Auto Extend Option (Image\Options\General)

{button How To,AL("auto extend how",0,`NOT_FOUND')}

Extends an image when you edit the image using the following commands: Rotate, Scale, Mirror, Paste Floating Selection, Merge Vector to Image, and Merge Images. AutoExtend is applicable to all commands in ImageScape Draft that require resampling. The Warp command ignores the AutoExtend setting and always automatically extends. AutoExtend functionality is supported by all valid image types.

The color of the image data that are added for AutoExtend is always the current Erase Color.

For the first invocation of ImageScape Draft, the default setting for AutoExtend is ON. The current setting at Exit becomes the new default for that application.

When an image automatically extends, it extends only to the last pixel row/column needed to encompass the new data.

Close Image Command (File Menu)

{button How To,AL("close document how",0,`NOT_FOUND')}

Closes Selected Image(s) or All Images in the active document. If you have made changes since the image was last saved or if you have never saved the new image, you are prompted to indicate if you want to save your changes. If you do not want to save your changes, click the No button. If you want to save the changes, click the Yes button. If you do not want to close the image, click the Cancel button. If you click the Yes button, and the image is new, the Save As dialog box is displayed so that you can give the image a name and specify a directory and format to save it to.

 Save As Dialog Box

Density Flood Command (Image\Select Area Menu)

{button Related Topics,AL("polygon cmd;none cmd;rectangle cmd;inverse cmd;entire image cmd float cmd")}

A Select Area is a user-defined area of individual pixels or groups of pixels within an image. You create a select area for editing purposes.

The Density Flood command creates a select area by grouping together adjacent similar pixels. This command is available only if a single binary image is currently selected.

When you click on a foreground or background pixel in the binary image, all of the adjacent similar pixels are grouped together. A dotted line outlines the new select area. This is useful when editing if you want to move or paste the select area.

The following list defines the modifier keys available for the Density Flood tool:

- Alt adds a new area to an existing Select Area (union).
- Space Bar subtracts an area from an existing Select Area (difference).
- Space Bar+Alt designates an overlapping area as a new Select Area (intersection).

Fit All Images Command (View Menu)

{button Related Topics,AL("fit selected images cmd",0,`NOT_FOUND')} {button How To,AL("fit all images how",0,`NOT_FOUND')}

Fits all the images currently inserted into a Hybrid Document into the current shape and size of its window. The entire view is modified.

Fit Selected Images Command (View Menu)

{button Related Topics,AL("fit all images cmd",0,`NOT_FOUND')} {button How To,AL("fit selected images how",0,`NOT_FOUND')}

Fits only selected images into the current shape and size of its window. The entire view is modified.

Float Command (Image\Select Area Menu)

{button Related Topics,AL("density flood cmd;polygon cmd;rectangle cmd",0,`NOT_FOUND')}

Creates a floating selection of an Select Area. A floating selection is a Select Area that is “floating” above the actual image. You create and identify a select area using any of the Select Area commands, then select Float to create a floating selection anywhere in the document. Floating selections make moving and pasting select areas easy and quick.

Floating selections can be manipulated only in the currently active image.

Hole Fill Command (Image\Clean Up Menu)

{button Related Topics,AL("speckle removal cmd;smooth cmd",0,`NOT_FOUND')}  {button How To,AL("hole fill how",0,`NOT_FOUND')}

Cleans up all unwanted areas (holes) in a binary image. Holes are small, unwanted gaps in foreground data. To remove a hole, ImageScape Draft looks for a rectangular boundary around a potential speckle. The boundary is limited by the maximum hole size you specify. You can specify hole size 3 different ways.

- edit the size field on the Hole Fill dialog box
- draw a box to determine the maximum hole size to be removed
- select a representative hole in the image

Hole Fill dialog box

Image Size Command (Image\Modify Menu)

{button Related Topics,AL("shrink borders cmd;position cmd;deskew cmd;warp cmd;scale cmd;rotate cmd;mirror cmd",0,`NOT_FOUND')} {button How To,AL("modify image size, how",0,`NOT_FOUND')}

Extends, or crops a specified portion of a complete image. This command is not used to scale an image. You can use a Select Area, or vector objects to quickly define a new image size. You specify the specific side (Top, Bottom, Left, or Right) of an image to extend or remove pixels from. Once the new image size has been defined, you are able to apply the changes directly to the original image.

The Image Size command allows you to extend an image to the edges of selected vector objects without merging (burning) them together. It quickly crops a Select Area, and saves it as a new and separate image. You can also use this command to simply change the size of the active image.

Image Size dialog box

Inverse Command (Image\Select Area Menu)

{button Related Topics,AL("polygon cmd;rectangle cmd;density flood cmd;entire image cmd;none cmd;float cmd",0,`NOT_FOUND')}

Creates a new Select Area by inverting the existing one. The new Select Area includes only the pixels that were omitted from the initial Select Area.

The Inverse command is disabled if a Select Area does not exist on all the selected images.

If a Select Area exists and you select Inverse, the existing Select Area is removed before the new one is created.

If a floating selection exists and you select Inverse, the floating selection is pasted into the image before the new Select Area is created.

If you create a Select Area with the Entire Image command, then select Inverse, no Select Area is defined (similar to selecting None).

None Command (Image\Select Area Menu)

{button Related Topics,AL("polygon cmd;density flood cmd;rectangle cmd;inverse cmd;entire image cmd",0,`NOT_FOUND')}

Removes a Select Area from the selected image. This frees up the entire image so there are no area-related restrictions in place for editing.

If a select area exists and you select None, the existing select area is removed.

The None command is disabled if a Select Area does not exist on all the selected images.

If a floating selection exists and you select None, the floating selection is pasted into the image before the existing select area is removed.

Having an image with no Select Area is different than having the entire image as the Select Area. If there is no select area present, any pixel editing command will affect the LUT if possible (instead of actually doing the edit on the entire image).

Transformation commands such as Rotate behave differently depending on whether the entire image is selected or no select area is defined. If there is no select area, the command affects the matrix of the raster (the smartframe matrix is actally changed instead of the raster's matrix). If there is a select area present, the command creates a floating selection, and the operation is performed on the floating selection (the floating selection to raster matrix is transformed).

Pan Command (View Menu)

{button Related Topics,AL("views high",0,`NOT_FOUND')}  {button How To,AL("pan views how",0,`NOT_FOUND')}

Allows you to move in any direction from a specific point in a drawing or model to see other areas of the drawing or model.

Polygon Command (Image\Select Area Menu)

{button Related Topics,AL("density flood cmd;rectangle cmd;entire image cmd;inverse cmd;none cmd;float cmd;",0,`NOT_FOUND')} {button How To,AL("draw polygon",0,`NOT_FOUND')}

A Select Area is a user-defined area of individual pixels or groups of pixels within an image. You create a select area for editing purposes.

The Polygon command creates a select area by drawing a polygon around pixels that you define.

Following the first point, when you click the points to define the polygon,.a point is placed when you release the mouse button.

The Shift key is not a valid modifier for the Polygon command.

The following list defines the modifier keys that are available for the Polygon tool:

- Alt adds a new area to an existing Select Area (union).
- Space bar subtracts an overlapping area from an existing Select Area (difference).
- Space bar+Alt designates overlapping area as a new Select Area (intersection).

Purge Undo Through Command (Edit\Image Menu)

{button Related Topics,AL("undo through cmd;undo cmd",0,`NOT_FOUND')}  {button How To,AL("purge undo through how",0,`NOT_FOUND')}

Frees disk space by deleting (purging) commands in the command stack. Applies to Image commands only. Purge commands that you feel are unnecessary for the command stack to remember. Once a command is purged from the command stack, it cannot be undone, and it is no longer displayed in the Undo Through cascading menu.

The top-to-bottom ordering of commands in the cascading menu is reversed from the order in the Undo Through command. The most recently used command is listed last.

Rectangle Command (Image\Select Area Menu)

{button Related Topics,AL("polygon cmd;entire image cmd;density flood cmd;none cmd;entire image cmd;inverse cmd;float cmd",0,`NOT_FOUND')}

Select Area is a user-defined area of individual pixels or groups of pixels within an image. You create a select area for editing purposes.

The Rectangular command creates a select area by drawing a rectangle around pixels that you define.

When you drag the crosshair to define a rectangle Select Area, a solid rectangular outline dynamically draws as the mouse is dragged. Once you reach the desired size, release the mouse button to create the Select Area. The solid outline then becomes a dotted outline.

The following list defines the modifier keys that are available for the Rectangle tool:

- Shift constrains Select Area to a square (same aspect ratio).
- Alt adds new area to existing Select Area (union).
- Space Bar subtracts overlapping area from existing Select Area (difference).
- Space Bar +Alt designates overlapping area as new Select Area (intersection).
- Shift+Alt constrains to same aspect ratio and adds new area to existing Select Area.
- Shift+Space Bar constrains to same aspect ratio and subtracts overlapping area from existing Select Area.
- Shift+Space Bar+Alt constrains to same aspect ratio and designates overlapping area as new Select Area.

Image Redo Command (Edit\Image Menu)

{button Related Topics,AL("draw high;redo repeat cmd",0,`NOT_FOUND')}  {button How To,AL("redo action how",0,`NOT_FOUND')}

Reverses the most recent Undo command. Redo is enabled only after execution of the Undo or Undo Through commands and brings back only the edit(s) that was just undone.

Remove Command (Image\Select Area Menu)

{button Related Topics,AL("float cmd ",0,`NOT_FOUND')}

Removes a floating selection (dotted outline and contents) from the selected image. This causes no change to the actual image, it simply removes the floating selection. This frees up the entire image for all edits.

The Remove command is disabled if a floating selection does not exist on all selected images.

Revert to Saved Command (Edit\Image Menu)

{button Related Topics,AL("Undo cmd;undo through cmd",0,`NOT_FOUND')}  {button How To,AL("revert to saved how",0,`NOT_FOUND')}

Regains the last previously saved version of the selected image. It's a quick and easy "Undo All" that removes all edits done on the selected image and updates it to what is currently saved on disk. The image is simply refreshed.

This command is disabled if no edits have been performed on the selected image, or if all edits have been undone using Undo or Undo Through. Once any edit has been performed, the Revert to Saved command becomes enabled automatically and stays enabled until the image is saved, closed, or deleted.

Save As (Selected Image) Command (File Menu)

{button Related Topics,AL("save image cmd",0,`NOT_FOUND')} {button How To,AL("save image how",0,`NOT_FOUND')}

Saves the active image to a new name, directory, and format.

When you use the Save As command to save an image that has overviews, no overviews are saved to the output file.

ImageStation Raster Utilities (ISRU) are delivered on the ImageScape Draft CD. ISRU is useful for adding overviews.

 Save As Dialog Box

Save Image Command (File Menu)

{button Related Topics,AL("save high;documents high;save cmd",0,`NOT_FOUND')} {button How To,AL("save image how",0,`NOT_FOUND')}

Saves the selected image(s) or all open images in its currently defined name, directory, and format. When you select All Image(s), all images currently inserted into the Document are saved. If you are saving the image for the first time, the Save As dialog box is displayed so that you can give the image a name and specify a directory and format to save it to.

When you **edit** an image that has overviews, and use the Save command, all the overviews are saved to the output file.

When you **modify** an image that has overviews (convert, resample, image size, etc.), and use the Save command, no overviews are saved to the output file.

When you use the Save As command, no overviews are saved in any case.

ImageStation Raster Utilities (ISRU) are delivered on the ImageScape Draft CD. ISRU is useful for adding overviews.

 Save As Dialog Box

Entire Image Command (Image\Select Area Menu)

{button Related Topics,AL("polygon cmd;rectangle cmd;density flood cmd;none cmd;inverse cmd",0,`NOT_FOUND')}

Makes the entire image the select area. A dotted outline is displayed around all the pixels (image border) that make up the image.

If a select area exists when you select Entire Image, the existing select area is removed before the new one is created.

If a floating selection exists and you select Entire Image, the floating selection is pasted into the image before the new select area is created.

Having the entire image as the Select Area is different than having an image with no Select Area. If there is no select area present, any pixel editing command will affect the LUT if possible (instead of actually doing the edit on the entire image).

Selected Image at 1:1 Command (View Menu)

{button Related Topics,AL("fit selected images cmd;fit all images cmd",0,`NOT_FOUND')} {button How To,AL("select image at 1:1 how",0,`NOT_FOUND')}

Displays the image using a 1:1 ratio of image and screen pixels. The view of the image changes so that there is a 1:1 view of the image around the position of the click using the image resolution and the screen resolution.

Shrink Borders Command (Image\Modify Menu)

{button Related Topics,AL("image size cmd;position cmd;deskew cmd;warp cmd;scale cmd;rotate cmd;mirror cmd",0,`NOT_FOUND')}  {button How To,AL("shrink borders, how",0,`NOT_FOUND')}

Moves each edge of a binary image towards the center until data are encountered This creates an image where the raster border encloses the data in a rectangular manner without any additional white space. Shrink Borders may be useful when printing raster data, to eliminate unnecessary whitespace around the image.

The Shrink Borders command is disabled if no binary image is active.

The edit area is the entire selected image.

Select Areas are ignored.

If multiple binary images are selected, the borders are shrunk for each binary image in the select set.

Speckle Removal Command (Image\Clean Up Menu)

{button Related Topics,AL("hole fill cmd;smooth cmd",0,`NOT_FOUND')} {button How To,AL("speckle removal how",0,`NOT_FOUND')}

Cleans up (removes) all unwanted areas of speckles in a binary image. Speckles are small, unwanted areas of foreground data. To remove a speckle, ImageScape Draft looks for a rectangular boundary around a potential speckle. The boundary is limited by the maximum speckle size you specify. You can specify speckle size 3 different ways.

- edit the size field on the Speckle Remove dialog box
- draw a box to determine the maximum speckle size to be removed
- select a representative speckle in the image

 Speckle Remove dialog box

Undo Through Command (Edit\Image Menu)

{button Related Topics,AL("draw high;options cmd;undo cmd",0,`NOT_FOUND')} {button How To,AL("undo through how",0,`NOT_FOUND')}

Undoes more than one Image command at a time. The command stack appears as a cascading menu with each undoable command in the stack listed as a separate menu item. The commands are listed with the most recently executed command listed first.

Zoom Area Command (View Menu)

{button Related Topics,AL("zoom in cmd;zoom out cmd",0,`NOT_FOUND')}  {button How To,AL("zoom area how",0,`NOT_FOUND')}

Displays a zoomed in view of the images or elements within a user-defined area into the current shape and size of the window. The center of the zoomed area becomes the center of the window when the zoomed in view displays. The window itself does not resize, so the new view may not take up the entire window or the entire may not display.

Zoom Out Command (View Menu)

{button Related Topics,AL("zoom in cmd;zoom area cmd",0,`NOT_FOUND')}  {button How To,AL("zoom out how",0,`NOT_FOUND')}

Displays a zoomed out view of the selected image and all other images or elements (if applicable) into the current shape and size of the window. The center of the selected image becomes the center of the window when the zoomed out view displays. The entire image may not display in the window, because the window itself does not resize.

The new view may not take up the entire window. In this case, all other images and elements in the document display accordingly.

Smooth Command (Image\Clean Up Menu)

{button Related Topics,AL("hole fill cmd;speckle remove cmd",0,`NOT_FOUND')} {button How To,AL("smooth how",0,`NOT_FOUND')}

Cleans-up, or smooths binary images, by adding or deleting foreground pixels. If a single background pixel separates a string of foreground pixels, the background pixel will be replaced with a foreground pixel. In cases where there is a single (stray) foreground pixel, it will be replaced with a background pixel.

Smooth dialog box

Gamma Command (Image\Adjust Menu)

{button Related Topics,AL("gradation cmd;threshold cmd;invert cmd",0,`NOT_FOUND')} {button How To,AL("gamma how",0,`NOT_FOUND')}

Performs a gamma adjustment on the selected image. The gamma adjustment setting applies to all the color channels of the selected image(s). You can adjust the gamma of multiple images as long as the images in the active select set are all the same type.

If a select area exists, the gamma adjustment setting applies only to the select area and changes are applied directly to the image.

If the Gamma command is executed on the entire image, it uses a Look Up Table (LUT) to alter the image display. The changes are not applied directly to the image. When you save the document, the LUT for each image is saved in the document. If you want to manipulate the LUTs differently, use the Manage LUT commands.

Manage LUT Commands

Apply LUT

Discard LUT

Load LUT

Save LUT

Reverse LUT

The Gamma command applies to 8-bit and 24-bit raster files.

Gamma dialog box

Gradation Command (Image\Adjust Menu)

{button Related Topics,AL("gamma cmd;threshold cmd;invert cmd",0,`NOT_FOUND')} {button How To,AL("gradation how",0,`NOT_FOUND')}

Edits the brightness, contrast, and color balance of 8-bit and 24-bit raster files. The graph on the dialog box allows you to manipulate dot percentages of the five tonal areas of an image (highlights, quarter tones, midtones, three-quarter tones, shadows). It also allows you to edit all color bands at once, or each band specifically.

If a select area exists, the gradation adjustment setting applies only to the select area and changes are applied directly to the image.

If the Gradation command is executed on the entire image, it uses a Look Up Table (LUT) to alter the image display. The changes are not applied directly to the image. When you save the document, the LUT for each image is saved in the document. If you want to manipulate the LUTs differently, use the Manage LUT commands.

Manage LUT Commands

Apply LUT

Discard LUT

Load LUT

Save LUT

Reverse LUT

Gradation dialog box

Threshold Command (Image\Adjust Menu)

{button Related Topics,AL("gamma cmd;gradation cmd;invert cmd",0,`NOT_FOUND')} {button How To,AL("threshold how",0,`NOT_FOUND')}

Specifies a threshold (density) value that transforms grayscale or color images to black and white images. All the pixels with a density value lower than the threshold value will be changed to black, and the pixels higher than the threshold value will be white.

If a select area exists, the threshold value applies only to the select area and changes are applied directly to the image.

If the Threshold command is executed on the entire image, it uses a Look Up Table (LUT) to alter the image display. The changes are not applied directly to the image. When you save the document, the LUT for each image is saved in the document. If you want to manipulate the LUTs differently, use the Manage LUT commands.

Manage LUT Commands

Apply LUT

Discard LUT

Load LUT

Save LUT

Reverse LUT

The Threshold command applies to 8-bit and 24-bit raster files.

 Threshold dialog box

Invert Command (Image\Adjust Menu)

{button Related Topics,AL("gamma cmd;gradation cmd;threshold cmd",0,`NOT_FOUND')} {button How To,AL("invert how",0,`NOT_FOUND')}

Converts a positive continuos tone image to a negative and vice-versa in a grayscale or color image. In a binary image the the Invert command swaps Foreground and Background pixel colors.

If a select area exists in a grayscale or color image, the invert conversion applies only to the select area and changes are applied directly to the image.

If the Invert command is executed on the entire grayscale or color image, it uses a Look Up Table (LUT) to alter the image display. The changes are not applied directly to the image. When you save the document, the LUT for each image is saved in the document. If you want to manipulate the LUTs differently, use the Manage LUT commands.

Manage LUT Commands

Apply LUT

Discard LUT

Load LUT

Save LUT

Reverse LUT

Median Command (Image\Soften Menu)

{button Related Topics,AL("lowpass cmd;highpass cmd;unsharp masking cmd;edge enhance cmd",0,`NOT_FOUND')} {button How To,AL("median how",0,`NOT_FOUND')}

Smoothes an image by assuring that an equal number of pixel values are greater than and less than the median value. The Median command is a filter that uses a user-defined convolution kernel to soften a select area or image.

Filtering refers to the removal or enhancement of spatial or spectural features of data enhancement. Convolution filtering is the process of averaging small sets of pixels across an image. A convolution kernel is a matrix of numbers that is used to average the value of each pixel with the values of its surrounding pixels in a particular way. The numbers in the matrix (width and height) allow you to weight this average towards particular pixels.

Median dialog box

Lowpass Command (Image\Soften Menu)

{button Related Topics,AL("median cmd;highpass cmd;unsharp masking cmd;edge enhance cmd",0,`NOT_FOUND')} {button How To,AL("lowpass how",0,`NOT_FOUND')}

Smoothes an image (softens) by blending a small area of pixels together to reduce detail. The Lowpass command is a filter that uses a user-defined convolution kernel to soften a select area or image.

Filtering refers to the removal or enhancement of spatial or spectural features of data enhancement. Convolution filtering is the process of averaging small sets of pixels across an image. A convolution kernel is a matrix of numbers that is used to average the value of each pixel with the values of its surrounding pixels in a particular way. The numbers in the matrix (width and height) allow you to weight this average towards particular pixels.

Lowpass dialog box

Highpass Command (Image\Sharpen Menu)

{button Related Topics,AL("median cmd;lowpass cmd;unsharp masking cmd;edge enhance cmd",0,`NOT_FOUND')} {button How To,AL("highpass how",0,`NOT_FOUND')}

Sharpens an image by averaging a small area of pixels to alter its brightness. The Highpass command is a filter that uses a user-defined convolution kernel to sharpen a select area or image.

Filtering refers to the removal or enhancement of spatial or spectural features of data enhancement. Convolution filtering is the process of averaging small sets of pixels across an image. A convolution kernel is a matrix of numbers that is used to average the value of each pixel with the values of its surrounding pixels in a particular way. The numbers in the matrix (width and height) allow you to weight this average towards particular pixels.

Highpass dialog box

Edge Enhancement Command (Image\Sharpen Menu)

{button Related Topics,AL("median cmd;lowpass cmd;unsharp masking cmd;highpass cmd",0,`NOT_FOUND')}
{button How To,AL("edge enhance how",0,`NOT_FOUND')}

Strengthens the visual boundaries (edges) between areas of contrasting brightness, making the light pixels lighter, and the dark pixels darker.

The Edge Enhancement command is executed when you select it from the menu or toolbar.

Unsharp Masking Command (Image\Sharpen Menu)

{button Related Topics,AL("median cmd;lowpass cmd;highpass cmd;edge enhance cmd",0,`NOT_FOUND')}
{button How To,AL("unsharp masking how",0,`NOT_FOUND')}

Sharpens an image area where pixels of different densities are adjacent. A place where 2 pixels with different densities are adjacent is an edge. An edge will have a light and a dark side. Sharpening occurs when the dark side is darkened and the light side lightened.

This command applies to grayscale and color images.

Using the Unsharp Masking dialog box, you select sharpening settings to apply to a selected image or selected area. Using the Customize button you can unfold the dialog to customize your own settings.

Unsharp Masking dialog box

Warp Command (Image\Modify Menu)

{button Related Topics,AL("image size cmd;position cmd;deskew cmd;shrink borders cmd;scale cmd;rotate cmd;mirror cmd ",0,`NOT_FOUND')} {button How To,AL("warp how",0,`NOT_FOUND')}

Performs linear and non-linear transformations of images.

A warp is a two-dimensional topological transformation in which a source area is fitted to a destination area. Usually, a warp is used to counteract some undesirable influence on the original raster data. For example, a satellite photograph which includes asymmetrical curvature may need to be fitted to a square grid for mapping purposes.

Essentially, a warp is a reverse interpolation to remove unwanted distortions and arrive at a desired raster data form. The source is the raw, distorted data, and the destination is the desired data after the warp operation. The relationship between source and destination is specified by the warp model and by a series of source/destination point pairs. These pairs specify the relationship between the original drawing and the drawing after the warp.

Warping changes the scale of the drawing. Therefore, if you have already determined the position of your raster drawing in relation to your vector drawing, you will lose the previously set scale when you warp.

- Warp ribbon bar
- Warp Options dialog box

Deskew Command (Image\Modify Menu)

{button Related Topics,AL("image size cmd;position cmd;warp cmd;shrink borders cmd;scale cmd;rotate cmd;mirror cmd ",0,`NOT_FOUND')} {button How To,AL("deskew how",0,`NOT_FOUND')}

Removes minor rotations from an image that were introduced by scanning documents at a slight angle. You are prompted to input two points to define a line, and this line is rotated to horizontal or vertical, depending upon which one is closer. The input line defines an angle to be used to deskew the image. The entire image is rotated about its center by this angle and resampled, unless a select area or a floating selection is present. If a select area is present, the data in the select area (along with the select area outline) are rotated about the center of the select area. If a floating selection is present, the floating selection is rotated about its center.

Scale Command (Image\Modify Menu)

{button Related Topics,AL("image size cmd;position cmd;warp cmd;shrink borders cmd;deskew cmd;rotate cmd;mirror cmd ",0,`NOT_FOUND')} {button How To,AL("scale how",0,`NOT_FOUND')}

Enlarges or shrinks a portion of an image (select area) within the image, a floating selection, or the entire image (selected image) within the document or image view. The Scale command honors select areas/floating selections, and it automatically resamples the image when an entire image is scaled.

Scale dialog box

Rotate Command (Image\Modify Menu)

{button Related Topics,AL("image size cmd;position cmd;warp cmd;shrink borders cmd;deskew cmd;scale cmd;mirror cmd ",0,`NOT_FOUND')} {button How To,AL("rotate how",0,`NOT_FOUND')}

Rotates the image by the desired angle, using the center of the image as the center of rotation, and resamples the rotated image. If a select area/floating selection is rotated, the center of the select area/floating selection is used as the center of rotation.

When rotating a select area, the data in the select area are moved from the original image, rotated, and then pasted back into the image. The select area outline will rotate along with the data. This will not result in a floating selection. If the rotated select area lies outside the boundaries of the image, the image is autoextended (if autoextend is on).

When rotating a floating selection, the floating selection is simply rotated and left floating.

Rotate dialog box

Mirror Horizontal Command (Image\Modify Menu)

{button Related Topics,AL("image size cmd;position cmd;warp cmd;shrink borders cmd;deskew cmd;scale cmd;rotate cmd;mirror vertical cmd ",0,`NOT_FOUND')}  {button How To,AL("mirror horizontal how",0,`NOT_FOUND')}

Mirrors horizontally along the vertical axis (left to right). You can mirror a portion of an image (select area) within the image, a floating selection, or the entire image (selected image) within the document or image view.

Mirror Vertical Command (Image\Modify Menu)

{button Related Topics,AL("image size cmd;position cmd;warp cmd;shrink borders cmd;deskew cmd;scale cmd;rotate cmd;mirror horizontal cmd ",0,`NOT_FOUND')}  {button How To,AL("mirror vertical how",0,`NOT_FOUND')}

Mirrors vertically along the horizontal axis (top to bottom). You can mirror a portion of an image (select area) within the image, a floating selection, or the entire image (selected image) within the document or image view.

Interactive Merge Command (Image\Modify Menu)

{button Related Topics,AL("image to image merge cmd;vector to image merge cmd",0,`NOT_FOUND')}
{button How To,AL("interactive merge how",0,`NOT_FOUND')}

Converts vector data into raster data by automatically “burning” the vector data directly into a binary raster type by setting controls on the Merge Vector dialog bar. When you select the Merge Vector Interactive command, the Merge Vector dialog bar appears. If the Auto Burn option on the Merge Vector dialog bar is off, selected vectors can be merged into the active binary image manually. The dialog bar also provides an option to delete vectors automatically after merging has been completed.

The Merge Vector dialog bar acts as a modeless dialog box in that it is activated by one command and can be left running while other commands are active. The dialog bar is initially floating, but it is dockable at the top of the application.

The Interactive Merge command is enabled when a single binary image is active and a vector object has been selected in a hybrid document.

Merge Image to Image Command (Image\Modify Menu)

{button Related Topics,AL("interactive merge cmd;vector to image merge cmd",0,`NOT_FOUND')}{button How To,AL("image to image merge how",0,`NOT_FOUND')}

Merges multiple images into a single image. The result of the merge is a single image that looks exactly like the merged binary images. All the selected images are merged into the bottom image by default, but you can change which image you want to merge to. The bottom image is the selected image that is displayed under all the other images in the select set.

The Merge Image to Image command is enabled in hybrid documents only when two or more images of the same type are selected.

The foreground and background pixels can be either color or transparent, but you need to make the needed pixels transparent to get the desired result. If pixels are not transparent they will merge with (and knockout) existing pixels on other images.

This command ignores image density, scanline orientation, or placement of the selected images. The newly merged image takes on all the attributes of the Target Image.

By default the entire image is selected. If you create a select area or floating selection only that data is used for the merge and not the entire image.

 Image to Image dialog box

Merge Vector to Image Command (Image\Modify Menu)

{button Related Topics,AL("image to image merge cmd;interactive merge cmd",0,`NOT_FOUND')}{button How To,AL("vector to image merge how",0,`NOT_FOUND')}

Converts vector data into raster data by ‘‘burning’’ the vector data directly into a binary raster type. This command utilizes both the resolution of the target image and the line weight and style of the vector data that are to be merged. The final merged image looks identical to the vector data used in the merge. Selected vector objects that do not overlap the selected image are ignored.

If Auto Extend is turned off, selected vector objects that extend outside the image boundary are partially merged. Only the part that is within the image boundary is merged. Extending an image is done with the Image Size command.

If Auto Extend is turned on and vector objects extend outside the image boundary, the image extends to include all vector data.

This command allows you to select and merge muiltiple vector objects into multiple binary raster images at one time.

Vector data are merged using the active Paint or Erase color. You have the choice as to which color to use. The default option is the Paint Color.

The Merge Vector to Image command is enabled when one or more binary images are active and vector objects have been selected in a hybrid document.

Vector to Image dialog box

Open Image Command (File Menu)

{button Related Topics,AL("open cmd",0,`NOT_FOUND')} {button How To,AL("open how";insert image db)}

Opens an existing image or template in a new window.

- Insert Image Dialog Box

Save Image Command (File Menu)

{button Related Topics,AL("save high;documents high;save cmd",0,`NOT_FOUND')} {button How To,AL("save image how",0,`NOT_FOUND')}

Saves the selected image(s) or all open images in its currently defined name, directory, and format. When you select All Image(s), all images currently inserted into the Document are saved. If you are saving the image for the first time, the Save As dialog box is displayed so that you can give the image a name and specify a directory and format to save it to.

When you **edit** an image that has overviews, and use the Save command, all the overviews are saved to the output file.

When you **modify** an image that has overviews (convert, resample, image size, etc.), and use the Save command, no overviews are saved to the output file.

When you use the Save As command, no overviews are saved in any case.

ImageStation Raster Utilities (ISRU) are delivered on the ImageScape Draft CD. ISRU is useful for adding overviews.

Save As Dialog Box

Save As (Selected Image) Command (File Menu)

{button Related Topics,AL("save image cmd",0,`NOT_FOUND')} {button How To,AL("save image how",0,`NOT_FOUND')}

Saves the active image to a new name, directory, and format.

When you use the Save As command to save an image that has overviews, no overviews are saved to the output file.

ImageStation Raster Utilities (ISRU) are delivered on the ImageScape Draft CD. ISRU is useful for adding overviews.

 Save As Dialog Box

Resample Original Image Command (Image\Modify Menu)

{button Related Topics,AL("resample as displayed cmd",0,`NOT_FOUND')} {button How To,AL("resample original image how",0,`NOT_FOUND')}

Converts the selected image to a new resolution or a new orientation. This can be useful for matching one image resolution to another or to match image resolution to an output device. The Resample Original Image command is enabled when a single image is selected.

- Resample Original Image dialog box

Resample As Displayed Command (Image\Modify Menu)

{button Related Topics,AL("resample original image cmd",0,`NOT_FOUND')}  {button How To,AL("resample as displayed how",0,`NOT_FOUND')}

Converts the selected image to the orientation and resolution that are currently displayed. For example, if you rotate the smartframe and want to use the image in another application, resample the image to the displayed orientation.

Resample As Displayed dialog box

Convert to Binary Command (Image\Modify Menu)

{button Related Topics,AL("convert to rgb cmd;convert to grayscale cmd",0,`NOT_FOUND')} {button How To,AL("convert to binary how",0,`NOT_FOUND')}

Converts a grayscale image to a binary image. The Convert to Binary command is enabled when a grayscale image (8-bit) is selected. This command ignores select areas. The entire image is always converted.

Converts all pixels that have a grayscale value higher than or equal to the Threshold value to 100% black - *ON* (*Foreground*), and all those below the Threshold value to 0% black - *OFF* (*Background*).

Binary dialog box

Convert to Grayscale Command (Image\Modify Menu)

{button Related Topics,AL("convert to rgb cmd;convert to binary cmd",0,`NOT_FOUND')} {button How To,AL("convert to grayscale how",0,`NOT_FOUND')}

Converts a binary or RGB image to a grayscale image. The Convert to Grayscale command is enabled when a binary or RGB image is selected. This command ignores select areas. The entire image is always converted. If 2 or more images of the same type are selected together, you can convert all of them together.

Selecting the Convert to Grayscale command converts a binary image to a grayscale image using the following rules:

- All ON pixels become 100% black.
- All OFF pixels become white.

ImageScape Draft follows the standard NTSC conversion for converting RGB color values to their Grayscale equivalents.

Convert to RGB Command (Image\Modify Menu)

{button Related Topics,AL("convert to grayscale cmd;convert to binary cmd",0,`NOT_FOUND')} {button How To,AL("convert to rgb how",0,`NOT_FOUND')}

Converts a grayscale or color index image to an RGB color image. The Convert to RGB command is enabled when a grayscale or color index image is selected. This command ignores select areas. The entire image is always converted. If 2 or more images of the same type are selected together, you can convert all of them together.

Grayscale to RGB conversion functions as follows:

Color values (R,G,B) for each converted pixel are assigned their previous gray value.

Previous gray value can be determined using (luminance x 255).

Color index to RGB conversion functions as follows:

The color values (R,G,B) for the pixel colors in the palette convert straight to the same values for an RGB image.

Contrast/Brightness Command (Image\Adjust Menu)

{button Related Topics,AL("gradation cmd;threshold cmd;invert cmd;gamma cmd",0,`NOT_FOUND')}
{button How To,AL("contrast_brightness how",0,`NOT_FOUND')}

Modifies the contrast and/or brightness of an image. You can modify these 2 attributes individually using the 2-D slider box or the key-in edit boxes on the Contrast/Brightness dialog box. The 2-D slider box also allows you to modify contrast and brightness together by selecting the intersection of the 2 lines and dragging it within the box.

- Contrast/Brightness dialog box

Apply LUT Command (Image\Adjust Menu)

{button Related Topics,AL("discard LUT cmd;load LUT cmd;save LUT cmd;reverse LUT cmd",0,`NOT_FOUND')}

Applies the active Look Up Table (LUT) directly to the image. This is the only LUT command that edits image pixels directly.

The Threshold, Gamma, Contrast / Brightness, Gradation, and Invert commands are LUT Correction commands. This means that when you edit using these commands, instead of actually editing the image, the image is displayed through a Look Up Table (LUT).

When you select the Apply LUT command, the image is no longer displayed through an LUT (because the LUT has been applied to the image). No visual change is seen, but the LUT is applied to the image.

Discard LUT Command (Image\Adjust Menu)

{button Related Topics,AL("apply LUT cmd;load LUT cmd;save LUT cmd;reverse LUT cmd",0,`NOT_FOUND')}

Removes the active Look Up Table (LUT).

The Threshold, Gamma, Contrast / Brightness, Gradation, and Invert commands are LUT Correction commands. This means that when you edit using these commands, instead of actually editing the image, the image is displayed through a Look Up Table (LUT).

When you select the Discard LUT command, the image's active LUT is removed. No visual change is seen, but the LUT is no longer associated with the image.

Load LUT Command (Image\Adjust Menu)

{button Related Topics,AL("apply LUT cmd;discard LUT cmd;save LUT cmd;reverse LUT cmd",0,`NOT_FOUND')}

Loads an external Look Up Table (LUT) (ASCII file from disk), and displays the selected image(s) through it.

The Threshold, Gamma, Contrast / Brightness, Gradation, and Invert commands are LUT Correction commands. This means that when you edit using these commands, instead of actually editing the image, the image is displayed through a Look Up Table (LUT).

When an image is being displayed through a LUT and you select the Load LUT command, the current active LUT is discarded and the newly loaded LUT is used.

Save LUT Command (Image\Adjust Menu)

{button Related Topics,AL("apply LUT cmd;discard LUT cmd;load LUT cmd;reverse LUT cmd",0,`NOT_FOUND')}

Saves an active Look Up Table (LUT) to an ASCII file on disk, and continues to display the selected image through the saved LUT at the completion of the save. This command brings up the Save LUT dialog box.

The Threshold, Gamma, Contrast / Brightness, Gradation, and Invert commands are LUT Correction commands. This means that when you edit using these commands, instead of actually editing the image, the image is displayed through a Look Up Table (LUT).

This command is enabled whenever the selected image is being displayed through a LUT.

If multiple images are selected,all the images in the select set must be displayed through the same LUT for the Save LUT command to be enabled.

Reverse LUT Command (Image\Adjust Menu)

{button Related Topics,AL("apply LUT cmd;discard LUT cmd;load LUT cmd;save LUT cmd",0,`NOT_FOUND')}

Inverts the image via its active LUT by "negating" each color value (negated value = 255 - actual value). This has the same visual effect as the Invert command.

The Revese LUT command alters the order of the LUT entries so that the value that was in index 0 is swapped with the value in index 255, entry 1 is swapped with entry 254, etc.

The Threshold, Gamma, Contrast / Brightness, Gradation, and Invert commands are LUT Correction commands. This means that when you edit using these commands, instead of actually editing the image, the image is displayed through a Look Up Table (LUT).

This command is enabled whenever the selected image is being displayed through a LUT.

If multiple images are selected,all the images in the select set must be displayed through the same LUT for the Reverse LUT command to be enabled.

Fill Tool (Image\Paint Menu)

{button Related Topics,AL("erase cmd;paintbrush cmd;eraser cmd;flood tool cmd;paint color cmd;erase color cmd",0,`NOT_FOUND')}  {button How To,AL("fill how",0,`NOT_FOUND')}

Fills the select area with either the Paint or Erase color. You have the ability to set the opacity of the fill. Setting the opacity allows you to fill the select area with a certain degree of transparency. 100% opacity is a solid fill. Anything other than 100% contains some level of transparency. (95% opacity = 5% transparent).

Fill dialog box

Erase Tool (Image\Paint Menu)

{button Related Topics,AL("fill cmd;paintbrush cmd;eraser cmd;flood tool cmd;paint color cmd;erase color cmd",0,`NOT_FOUND')}  {button How To,AL("erase how",0,`NOT_FOUND')}

Erases the selected edit area (edit area = select area or entire image) with the current Erase Color.

Paintbrush Tool (Image\Paint Menu)

{button Related Topics,AL("fill cmd;erase cmd;eraser cmd;flood tool cmd;paint color cmd;erase color cmd",0,`NOT_FOUND')} {button How To,AL("paintbrush how",0,`NOT_FOUND')}

Paints with the active Paint color using the current brush settings. Adjust brush settings through the Brush Manager palette.

When you move the cursor over the selected image, the cursor changes to an outline that reflects the chosen brush size. This provides a visual aid for painting on an image. When you move the cursor off the selected image, the cursor changes back to the default arrow pointer.

When the cursor is over the selected image, Click + dragging the left mouse button paints using the active Paint color, with the current brush settings.

The Paintbrush tool utilizes several modifier keys to undo the last or all brush strokes, constrain painting to horizontal or vertical direction, and select the active color from the image. The following table lists the standard modifier keys and their functions:

Key(s)	Cursor	Function
No keys used	outline	freehand painting
Shift	outline	painting constrained to either horizontal or vertical direction, depending upon initial mouse movement
Alt	eyedropper	chooses new active color from selected image; user clicks on desired color to paint with
Ctrl	eraser	paint undo the most recent (last) stroke
Ctrl + Alt	eraser	paint undo all strokes applied with the last execution of the tool
Ctrl + Shift	eraser	paint undo the most recent (last) stroke with a horizontal or vertical constraint
Ctrl + Shift + Alt	eraser	paint undo all strokes applied with the last execution of the tool and a horizontal or vertical constraint
Shift + Alt	outline	same as Shift

The following table summarizes the results of each modifier key (up/down), and mouse button state (pressed/released) used with the next action performed (modifier key let up or held down, or mouse button pressed or released):

Modifier key(s) held down	Mouse button state	Action	Results
Shift	released	**hold mouse down**	Paints a straight line between the last data point and the mouse down point (if within the same invocation of the command); and constrains painting to horizontal or vertical direction.
None used	pressed	**hold Shift down**	Immediately begins painting with the horizontal or vertical constraint.

Shift	pressed	**let Shift up**	Immediately begins freehand painting at the current cursor location.
Ctrl + Shift	released	**hold mouse down**	Immediately begins to paint undo the last stroke applied with a horizontal or vertical direction.
Ctrl + Shift + Alt	released	**hold mouse down**	Immediately begins to paint undo all strokes applied with a horizontal or vertical direction.
Ctrl	pressed	**hold Shift down**	Immediately begins to paint undo the last stroke applied with a horizontal or vertical direction.
Ctrl + Alt	pressed	**hold shift down**	Immediately begins to paint undo all strokes applied with a horizontal or vertical direction.
Ctrl + Shift	pressed	**let Shift up**	Immediately begins freehand paint undo.
Ctrl + Shift + Alt	pressed	**let Shift up**	Immediately begins freehand paint undo all strokes.
Ctrl + Shift	pressed	**let Ctrl Up**	Invokes the cursor that has the paintbrush tool with the bar through it; user has to let the mouse button up to start painting a new stroke.
Ctrl + Shift + Alt	pressed	**let Ctrl up**	Invokes the cursor that has the paintbrush tool with the bar through it; user has to let the mouse button up to start painting a new stroke.
None used	pressed	**hold Alt down**	Continues freehand painting; does not invoke eyedropper tool.
Alt	pressed	**let mouse up**	picks up color with eyedropper tool from image and uses it to paint with

Eraser Tool (Image\Paint Menu)

{button Related Topics,AL("fill cmd;erase cmd;paintbrush cmd;flood tool cmd;paint color cmd;erase color cmd",0,`NOT_FOUND')} {button How To,AL("eraser how",0,`NOT_FOUND')}

The Eraser tool behaves exactly like the Paintbrush tool. However, instead of painting with the Paint color, you dynamically "paint" (erase*)* with the Erase color.

Paints with the active Erase color using the current brush settings. Adjust brush settings through the Brush Manager palette.

When you move the cursor over the selected image, the cursor changes to an outline that reflects the chosen brush size. This provides a visual aid for painting on an image. When you move the cursor off the selected image, the cursor changes back to the default arrow pointer.

When the cursor is over the selected image, Click + dragging the left mouse button erases using the active Erase color, with the current brush settings.

The Eraser tool utilizes several modifier keys to undo the last or all brush strokes, constrain erasing to horizontal or vertical direction, and select the active color from the image. The following table lists the standard modifier keys and their functions:

Key(s)	Cursor	Function
No keys used	outline	freehand erasing
Shift	outline	erasing constrained to either horizontal or vertical direction, depending upon initial mouse movement
Alt	eyedropper	chooses new active color from selected image; user clicks on desired color to erase with
Ctrl	eraser	eraser undo the most recent (last) stroke
Ctrl + Alt	eraser	eraser undo all strokes applied with the last execution of the tool
Ctrl + Shift	eraser	eraser undo the most recent (last) stroke with a horizontal or vertical constraint
Ctrl + Shift + Alt	eraser	eraser undo all strokes applied with the last execution of the tool and a horizontal or vertical constraint
Shift + Alt	outline	same as Shift

The following table summarizes the results of each modifier key (up/down), and mouse button state (pressed/released) used with the next action performed (modifier key let up or held down, or mouse button pressed or released):

Modifier key(s) held down	Mouse button state	Action	Results
Shift	released	**hold mouse down**	Reases a straight line between the last data point and the mouse down point (if within the same invocation of the command*);* and constrains erasing to horizontal or vertical direction.
None used	pressed	**hold Shift**	Immediately begins

		down	erasing with the horizontal or vertical constraint.
Shift	pressed	**let Shift up**	Immediately begins freehand erasing at the current cursor location.
Ctrl + Shift	released	**hold mouse down**	Immediately begins to eraseer undo the last stroke applied with a horizontal or vertical direction.
Ctrl + Shift + Alt	released	**hold mouse down**	Immediately begins to eraser undo all strokes applied with a horizontal or vertical direction.
Ctrl	pressed	**hold Shift down**	Immediately begins to eraser undo the last stroke applied with a horizontal or vertical direction.
Ctrl + Alt	pressed	**hold shift down**	Immediately begins to eraser undo all strokes applied with a horizontal or vertical direction.
Ctrl + Shift	pressed	**let Shift up**	Immediately begins freehand eraser undo.
Ctrl + Shift + Alt	pressed	**let Shift up**	Immediately begins freehand eraser undo all strokes.
Ctrl + Shift	pressed	**let Ctrl Up**	Invokes the cursor that has the eraser tool with the bar through it; user has to let the mouse button up to start erasing a new stroke.
Ctrl + Shift + Alt	pressed	**let Ctrl up**	Invokes the cursor that has the eraser tool with the bar through it; user has to let the mouse button up to start erasing a new stroke.
None used	pressed	**hold Alt down**	Continues freehand erasing; does not invoke eyedropper tool.
Alt	pressed	**let mouse up**	picks up color with eyedropper tool from image and uses it to erase with

Flood Tool (Image\Paint Menu)

{button Related Topics,AL("fill cmd;paintbrush cmd;eraser cmd;paint color cmd;erase color cmd",0,`NOT_FOUND')} {button How To,AL("flood tool how",0,`NOT_FOUND')}

Floods a contiguous color area (similar adjacent pixels) with the active Paint color. For binary images this means you can select either the foreground or background color of the image to be used for the flood. Use the Flood tool to fill parts of images as you create or edit.

When you move the cursor over the selected image area, the cursor changes to the Flood Tool cursor.

You determine the contiguous color area by clicking the left mouse button on a pixel within the desired area. When you click on a pixel, all similar adjacent pixels are changed (flooded) to the active Paint color.

Paint Color Tool (Image\Paint Menu)

{button Related Topics,AL("fill cmd;paintbrush cmd;eraser cmd;flood tool cmd;erase color cmd",0,`NOT_FOUND')} {button How To,AL("paint color how",0,`NOT_FOUND')}

Allows you to select the Paint color that is used by several commands, such as Fill, Erase, Eraser, and Flood. The Paint Color tool behaves differently depending on what type of image is currently selected.

- If a binary image is selected, the Paint Color tool brings up a binary color selector palette that contains only the Foreground and Background colors that were defined in the Image Properties for the selected image.
- If a continuos tone or color index image is selected,the Paint Color tool brings up a color selector palette that allows you to select a standard basic color or create and select a customized color.
- If a grayscale image is selected the Paint Color tool brings up a color selector palette that contains only standard basic grayscale colors.

When you edit the paint color the Paint Color button updates and displays the active Paint color.

Dismiss the selector palette by clicking anywhere outside the palette.

Erase Color Tool (Image\Paint Menu)

{button Related Topics,AL("fill cmd;paintbrush cmd;eraser cmd;flood tool cmd;paint color cmd",0,`NOT_FOUND')}

Allows you to select the Erase color that is used by several commands, such as Fill, Erase, Eraser, and Flood. The Erase Color tool behaves differently depending on what type of image is currently selected.

- If a binary image is selected, the Erase Color tool brings up a binary color selector palette that contains only the Foreground and Background colors that were defined in the Image Properties for the selected image.
- If a continuos tone or color index image is selected,the Erase Color tool brings up a color selector palette that allows you to select a standard basic color or create and select a customized color.
- If a grayscale image is selected the Erase Color tool brings up a color selector palette that contains only standard basic grayscale colors.

When you edit the Erase color the Erase Color button updates and displays the active Erase color.

Dismiss the selector palette by clicking anywhere outside the palette.

Position Command (Image\Modify Menu)

{button Related Topics,AL("image size cmd;shrink borders cmd;deskew cmd;warp cmd;scale cmd;rotate cmd;mirror cmd",0,`NOT_FOUND')} {button How To,AL("position, how",0,`NOT_FOUND')}

Moves, scales, and rotates a source image to match a target image or vector frame.

This command utilizes SmartMouse functionality.

Cut Image Command (Edit/Image Menu)

{button How To,AL("cut image how",0,`NOT_FOUND')}

Cuts a selected portion of an image or the complete image to the clipboard. The clipboard is a Microsoft temporary storage area that allows you to temporarily store data for future placement.

For the Image Cut command to be active, a select area must be defined. When you select the Image Cut command, the desired data (defined with a select area) is copied to the clipboard and the select area is filled with the current erase color.

Copy Image Command (Edit/Image Menu)

{button How To,AL("copy image how",0,`NOT_FOUND')}

Copies **either** a selected portion of an image or the complete image to the clipboard. The clipboard is a Microsoft temporary storage area that allows you to temporarily store data for future placement.

For the Image Copy command to be active, a select area must be defined. When you select the Image Copy command, the desired data (defined with a select area) is copied to the clipboard and the display remains the same.

Paste Image Command (Edit/Image Menu)

{button How To,AL("paste image how",0,`NOT_FOUND')}

Pastes the clipboard contents directly into an image as a floating selection.

This command is disabled when the clipboard is empty, or any data other than image data is on the clipboard. The Image Paste command is also disabled when the data type of the image and the clipboard do not match.

The clipboard contents are always pasted at the origin of the selected image as a floating selection.

When the selected image has a select area already defined and Image Paste is selected, the select area is removed and the pasted floating selection takes its place. The floating selection will appear at the origin of the image.

Image Undo Command (Edit\Image Menu)

{button Related Topics,AL("draw high;undo repeat cmd",0,`NOT_FOUND')}  {button How To,AL("undo action how",0,`NOT_FOUND')}

Undoes the last command executed on a particular image. All undo-related operations undo/redo/purge raster data edits and raster transformations. The Image Undo command is referred to as the Undo Menu Item because the command name itself will change depending on the current order of commands that where executed on a particular image.

Use the Undo command to undo the last command executed. When you undo the last command executed, the Undo menu item name will change to reflect the command executed before the one just undone, or a disabled Undo.

When an undoable edit command is executed, the Undo menu item changes from a disabled Undo to an enabled Undo <image edit command name>.

For example, if you select Undo Gradation, the Gradation edit is removed from the image and the image updates to its prior state before the Gradation was applied. The Undo menu item changes to reflect the undoable command that was executed before the Gradation (for example: Undo Paintbrush), or if no other undoable command was executed it changes back to a disabled Undo.

The number of commands defined in the Preferences will determine how many commands the Image Undo command will go back, with a maximum of 8.

Image Undo is disabled in situations where there are no edits to undo.

Image Snap On/Off (Image Edit Toolbar)

{button Related Topics,AL("snap modes palette",0,`NOT_FOUND')}

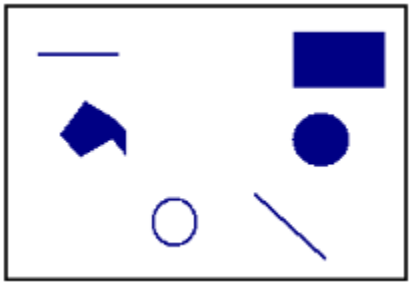
Toggles Image Snap functionality on or off. Click the Image Snap button on the Image Edit toolbar to activate and deactivate this function.

When using raster snap, holding down the CTRL key temporarily disables the raster snap. Releasing the CTRL key enables raster snap again. The smartmouse queues the last 5 snap points found. Therefore, when CTRL is held down, no new raster snap points are located, but existing ones may still be shown. Holding down the ALT key temporarily disables all smartmouse functionality (vector and raster snapping) until it is released.

Image Snap is a dynamic drawing tool that gives you the ability to snap to binary image data during creation, manipulation, or modification using vector and raster manipulation commands. The cursor changes (moves) to represent the actual "snap to" position.

Image Snap allows you to snap to the Edge or the Center of selected image data. Image data is a group of pixels with like density that represent an element (line, circle, rectangle), referred to as a raster item.

Raster Items



The Image Snap Settings are: Center and Edge Snap Modes. Set and modify these settings on the Image/Palettes/Raster Snap Modes palette.

Image Redo Command (Edit\Image Menu)

{button Related Topics,AL("draw high;redo repeat cmd",0,`NOT_FOUND')}  {button How To,AL("redo action how",0,`NOT_FOUND')}

Reverses the most recent Undo command. Redo is enabled only after execution of the Undo or Undo Through commands and brings back only the edit(s) that was just undone.

Select All Command (Edit Menu)

{button Related Topics,AL("object element selection high",0,`NOT_FOUND')}  {button How To,AL("select element how ",0,`NOT_FOUND')}

Selects all visible elements in a window.

Options Command (Image Menu)

Allows you to adjust ImageScape Draft options that affect the entire product. When you select the Options command, the Image Options dialog box appears. Options settings are remembered between sessions.

- Image Options dialog box

Repeat Last Action Command (Edit\Image Menu)

Repeats the last command executed without bringing up the GUI (dialog(s)). For example, you can execute the Gradation command in a select area on an image. Then create a new select area, and select the Repeat Last Action command to apply the same Gradation change to the new select area without bringing up and manipulating the Gradation dialog.

The Repeat Last Action command is enabled after the execution of most non-dynamic pixel editing commands (Hole Fill, Gradation, Lowpass, etc.). The Repeat Last Action command ignores commands such as Open, Place, Undo, Zoom, Position.

Set Default State and Auto Extend

1 Set the default state (ON or OFF) for the AutoExtend option on the Auto Extend button on the Standard Image Commands toolbar. The toolbar button on the toolbar displays its current state, and allows you to edit its setting at any time.

When AutoExtend is ON, the system automatically adds additional image data as required. The format (and all other attributes) of the added image data reflects the selected image. Additional image data are added only on the sides of the selected image where it is required. For example, when you paste data onto an image using the Paste command, the data are pasted in as a floating selection, and you have the ability to move the floating selection before actually pasting it into the image. If that position turns out to be on the right-side edge of the selected image, and part of the floating selection lies outside the selected image area, AutoExtend ON will automatically extend the selected image only on the right-side edge to encompass the data to be pasted.

When AutoExtend is OFF, the system creates a cut-off effect. Data outside the selected image are cut off and not pasted into the image.

{button Related Topics,AL("extend cmd;",0,`NOT_FOUND')}

Fit All Images

1 Select the Fit All Images command.

The view is updated immediately. All images are fitted to the current window.

{button Related Topics,AL("fit all images cmd",0,`NOT_FOUND')}

Fit Selected Images

1 Select the Fit Selected Images command.

The view is updated immediately. Only selected images are fitted to the current window.

{button Related Topics,AL("fit selected images cmd",0,`NOT_FOUND')}

Remove a Hole

There are three ways to designate hole size.

1 Edit the size field on the Hole Fill dialog box.

The default hole size is automatically selected. If inches are selected as the units on the File\Document Properties\Units tab, default size is .050 in. If centimeters are selected as units on the File\Document Properties\Units tab, default size is 0.127 cm. If any other units are selected on the File\Document Properties\Units tab, default size is 40.0 pixels.

You can change the units of measure at any time. Available units on the pull down are inches, centimeters, and pixels. When you change the units of measure, the hole size automatically converts to the new units.

2 Draw a box around an existing area to determine the maximum hole size to be removed.

Click and drag to define the box.

The Size field automatically updates when you draw a box.

3 Select a representative hole in the image.

Hold down the Ctrl key. The cursor changes to an eyedropper.

The Size field automatically updates when you select a representative hole.

{button Related Topics,AL("hole fill cmd;hole fill dialog",0,`NOT_FOUND')}

Modify Image Size

The Image Size command is enabled whenever a single image is selected by itself, or part of a valid select set. A valid select set contains vector data, and a single raster image. The image must not have a floating selection.

1. Select the Image Size command
2. Select the appropriate option to set the Modify controls (Original Image, Select Area, or Vector Objects).
   The Top, Bottom, Left, and Right values change according to the selection.
3. Change the appropriate values in the Modify control fields (if necessary).
4. Select OK.
   The original image changes to the new size. If the image is opened in an Image Document, the actual window size changes as well.

{button Related Topics,AL("image size cmd;imagesizedb",0,`NOT_FOUND')}

Pan a View

1. Select the Pan command.
2. Click in the view you want to pan.
3. Click in the view again to show how far you want to pan.

Tips

- You can also click and drag the mouse cursor to pan the view.
- When you click and drag the Microsoft IntelliMouse wheel, the drawing view pans. When you press and drag the mouse wheel and move the mouse cursor from one location to another, the drawing view pans from one location to another.
- To go back to the previous view, click Previous on the View menu.
- To stop the repainting of elements in the window, press ESC. This is convenient if you are working with a large document. To refresh the window, press <F5>.

{button Related Topics,AL("views high;pan cmd",0,`NOT_FOUND')}

Draw a Polygon Select Area

1. Select first point by a left click on the mouse.
2. Select subsequent points to define the polygon.

   When you select the first point, a dynamically drawn solid line connects the first point to the cursor. After additional points a solid outline of the polygon being drawn is dynamically displayed. The last vertex drawn connects the solid outline to the cursor. When the last point is placed, right click to create the Select Area and the solid outline then becomes a dotted outline.

   While drawing a Polygon shaped Select Area you can backup a point at a time using the backspace key. When you select the backspace key the last line segment in the solid outline is deleted and you can continue creating the Select Area from the previous point. You can backup through the first point placed by continually hitting the backspace key.

{button Related Topics,AL("polygon cmd;density flood cmd;rectangle cmd;entire image cmd",0,`NOT_FOUND')}

Purge Undo Through

When you click on a command listed in the stack, that command and all the commands listed above it are deleted (purged) from the Undo Through cascading menu. The most recently used command is listed last.

1. Select the Purge Undo Through command.
2. Select a command from the command stack.

{button Related Topics,AL("purge undo through cmd",0,`NOT_FOUND')}

Revert to a Saved Image

1. Select the Revert to Saved command.

   A message dialog displays asking if you want to revert to the last saved version of the active image.
2. Click OK to revert the image back to its last saved version, or click Cancel to end the command without reverting to the last saved version.

   When you click OK the image redisplays using the last saved version on disk.

{button Related Topics,AL("revert to saved cmd",0,`NOT_FOUND')}

Save an Image

If you save an image that has not previously been saved, the software automatically prompts you to indicate if you want to save the changes.

To save the active image

1. On the File menu, click Save.
2. If you have made changes since the image was last saved or if you have never saved the active image, you are prompted to indicate if you want to save your changes. Do one of the following:

- If you do not want to save your changes, click the No button.
- If you want to save the changes, click the Yes button. If you click the Yes button, the Save As dialog box is displayed so that you can give the image a name and specify a directory and format to save it to.
- If you do not want to close the image, click the Cancel button.

To save an image in a different format

1. On the File menu, click Save As.
2. On the Save Image As dialog box**,** in the Save in box, select the drive and directory for the new image.
3. In the File Name box, type a new name for the image.
4. In the Save As Type box, select the image format you want to use.

After the Save button is selected on the Save Image As dialog box, if format options are available for the selected image type , the Options dialog appears.

5. Select the appropriate options for the selected standard and data type.

The Options dialog does not appear in the following cases:

Binary image: Ingr G4, Ingr Tg4, Bmp, Pcx

Grayscale image: Gif, Bmp, Pcx

RGB image: Bmp, Pcx

When you select OK on the Options dialog, the Save operation begins immediately. If you select Cancel, you are returned to the Save Image As dialog box.

Tips

- If the active image is read-only, you can save changes only by saving the image with a new name.
- When you execute the Save As command, the new image is linked to the smart frame in place of the previous image.

{button Related Topics,AL("save cmds;document high;save high;save image cmd",0,`NOT_FOUND')}

Select an Image at 1:1 Resolution

1. Command is active anytime an image is inserted into the document.
2. Select the Selected Image at 1:1 command.
3. Select a point on any image.

   The view of the image is set at a 1:1 view of the image around the position of the click using the image resolution and screen resolution.

   The window itself does not resize.

{button Related Topics,AL("select image at 1:1 cmd",0,`NOT_FOUND')}

Shrink Binary Image Borders

1. Select a binary image.
2. Select the Shrink Border command.
   The borders of the selected binary images are immediatly shrunk to fit the data.

{button Related Topics,AL("shrink border cmd",0,`NOT_FOUND')}

Remove Speckles

There are three ways to designate speckle size.

1 Edit the size field on the Speckle Remove dialog box

The default speckle size is automatically selected. If inches are selected as the units on the File\Document Properties\Units tab, default size is .050 in. If centimeters are selected as units on the File\Document Properties\Units tab, default size is 0.127 cm. If any other units are selected on the File\Document Properties\Units tab, default size is 40.0 pixels.

You can change the units of measure at any time. Available units on the pull down are inches, centimeters, and pixels. When you change the units of measure, the speckle size automatically converts to the new units.

2 Draw a box to determine the maximum speckle size to be removed.

Click and drag to define the box.

The Size field automatically updates when you draw a box.

3 Select a representative speckle in the image.

Hold down the Ctrl key. The cursor changes to an eyedropper.

The Size field automatically updates when you select a representative speckle.

{button Related Topics,AL("speckle removal cmd;speckle remove dialog",0,`NOT_FOUND')}

Undo Through

When you click on a command listed in the stack, that command and all the commands listed above it are undone.

1. Select the Undo Through command.
2. Select a command from the command stack.

{button Related Topics,AL("undo through cmd",0,`NOT_FOUND')}

Zoom Area

1. Select the Zoom Area command. The cursor changes to the default crosshair.
2. Click and hold the left mouse button. A solid outline dynamically draws as you drag the mouse.
3. Once the desired area is within the outline, release the mouse button. The resulting outlined area becomes the new view (the outline disappears and the cursor changes back to the current cursor).

   The new view is defined as the largest possible scale that will allow the entire outlined area to display in the current window dimensions. The center of the outlined area becomes the center of the new view.

{button Related Topics,AL("zoom area cmd",0,`NOT_FOUND')}

Zoom Out

1. Select the Zoom Out command. The cursor changes to the Zoom Out cursor.
2. Click in the selected window or use dynamic drag mode.

   If you click in the window the view reduces around the position of the click using a zoom factor of 2.

   To use dynamic drag mode, hold down the left mouse button and drag. The image zooms out according to the drag distance.

{button Related Topics,AL("zoom out cmd",0,`NOT_FOUND')}

Smooth a Binary Image

1. Select an area of the image to smooth. By default the entire image is selected.
2. Select the Smooth command. The Smooth dialog box appears.
3. Check the Add Foreground Pixel option or the Delete Foreground Pixel option. Both options can be active at the same time.
4. Click OK.

   If the Add Foreground Pixel option is checked, the software replaces a background pixel that is causing a break in a string of foreground pixels with a foreground pixel.

   If the Delete Foreground Pixel Option is checked, the software removes all stray foreground pixels.

{button Related Topics,AL("smooth cmd;smooth dialog",0,`NOT_FOUND')}

Perform a Gamma Adjustment

1. Select an area of the image. By default the entire image is selected. If a select area is defined, changes are made directly to the image. If the entire image is selected, a Look Up Table (LUT) is used to alter the image display.
2. Select the Gamma command. The Gamma dialog box appears.
3. Change the gamma value in the slider bar or the edit box. The default value is 1.0. Lowering the gamma below 1.0 will cause the image to become darker. Increasing the gamma above 1.0 will cause the image to become lighter. As you move the slider bar, the value in the edit box changes.
4. Select Preview Current Settings to reflect the new gamma value setting in the Preview window.
5. Select the Store button to store the new value setting.
6. Click OK.

{button Related Topics,AL("gamma cmd;gamma dialog",0,`NOT_FOUND')}

Perform Gradation

1. Select an area of the image. By default the entire image is selected. If a select area is defined, changes are made directly to the image. If the entire image is selected, a Look Up Table (LUT) is used to alter the image display.
2. Select the Gradation command. The Preview window and the Gradation dialog box appear.
3. Modify command options, if desired.
4. Make tonal changes by clicking and dragging, entering values in the key-in area, or loading a previously-saved curve.
6. Click OK.

{button Related Topics,AL("gradation cmd;gradation dialog",0,`NOT_FOUND')}

Threshold

1. Select an area of the image. By default the entire image is selected. If a select area is defined, changes are made directly to the image. If the entire image is selected, a Look Up Table (LUT) is used to alter the image display.
2. Select the Threshold command. The Preview window and the Threshold dialog box appear.
3. Set the threshold value using the slider bar or the edit box. The default value is 127 the first time you select the Threshold command. Thereafter the default value is the most recently used value.

   As you move the slider bar, the edit box updates to reflect the new value.
4. Select the Preview button to preview the edit.
5. Store the new setting or go back to the initial settings.
6. Click OK.

{button Related Topics,AL("threshold cmd;threshold dialog",0,`NOT_FOUND')}

Invert an Image

1. Select an area of the image. By default the entire image is selected. If a select area is defined, changes are made directly to the image. If the entire image is selected, a Look Up Table (LUT) is used to alter the image display.
2. Select the Invert command. Image pixel values are inverted.

   Inverting a binary image swaps all foreground and background pixel values.

   Inverting a positive continuous tone image to a negative, the brightness value for a pixel converts to its inverse value. For example, a value of 90% converts to 10%.

   Inverting a negative continuous tone image to a positive, the brightness value for a pixel converts to its inverse value. For example, a value of 10% converts to 90%.

{button Related Topics,AL("invert cmd",0,`NOT_FOUND')}

Perform a Median Edit

1. Select an area of the image. By default the entire image is selected.
2. Select the Median command. The Median dialog box appears.
3. Select the Width, Height, and Shape for the edit.

   The Width and Height options allow you to adjust the height and width of the matrix used for the convolution kernel.

   The Shape option allows you to determine the shape (Block or Cross) of the kernel to be used.
4. Store these settings or go back to initial settings. To preview the command again, modify the settings and select the Preview button again.
5. Click OK.

{button Related Topics,AL("median cmd;median dialog",0,`NOT_FOUND')}

Perform a Lowpass Edit

1. Select an area of the image. By default the entire image is selected.
2. Select the Lowpass command. The Lowpass dialog box appears.
3. Select the Width and Height for the edit.

   The Width and Height options allow you to adjust the height and width of the matrix used for the convolution kernel.
4. Store these settings or go back to initial settings. To preview the command again, modify the settings and select the Preview button again.
5. Click OK.

{button Related Topics,AL("lowpass cmd;lowpass dialog",0,`NOT_FOUND')}

Perform a Highpass Edit

1. Select an area of the image. By default the entire image is selected.
2. Select the Highpass command. The Highpass dialog box appears.
3. Select the Width, Height, and Center Weight for the edit.

   The Width and Height options allow you to adjust the height and width of the matrix used for the convolution kernel.

   By default the Center Weight is the product of the Width value multiplied by the Height value. You can edit Center Weight separately.
4. Store these settings or go back to initial settings. To preview the command again, modify the settings and select the Preview button again.
5. Click OK.

{button Related Topics,AL("highpass cmd;highpass dialog",0,`NOT_FOUND')}

Perform Edge Enhancement

1 Select an area of the image. By default the entire image is selected.

2 Select the Edge Enhancement command.

The visual boundaries (edges) between areas of contrasting brightness are enhanced, making the light pixels lighter, and the dark pixels darker.

{button Related Topics,AL("edge enhance cmd",0,`NOT_FOUND')}

Set Unsharp Masking Settings

1. Select an area of the image. By default the entire image is selected.
2. Select the Unsharp Masking command. The Unsharp Masking dialog box appears.
3. Select one of the five Settings.
4. Select the Customize button to customize the selected setting.
5. Store these settings or go back to initial settings. To preview the command again, modify the settings and select the Preview button.
6. Click OK.

{button Related Topics,AL("unsharp masking cmd;unsharp masking dialog",0,`NOT_FOUND')}

Warp an Image

1. Select the image to be warped.
2. Select the Warp command. The warp ribbon bar appears and you are perompted to enter Source Point 1.
3. Select the desired zoom factor and Warp Model.
4. Access the Warp options dialog box to select display only or resample mode and to load a saved set of points (if desired). You can also set the Resample method or you can immediately start collecting source and destination points.
5. Collect the desired number of points for the warp, then select Finish to execute it. The Cancel button is active until the minimum number of points is reached, then it changes to Finish.

{button Related Topics,AL("warp cmd;warp dialog;warp RB",0,`NOT_FOUND')}

Deskew an Image

1. Select the image to be deskewed.
2. Select the Deskew command. You are prompted to click first point of line.
3. Click the first point of the line. You are prompted to click last point to define line.
4. Click the last point to define the line.
5. If the line is 45 degrees or less from horizontal the line will be rotated to horizontal. If the line is more than 45 degrees from horizontal the line will be rotated to vertical. After this last input point, the rotation will occur immediately and control will return to the last persistent command

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{button Related Topics,AL("deskew cmd",0,`NOT_FOUND')}

Scale an Image

1. Select the image to be scaled.
2. Select the Scale command. The Scale dialog box appears.
3. Enter a scale factor.
   Numbers between 0 and 1 reduce the image.
   Numbers greater than 1 enlarge the image.
   Numbers equal to or less than 0 are invalid.
4. Click OK.

{button Related Topics,AL("scale cmd;scale dialog",0,`NOT_FOUND')}

Rotate an Image

1. Select the image to be scaled or define select areas\floating areas.
2. Select the Rotate command. The Rotate dialog box appears.
3. Click the desired angle and direction to rotate the select set, or click Arbitrary angle and define the angle and direction.
4. Click OK.

   The image is rotated using the specified angle, and automatically resampled.

{button Related Topics,AL("rotate cmd;rotate dialog",0,`NOT_FOUND')}

Horizontally Mirror an Image

1. Select the image to be mirrored or define select areas\floating areas.
2. Select the Mirror Horizontal command.

   The command is executed. The select set display is changed to display a horizontally mirrored image of the original select set.

{button Related Topics,AL("mirror horizontal cmd",0,`NOT_FOUND')}

Vertically Mirror an Image

1. Select the image to be mirrored or define select areas\floating areas.
2. Select the Mirror Vertical command.

   The command is executed. The select set display is changed to display a vertically mirrored image of the original select set.

{button Related Topics,AL("mirror vertical cmd",0,`NOT_FOUND')}

Interactively Merge Vector Data into Raster Data

To manually merge vectors into an image:

1. Select a binary image and a vector object to be merged in a hybrid document.
2. Select the Merge Interactive command. The Merge Vector dialog bar appears.
3. Select the color to use for merging the selected vector objects. The default is Merge Using Paint Color.
4. Select the Delete Vector On/Off button, depending on if you want the vectors to be automatically deleted following the merge.
5. Select the Merge Selected button. The merge is executed.

To automatically merge vectors into an image:

1. Turn on the Auto Burn On\Off button. The button should appear depressed when Auto Burn is on.
2. Place a vector on the sheet. The vector is automatically merged into the active binary image.

   If the Delete Vector On/Off button is on, the vector is deleted from the sheet after the merge takes place.

   If you close the Merge Vector dialog bar and Auto Burn is on, vectors will continue to be merged automatically into the active image, and if Delete Vector is on, the vectors will be deleted after merging.

{button Related Topics,AL("interactive merge cmd",0,`NOT_FOUND')}

Merge Image to Image

1. Create a select set of at least *2* images that are the same type.
2. Select the Image to Image command. The Image to Image dialog box appears.
3. Change the default target image (if desired).
4. Select the merge method (binary only).
5. Click OK.

   The selected images are merged together in the target image. The properties of the target image are automatically applied to the merged image (density, colors, orientation, etc.).

{button Related Topics,AL("image to image merge cmd;image to image dialog",0,`NOT_FOUND')}

Merge Vector Data into Raster Data

1. Select at least one binary image and one vector object to be merged in a hybrid document. This command allows you to merge more than one object and image at one time.
2. Select the Merge Vector to Image command. The Vector to Image dialog bar appears.
3. Select the color (Paint Color or Erase Color) to use for merging the selected vector objects. The default is Merge Using Paint Color.
4. Click OK.

{button Related Topics,AL("vector to image merge cmd;vector to image dialog",0,`NOT_FOUND')}

Close an Image

1. On the File menu, click Close.
2. If you have made changes since the image was last saved or if you have never saved a new image, you are prompted to indicate if you want to save your changes. Do one of the following:

- If you do not want to save your changes, click the No button.
- If you want to save the changes, click the Yes button. If you click the Yes button, the Save As dialog box is displayed so that you can give the image a name and specify a directory and format to save it to.
- If you do not want to close the image, click the Cancel button.

{button Related Topics,AL("close cmd;save as db",0,`NOT_FOUND')}

Save an Image

If you save an image that has not previously been saved, the software automatically prompts you to indicate if you want to save the changes.

To save the active image

1. On the File menu, click Save.
2. If you have made changes since the image was last saved or if you have never saved the active image, you are prompted to indicate if you want to save your changes. Do one of the following:

- If you do not want to save your changes, click the No button.
- If you want to save the changes, click the Yes button. If you click the Yes button, the Save As dialog box is displayed so that you can give the image a name and specify a directory and format to save it to.
- If you do not want to close the image, click the Cancel button.

To save an image in a different format

1. On the File menu, click Save As.
2. On the Save Image As dialog box**,** in the Save in box, select the drive and directory for the new image.
3. In the File Name box, type a new name for the image.
4. In the Save As Type box, select the image format you want to use.

After the Save button is selected on the Save Image As dialog box, if format options are available for the selected image type , the Options dialog appears.

5. Select the appropriate options for the selected standard and data type.

The Options dialog does not appear in the following cases:

Binary image: Ingr G4, Ingr Tg4, Bmp, Pcx

Grayscale image: Gif, Bmp, Pcx

RGB image: Bmp, Pcx

When you select OK on the Options dialog, the Save operation begins immediately. If you select Cancel, you are returned to the Save Image As dialog box.

Tips

- If the active image is read-only, you can save changes only by saving the image with a new name.
- When you execute the Save As command, the new image is linked to the smart frame in place of the previous image.

{button Related Topics,AL("save cmds;document high;save high;save image cmd",0,`NOT_FOUND')}

Resample Original Image

1. Select a single image to resample.
2. Select the Resample Original Image command. The Resample original Image dialog box appears.
3. Designate the appropriate options to use for resampling the selected image.
4. Click OK.

{button Related Topics,AL("resample original image cmd;resample original image dialog",0,`NOT_FOUND')}

Resample As Displayed

1. Alter a single image. For example rotate the smartframe.
2. Select the Resample As Displayed command. The Resample As Displayed dialog box appears.
3. Review display orientation and resolution values.
4. Designate new values to use for resampling the selected image (if desired).
4. Click OK.

{button Related Topics,AL("resample as displayed cmd;resample as displayed dialog",0,`NOT_FOUND')}

Convert to Binary

1. Select a grayscale image.
2. Select the Convert to Binary Command. The Binary dialog box appears.
3. Enter a Threshold value.
4. Click OK.

{button Related Topics,AL("convert to binary cmd;convert to binary dialog",0,`NOT_FOUND')}

Convert to Grayscale

1. Select a binary or RGB image. If 2 or more images of the same type are selected together, you can convert all of them together.
2. Select the Convert to Grayscale Command.

{button Related Topics,AL("convert to grayscale cmd",0,`NOT_FOUND')}

Convert to RGB

1. Select a grayscale or color index image. If 2 or more images of the same type are selected together, you can convert all of them together.
2. Select the Convert to RGB Command.

{button Related Topics,AL("convert to rgb cmd",0,`NOT_FOUND')}

Perform a Contrast/Brightness Adjustment

1. Select an area of the image. By default the entire image is selected. If a select area is defined, changes are made directly to the image. If the entire image is selected, a Look Up Table (LUT) is used to alter the image display.
2. Select the Contrast/Brightness command. The Contrast/Brightness dialog box appears.
3. Change the contrast and/or brightness value in the slider box or the edit boxes. As you move the slider bar, the corresponding value(s) in the edit box(es) changes.
4. Select Preview Current Settings to reflect the new value setting(s) in the Preview window.
5. Select the Store button to store the new value setting.
6. Click OK.

{button Related Topics,AL("contrast_brightness cmd;contrast_brightness dialog",0,`NOT_FOUND')}

Use the Fill Tool

1. Select an area of the image. By default the entire image is selected.
2. Select the Fill tool. The Fill dialog box appears.
3. Select which Color (Paint or Erase) to use, and the Opacity level to apply. For binary images Opacity is disabled.
4. Click OK.

{button Related Topics,AL("fill cmd;fill dialog",0,`NOT_FOUND')}

Use the Erase Tool

1 Select an area of the image. By default the entire image is selected.

2 Select the Erase tool.

{button Related Topics,AL("erase cmd",0,`NOT_FOUND')}

Use the Paintbrush Tool

1. Select the Paintbrush tool. As you move the cursor over the selected image, the cursor changes to an outline that reflects the chosen brush size.
2. Modify brush settings (if desired) through the Brush Manager palette.
3. Modify paint color (if desired) through the Paint Color command.
4. Paint in the selected image.

{button Related Topics,AL("paintbrush cmd;brush manager palette;paint color cmd",0,`NOT_FOUND')}

Use the Eraser Tool

1. Select the Eraser tool. As you move the cursor over the selected image, the cursor changes to an outline that reflects the chosen brush size.
2. Modify brush settings (if desired) through the Brush Manager palette.
3. Modify paint color (if desired) through the Erase Color command.
4. Erase in the selected image.

{button Related Topics,AL("eraser cmd;brush manager palette;erase color cmd",0,`NOT_FOUND')}

Use the Flood Tool

1. Create a select area. By default the entire image is selected.
2. Select the Flood Tool. As you move the cursor over the selected image area, the cursor changes to the Flood Tool cursor
3. Select a pixel to flood, and all adjacent pixels that are the same color will change to the active Paint color.
4. Hold down the Alt key to select a color from the selected image (if desired). While Alt is held down the eyedropper cursor becomes the new cursor.
5. Release the Alt key on a pixel to make it the new active Paint color, then select a pixel to flood using the new color.

{button Related Topics,AL("flood tool cmd;paint color cmd",0,`NOT_FOUND')}

Position an Image

1. Select the Position command.

   You define source and target points by placing two source and target points. The first set of points moves and scales the image, the second pair of points rotates.
2. Single click to select a source point on the source image.
3. Release the left mouse button, or single click over the target location, to place the target point.

   The image is moved and scaled.
4. Single click to select source point 2 on the source image.
5. Release the left mouse button, or single click over the target location, to place target point 2.

   The image is rotated.

{button Related Topics,AL("position cmd",0,`NOT_FOUND')}

Cut Image Data

1. Define a select area. If you want to cut the entire image, define the entire image as the select area.
2. Select the Image Cut command. The desired data (defined with a select area) is copied to the clipboard and the select area is filled with the current Erase Color.

{button Related Topics,AL("cut image cmd;copy image cmd;paste image cmd",0,`NOT_FOUND')}

Copy Image Data

1 Define a select area. If you want to copy the entire image, define the entire image as the select area.

2 Select the Image Copy command. The desired data (defined with a select area) is copied to the clipboard and the display remains the same.

{button Related Topics,AL("cut image cmd;copy image cmd;paste image cmd",0,`NOT_FOUND')}

Paste Image Data

1 .Select the Image Paste command. Clipboard contents are pasted as a floating selection.
If no select area is defined in the active image, the floating selection appears at the origin of the selected image.
If a select area exists in the active image, the floating selection appears in place of the select area.

{button Related Topics,AL("cut image cmd;copy image cmd;paste image cmd",0,`NOT_FOUND')}

Select an Element

1 On the Main toolbar, click the Select Tool button.

2 Do one of the following:

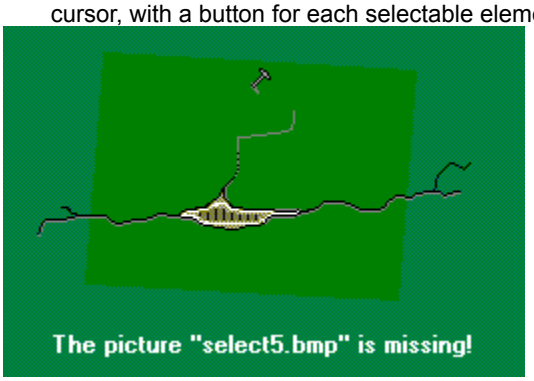
- To select one element, click it.
- To select more than one element hold the SHIFT or CTRL key and click each element.
- To select more than one element at once, drag to fence the objects.
- To select one of several overlapping elements, use PickQuick.

To select an element with PickQuick

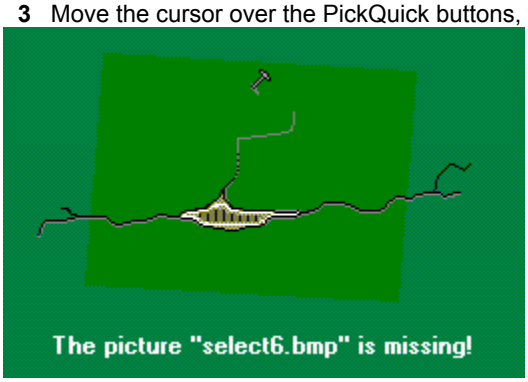
PickQuick helps you to select elements that overlap each other.

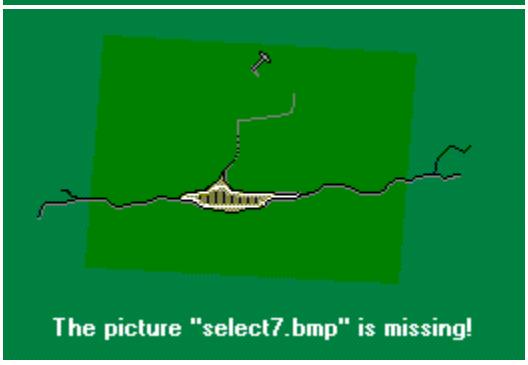
1 Position the mouse cursor over the element you want to select and pause the mouse cursor there.

2 When the cursor changes to an ellipsis (three dots), click. The software displays the PickQuick toolbar near the cursor, with a button for each selectable element.



3 Move the cursor over the PickQuick buttons, without clicking, to highlight the corresponding elements.





4 When the element you want to select is highlighted, click the corresponding button on the PickQuick toolbar.

To clear a selection

- Do one of the following:
- Click in free space.
- Click the right mouse button in free space.
- Select another element without holding the SHIFT or CTRL key.

- To clear the selection of one element and leave other elements selected, click the element while holding the SHIFT key.

Tips

- When the Select Tool is active, selectable elements highlight as you pass the mouse cursor over them. When the element you want to select is highlighted, click to select it.
- You can use the ribbon bar buttons to set element selection options.
- You can change the element highlight and selection colors with the Options command on the Tools menu.

{button Related Topics,AL("object element selection high;select cmd",0,`NOT_FOUND')}

Brush Manager Palette (Image/Palettes Menu)

{button Related Topics,AL("brush options dialog",0,`NOT_FOUND')}

The Brush Manager palette designates the characteristics for the Paintbrush and Erase tools. You edit the Opacity, Spacing, Diameter (size), and Flatness attributes associated with these commands. You can load brush libraries and edit them by creating new brushes, or changing existing ones. Right click in the title bar of the Brush Manager palette to access the options shown in the following list:

New Brush - allows you to create and add a new brush to the current brush library. Selecting this option opens the Brush Options dialog box, where you can create a new brush and add it to the next available slot in the loaded brush library.

Open Brush Library - allows you to open a previously saved brush library. If you select a brush library with this dialog box, the selected one replaces the one currently opened.

Append Brush Library - allows you to choose an existing brush library and add it to the one currently opened. If you select a brush library with this dialog box, the selected one is added (at the end) to the one currently opened.

Save Brush Library - allows you to save the currently opened brush library.

Options - allows you to display the Brush Options dialog box for the currently selected brush (same as double clicking on a brush on the Brush Manager palette).

Delete Brush - allows you to delete the currently selected brush from the brush library. When a brush is deleted, the next brush (brush to the right of the just deleted one) becomes the newly selected brush. If there is no brush on the rightside, the one on the left becomes the newly selected brush. If there is only one brush in the current brush library this option is disabled.

Move - allows you to move the currently selected brush.

Palette Options

The Opacity control sets the opacity (translucency) of the paint being applied. 0% opacity is invisible (no change), and 100% opacity is totally opaque. The default value for the first invocation of Imagescape Draft is 0. For all other invocations, the default value is the value when the product was last used.

The Spacing control adjusts the spacing between each stroke of paint. Adjustment is done as a percentage of the brush size. For example, if spacing is 50%, the paint tool should paint the first stroke, then wait until the brush is moved half the size of the actual brush before it applies another stroke. The default value for the first invocation of ImageScape Draft is 1. For all other invocations, the default value is the value when the product was last used.

The brush size window displays pictures of the brushes that are in the currently-loaded brush library.

Brush Options Dialog Box

{button Related Topics,AL("brush manager palette",0,`NOT_FOUND')}

Dialog Box Options

The Brush Options dialog box contains the brush specific controls that allow you to edit the shape and size of the currently selected brush.

Round Brush

Creates a round-shaped brush.

Square Brush

Creates a square-shaped brush.

Diameter

Allows you to specify the size of the brush (radius) in pixels.

Flatness

Indicates what percentage of the radius is filled with 100% of the current Opacity setting on the Brush Manager palette. This allows for a smaller or larger soft edge around the brush.

Hole Fill Dialog Box

{button Related Topics,AL("hole fill cmd",0,`NOT_FOUND')}  {button How To,AL("hole fill how",0,`NOT_FOUND')}

Dialog Box Options

Hole Size

Shows default hole size and units. If inches are selected as the units on the File\Document Properties\Units tab, default size is .050 in. If centimeters are selected as units on the File\Document Properties\Units tab, default size is 0.127 cm. If any other units are selected on the File\Document Properties\Units tab, default size is 40.0 pixels.

You can change the units of measure at any time. Available units on the pull down are inches, centimeters, and pixels. When you change the units of measure, the hole size automatically converts to the new units.

Preview Control Pad

Controls what is displayed in the preview window.

When you define the hole size, you can store this setting, or go back to initial setting. To preview the command again, you draw another rectangle, select an existing hole, or edit the size field, and select the Preview button again.

Image Size Dialog Box

{button Related Topics,AL("image size cmd",0,`NOT_FOUND')} {button How To,AL("modify image size, how",0,`NOT_FOUND')}

Dialog Box Options

Set Modify Controls Using

Select the original image, its select area, or a vector object(s) as a starting point for resizing an image. When the Original Image button is selected, use the Modify Controls to change the image size. When you select the Select Area or Vector Objects button, they can be immediately used as the new size without any further modifications. Only one option can be selected at a time.

Original Image

Original Image is the default. It is also the only button that will always be enabled (an image has to be selected to invoke the Image Size command).

When Original Image is selected, all fields in the Modify Controls area are *0.* An automatic adjustment is not necessary because the actual size of the original image is being used as a reference for changing the image size.

The New Size area displays the original image size until one of the Modify controls is changed.

The Original Size area displays the original image size at all times.

Selecting Original Image does not resize the image,it is used strictly as a starting point to change the size of the active image via the Modify controls.

Select Area

This option is enabled if the active image contains a select area.

If the select area is not a complete rectangular shape, the system uses the 4 boundaries (top, bottom, left, and right) of the shape to conceptually create a rectangle that encompasses the entire select area.

When you select Select Area, all fields in the Modify Controls area change according to the position and size of the select area in relation to the actual image. The values reflect what will be cropped from the image so that the select area is the new size.

The New Size area displays the select area size until one of the Modify controls is changed.

The Original Size area displays the original image size at all times.

Vector Objects

This option is enabled only if the select set contains one or more vector objects.

When you select Vector Objects, the image automatically extends to the end of all the selected vector objects that are outside the image boundaries. If two or more vector objects extend outside the same boundary (top, bottom, left, or right), the image extends to the farthest vector end point. End points of vector objects that are within the image boundaries are ignored.

When an image extends to the edge of a vector(s) it extends to the bounding box of each element. This ensures that a warped, skewed, or rotated image is extended correctly.

When you select Vector Objects, all fields in the Modify Controls area change according to the position and size of the selected vector object(s) in relation to the actual image. The values reflect what is needed to extend the image to the vector end point(s).

The New Size area displays the new image size (extended to vector end points) until one of the Modify Controls is changed.

The Original Size area display the original image size at all times.

Modify Controls

The Modify Control area gives you the ability to adjust image size, and gives you complete freedom to determine where an image will be extended or cropped.

You can add image data to one side while removing image data from another.

The Top, Bottom, Left, and Right controls will automatically display the necessary changes whenever Select Area

or Vector Objects is selected. You can then do additional adjustments to the image size using these Modify Controls.

The Top, Bottom, Left, and Right controls allow both positive and negative values.

Units

The Units area is where you select the units of measure to display image size information. The default units are the current units used in ImageScape Draft. After the first invocation of the dialog box the default units are the units in effect the last time you exited the dialog box using the OK button.

The units of measure available for the Image Size dialog box are inches(in), centimeters(cm), and pixels.

When the units of measure are changed, the value fields in the Modify Controls, New Size, and Original Size areas automatically convert the values to the new units and display the new units.

New Size

The New Size area displays the current new *size* in the currently selected units using the original image size, and the values in the Top, Bottom, Left, and Right controls in the Modify Controls area. This will be the new size applied to the image when the command is executed.

The Width and Height values change whenever any Set Modify Using control or Modify control is changed.

- Width is the sum of the original image width, the Left value, and the Right value.
- Height is the sum of the original image height, the Top value, and the Bottom value.

You cannot directly edit the Width and Height fields.

Original Size

The Original Size area displays the original size of the active image in the current units of measure. This size is used only as a reference, and should never change. It will, however, automatically convert whenever the units of measure are changed.

Speckle Remove Dialog Box

{button Related Topics,AL("speckle removal cmd",0,`NOT_FOUND')}  {button How To,AL("speckle removal how",0,`NOT_FOUND')}

Dialog Box Options

Speckle Size

Shows default speckle size and units. If inches are selected as the units on the File\Document Properties\Units tab, default size is .050 in. If centimeters are selected as units on the File\Document Properties\Units tab, default size is 0.127 cm. If any other units are selected on the File\Document Properties\Units tab, default size is 40.0 pixels.

You can change the units of measure at any time. Available units on the pull down are inches, centimeters, and pixels. When you change the units of measure, the speckle size automatically converts to the new units.

Preview Control Pad

Controls what is displayed in the preview window.

When you define the speckle size, you can store this setting, or go back to initial setting. To preview the command again, you draw another rectangle, select an existing hole, or edit the size field, and select the Preview button again.

Smooth Dialog Box

{button Related Topics,AL("smooth cmd",0,`NOT_FOUND')}  {button How To,AL("smooth how",0,`NOT_FOUND')}

Dialog Box Options

The edit area is the entire active image unless a select area has been created.

Add Foreground Pixel option ON - the command replaces a background pixel that is causing a break in a string of foreground pixels with a foreground pixel.

Delete Foreground Pixel option ON - the command removes all stray foreground pixels.

The Add Foreground Pixel and Delete Foreground Pixel options can be ON at the same time.

Gamma Dialog Box

{button Related Topics,AL("gamma cmd",0,`NOT_FOUND')}  {button How To,AL("gamma how",0,`NOT_FOUND')}

Dialog Box Options

Gamma Value Adjustment

Changes the gamma value by the slider bar or the edit box. The default value is 1.0. Lowering the gamma below 1.0 will cause the image to become darker. Increasing the gamma above 1.0 will cause the image to become lighter. As you move the slider bar, the value in the edit box changes

Preview Control Pad

Controls what is displayed in the preview window.

View Original Image - Preview window displays the image using original gamma value settings.

Preview Current Settings - Preview window displays the image using new gamma value settings.

Preview Stored Settings - Enabled only if there are stored gamma values. Preview window displays the image using these stored gamma value settings.

Gradation Dialog Box

{button Related Topics,AL("gradation cmd",0,`NOT_FOUND')}{button How To,AL("gradation how",0,`NOT_FOUND')}

Dialog Box Options

Gradation Graph

Click and drag individual line(s) to adjust gradation.

Reset Button

Resets values to the original settings.

Load Button

Brings up the Load Settings dialog box that retrieves a saved curve (graph) so that you can use it for manipulating the current select area or image. The default extension for gradation curves is .cur

Save Button

Brings up the Save Settings dialog box that saves the displayed curve (graph) so that it can be used on other select areas or images. The default extension for gradation curves is .cur.

Key-In Button

Pops down a key-in pad that allows you to key-in appropriate values for every color channel in each tonal area. The curves update whenever a value is keyed-in. The key-in pad manipulates the graph in the same manner as dragging a color band within the graph itself, but the key-in pad allows you to be more exact. Key-in entries must be numerical, and range from 0 - 100.

Options Button

Brings up the Gradation Options dialog box that allows you to change the way a curve affects the graph (Mode). It also allows you to place User Points for control and boundary regions for curve manipulations.

Preview Control Pad

Controls what is displayed in the preview window.

View Original Image - Preview window displays the image using original gradation value settings.

Preview Current Settings - Preview window displays the image using new gradation value settings.

Preview Stored Settings - Enabled only if there are stored gradation values. Preview window displays the image using these stored gradation value settings.

Gradation Options Dialog Box

{button Related Topics,AL("gradation cmd;gradation dialog",0,`NOT_FOUND')} {button How To,AL("gradation how",0,`NOT_FOUND')}

Dialog Box Options

Mode

Local Curve Mode - Applies changes in a bell curve shape. The maximum change is applied to the peak of the bell shape while the rest of the changes tapers off to the sides. Local is the default curve mode.

Etch Curve Mode - Applies the same amount of change in all tonal areas. This curve will keep the existing shape of the curve when it is dragged.

Linear Curve Mode - Applies the same amount of change in all tonal areas, but unlike Etch mode, it changes the curve into the default shape when it is dragged.

Power Curve Mode - Works similar to the Local mode except that it affects a much wider range than a bell curve.

User Points Check Box

Check to activate Boundaries and Control Point.

Boundary 1\Boundary 2 Edit Boxes

Key in values for the boundary for control point edits. Value range is 0-100.

Control Point Edit Box

Controls where on the graph an edit takes place. Value range is 0-100.

Threshold Dialog Box

{button Related Topics,AL("threshold cmd",0,`NOT_FOUND')}{button How To,AL("threshold how",0,`NOT_FOUND')}

Dialog Box Options

Threshold Value Adjustment

Changes the threshold value by the slider bar or the edit box. All image pixels with a density value lower than the threshold value will be changed to black, and pixels with values higher than the threshold value will be white. As you move the slider bar, the value in the edit box changes

Preview Control Pad

Controls what is displayed in the preview window.

View Original Image - Preview window displays the image using original threshold value settings.

Preview Current Settings - Preview window displays the image using new threshold value settings.

Preview Stored Settings - Enabled only if there are stored threshold values. Preview window displays the image using these stored threshold value settings.

Preview Button - Displays the image using new threshold value settings.

Store Button - Stores the new threshold settings for later use.

Median Dialog Box

{button Related Topics,AL("median cmd",0,`NOT_FOUND')}  {button How To,AL("median how",0,`NOT_FOUND')}

Dialog Box Options

The dialog box options allow you to adjust the width, height, and shape of the matrix used for the convolution kernel.

Width\Height

Range 1-10. Default value is 3. As you move the slider bar, the number in the edit box changes to reflect the new value.

Shape

Determines the shape of the kernel to be used Options are Block and Cross. The default is Block.

Preview Control Pad

Controls what is displayed in the preview window.

View Original Image - Preview window displays the image using original median value settings.

Preview Current Settings - Preview window displays the image using new median value settings.

Preview Stored Settings - Enabled only if there are stored median values. Preview window displays the image using these stored median value settings.

Preview Button - Displays the image using new median value settings.

Store Button - Stores the new median settings for later use.

Lowpass Dialog Box

{button Related Topics,AL("lowpass cmd",0,`NOT_FOUND')} {button How To,AL("lowpass how",0,`NOT_FOUND')}

Dialog Box Options

The dialog box options allow you to adjust the width and height of the matrix used for the convolution kernel.

Width\Height

Range 1-10. Default value is 3. As you move the slider bar, the number in the edit box changes to reflect the new value.

Preview Control Pad

Controls what is displayed in the preview window.

View Original Image - Preview window displays the image using original median value settings.

Preview Current Settings - Preview window displays the image using new median value settings.

Preview Stored Settings - Enabled only if there are stored median values. Preview window displays the image using these stored median value settings.

Preview Button - Displays the image using new median value settings.

Store Button - Stores the new median settings for later use.

Highpass Dialog Box

{button Related Topics,AL("highpass cmd",0,`NOT_FOUND')} {button How To,AL("highpass how",0,`NOT_FOUND')}

Dialog Box Options

The dialog box options allow you to adjust the width, height, and center weight of the matrix used for the convolution kernel.

Width\Height

Range 1-10. Default value is 3. As you move the slider bar, the number in the edit box changes to reflect the new value.

Center Weight

By default the Center Weight is the product of the width value multiplied by the height value. The slider bar automatically adjusts whenever the width or height value is changed.

You can adjust the center weight separately. Value range is 1-300.

Preview Control Pad

Controls what is displayed in the preview window.

View Original Image - Preview window displays the image using original median value settings.

Preview Current Settings - Preview window displays the image using new median value settings.

Preview Stored Settings - Enabled only if there are stored median values. Preview window displays the image using these stored median value settings.

Preview Button - Displays the image using new median value settings.

Store Button - Stores the new median settings for later use.

Unsharp Masking Dialog Box

{button Related Topics,AL("unsharp masking cmd",0,`NOT_FOUND')} {button How To,AL("unsharp masking how",0,`NOT_FOUND')}

Dialog Box Options

Setting

The dropdown list contains five settings:

- Slightlly Sharp - radius=2, threshold=0, amplitude=50
- Moderately Sharp - radius=2, threshold=0, amplitude=100
- Extra Sharp - radius=2, threshold=0, amplitude=200
- Custom - allows you to customize the selected setting. Click the Customize>> button to add Customize options to the bottom of the Unsharp Masking dialog box.
- None - radius=1, threshold=0, amplitude=0

The default setting is Moderately Sharp, or the most recently used setting.

When you select a setting, all custom setting controls (radius, threshold, amplitudes) automatically change to match the selected setting.

Customize Options

Radius - Determines how much of the area (how many pixels) surrounding the edge will be sharpened. The larger the radius, the larger the edit area. The default is the most recently used radius value, or the corresponding value of the Setting option. Whenever you change the radius value, the Setting field changes to Custom.

Threshold - Defines the minimum amount of density difference required between adjacent pixels before a sharpening occurs. Edit the threshold value with the slider bar or the edit box. The default is the most recently used radius value, or the corresponding value of the Setting option. Whenever you change the threshold value, the Setting field changes to Custom.

Pixel Edge Amplitude - The amount of sharpening that is applied to a particular area; the intensity of the lightening or darkening of pixels. Value range is 0-100. This value is a percentage of the actual color value (0=white, 255=black). You edit two dropdown lists: Light and Dark. Default values on the dropdown lists are 0, 25, 50, 75, 100. Select one of the default values or key in a value in the edit box.

Load button - Retrieves any saved settings (radius, threshold, amplitude).

Save button - Saves settings to a file.

Reset button - Resets the settings and all customize controls back to the initial default when the dialog box appeared.

Preview Control Pad

Controls what is displayed in the preview window.

View Original Image - Preview window displays the image using original unsharp masking settings.

Preview Current Settings - Preview window displays the image using new unsharp masking settings.

Preview Stored Settings - Enabled only if there are stored values. Preview window displays the image using these stored value settings.

Preview Button - Displays the image using new value settings.

Store Button - Stores the new settings for later use.

Warp Options Dialog Box

{button Related Topics,AL("warp cmd;warp rb",0,`NOT_FOUND')} {button How To,AL("warp how",0,`NOT_FOUND')}

Dialog Box Options

Warp Model

The default warp model is Helmert for the first invocation of the command. The last used model becomes the next default model. The Warp Model dialog box setting automatically changes the associated ribbon bar setting, and vice-versa

Minimum Points

Automatically updates with the appropriate number of points as different warp models are selected. You cannot edit this field, however you can collect as many points as you desire (over the minimum required) for any warp model. The Minimum Points dialog box setting automatically changes the associated Ribbon Bar setting, and vice-versa

Resample

The default is unchecked. When Resample is unchecked, the Warp command is display only, meaning that warp settings are applied only to the image display and are not saved. This takes less time and is useful for viewing and printing. When Resample is unchecked, Helmert and 1st Order Polynomial are the only two Warp Model options available. The Warp ribbon bar shows Display Only when this box is unchecked.

When Resample is checked, warp settings are applied to the image itself when you save it. When checked, there are four Warp Model options available (Helmert, 1st Order Polynomial, Projective, 2nd Order Polynomial). The Warp ribbon bar shows Resample when this box is checked.

Points Window

When you place the first set of points (Source, Destination), it is considered to be point number 1 (point pair), the second set is point number 2, etc. The Point Number is displayed on the left side of the points window. The X and Y value for each Source Point is displayed under the Source title and is displayed in Default units. The X and Y value for each Destination Point is displayed under the Destination title and is displayed in working units (WU). The X and Y value for each points Residual error is under the Residual title and is displayed in Default units. The Sum of Squared Error (SSE) is displayed under the SSE title and is displayed in Default units.

The Residual error for each pair of points represents the error involved in modifying a Source point to its corresponding Destination point. The Sum of Squared Error (SSE) is the sum (or total error) of the X and Y Residual for each point pair

Mean Square Error

A measure of how well the transformation model selected fits the point pairs defined. It is the average of the individual point errors (divided by the Degrees of Freedom).

Delete

The Delete button allows you to delete a point pair from the points window. When a point pair has been defined and highlighted in the points window the Delete button is enabled. Selecting the Delete button causes the highlighted point pair to be removed from the points window, and all the remaining points will be reassigned the next number available (incremented by 1 or however many point pair were deleted). For Example, if you have 3 point pairs defined, and delete point pair 1, point pair 2 becomes the new 1, and point pair 3 becomes 2. If you collect another pair, it becomes point pair 3.

You can delete multiple point pairs with the Delete button. After highlighting the first point pair to be deleted, holding down the Ctrl key allows you to select any combination of other point pairs. Holding the Shift key selects all the point pairs from the first one highlighted to the second one. This works exactly like selecting files in Windows Explorer.

Load

The Load button allows you to load previously defined point pairs. Selecting this button displays the Load Points dialog box.

Save

The Save button allows you to save the currently collected points shown in the points window to a file on disk.

This allows you to reuse the defined point pairs for future warps. Selecting this button displays the Save Points dialog box.

Warp Ribbon Bar

{button Related Topics,AL("warp cmd",0,`NOT_FOUND')}  {button How To,AL("warp how",0,`NOT_FOUND')}

Note To find out the name of an option on the ribbon bar, pause the mouse cursor over an option and read the ToolTip.

Ribbon Bar Options

Options

Displays the Warp Options dialog box. Use the dialog box to set up the warp parameters, load point pairs, and/or save point pairs.

Cancel\Finish

The Cancel button is active when you select the Warp command. It changes to the Finish button as soon as the minimum number of point pairs have been defined.

The Cancel button terminates the Warp command and returns to the last command. The Esc key can be used to cancel the command at any time.

The Finish button executes the warp, then returns to the last command

Zoom Button

Toggles Zoom Window functionality off and on. When the Zoom Window button is clicked on, the Zoom Factor droplist is active.

Zoom Factor

Allows you to modify the zoom factor for the zoom window. When the Zoom Window button is clicked off, the Zoom Factor droplist is disabled.

Display Only\Resample

Shows Display Only if the Resample check box on the Warp Options dialog box is unchecked.

Shows Resample if the Resample check box on the Warp Options dialog box is checked.

Model

Allows you to select the desired model to use for the warp.

Minimum

Shows you the minimum required point pairs for the selected model.

Scale Dialog Box

{button Related Topics,AL("scale cmd",0,`NOT_FOUND')}  {button How To,AL("scale how",0,`NOT_FOUND')}

Dialog Box Options

Scale by

Factor - numbers between 0 and 1 will reduce objects and numbers greater than 1 will enlarge objects. Values equal to or below zero are invalid. The default value is 0.5.

Rotate Dialog Box

{button Related Topics,AL("rotate cmd",0,`NOT_FOUND')}  {button How To,AL("rotate how",0,`NOT_FOUND')}

Dialog Box Options

Rotation Amount

90 degrees CW - rotates select set 90° clockwise.

90 degrees CCW - rotates select set 90° counter-clockwise.

180 degrees - rotates select set 180° degrees.

Arbitrary angle - rotates select set by user-defined angle. When Arbitrary angle is checked, the Angle keyin filed and the Direction dropdown list are active.

Image to Image Dialog Box

{button Related Topics,AL("image to image merge cmd",0,`NOT_FOUND')}

Dialog Box Options

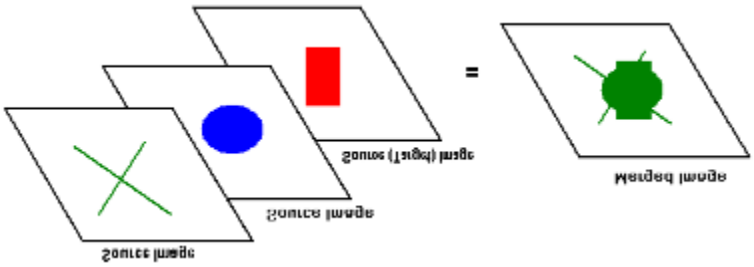
Merge into

Target Image - all selected images are listed in the drop down list. The top image is the default and highlighted.

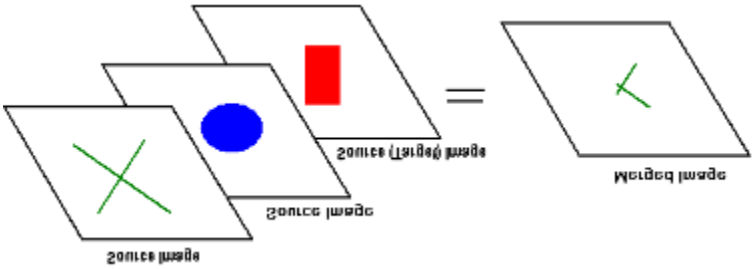
Method (enabled for binary images only)

For these options, all selected images must have transparent backgrounds. If any selected image is opaque, none of the data in any image below it will be merged into the target.

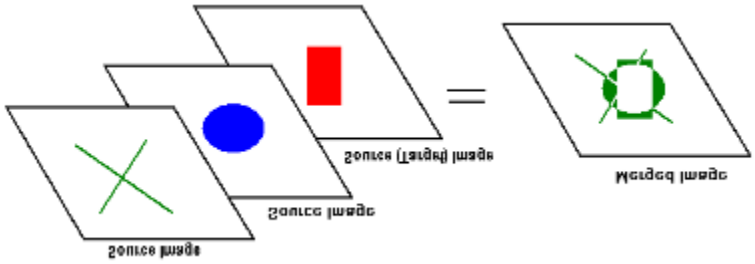
Logical Or - when checked, all data within the selected images' edit area are merged.



Logical And - when checked, only data on all the selected images' edit area are merged.



Logical X or - when checked, only data found in only one of the selected images' edit area are merged.



Vector to Image Dialog Box

{button Related Topics,AL("vector to image merge cmd",0,`NOT_FOUND')}

Dialog Box Options

Merge using

Click Paint Color or Erase Color to use for the merge. The default is Paint Color.

Insert Image Dialog Box

{button Related Topics,AL("open cmd",0,`NOT_FOUND')}  {button How To,AL("open how",0,`NOT_FOUND')}

Controls how an image is opened.

When you position the mouse cursor in this dialog box and click the right mouse button, you can access a variety of standard commands that help you manage your files more efficiently. For example, if you select an image in the list and then click the right mouse button, you can then click the Select command on the shortcut menu to automatically open the image. You can also create shortcuts, send the image somewhere else, and other activities.

Save As Dialog Box

{button Related Topics,AL("save cmd;save copy as cmd;save image cmd",0,`NOT_FOUND')}  {button How To,AL("save how",0,`NOT_FOUND')}

Specifies the name of, location of, and format for a new document or image when you use the Close Document, Close Image(s), Save Document, or Save Image(s) commands.

File Open Dialog Box

{button Related Topics,AL("open cmd",0,`NOT_FOUND')}  {button How To,AL("open how",0,`NOT_FOUND')}

Controls how a document is opened.

Note To get Help for various commands, click the Question Mark  on the main toolbar and click the command that you want information about.

Resample Original Image Dialog Box

{button Related Topics,AL("resample original image cmd",0,`NOT_FOUND')}

Dialog Box Options

Change Orientation

Current - displays the orientation of the selected image.

New - allows you to select a new orientation for the selected image. The dropdown list contains the following options: ULV URV LLV LRV ULH URH LLH LRH.

Change Resolution

Current - displays the resolution of the selected image.

New - displays a text box (for a numeric value) and a dropdown list (showing available units) that allows you to specify a new resolution for the selected image.

Resample As Displayed Dialog Box

{button Related Topics,AL("resample as displayed cmd;resample as displayed how",0,`NOT_FOUND')}

Dialog Box Options

Change Orientation

Current - displays the original orientation of the selected image.

New - displays the current display orientation. You can select a new orientation for the selected image. The dropdown list contains the following options: ULV URV LLV LRV ULH URH LLH LRH.

Change Resolution

Current - displays the original resolution of the selected image.

Display - displays the current display resolution.

New - displays a text box (numeric value) and a dropdown list (available units) of the current display resolution. You can specify a new resolution for the selected image.

Binary Dialog Box

{button Related Topics,AL("convert to binary cmd;convert to binary how",0,`NOT_FOUND')}

Contains 2 radio buttons (Color value, Percentage) that allow you to enter either attribute in the Grayscale Threshold field. Color value range is 0-255. These are actual color values. You set the Threshold value to determine which pixels become Foreground (black) or Background (white) in the binary image. If you enter an invalid value, you are warned and reminded of the valid range for that particular edit box via a Message dialog box. After dismissing the Message dialog box, the Binary dialog box box reappears, and the invalid entry is highlighted.

Whenever the Color value or Percentage radio button is selected, the value in the Threshold edit box changes appropriately. For example, if 255 is displayed and you select Percentage, the Threshold edit box changes to 100, and vice-versa.

Dialog Box Options

Convert Using

Color Value - Check this button to enter an actual color value in the Grayscale Threshold text box.

Percentage - Check this button to enter a percentage of the actual color values. When the Percentage radio button is selected a **%** sign appears to the right of the Threshold edit box.

Grayscale Threshold - All pixels that have a grayscale value higher than or equal to to the Threshold value are converted to 100% black - *ON* (Foreground)

All pixels that have a grayscale value below the Threshold value are converted to 0% black - *OFF* (Background).

Contrast/Brightness Dialog Box

{button Related Topics,AL("contrast_brightness cmd",0,`NOT_FOUND')} {button How To,AL("contrast_brightness how",0,`NOT_FOUND')}

Dialog Box Options

Slider Box

By default, the intersection of the 2 sliders in the 2-D slider box is always the center of the box.

The 2 sliders display in white, and when they are moved a black non-editable outline displays to show the sliders' default position.

You can click+drag both sliders at the same time by clicking on the intersection of the 2 lines. In this case, where both sliders are being manipulated, the values in both the Contrast and Brightness edit boxes dynamically change.

When you click anywhere in the 2-D slider box, the intersection of the Contrast and Brightness lines automatically move there. The values in the edit boxes for both attributes dynamically change.

You can click+drag anywhere on either line (other than the intersection) to manipulate that particular attribute individually. When only *one* slider is being manipulated, only the corresponding edit box (Contrast or Brightness) dynamically changes.

Values

Text boxes that allow you to key in values for Contrast and Brightness. When you key-in a value for Contrast and/or Brightness in the edit box, the 2-D slider automatically updates to reflect the new value(s).

Preview Control Pad

Controls what is displayed in the preview window.

View Original Image - Preview window displays the image using original gradation value settings.

Preview Current Settings - Preview window displays the image using new gradation value settings.

Preview Stored Settings - Enabled only if there are stored gradation values. Preview window displays the image using these stored gradation value settings.

Fill Dialog Box

{button Related Topics,AL("fill cmd",0,`NOT_FOUND')}  {button How To,AL("fill how",0,`NOT_FOUND')}

Dialog Box Options

Fill with

Color - Fills the select area with the Paint or Erase color. The default is Paint.

Opacity - Fills the select area with a degree of transparency. 100% opacity is a solid fill. Anything other than 100% contains some level of transparency. (*95% opacity = 5% transparent*). Use the slider bar or the edit box to enter an opacity value. The Opacity edit box and slider values always match.

The Opacity option is disabled for binary images.

Image Information Palette (Image/Palettes Menu)

{button Related Topics,AL("brush manager palette;image selection palette;pixel information palette;snap modes palette",0,`NOT_FOUND')}

Provides general information about the selected image(s), the current attributes and properties, and any binary display information, if applicable. The palette is non-modal, you can access all other tools and commands while this palette is displayed.

The Image Information palette contains an Attributes tab and a Properties tab that displays information about the selected image(s), and its current editing status.

Attributes Tab

The Name field is a static display of the selected image filename that you cannot directly edit. This field updates whenever the current active image is changed. If multiple images are selected, this field is disabled, with no information given.

Modified - Shows you if the selected image(s) has been edited with any pixel editing command. This gives you an efficient way to check and see if an image(s) has been edited since it was Opened/Placed in a document. If an image has not been edited, this checkbox is not checked. If multiple images are selected, and some have been edited but others have not, the checkbox is shaded.

Displayed with LUT - Shows you if the selected image(s) is being displayed through an altered look-up table. This gives you an efficient way to see if an image(s) is a candidate for the Apply LUT command. If an image is not a candidate for the Apply LUT command, or the Apply LUT command has already been executed on the image, this checkbox is not checked. If multiple images are selected, and some are a candidate for Apply LUT but others are not, the checkbox should be shaded.

Displayed with Transformation Matrix - Shows you if the selected image(s) is being displayed through a transformation matrix. This gives you an efficient way to check and see if an image(s) is a candidate for the Resample command. If an image is not a candidate to be resampled, or Resample has already been executed on the image, the checkbox is not checked. If multiple images are selected, and some are a candidate for Resample but others are not, the checkbox is shaded.

Properties Tab

The Properties tab has 10 informative static fields that you cannot edit. These fields update whenever the current selected image is changed.

The properties on this tab reflect the data stored in the image header file.

If multiple images are selected, only the fields that have a common property for all the selected images display. For example, if multiple images are selected and they are all RGB with an orientation of ULH, the Properties tab should show the Data Type field as RGB, and the Orientation field as ULH. All other fields are disabled and left blank. If no properties are common with all the selected images, all fields are disabled with no information given.

Width - The actual width of the image stored in the header

Height - The actual width of the image stored in the header

Size - The actual file size of the selected image on disk

Date - The actual date of the last edit made to the image, prior to inserting it in the active document

Time - The actual time of the last edit made to the image, prior to inserting it in the active document

Data Type - The actual data type of the selected image - BMP, TIFF, JPG, etc. and type (Binary, RGB, Grayscale)

Resolution - The resolution of the selected image in pixels/in, or pixels/cm and microns

Number of Lines - The number of lines in the selected image

Pixels per Line - The number of pixels per line in the selected image

Orientation - The scanline orientation of the selected image (ULH, URH, etc.)

Image Selection Palette (Image/Palettes Menu)

{button Related Topics,AL("brush manager palette;image information palette;pixel information palette;snap modes palette",0,`NOT_FOUND')}

Provides an easy way to select an image for editing, resizing, and other manipulations. It also allows you to select several images at once, so that they all can be manipulated as one.

The Image Selection palette displays three columns:

- Images - displays the names of all images currently in the document.
- Lock - Displays the lock status of each image. If an image is locked it cannot be accessed, preventing you from accidently moving or editing it.
- Visibility - Displays the visibility of each image. A checkmark indicates an image is visible in the document.

The palette also has four buttons that allow you to select or deselect all images, and turn visibility on or off for all images.

For binary images, the Image Selection palette provides two buttons (FG and BG) that access the color selection palette. Click theappropriate button to bring up the color selection palette to change the foreground (FG) and background (BG) display colors of binary images.

Snap Modes Palette (Image/Palettes Menu)

{button Related Topics,AL("brush manager palette;image selection palette;pixel information palette;image information palette;image snap cmd",0,`NOT_FOUND')}

Allows you to set options for the Snap command. When Snap is toggled on, data points entered by the mouse snap to the nearest raster data in a binary image, according to the options selected.

Snap functionality is valid for binary images only.

You must activate the Raster Snap modes palette once to enable the Snap command.

Raster Snap Modes Palette Options

Center - Instructs ImageScape Draft to snap to the center of the nearest raster data.

Edge - Instructs ImageScape Draft to snap to the edge of the nearest raster data.

Pixel Information Palette (Image/Palettes Menu)

{button Related Topics,AL("brush manager palette;image information palette;image selection palette;snap modes palette",0,`NOT_FOUND')}

Displays the current cursor position in image pixels, inches, or centimeters. Displays pixel color information in values or percentages, and RGB, HLS, and Grayscale formats. By default, the Pixel Information palette displays information for a single pixel (the one underneath the cursor). However, using the Pixel Information Options dialog box, you can change the setting so that several pixels can be read at one time.

The Pixel Information palette can also be utilized for doing comparative analysis of pixel color changes while in pixel editing commands such as Gradation, Contrast/Brightness, etc. When using pixel editing commands, the palette automatically expands to show before and after pixel information.

During dragging operations (such as creating a rectangle select area), the Pixel Information palette expands to show xy start point, xy delta, and angle.

You access the Control menu by right clicking on the title bar of the Pixel Info palette. The Control menu contains Move, Close, and Options... for manipulating the palette. Selecting Options… on the Control menu brings up the Pixel Information Options dialog box. Use this dialog box to select options for what information is displayed on the Pixel Info palette.

Pixel Information Options Dialog Box

{button Related Topics,AL("pixel information palette",0,`NOT_FOUND')}

When the selected image is being edited with a pixel editing command (such as Gradation), the Pixel Info palette (if displayed) expands to include before and after values for the pixel(s) that are being read. When you select OK or Cancel, the palette returns to its normal size.

Dialog Box Options

Native Color - Displays color info in file's native color format.

RGB Color - Displays color info in RGB.

Grayscale - Displays grayscale color info.

HLS Color - Displays color info in hue, luminance, and saturation (HLS).

Cursor Coordinates check box - Displays the cursor info.

Cursor Coordinates drop down list - Changes units of measure that cursor info is displayed in; automatically checks the check box if changed.

Color Information

Show Values - Displays color information in values.

Show Percentages - Displays color information in percentages.

Image Edit Toolbar Button (Image Main Toolbar)

Displays or hides the Image Edit toolbar. The following list shows the commands on the Image Edit toolbar.

Fill

Erase

Paintbrush

Eraser

Flood Tool

Paint Color

Erase Color

Brush Manager

Rectangular Select Area

Polygonal Select Area

Density Flood Select Area

Select Entire

Select Inverse

Select None

Select Remove

Select Float

Auto Extend On/Off

Image Snap On/Off

Image Modify Toolbar Button (Image Main Toolbar)

Displays or hides the Image Modify toolbar. The following list shows the commands on the Image Modify toolbar.

Image Shrink

Image Size

Position

Warp

Merge Image

Merge Vector

Merge Vector Interactive

Deskew

Image Scale

Image Rotate

Mirror Image Horizontal

Mirror Image Vertical

Resample Original Image

Resample As Displayed

Convert to Binary

Convert to Grayscale

Convert to RGB

Image Correct Toolbar Button (Image Main Toolbar)

Displays or hides the Image Correct toolbar. The following list shows the commands on the Image Correct toolbar.

Speckle Removal

Hole Fill

Smooth

Median

Lowpass

Highpass

Edge Enhance

Unsharp Masking

Contrast Brightness

Gamma

Gradation

Threshold

Invert

Image Options Dialog Box

When you select the Options command from the Image menu, the Image Options dialog box appears.

Dialog Box Options

General Tab

System Requirements

Image Space - Sets a limit of the amount of memory that all images are allowed to utilize in ImageScape Draft. The amount of memory you want to allocate to ImageScape Draft.

The default Image Space limit is devised from the following formula: Image Space = 8 MB (absolute minimum) + 1 MB (for every meg above 32 MB).

Temp File Path - Displays the temporary file path for the system. This is where the system will write temporary files to. This field is read-only (you must select the Change button to modify the path). The default directory is C:\Temp.

The Change button brings up the Select Path dialog which allows you to select a new temporary directory.

Undo Image Through

Maintain list of - Sets the maximum number of commands for the system to maintain (remember) for the Undo Image Through, and Purge Undo Image Through commands.

The maximum number of commands that can be saved for Undo Image Through (command stack) is 8.

Warn if command exceeds - Sets a threshold for the amount of disk space (undo limit) you want to utilize for performing Undo functions. It also allows you to turn an Undo Warning on or off if an edit it is going to exceed the undo limit.

The undo limit size is defined in MB.

Whenever a command is going to exceed the undo limit an Undo Warning dialog appears before the edit is applied to an image. The warning dialog has the following button options:

Button	Action
Process Without Undo	This button applies the edit and purges the command stack. The current command (one that displayed the message*),* and any command in the command stack *(*Undo, Undo Through), is deleted and not available for undo.
Process With Undo	This button overrides the undo limit and applies the edit. It also adds the command to the Undo and Undo Through commands (command stack) if the maximum number of commands is not yet reached.
Cancel	This button ends the edit. No edit is applied to the image, and nothing is added to the command stack.

LUT Warning

A checkbox that, when checked, displays a warning box when you save an image that is displayed through a Look Up Table (LUT). If this box is unchecked, the LUT warning box is not displayed.

File Locations Tab

Sets a default directory for external files that can be loaded and/or saved in ImageScape Draft.

File types that can be loaded and/or saved are: Images, Brushes, Gradation curves, Unsharp Masking parameters, and Warp points.

The directory for each file type in the File Locations Tab is used for the first time a command is executed in each

invocation of ImageScape Draft. After the first time a command is executed, the selected directory becomes the next default for that particular command while running the same invocation of ImageScape Draft. The next invocation uses the directory assigned in the File Locations Tab as the default directory.

To change the default directory, double-click on an entry in the File types column, or click on an entry and then select the Modify button. The Select Path dialog appears with the current directory for the selected file type as the default directory.