

## Using Classifiers to Exclude Unwanted Objects From Colocalization Measurements

### Abstract

The capabilities of object classification can be used to exclude (or include) unwanted objects from measurements of colocalization.

### Instructions

Note this entire procedure can be recorded into a journal for easier operation.

1. Set up measurement preferences for this procedure. Choose Preferences (Edit Menu) and select Measure Objects. Refer to the manual to decide whether you will want to enable or disable the following options: Fill holes in objects, Exclude objects if centroid is not in the current region, Exclude objects that touch the edge of the image.
2. Set the threshold on the image of interest. Use the image window threshold tools or Threshold Image (Process menu).
3. Set up classifier conditions to select the objects that you want to get rid of or select the objects that you want to keep. Use Integrated Morphometry Analysis (Measure Menu) to set up a classifier set to use. Repeat steps 3 through 7 for one or both of the images to be used for colocalization measurements.
4. Create a binary mask of the measured object. After measuring with Integrated Morphometry Analysis, run a journal to create object mask (the command is available via the journal editor).
5. Use image arithmetic to do a logical AND between the Integrated Morphometry Analysis object mask and your original image. This will leave the excluded objects black.
6. Close the image Integrated Morphometry Analysis object mask.
7. You can now set the threshold on the final images to be used for Measure Colocalization (Measure menu).

Note: this function is very commonly used in journals to ensure the same settings for your assays, so check or add this function to your journal.

**Document ID**  
D10200

**Product**  
Discovery-1 software

**Created**  
27-May-1998

**Last Reviewed**  
14-Jul-2003

**Keywords:** discovery-1 software techniques  
**Issue Type:** analysistools