

StylusTracer

COLLABORATORS

	<i>TITLE :</i> StylusTracer		
<i>ACTION</i>	<i>NAME</i>	<i>DATE</i>	<i>SIGNATURE</i>
WRITTEN BY		June 4, 2025	

REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME

Contents

1	StylusTracer	1
1.1	StylusTracer Help Table of Contents	1
1.2	overview	2
1.3	config	3
1.4	project	3
1.5	open	3
1.6	save	4
1.7	saveas	4
1.8	autotrace	4
1.9	close	6
1.10	about	6
1.11	quit	6
1.12	process	7
1.13	undo	7
1.14	smooth	7
1.15	average	8
1.16	median	8
1.17	blur	8
1.18	gradient	9
1.19	region	9
1.20	minimum	9
1.21	maximum	10
1.22	procmisc	10
1.23	posterize	11
1.24	remove_iso	11
1.25	sharpen	11
1.26	edge_detect	12
1.27	thin	12
1.28	scale	12
1.29	remap	12

1.30 invert	13
1.31 strip_bits	13
1.32 brightness	13
1.33 contrast	14
1.34 gamma	14
1.35 convert	14
1.36 bw	15
1.37 grey	15
1.38 indexed	16
1.39 full_color	16
1.40 summary	16
1.41 misc	17
1.42 help	17
1.43 active	18
1.44 background	18
1.45 screen_mode	18
1.46 display	19
1.47 savesettings	19
1.48 user	19
1.49 rexxecute	19
1.50 toolbox	19
1.51 zoomin	20
1.52 zoomout	20
1.53 palette	20
1.54 eyedropper	20
1.55 crop	21
1.56 cropreq	21
1.57 polygon	21
1.58 flood	21
1.59 rectangle	22
1.60 line	22
1.61 paint	22
1.62 brushes	22

Chapter 1

StylusTracer

1.1 StylusTracer Help Table of Contents

The Project Menu

Open...
Save...
Save As...
AutoTrace...
Close
About...
Quit

StylusTracer Overview
Customizing StylusTracer

Technical Support: If you need further assistance, you can reach us below.
The Process Menu
Undo Please mention your registration number.
Smooth We reserve the right to refuse technical support to non-registered users.
Misc
Remap
Convert

The Misc Menu

Help...
Active...
Background...
Screen Mode...
Display Prefs...
Save Settings

Stylus, Inc.
P.O. Box 1671
Ft. Collins, CO 80522
(303) 484-7321
Monday through Friday
9:00 am to 5:00 pm MST

The User Menu and ARexx®

Rexxecute...

The Touch-Up Toolbox

Zoom In
Zoom Out
Palette
Eye Dropper
Crop
Polygon
Flood Fill
Rectangle
Line
Paint

1x1 Brush
3x3 Brush
5x5 Brush
7x7 Brush

1.2 overview

Basic Steps for Image Processing and AutoTracing

1. Load the image.
2. Convert the image color model (if any of the True Color processes are required).
3. Set the Background color. (AutoTracing and some image-processing are relative to the background color.)
3. Process the image.
4. Convert back to a trace-capable color model (if True Color processing was required).
5. Reset the background color (some processes may alter the background).
6. AutoTrace the image.

Stylustracer Overview

StylusTracer is a powerful program, with an array of features that may at first seem daunting; nonetheless, autotracing simple images of only a few colors can be as easy as loading the image, and tracing it with the default settings.

However, a bitmap image produced by a 600 DPI, 24-bit scanner is not a simple image. Complex bitmaps often have many details that may simply clutter a structured drawing that has been traced from it. Isolated pixels of color, dithering, and anti-aliasing (characteristics that may improve the appearance of a bitmap) can just be distracting noise in a traced, structured drawing. To cleanup these undesirable elements and distill your bitmap image, StylusTracer has a full suite of image-processing and touch-up tools.

Images from standard IFF-ILBM resolutions to 24-bit ILBM and TIFF resolutions can be loaded. From these, StylusTracer can create structured drawings with a maximum of 256 colors. (Generally, you will find 256 colors more than enough; additional colors are better added using the ProVector gradient fill options.)

StylusTracer can store a bitmap internally using four different color models; as a black and white image, as a grey-scale image with 256 levels of grey, an indexed-color image with up to 256 colors, or as a true-color image with over 16 million colors (24-bit).

Certain functions of StylusTracer can only be performed when the image is in a specific one of the above models. For instance, an image can not be traced in the True Color model, but must first be converted into one of the other three models. In contrast, most of the image processing functions are only available if the image is in True Color or Greyscale. If a function is not available in the current mode, its menu item will be ghosted. (See the Process/Convert » submenu.)

Once an image has been prepared for tracing with the image-processing tools, StylusTracer has a wide range of tracing options, such as Center-Line tracing, not found in lesser programs. Center-Line tracing differentiates between light and heavy (thick) lines in a bitmap, and assigns appropriate line-weights to the lines when autotracing. Other tracers simply treat heavy lines as objects, and create outlines of them. This results in many excess points in the finished drawing.

Other options include objects, objects with holes (sub-polygons or compound objects), thin lines, and bitmaps with up to 256 colors. The ARexx macro interface offers batch-processing, as well as many other possibilities.

A wire-frame preview of the traced image is rendered as it traces. Once you have a satisfactory trace, you can save it in IFF-DR2D and Illustrator 88 formats.

1.3 config

Customizing StylusTracer

StylusTracer can be customized to suit the requirements of the types of bitmaps you most often trace. There are two principal methods of doing this: one is by modifying the ARexx startup macro, "StylusTracer.strx." The other is through standard Amiga tool types, set with the Save Settings menu item or the Workbench/Information... menu item.

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.4 project

Menu: Project

The Project menu offers various commands to Open , Save , AutoTrace , and Close bitmap files (projects). You may also Quit StylusTracer via the Project menu.

1.5 open

Menu Item: Project/Open...

Command Key: Right_Amiga-O

Opens the file requester for loading an IFF-ILBM, TIFF (except FAX-TIFF), or GIF bitmap-graphic file as the current image. The file format is automatically recognized.

NOTE: Importing of GIF files and certain TIFF files with LZW compression has been disabled in response to recent patent claims by UNISYS.

1.6 save

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.7 saveas

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.8 autotrace

Menu Item: Project/AutoTrace...

Command Key: Right_Amiga-T

Choosing the Project/AutoTrace... menu item opens the AutoTrace requester with various options for controlling the actual tracing process as well as assigning a file name for the new structured graphic created from the bitmap.

Note: AutoTracing can not be performed while a bitmap is in the True Color mode. See the Process/Convert sub-menu.

When the AutoTrace requester opens the File text gadget (at the top of the requester) will be active. If you know the full directory path and name of the file you wish to create, you can simply type it into the text gadget at this time. If you are unsure of the path/file name, you may select the File gadget to open the File requester and specify a directory and file name.

The column of check boxes labeled "Trace" determine what types of objects will be traced. If only the Objects check box is selected, then the trace output will only contain closed, filled, objects. There will be no simple lines (ie. open, unfilled objects); furthermore, the objects will not contain transparent holes (sub-polygons) through which the background would be visible.

If Objects and Holes are checked, then the trace output will contain objects with transparent holes (sub-polygons) through which the background is visible. However, there will be no lines.

If only Lines is checked, then the trace output will contain only

thin (single-pixel-wide) lines. StylusTracer will not attempt to assign a line weight to the lines.

If Objects and Lines are selected, then the trace output will contain closed, filled, objects; and, center lines (ie. StylusTracer will try to assign line weights to heavy lines). However, objects will not contain transparent holes (sub-polygons) through which the background would be visible.

If all three are selected, Objects with Holes, and Center lines will be traced. Note that some combinations of these check boxes do not make sense (for instance Lines & Holes, or Holes only); these combinations will not be permitted.

The set of radio buttons labeled "Smoothing" determine what type of smoothing StylusTracer will apply to a bitmap. If Curves is selected, StylusTracer will attempt to match the best combination of straight lines and curves needed to accurately represent lines in the bitmap. If Lines is selected, lines of pixels will be smoothed into straight lines, but no curve fitting will be attempted. If None is selected, the lines of the trace will follow the exact outline of the pixels of the bitmap. This will produce a very jagged structured drawing, but it can be useful occasionally.

The set of radio buttons labeled "Output" determine the format of the finished, traced, file. If IFF-DR2D is selected, the file will be in the Amiga® standard, IFF-DR2D structured-drawing format. If AI EPS is selected, the file will be in Adobe Illustrator(TM) Encapsulated PostScript®.

The values of the four numeric gadgets in the lower portion of the requester determine the accuracy of the trace. No other autotracing program has the accuracy and efficiency of StylusTracer; nor, does any other autotracer give the user as much control over the process as StylusTracer. These gadgets are set to reliable defaults for average bitmap images, but some bitmaps may trace more accurately and efficiently at different settings. With other bitmaps, you may wish to sacrifice some accuracy in favor of a simpler traced drawing with fewer points; with yet others, you may wish the opposite, to sacrifice speed and simplicity for maximum accuracy in the traced drawing.

The values of the Line Fit and Curve Fit text gadgets are given as pixels from the ideal line; fractional values (ie. 1.5 pixels) are accepted. If a straight line will not fit within the Line Fit limit, StylusTracer will try to fit a curve to the line. If a single spline will not describe the line without exceeding the Curve Fit, more and smaller splines will be used. The smaller the values of these two settings, the more accurate the trace. However, smaller values also produce more complex objects, or paths; possibly with more points than some PostScript Interpreters (or ProVector) can handle. (For instance, the Raster Image Processor, or RIP, in the original Apple LaserWriter is limited to 1,500 points in a path.) Also, setting the tracing accuracy too high can create more points than are really needed to accurately represent the image being traced.

The value of the Break Angle numeric gadget represents the angle formed by the extension of the first line segment through its last point, and the next line segment.

Generally (this is somewhat dependent upon the image), the larger the Break Angle value, the more curves are used to represent the line, and the smoother the transition between individual splines.

A Break Angle value of 0 (zero) turns off curve-fitting altogether; the trace will be composed entirely of straight lines. Thus, either too large or too small a Break Angle value may create unnecessary points in the drawing.

Again, there is the possibility of creating object paths that exceed the capabilities of software or hardware that ultimately must image these files, so you should consider the possible trade-offs before setting the Trace Options at too high a resolution.

You may wish to deliberately lower the accuracy of the AutoTrace options to simplify your tracing by eliminating excess points and distracting details.

The Min size text gadget specifies the diameter in pixels of the smallest object StylusTracer will trace. Smaller areas of color will be ignored. This value can be used to filter out many superfluous objects that can clutter an image. The default value is 1.5. (Fractions of a pixel are accepted.)

You may type into the Line Fit gadget, then press the Return or Tab keys to advance to the other gadgets. Alternatively, you may set all the values with the mouse by clicking the + and - boxes to the right of the numeric gadgets, incrementing them as desired.

Finally, if the Preview box is checked, the outline of the trace will be superimposed over the bitmap image as it is calculated. Straight line and curve (Bezier) anchor points will be highlighted, but intermediate control points of curves will not.

1.9 close

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.10 about

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.11 quit

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.12 process

Menu: Process

The various image-processing effects of the Process menu allow you to distill your image to its important details.

A Summary of Image Processing Commands is available. The summary is designed to help you decide which process is appropriate for a given image.

Many of the operations of StylusTracer require that the image first be converted to a particular internal representation before it can be operated upon. When menu items are not available, they will be ghosted. See the Convert » submenu for more information.

The Process Menu Items

- Undo
- Smooth »
- Misc »
- Remap »
- Convert »

1.13 undo

Menu Item: Process/Undo

Command Key: Right_Amiga-U

The Process/Undo Menu Item... allows you to restore the state of the bitmap prior to the most recent change (either through Process menu or Toolbox operations). Choosing Undo again, will Redo the change.

Depending upon the size and number of colors of the currently loaded bitmap, Undo may require large amounts of memory! It may be disabled with the Misc/Display Prefs... menu item.

1.14 smooth

Submenu: Process/Smooth »

- Average...
- Median...
- Blur...
- Gradient...
- Region...
- Minimum...
- Maximun...

1.15 average

Menu Item: Process/Smooth/Average...

Command Key: Right_Amiga-A

The Process/Smooth/Average... menu item smooths the image by replacing each pixel with the average (Average = Mean) of the width-by-height area surrounding the pixel. The process is repeated the specified number of times. This is a nice, fast smoothing operation, but it tends to excessively blur things. Nonetheless, in 3x3-5x5 matrices, it is useful for de-dithering gently dithered images.

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.16 median

Menu Item: Process/Smooth/Median...

Command Key: Right_Amiga-M

The Process/Smooth/Median... menu item can be particularly useful for consolidating small, extraneous clumps of pixels into larger color contours (it clears up the speckled appearance of some bitmaps). Obviously, it is also useful for de-dithering. It does tend to eliminate small features, thin lines, sharp corners, and isolated pixels. With 3x3-5x5 matrices, it is a standard smoothing tool for removing noise from an image.

Median Smoothing with a Width of 1 and a Height of 5 is useful for cleaning up the time-base jitter in images captured from un-corrected VCR input.

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.17 blur

Menu Item: Process/Smooth/Blur...

Command Key: Not available

The Process/Smooth/Blur... menu item opens a requester, with Radius and Repeat text gadgets. The Radius value is the radius (in pixels) of the area of the bitmap surrounding a given pixel that the pixel is compared to during processing.

The Repeat value is the number of times you wish the process to be repeated.

Blur is useful for de-dithering heavily dithered bitmaps, but as its name implies, it may tend to blur the image.

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

Blur is actually a form of Gaussian smooth, which can be a very coarse smoothing operation. However, the ability to accept fractional pixel values allows for more subtle control, with the result that Blur will not blur as much as Average smoothing at small radii.

1.18 gradient

Menu Item: Process/Smooth/Gradient...

Command Key: Not available

The Process/Smooth/Gradient... menu item performs a fairly low-key smoothing algorithm, applied the specified number of times. It tries to avoid smoothing across sharp gradients in the image (hence the name). It is useful for removing noise without loss of fine details.

This is a fair amount slower than the convolution-based smoothing algorithms (ie. Average, Median, Blur, etc.).

1.19 region

Menu Item: Process/Smooth/Region...

Command Key: Not available

The Process/Smooth/Region... menu item is similar in concept to GradSmooth, but it is a more aggressive smoothing algorithm. It still tries to avoid smoothing across sharp gradients, but is more likely to lose fine details. It is very slow.

This process can be useful in converting anti-aliased areas of color into distinct color boundaries for cleaner tracing. It has a tendency to organize finely dithered regions into small facet-like areas that may be consolidated with the Misc/Posterize... menu item.

Region Smooth does not have any significant effect beyond four or five iterations. However, it usually requires two or more iterations to get satisfactory results.

1.20 minimum

Menu Item: Process/Smooth/Minimum...

Command Key: Not available

The Process/Smooth/Minimum... menu item replaces each pixel in the image with the minimum value of all pixels in a sample area around the pixel.

Choosing Process/Smooth/Minimum... opens a requester with three sliders, Width, Height, and Repeat. The Width and Height sliders are used to specify the width and height in pixels of the sample area (or matrix) around a pixel to be used for determining the minimum.

The process will be performed the number of times specified by the Repeat slider to a maximum of 15 repetitions. If desired, it may be repeated additional times by reselecting the Process/Smooth/Minimum... menu item.

Minimum smoothing can be used in conjunction with Maximum smoothing to cleanup small bright areas or dark areas in a Black & White image. If Minimum smoothing is used, followed by Maximum smoothing, small bright areas will be removed. If Maximum smoothing is used first, followed by Minimum smoothing, small dark areas will be removed.

1.21 maximum

Menu Item: Process/Smooth/Maximum...

Command Key: Not available

The Process/Smooth/Maximum... menu item opens a requester identical to that of Process/Smooth/Minimum..., but performs the opposite process. It replaces each pixel with the maximum value of all pixels in a sample area around the pixel.

The Width and Height sliders are used to specify the width and height in pixels of the sample area (or matrix) around a pixel to be used for determining the maximum.

The process will be performed the number of times specified by the Repeat slider to a maximum of 15 repetitions. If desired, it may be repeated additional times by reselecting the Process/Smooth/Maximum... menu item.

Maximum smoothing can be used in conjunction with Minimum smoothing to cleanup small bright areas or dark areas in a Black & White image. If Minimum smoothing is used, followed by Maximum smoothing, small bright areas will be removed. If Maximum smoothing is used first, followed by Minimum smoothing, small dark areas will be removed.

1.22 procmisc

Submenu: Process/Misc »

- Posterize...
- Remove Isolated...
- Sharpen...
- Edge Detect
- Thin...

Scale...

1.23 posterize

Menu Item: Process/Misc/Posterize...

Command Key: Not available

The Process/Misc/Posterize... menu item attempts to create regions of constant color in the image, where each region consists of groups of pixels whose intensities differ from each other by no more than the value of the Difference numeric gadget. The operation is fairly quick, creating a "posterized" effect. Permissible values range from 1-127.

This process is very useful after a Region Smooth; it consolidates the facet-like artifacts characteristic of Region Smooth.

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.24 remove_iso

Menu Item: Process/Misc/Remove Isolated

Command Key: Not available

Choosing the Process/Misc/Remove Isolated menu item removes isolated pixels and replaces them with the median of the eight surrounding pixels. This is a fairly quick and very useful process, since single pixels of isolated color rarely represent details important to the final traced image.

Note that many of the other processes can actually create isolated pixels, so it is usually best to do Remove Isolated as the last step before actual tracing (after you convert to Indexed, GreyScale, or B&W; Remove Isolated is less effective in Full Color mode).

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.25 sharpen

Menu Item: Process/Misc/Sharpen...

Command Key: Not available

The Process/Misc/Sharpen... menu item applies an unsharp mask to the image. This can bring out subtle features in the image. It is not very useful for autotracing objects, but may be useful in conjunction with Process/Misc/Edge Detect, Process/Misc/Thin and the Lines only tracing option in the AutoTrace requester.

Choosing Process/Misc/Sharpen... opens a requester with a single text gadget for specifying the Sharpen Factor. The higher the Factor value, the lower the amount of sharpening done. The practical range of values is 1 to 255; larger values will have negligible effect.

1.26 edge_detect

Menu Item: Process/Misc/Edge Detect

Command Key: Not available

The Process/Misc/Edge Detect menu item reduces an image to the edges (lines) which define its objects. That is, it detects the edges of the color contours in an image; in effect, converting it into an bitmapped, outline drawing.

1.27 thin

Menu Item: Process/Misc/Thin...

Command Key: Not available

The Process/Misc/Thin.... menu item thins thick objects while leaving thin objects intact. It removes one pixel from either side of an object with each iteration. The pixels are replaced with the current background color. It will not remove pixels where the object is only 1 pixel wide.

The process maybe repeated a specified number of times. Enough iterations can reduce an image to single-pixel lines.

1.28 scale

Menu Item: Process/Misc/Scale...

Command Key: Not available

The Process/Misc/Scale... menu item resizes a bitmap to a specified pixel width and height. The image may be enlarged, shrunk or distorted with this command.

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.29 remap

Submenu: Process/Remap »

- Invert
- Strip Bits...
- Brightness...
- Contrast...
- Gamma...

1.30 invert

Menu Item: Process/Remap/Invert

Command Key: Not available

The Process/Remap/Invert menu item replaces the image with its inverse (ie. black changes to white, white to black, red to cyan, etc.).

1.31 strip_bits

Menu Item: Process/Remap/Strip Bits...

Command Key: Not available

The Process/Remap/Strip Bits... menu item strips the specified number of bits of color precision (bit-planes) from the current image.

This is a fast way of reducing the number of colors in an image. However, the bit-planes are arbitrarily stripped, rather than remapping the pixels to the nearest approximation of the color in the lower resolution. Thus, you may find that using the Process/Convert/ Indexed... menu item will give more desirable results.

1.32 brightness

Menu Item: Process/Remap/Brightness...

Command Key: Not available

The Process/Remap/Brightness... menu item increases or decreases the brightness of the image by the amount you specify in its numeric gadget (a positive amount increases the brightness; a negative amount decreases it).

The value may range from 0 to 255.

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.33 contrast

Menu Item: Process/Remap/Contrast...

Command Key: Not available

The Process/Remap/Contrast... menu item increases or decreases the contrast of the image by the amount that you specify in the requester's numeric gadget. A positive amount increases contrast; a negative amount decreases contrast.

The value may range from -127 to 127. Contrast 127 in a monochrome image forces to B&W. However, generally, the most useful values will be in the range of -63 to 63 (-50% to 50%).

1.34 gamma

Menu Item: Process/Remap/Gamma...

Command Key: Not available

The Process/Remap/Gamma... menu item... increases or decreases the gamma correction (gamma brightness) of the image by the amount you specify in its numeric gadget. Values greater than 1 increase the brightness; values less than 1 decrease brightness. The image tends to wash out quickly with values over 3.

Gamma correction is a way of changing the brightness of a picture that is perceptually correct. That is, it increases (or decreases) brightness exponentially, the way the human eye perceives it.

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.35 convert

Submenu: Process/Convert »

StylusTracer may use any of the following four color models for its internal representation (ie. how the bitmap is stored in system memory) of the image being processed: Black & White, Greyscale, Indexed, or Full Color (24-bit). Some color models are more appropriate for certain operations; some models will not allow certain processes or commands. If a command is not available with the current color model, its menu item will be ghosted.

Most processes compare the respective Red, Green, and Blue values (RGB channels) of pixels in the bitmap; and thus, must be converted to the Full Color(24-bit) state. Other operations compare the relative intensities of pixels, and require one of the other color models. All of the conversion operations operate on the pixel intensities.

In general, indexed images must be converted to either Greyscale or Full Color before most processes can be performed on them. Indexed and

Black & White images are limited to the Remove Isolated, Thin, and Invert commands. Full Color images must be converted to one of the other three models before tracing.

The Convert Sub-Menu Items

- Black+White...
- Greyscale
- Indexed...
- Full Color

1.36 bw

Menu Item: Process/Convert/Black+White...

Command Key: Right_Amiga-B

The Process/Convert/Black+White... menu item converts the current image to a black-and-white image.

Choosing this menu item opens a small requester with a Comparison cycle gadget and a numeric gadget. The cycle gadget permits you to specify one of six Comparisons: Greater or equal, Greater than, Not equal to, Less than, Less or equal, Equal to.

The intensity of each pixel is compared to the value in the numeric gadget, using the comparison specified by the cycle gadget. If the comparison is true, the pixel is changed to color number 1. If it is false, it is changed to color number 0. The value of the numeric gadget may range from 0-255.

Color number 1 is always white, and color number 0 is black. Thus, given default settings of Greater or equal, and 127, and a 256 level greyscale image, all of the greys with an intensity of 127 or greater, will become white, while all of the greys less than that value would become black.

Both tracing and limited processing operations are possible in this mode. Note that it requires only one eighth of the memory required to maintain the image as an indexed or greyscale image.

1.37 grey

Menu Item: Process/Convert/Greyscale...

Command Key: Right_Amiga-G

The Process/Convert/Greyscale... menu item converts the current image to a 256-shade greyscale image. Both tracing and processing are possible in this mode.

1.38 indexed

Menu Item: Process/Convert/Indexed...

CommandKey: Right_Amiga-I

The Process/Convert/Indexed... menu item converts the current image to an indexed color image with the given number of colors. Tracing is available when images are in this form; however, they must be in one of the other modes to perform most image processing.

Remove Isolated, Thin, and Invert are available; however, none of the Process submenu items are available for images in this form. They must first be converted into one of the othering image models.

1.39 full_color

Menu Item: Process/Convert/Full Color

Command Key: Right_Amiga-F

Process/Convert/Full Color converts the current image to a 24-bit-plane ("true color") image. Indexed color images must be converted to Full Color before most image processing.

Full color images must be converted to one of the other three modes before tracing.

1.40 summary

Summary of Image Processing Effects

Average Smooth - Good for de-dithering gently dithered images. A fast process. A fast process, but may excessively blur the image.

Median Smooth - Useful for de-dithering, consolidating small groups of color into larger color contours (clears up the speckled appearance of some bitmaps). Removes small features, thin lines, sharp corners, and isolated pixels (although it CAN add isolated pixels). Median Smoothing with a Width of 1 and a Height of 5 is useful for cleaning up the time-base jitter from un-corrected VCR input.

Blur - Good for de-dithering coarsely dithered images. Not as fast as Average, but tends to blur less than Average with small radii.

Gradient Smooth - Smooths while avoiding smoothing across sharp color gradients. Useful for removing noise without loss of detail.

Region Smooth - Similar to Gradient smooth, but more aggressive. Useful for removing anti-aliasing. May create small facet-like areas that can be consolidated by Posterize (see below).

Minimum Smooth - Replaces a pixel with the minimum pixel value in its neighborhood. In conjunction with Maximum smooth, can be useful for removing small bright or dark areas.

Maximum Smooth - Replaces a pixel with the maximum pixel value in its neighborhood.

Sharpen - Sharpens the edges of an image. Not useful for tracing objects, but can be effective in conjunction with Edge Detection when tracing for lines only.

Edge Detect - Reduces an image to the edges (lines) which define its contours (contours become objects after tracing).

Thin - "Thins" thick objects into narrow lines while preserving existing narrow lines.

Remove Isolated - Replaces isolated pixels with the median of its neighbors.

Strip Bits - Reduces the color depth (bit-planes) of an image. Arbitrarily strips the highest-order bit-planes from the image; thus, you may get more desirable results by specifying depth with Convert/Indexed .

Posterize - A fairly quick process that gives a "posterizing" effect. Particularly useful after Region Smooth to consolidate the facet-like artifacts characteristic of that process.

Scale - Shrinks or enlarges a bitmap. Shrinking can be useful for removing dithering.

Invert - Replaces each pixel of the image with a pixel of the opposite value.

Brightness - Adjusts intensity of all image pixels by the same amount. Compare with Gamma Brightness below.

Gamma Brightness - Adjusts image brightness in a manner more consistent with the way the human eye perceives it. Will not alter Black or White.

1.41 misc

Submenu: Misc

- Help...
- Active...
- Background...
- Screen Mode...
- Display Prefs...

1.42 help

Menu Item: Misc/Help...

Command Key: Right_Amiga-H

Choosing the Misc/Help... menu item opens the on-line help data-base provided with StylusTracer. StylusTracer on-line help utilizes the standard AmigaGuide hyper-text help utility.

If you press the Help key while the mouse pointer is over a menu item or Toolbox tool, the Help data-base will open directly to the help for that function; similarly, if the Help data-base is already open, it will jump to the appropriate text.

1.43 active

Menu Item: Misc/Active...

Command Key: Not available

The Misc/Active... menu item allows you to isolate which color channel (Red, Green, or Blue) processing should be done on.

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.44 background

Menu Item: Misc/Background...

Command Key: Right_Amiga-0

The Background requester allows you to specify one color as background. The Background color will not be traced, but will be treated simply as the background upon which the objects are drawn. Some of the image-processing commands (Process/Misc/Thin, among others) are also dependent on this setting.

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

NOTE: The Background is not a global setting. The Darkest, Brightest, and Most colors will always be specific to a given bitmap. Also, the Most color can be changed by many of the processes, so it may be necessary to recalculate the Background color after processing and just prior to tracing.

1.45 screen_mode

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.46 display

Menu item: Misc/Preferences...

Command key: Right_Amiga-P

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.47 savesettings

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.48 user

Menu: User

The User menu can be customized to create menu items for running ARexx macros. This menu has one permanent item, Rexecute... . Other menu items may be added to it with the ARexx startup macro (named "StylusTracer.strx" by default).

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.49 rexxecute

Menu Item: User/Rexecute...

Command Key: Right_Amiga-R

Choosing the User/Rexecute... menu item opens a file requester to allow users to select and run ARexx macros.

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

For instructions on the use of the provided ARexx macros, see the STRX help.

For information on how to write StylusTracer ARexx macros, see STRX Commands .

1.50 toolbox

The Touch-Up Toolbox...

Zoom In
Zoom Out

- Palette
- Eye Dropper
- Crop
- Polygon
- Flood Fill
- Rectangle
- Line
- Paint
- 1x1 Brush
- 3x3 Brush
- 5x5 Brush
- 7x7 Brush

1.51 zoomin

Tool: Zoom In

Hotkey: i (In) - optional keys: > and +

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.52 zoomout

Tool: Zoom Out

Hotkey: o (Out) - optional keys: < and -

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.53 palette

Tool: Palette Requester

Hotkey: Not available

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.54 eyedropper

Tool: Eye Dropper

Hotkey: Not available

The Eye Dropper tool provides an easy way to set the current color

directly from the bitmap display. Simply select the EyeDropper, then click on a color in the display.

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.55 crop

Tool: Crop

Hotkey: Not available

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.56 cropreq

Tool: Shift-Crop

Hotkey: Not available

The shift-clicking on the Crop tool opens the Crop Control requester, providing a pixel-precise method of cropping a bitmap.

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.57 polygon

Tool: Polygon

Hotkey: Not available

The Polygon tool allows you to draw simple, straight-sided, filled polygons.

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.58 flood

Tool: Flood Fill

Hotkey: Not available

The Flood Fill tool will replace a color contour of the image with a new color. It has the optional ability to replace areas of similar color

rather than just pixels of the exactly identical color.

Select the color you wish to fill with (see the Palette tool)
Then click in the area of the image you wish to fill.

To fill similar areas of color, shift-click on the Flood Fill tool
to open the Flood Delta requester.

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.59 rectangle

Tool: Rectangle

Hotkey: Not available

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.60 line

Tool: Line

Hotkey: Not available

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.61 paint

Tool: Paint

Hotkey: Not available

This tool is used in conjunction with the currently selected
Brush to touch up a bitmap image. This tool essentially allows you to
paint freehand.

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/

1.62 brushes

Tools: Brushes

Hotkey: Not available

/***** THE HELP FILES HAVE BEEN ABRIDGED FOR THIS DEMO RELEASE. *****/
