ALMICRO **Biowizard Software**

Measurement of Length, Roundness, Perimeter, Area, Area %, Diameter, Width, Segmentation by coloring, Histogram Channel and various other morphometery Analysis, Geometrical and Densitometry Analysis. Calculate density of any area per line draw Histogram, Percentage Area of multiple threshold levels, Count and Classify, Area of interest convert automatically RGB Images into Grayscale for required analysis.

IMAGE EDITING

- Cut, Copy, and Paste.
- Selected copy by free hand AOL controlled by four arrow keys available on keyboard or mouse with zoom preview.
- Crop, duplicate, restore
- Resize
- Compression
- Conversion to other format BMP, JPG, TIF, PNG, GIF & PSD
- Flood fill or spray with selected color at selected portion.
- Grid creation; 5X5, 10X10 & 100X100 lines.
- Drawing tool curve, line, square, and circle with node control and provision to change color & thickness of the line.
- Write text in any color or font.
- Pointer to place on an object in four directions with provision to change its color & thickness.
- Eraser works only on line, arrow or on any drawing tool.(not on original image)
- Camera Lucida
- Montage feature to merge stored image together. Useful to Merge different focuses of same image.
- Image stitching.
- Highlighter.
- Pixel by Pixel Correction by key board.
- Multiple image folder with Search facility.
- Filter application on selected area

VIEW

- Zoom in/out
- Zoomed preview
- Rotation at 90, 180,270 or custom
- Image flipping; horizontal or vertical axis
- Intensity histogram.
- Image Information
- Redo/Undo on all operations.
- Ruler in Various units.
- Slide Show

IMAGE PROCESSING

- Background subtraction and contrast enhancement of color or monochrome images.
- Airthmatic image functions (Boolean Math; Add, AND, OR, XOR, DIFF, MIN, MAX, +, -, /, *, And Simple).

ROUTINE FILTERS

Invert, Brightness, Contrast, Hue, Saturation, Blur, Noise Remove, Emboss, Engrave, Gamma R, Gamma G, Gamma B, Yellow, Magenta, Cyan, Mosaic, Smooth, Desaturation, Pseudo Color, Colorize, Oilify, Despeckle, Postarize.

SPECIAL FILTERS & KARNELS

- High Boost, High Spatial, Low Pass Spatial, Ranking (Max, Med, Min), Point detection, Line detection, Homogeneity

EDGE DETECTION

- Laplacing, Sobel, Kirsch, Prewitt Gradient, Shift & Difference, Combine, Contrast Base, Quick, Range And Variance.

MORPHOMETERY

- Skelotizing, Pruning, SKIZ, Histogram Equalization, Histogram Smoothing, Histogram Peak, Histogram Valley, Segmentation by Over/Under and Quantized, Contouring, Dilation / Erosion on Binary, Gray & colored Images, Opening/ Closing on Gray & Binary Images, Special Opening/Closing, Split/Combine Of RGB, YUV, YIQ, XYZ, & HSL, Changing any Image to 1, 4, 8 & 24 Bits, Medial Axis. Transformation, Halftone.
- Image Addition, Image Average, Image Subtraction, Image Multiplication.

MEASUREMENT

- Spartial calibration
- Line measurements for Distance, Length, Width, Perimeter, Angle, Three Point Radius.
- Area by enclosed line controlled by four arrow keys available on keyboard arrows with zoomed preview.

COUNT AND CLASSIFICATION

- Identification of objects in an image, count them, obtain several features measurements. Objects identification by user or automatically. User defined classification on basis of size or intensity.

THRESHOLD PARTICLE MEASUREMENT

- Manual, Auto bright and Auto dark methods to identity intensity range defined object to be measured. Various calculation & measurements available for selected Particle are; Dimensions, Area, Perimeter, Ferrite Length, Min/Max Radius, Thread Length, Thread Width, Fiber Length, Fiber Width.

MORPHOMETERY

- Roundness, Shape, Orientation, Elongation, Equal Circular Diameter, Equal Sphere Volume.

LOCATIONAL

- Centroid X, Centroid Y, Major X1, Major Y1, Minor X1, Minor Y1, Major X2, Major Y, Major X2, Minor Y2, Box X1, Box X2, Box Y, Box Y2 & Box Area.

SEGMENTATION

- Measure area fraction & volume fraction. Identify multiple phases within Microstructure. Also delineate phases from the histogram.

REPORT

- Three options: Direct printout with original image processed Image & Tabular results
- Export to MS Office or Excel for further modification.