

Select the rule criteria:and (file does contain ".bmp")
Name to assign these images:loaded_images
Name to assign these objects:Cell
Select the image type:Color image
Set intensity range from:Image metadata
Retain outlines of loaded objects?:No
Name the outline image:LoadedOutlines

Groups:[module_num:4|svn_version:\'Unknown\'|variable_revision_number:2|show_window:False|notes:\x5B\'The Groups module optionally allows you to split your list of images into image subsets (groups) which will be processed independently of each other. Examples of groupings include screening batches, microtiter plates, time-lapse movies, etc.\' \x5D|batch_state:array(\x5B\x5D, dtype=uint8)|enabled:True|wants_pause:False]
Do you want to group your images?:No
grouping metadata count:1
Metadata category:None

ColorToGray:[module_num:5|svn_version:\'Unknown\'|variable_revision_number:3|show_window:True|notes:\x5B\x5D|batch_state:array(\x5B\x5D, dtype=uint8)|enabled:True|wants_pause:False]
Select the input image:loaded_images
Conversion method:Split
Image type:RGB
Name the output image:OrigGray
Relative weight of the red channel:1.0
Relative weight of the green channel:1.0
Relative weight of the blue channel:1.0
Convert red to gray?:Yes
Name the output image:OrigRed
Convert green to gray?:Yes
Name the output image:OrigGreen
Convert blue to gray?:Yes
Name the output image:OrigBlue
Convert hue to gray?:Yes
Name the output image:OrigHue
Convert saturation to gray?:Yes
Name the output image:OrigSaturation
Convert value to gray?:Yes
Name the output image:OrigValue
Channel count:1
Channel number:Red\x3A 1
Relative weight of the channel:1.0
Image name:Channel1

ImageMath:[module_num:6|svn_version:\'Unknown\'|variable_revision_number:4|show_window:True|notes:\x5B\x5D|batch_state:array(\x5B\x5D, dtype=uint8)|enabled:True|wants_pause:False]
Operation:Invert
Raise the power of the result by:1.0
Multiply the result by:1.0
Add to result:0.0
Set values less than 0 equal to 0?:Yes

Set values greater than 1 equal to 1?:Yes
Ignore the image masks?:No
Name the output image:inverted_image
Image or measurement?:Image
Select the first image:OrigGreen
Multiply the first image by:1.0
Measurement:
Image or measurement?:Image
Select the second image:
Multiply the second image by:1.0
Measurement:

IdentifyPrimaryObjects:[module_num:7|svn_version:\'Unknown\'|variable_revision_number:10|show_window:True|notes:\x5B\x5D|batch_state:array(\x5B\x5D, dtype=uint8)|enabled:True|wants_pause:False]

Select the input image:inverted_image
Name the primary objects to be identified:id_objects
Typical diameter of objects, in pixel units (Min,Max):10,50
Discard objects outside the diameter range?:Yes
Try to merge too small objects with nearby larger objects?:No
Discard objects touching the border of the image?:Yes
Method to distinguish clumped objects:Intensity
Method to draw dividing lines between clumped objects:Intensity
Size of smoothing filter:10
Suppress local maxima that are closer than this minimum allowed distance:5.0
Speed up by using lower-resolution image to find local maxima?:Yes
Name the outline image:outline_image
Fill holes in identified objects?:After both thresholding and declumping
Automatically calculate size of smoothing filter for declumping?:Yes
Automatically calculate minimum allowed distance between local maxima?:Yes
Retain outlines of the identified objects?:Yes
Automatically calculate the threshold using the Otsu method?:Yes
Enter Laplacian of Gaussian threshold:0.5
Automatically calculate the size of objects for the Laplacian of Gaussian filter?:Yes
Enter LoG filter diameter:5.0
Handling of objects if excessive number of objects identified:Continue
Maximum number of objects:500
Threshold setting version:1
Threshold strategy:Adaptive
Thresholding method:RidlerCalvard
Select the smoothing method for thresholding:Automatic
Threshold smoothing scale:1.0
Threshold correction factor:1.0
Lower and upper bounds on threshold:0.0,1.0
Approximate fraction of image covered by objects?:0.99
Manual threshold:0.0
Select the measurement to threshold with:None
Select binary image:RidlerCalvard Adaptive
Masking objects:From image

Two-class or three-class thresholding?:Two classes
Minimize the weighted variance or the entropy?:Weighted variance
Assign pixels in the middle intensity class to the foreground or the background?:Foreground
Method to calculate adaptive window size:Image size
Size of adaptive window:10

MeasureObjectNeighbors:[module_num:8|svn_version:\'Unknown\'|variable_revision_number:2|show_window:True|notes:\x5B\x5D|batch_state:array(\x5B\x5D, dtype=uint8)|enabled:True|wants_pause:False]
Select objects to measure:id_objects
Select neighboring objects to measure:id_objects
Method to determine neighbors:Expand until adjacent
Neighbor distance:0
Retain the image of objects colored by numbers of neighbors?:Yes
Name the output image:neighbors_color
Select colormap:Default
Retain the image of objects colored by percent of touching pixels?:No
Name the output image:PercentTouching
Select a colormap:Default

MeasureObjectSizeShape:[module_num:9|svn_version:\'Unknown\'|variable_revision_number:1|show_window:True|notes:\x5B\x5D|batch_state:array(\x5B\x5D, dtype=uint8)|enabled:True|wants_pause:False]
Select objects to measure:id_objects
Calculate the Zernike features?:No

SaveImages:[module_num:10|svn_version:\'Unknown\'|variable_revision_number:11|show_window:True|notes:\x5B\x5D|batch_state:array(\x5B\x5D, dtype=uint8)|enabled:True|wants_pause:False]
Select the type of image to save:Objects
Select the image to save:=primauto_
Select the objects to save:id_objects
Select the module display window to save:4\x3A IdentifyPrimaryObjects
Select method for constructing file names:From image filename
Select image name for file prefix:loaded_images
Enter single file name:primauto_
Number of digits:4
Append a suffix to the image file name?:Yes
Text to append to the image name:_id_obj
Saved file format:tiff
Output file location:Same folder as image\x7CNone
Image bit depth:8
Overwrite existing files without warning?:No
When to save:Every cycle
Rescale the images? :No
Save as grayscale or color image?:Color
Select colormap:Default
Record the file and path information to the saved image?:No
Create subfolders in the output folder?:No
Base image folder:Elsewhere...\x7C
Saved movie format:avi

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SaveImages:[module_num:11|svn_version:\'Unknown\'|variable_revision_numbe
r:11|show_window:True|notes:\x5B\x5D|batch_state:array(\x5B\x5D,
dtype=uint8)|enabled:True|wants_pause:False]
  Select the type of image to save:Image
  Select the image to save:neighbors_color
  Select the objects to save:None
  Select the module display window to save:neigh_image
  Select method for constructing file names:From image filename
  Select image name for file prefix:loaded_images
  Enter single file name:neighbor_objects_
  Number of digits:4
  Append a suffix to the image file name?:Yes
  Text to append to the image name: _neighbor_obj
  Saved file format:tiff
  Output file location:Same folder as image\x7CNone
  Image bit depth:16
  Overwrite existing files without warning?:No
  When to save:Every cycle
  Rescale the images? :No
  Save as grayscale or color image?:Grayscale
  Select colormap:Default
  Record the file and path information to the saved image?:No
  Create subfolders in the output folder?:No
  Base image folder:Elsewhere...\x7C
  Saved movie format:avi
```

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SaveImages:[module_num:12|svn_version:\'Unknown\'|variable_revision_numbe
r:11|show_window:True|notes:\x5B\x5D|batch_state:array(\x5B\x5D,
dtype=uint8)|enabled:True|wants_pause:False]
  Select the type of image to save:Image
  Select the image to save:outline_image
  Select the objects to save:None
  Select the module display window to save:None
  Select method for constructing file names:From image filename
  Select image name for file prefix:loaded_images
  Enter single file name:OrigBlue
  Number of digits:4
  Append a suffix to the image file name?:Yes
  Text to append to the image name: _outline
  Saved file format:tiff
  Output file location:Same folder as image\x7CNone
  Image bit depth:16
  Overwrite existing files without warning?:No
  When to save:Every cycle
  Rescale the images? :No
  Save as grayscale or color image?:Grayscale
  Select colormap:Default
  Record the file and path information to the saved image?:No
  Create subfolders in the output folder?:No
  Base image folder:Elsewhere...\x7C
  Saved movie format:avi
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ExportToSpreadsheet:[module_num:13|svn_version:\'Unknown\'|variable_revision_number:11|show_window:True|notes:\x5B\x5D|batch_state:array(\x5B\x5D, dtype=uint8)|enabled:True|wants_pause:False]

Select the column delimiter:Comma (",")

Add image metadata columns to your object data file?:Yes

Limit output to a size that is allowed in Excel?:No

Select the measurements to export:Yes

Calculate the per-image mean values for object measurements?:Yes

Calculate the per-image median values for object measurements?:Yes

Calculate the per-image standard deviation values for object

measurements?:Yes

Output file location:Default Input Folder\x7C.

Create a GenePattern GCT file?:No

Select source of sample row name:Metadata

Select the image to use as the identifier:None

Select the metadata to use as the identifier:None

Export all measurement types?:No

Press button to select measurements to

export:Image\x7CCount_id_objects,Image\x7CGroup_Index,Image\x7CGroup_Number,Image\x7CMD5Digest_loaded_images,Image\x7CFileName_loaded_images,Image\x7CScaling_loaded_images,Image\x7CPathName_loaded_images,Image\x7CThreshold_OrigThreshold_id_objects,Image\x7CThreshold_FinalThreshold_id_objects,Image\x7CThreshold_SumOfEntropies_id_objects,Image\x7CThreshold_WeightedVariance_id_objects,id_objects\x7CNeighbors_SecondClosestDistance_Expanded,id_objects\x7CNeighbors_FirstClosestDistance_Expanded,id_objects\x7CNeighbors_FirstClosestObjectNumber_Expanded,id_objects\x7CNeighbors_SecondClosestObjectNumber_Expanded,id_objects\x7CNeighbors_PercentTouching_Expanded,id_objects\x7CNeighbors_NumberOfNeighbors_Expanded,id_objects\x7CNeighbors_AngleBetweenNeighbors_Expanded,id_objects\x7CLocation_Center_Y,id_objects\x7CLocation_Center_X,id_objects\x7CNumber_Object_Number,id_objects\x7CAreaShape_Perimeter,id_objects\x7CAreaShape_Center_Y,id_objects\x7CAreaShape_Center_X,id_objects\x7CAreaShape_MajorAxisLength,id_objects\x7CAreaShape_Solidity,id_objects\x7CAreaShape_EulerNumber,id_objects\x7CAreaShape_Compactness,id_objects\x7CAreaShape_Extent,id_objects\x7CAreaShape_Eccentricity,id_objects\x7CAreaShape_FormFactor,id_objects\x7CAreaShape_MinorAxisLength,id_objects\x7CAreaShape_Area,id_objects\x7CAreaShape_Orientation

Representation of Nan/Inf:NaN

Add a prefix to file names?:No

Filename prefix\x3A:MyExpt_

Overwrite without warning?:Yes

Data to export:Image

Combine these object measurements with those of the previous

object?:No

File name:id_objects.csv

Use the object name for the file name?:Yes

Data to export:Experiment

Combine these object measurements with those of the previous

object?:No

File name:inc_id_objects.csv

Use the object name for the file name?:Yes

Data to export:id_objects

Combine these object measurements with those of the previous

object?:No

File name:DATA.csv

Use the object name for the file name?:Yes