measurements can be modified.
- Provides Report Manager: measurement results and chart can be sent to Excel.

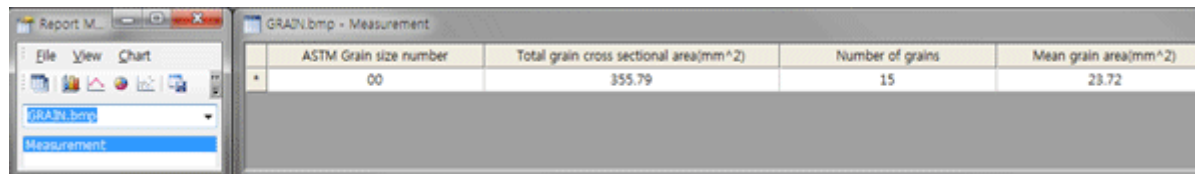


>>> Intercept method

- Auto extraction of Intersection point: automatically extracts Test line and the intersection point of grain boundaries
- Select the type of grain boundary (A dark border, bright boundaries) to be extracted.
- Select Sensitivity: Depending on the status of your image, select one of three kinds of sensitivity.

- Display of Test Line : Test Line was established by ASTM .
- Three circles and four lines is automatically displayed in the range 90% of the image.





ASTM Grain size number	Total grain cross sectional area(mm ²)	Number of grains	Mean grain area(mm ²)
00	355.79	15	23.72

>>> Planimetric method

- In accordance with ASTM , calculate ASTM Grain size Number through the average size of grain.
- Select type of boundary: [light boundary / dark boundary]
- Displays extracted Grain in a translucent color .

