

ARTICLE #  
T200

PRODUCTS  
MetaMorph®  
MetaXpress®  
MetaVue®

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## How to filter out small objects using the "Filter range" in the IMA window

### Question

How do I use Integrated Morphometry Analysis (IMA) to filter out small objects

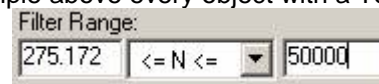
### Answer

To filter out small objects using IMA do the following:

- 1) Threshold the image and select it in IMA
- 2) Set Setup Parameters for: "Classifying"
- 3) Place a check mark next to "Total Area", "Pixel Area" or "Area". They each have slight differences. Total Area includes holes. Pixel Area is in pixels, not calibrated. Area excludes holes unless the preference "Fill holes in objects" is selected.
- 4) Set the filter range values. In this example above every object with a Total Area less than 275.12



or greater than 50000 will be excluded.



If you want to set the limits interactively you can use Teach mode or my favorite "Set Filter Range from Histogram calipers".

#### TO USE TEACH MODE:

- 1) Follow steps 1-3 above.
- 2) Set the Image Interactive Modes to "Teach"
- 3) Click on valid objects. The filter range values will expand to encompass the selected objects



#### TO USE SET FILTER RANGE FROM HISTOGRAM CALIPERS:

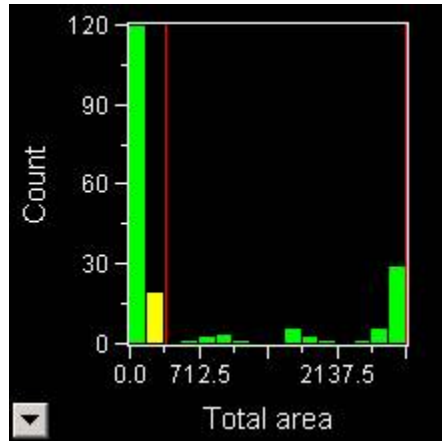
- 1) Threshold the image and select it in IMA
- 2) Set Setup Parameters for: "Measuring".
- 3) Place a check mark next to "Total Area", "Pixel Area" or "Area".
- 4) Click Measure.
- 5) Choose to Display "Histogram"
- 6) Grab a red caliper line from either the right or left side of the histogram window and slide it to the cutoff position you want.



How to decide where you want the cutoff:

- (a) Set your Image Interactive Modes to "Find"
- (b) Click on bins of the histogram – the bin will turn yellow and the corresponding objects from that bin will be yellow.
- (c) Choose which bins correspond to objects that you do not want and slide the calipers to exclude the objects





(d)

- 7) Click Set Filter Range from Histogram Calipers. The caliper limits will be placed in the classifying limits.

Set Filter Range from Histogram Calipers

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