# Image Analysis Software

## Model: ACUBIO+



## DESCRIPTION:

We provide Image Analysis Software that makes the process more speedy and convenient. The Image Analysis Software that we deal in is ideal for visualization, measurement, enhancement, processing as well as analysis of the data. Also, the Image Analysis Software that we provide is used for measuring area, length, distance, etc.

Applications/Features

- Steel Industry
- Educational institute
- Research Institute
- **Suitable and Compatible with all Makes of Stereo Zoom Microscopes & Cameras.**
- Calibration and measurement facility
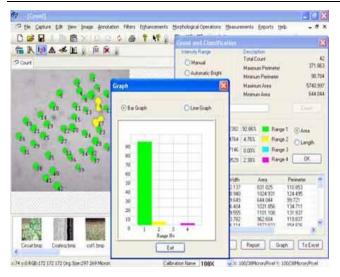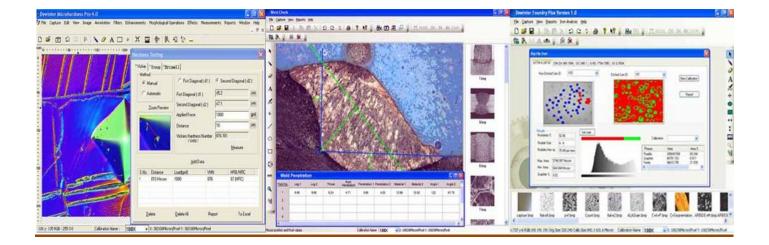- Measurement results Report to MS Excel and print out via printer

# ACUCAL SERVICES

**High Tech Quality Instruments**

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## SPECIFICATIONS  & TOOLS:

- **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)
  - Highlighter.
  - Pixel by Pixel Correction by key board.
  - Multiple image folder with Search facility.
  - Filter application on selected area

- **Special Filters & Karnels**
  - High Boost, High Spatial, Low Pass Spatial, Ranking Point detection, Line detection, Homogeneity

- **Morphometery**
  - Skelotizing, 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,Image Addition, Image Average, Image Subtraction, Image Multiplication.

- **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.

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

- **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
  - Arithmatic 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

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

- **Edge Detection**
  - Laplacing, Sobel, Shift & Difference, Combine, Contrast Base, Quick, Range And Variance.

- **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.

- **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.

- **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.

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