

































## Image Scope

- **Toolbar** – Many of the ImageScope commands and features are available on the toolbar.
- **Zoom slider** – You can magnify or shrink the current view.
- **Filmstrip** – The filmstrip shows what slides are open. Click an image in the filmstrip to view it in the main window. You can view multiple slides at the same time by going to the Windows menu and selecting **Tile Horizontal** or **Tile Vertical**. To show or hide the filmstrip, go to the View menu and select **Filmstrip**.
- **Label Window** – If a photo of the slide label has been associated with the digital slide, you can see it in the Label window. To show or hide the label, go to the View menu and select **Label**.
- **Thumbnail Window** – Often you see only a portion of the digital slide in the main window. The thumbnail shows the entire image. A black rectangle shows the portion of the image that is currently displayed in the main window. To resize the thumbnail, drag its lower left corner. To show or hide the thumbnail, go to the View menu and select **Thumbnail**.
- **Magnifier Window** – Move this window to the area you are interested in to see a magnified view or just move your cursor to the area of interest. The magnifier's default magnification is twice the resolution of the image in the main window.
- To resize the magnifier, drag its lower left corner. To show or hide the magnifier, go to the **View** menu and click **Magnifier**.

## IMAGESCOPE TOOLBAR








Icon	Action
	Go to the Open Image window where you can browse for a local digital slide to open.
	Close the digital slide that is currently being viewed in ImageScope.
	Create a snapshot image of the digital slide currently being viewed.
	Save an ImageScope view, the entire set of digital slides that is currently open in ImageScope.
	Go to the Image Adjustment window where you can make color and other adjustments to the digital slide currently being viewed.
	Go to the Image Information window which displays information about the digital slide currently being viewed.
	Go to previous view of the digital slide.

	Go to the next view of the digital slide (only enabled if you first used the back arrow icon to go to a previous view).
	Manually synchronize navigation for all digital slides currently being viewed. (Used when multiple digital slides are open in the ImageScope window.)
	Smart synchronization for multiple digital slides being viewed. Corresponding regions in the digital slide images are synchronized.
	Show or hide the magnifier window.
	Show or hide the digital slide label window.
	Show or hide the thumbnail window.
	Show or hide the zoom slider.
	Display on the full monitor screen. (Or turn off if already in full-screen mode.)
	Open the Annotations window where you can create multiple annotation layers and organize and add descriptions to annotations.
	Open the Annotation Link Manager window where you can link annotations or digital slides to create a viewing sequence.
	Go to the previous link (if a previous link exists).
	Go to the next link (if a next link exists).
	Pan the digital slide.
	Enable/disable Integrated Color Management. Only available if the image contains an embedded ICC profile.
	Turn Image Quality (IQ) mode on or off.
	Show or hide axes or grid.
	Zoom the selected area of the digital slide.
	Extract a region of a digital slide.
	Draw a free-form annotation.
	Draw a free-form annotation to be excluded from analysis*. (This creates a <i>negative</i> annotation.)
	Measure an object on a digital slide.

	Draw a rectangular region (or a square if you hold down the Shift key while you draw).
	Draw an ellipse (or a circle if you hold down the Shift key while you draw).
	Draw an arrow pointing to an area of interest.
	Select an image for a report.

## ANNOTATIONS (VIEW Annotations)

Use the following icons on the toolbar to draw annotations on your image. Note that annotations are saved in different layers, with different colors, so each group of people can have its own annotations.

	Ellipses (or circle if you hold down the Shift key while drawing)
	Rectangle (or square if you hold down the Shift key while drawing)
	Free-form shape
	Free-form shape to exclude from analysis* (negative pen)
	Arrow
	Measurement
	Select report image

## Adjusting image color and brightness/contrast

Allows you to vary intensity and contrast in all color channels or a selected channel.

To view and modify image and brightness and contrast settings:

1. Go to the Image menu and select **Adjustments**.
2. Click the **Brightness/Contrast** tab.

### Color Buttons

Use these buttons to select the channel to be adjusted. The Gray button will adjust all three channels simultaneously.

### Brightness

Use the slider or enter a specific value in the text box. You can vary the image intensity of a selected channel from –64 to +64. A value of 20 means the average intensity of the output is increased by 20 over the input.

## Contrast

Use the slider or enter a specific value in the text box. You can vary the image contrast in the selected channel from -50 to +50. A value of 20 means the average contrast between output values is increased by 20%.

## Tips

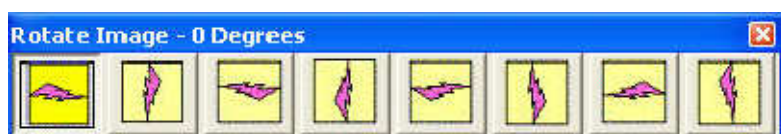
- To modify the appearance of the entire digital slide, select **Main Image**; to modify just the current Z-stack images, select **Z-stack Images**.
- Click and hold the **Compare** button to temporarily change the image back to the original settings; release the button to revert back to the changed settings.
- Click the **Reset** button to change all colors back to the original settings.

## Rotating images and digital slide labels





The rotation setting is saved with the image when you close it; re-opening the image displays it with that rotation.





To use image rotation:

1. Go to the ImageScope Image menu and select **Rotate Image** (Control E). A new toolbar appears.
2. From the rotation toolbar, select the rotation setting you want to use.



## Rotation Toolbar

-  - Rotate zero degrees
-  - Rotate 90 degrees right
-  - Rotate 180 degrees
-  - Rotate 90 degrees left

-  - Flip vertically
-  - Rotate 90 degrees right and flip vertically
-  - Flip horizontally
-  - Rotate 90 degrees left and flip vertically

## Image resolution

You can use the options on this window to change or set the image resolution:

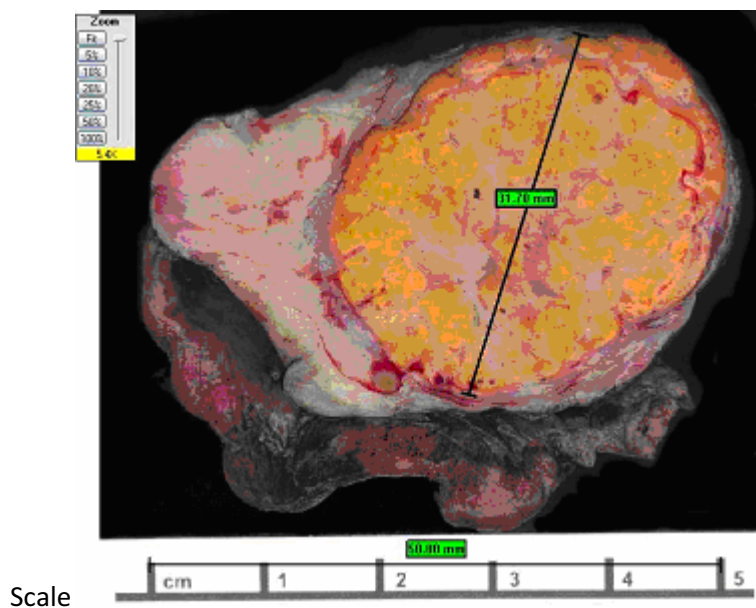
From Image choose Resolution

**Use Resolution Specified in Image File** – If the resolution is stored in the image file (for example, it was created by scanning a glass slide on a ScanScope scanner), select this option to reset the resolution to the value stored in the file.

**Manually Enter Image Resolution (or Magnification)** – If you know the resolution for the image, select this option and type the image resolution and apparent magnification values in the boxes at the top of the window. (microns per pixel & equivalent objective)

**Compute from Currently Selected Annotation Ruler.** With this option you can use an object of known size in the image to calibrate the image resolution.

For example, g image a scale is part of the picture (see below)

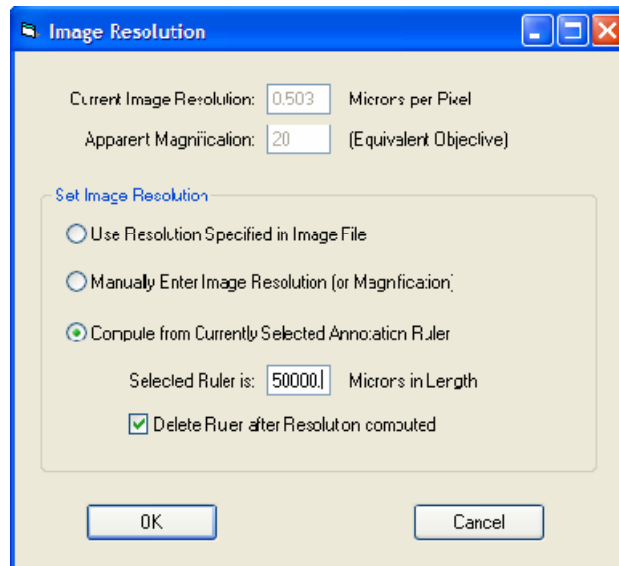


1. Draw an annotation ruler across the scale, which in this case shows a length of 5 centimeters.

*NOTE: When you change the resolution, note that you only affect the way an image is viewed, but do not change the image file or information stored in it.*

Because the resolution is used to display the magnification in the zoom slider, to compute ruler values, and to compute the length and width of annotations, these values will all change when you change the resolution.

- Go to the Image menu and select **Resolution**. The Image Resolution window now has a place for you to enter the length of the ruler:



- On the Image Resolution window, select **Compute from Currently Selected Annotation Ruler** and enter the length of the ruler in microns. In this case, enter a value of 50000 (5 cm = 50000 microns). If you want to delete the ruler after calibration, select the **Delete Ruler after Resolution Computed** check box.


Now all values measured by rulers will be accurately calibrated to this scale, see the second ruler in the image which measures a length of 31mm across the specimen.

## Saving snapshots of a digital slide and extracting regions

### SAVING A SNAPSHOT OF AN IMAGE


You can save the current view of the active image as a "snapshot."

The snapshot can be either a TIFF formatted image (\*.tif) or a JPEG formatted image (\*.jpg).

- Go to the File menu and select **Save Snapshot** or click  on the toolbar.
- If you want to save the snapshot in a different folder, browse to that location.
- In the **Save as type** box, click the required image format.
- In the **File name** box, type a name for the snapshot.
- Click **Save**.

## EXTRACTING IMAGE

Using the Extraction Tool to remove a select region of the active image.

1. Click on  in the toolbar.
2. Place your cursor on the digital slide.
3. Click and drag a rectangle on the screen to capture the area:
4. Choose output File location
5. Choose Output/Compression File type
6. Click Extract

