Example: Particle Measurement

This command is related to various measurements of a specific particle to be identified on the basis of its gray scale / intensity range. This has to be either defined by the user or can be automatically determined by the software on the basis of its preset limits. The objects need to have gray scale / intensities different than the background.

Selection of Objects:
Three options are provided to specify the gray scale/ intensity range that defines the objects to be identified and counted.

MANUAL: Select this option if you want to manually mark the intensity range in the count window.

AUTO BRIGHT: Select this option if you want the software to automatically set the gray scale / intensity range for the objects to be identified. This option will assume that these objects are brighter than the background.

AUTO DARK: Select this option if you want the software to automatically set the gray scale / intensity range for the objects to be identified. This option will assume that these objects are darker than the background.

PROCEDURE:
1. Load the image for particle measurements.
2. Select the appropriate saved calibration scales from the drop down list at the bottom of the Window
3. Click on the Particle icon either from the Toolbar or from the Menu-bar
4. Choose "Automatic Bright" or "Automatic Dark" to select what to detect objects with the background being the opposite. Choose "Manual" if you want to manually threshold (fill with red color) the particles. A new platform with two scroll bars will appear. Move both the scroll bars till all the particles are properly pseudo colored (filled with the color red).
5. The moment the dialogue box opens dark particles are selected by default (in most cases Brightfield illumination is used to obtain the image)
6. Move the mouse to the object of interest. Click the left button on the mouse to obtain the results.
7. The procedure can be repeated an unlimited number of times to obtain the results on the other particles of interest.
8. The results are displayed in a grid. The available measurements are:
   -Length
   -Width
   -Area
   -Aspect ratio
   -Roundness
   -Shape
   -Orientation
   -Elongation
   -Equal circular diameter
   -Equal spherical volume
   -Centroid X
   -Centroid Y

-Major X
-Minor X or Y
-Box area

9. The color and font of the tagged numbers on the image can be changed in the palette box for "FONT & COLOR"
10. To save the report to the report too, click on REPORT
11. A sample information window will appear. Fill the required information. Click on "Save Data For Report Tool"
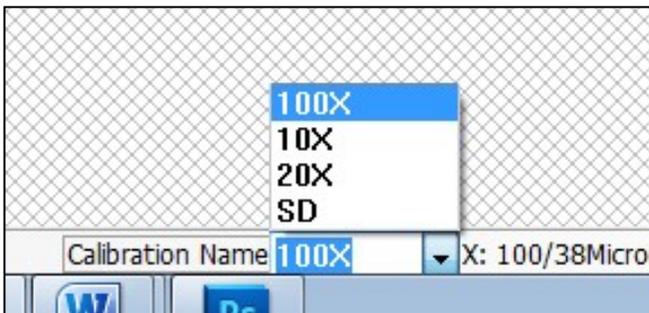12. Click on "TO EXCEL" to see the result in Excel.

EXAMPLE of Particle Measurement

Step 1:
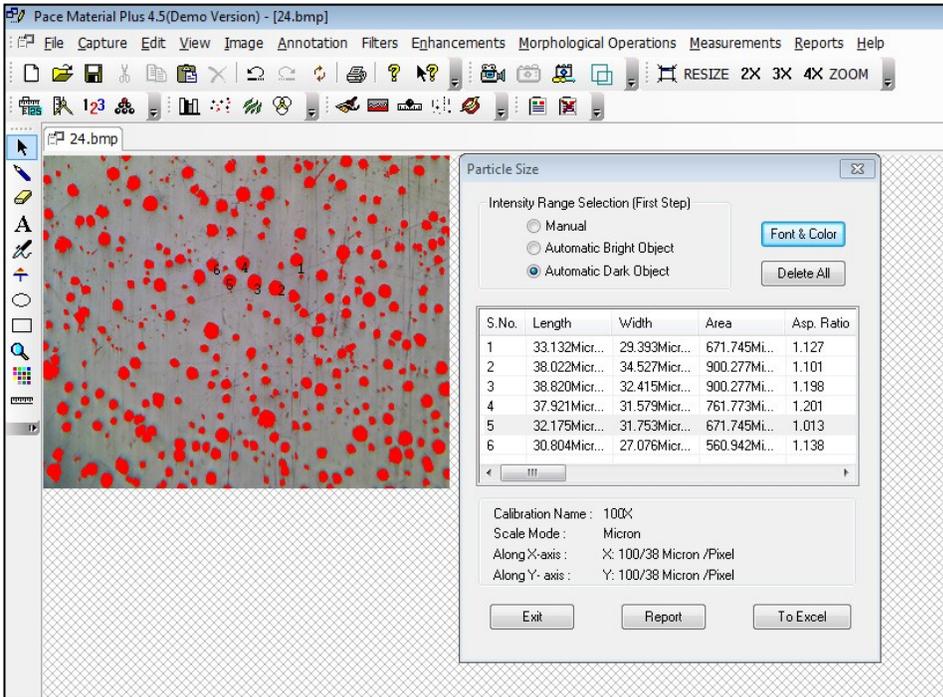File > Open (select image) or Capture > TWAIN Acquire (for live image)
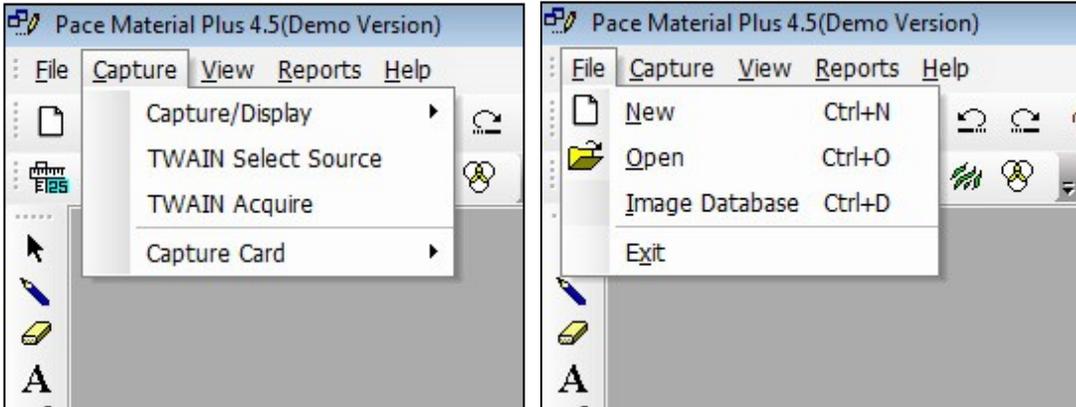
Step 2. Select Calibration scale at bottom of the Window

3. Click on the Particle icon either from the Toolbar or from the Menu-bar
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