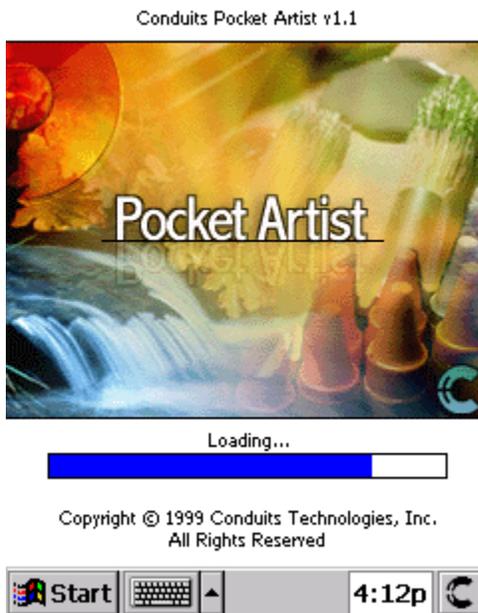


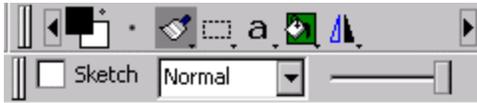
Pocket Artist 1.X Documentation



Interface/Commands

When you start Pocket Artist you will see the screen below as Pocket Artist initializes.



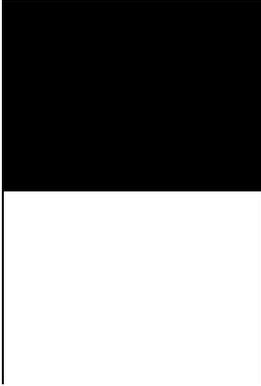


After initializing, you will see this screen. This is the canvas in which you draw, and upon loading, a blank image is presented. The first toolbar is the menu and the tools bar. From left to right, the tools represent: Scroll Tools Left, Current Colors, Current Brush, Drawing Tools, Selection Tools, Text/Shape Tools, Edit Tools, Document Tools. Each pops up with multiple tools under each category.

The tool button with the darkened background is the current tool. Tapping on the current tool button will pop up the menu of tools, and tapping on a different tool button will select the last selected tool on the tool button tapped. By tapping and holding on another tool button, Pocket Artist will pop-up the tool selected on menu for that tool button.

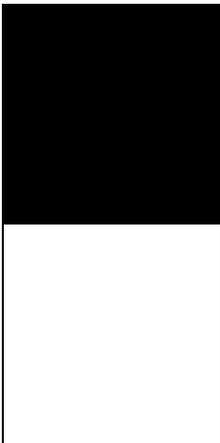
Most tools are persistent -- when you select them, the tool buttons will remain on that tool and that tool will be active whenever you tap and/or drag on the document window.

Menus



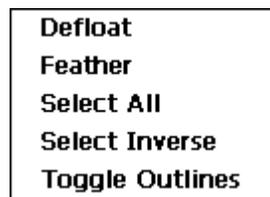
File Menu:

- **New:** starts a new document - prompts to save the current document.
- **Open:** opens a document - prompts to save the current document.
- **Save:** saves the document. If you have saved the image previously, or if you loaded the current image and have edited it, this command will save it without a prompt.
- **Save As:** saves the document - will prompt for a file name and saving type.
- **Close:** closes the document - prompts to save your changes.
- **Revert:** returns to the last saved version of the document.
- **Recent Files:** lists recently opened, edited, or saved files.
- **Use as Desktop:** save your work straight to your Windows CE desktop, where it will appear there, optionally tiled.
- **Exit:** exits Pocket Artist.

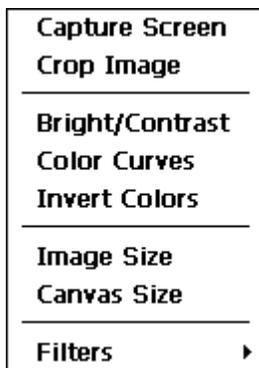


Edit Menu:

- **Undo:** reverses the last command.
- **Clear:** fills the document (or the current selection) with background color.
- **Cut:** takes the current selection, moves it to the Pocket Artist clipboard (not system-wide as of version 1.1), and fills the current selected area of the document with the current background color.
- **Copy:** takes the current selection and copies it to the Pocket Artist clipboard, retaining the selection and the document.
- **Paste:** pastes in clipboard selection into the document, retaining it as a **floating selection**.
- **Zoom In/Out/100%:** visually zooms in and out (or back to normal) of the document.
- **Deselect:** deselects current selection.

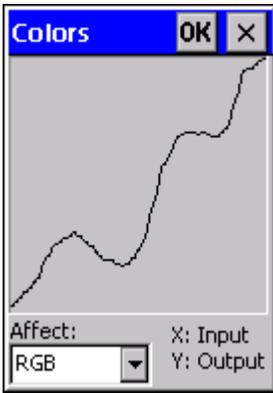


- **Defloat:** if a selection is "floating," Pocket Artist merges it with the document using the current opacity and blending mode.
- **Feather:** blurs the current selection.
- **Select All:** selects the whole document.
- **Select Inverse:** selects whatever is not selected, and deselects whatever was selected.
- **Toggle Outlines:** the "marching ants" that appear as the boundary to your current selection will be hidden or shown by selecting this menu option.

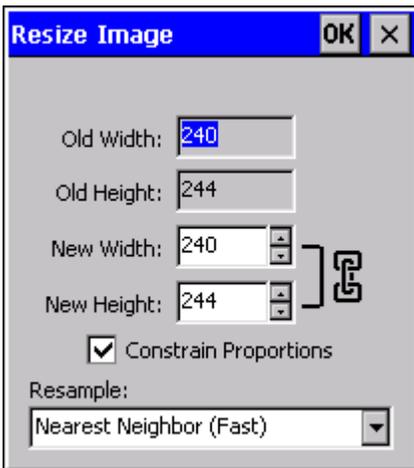


Tools Menu:

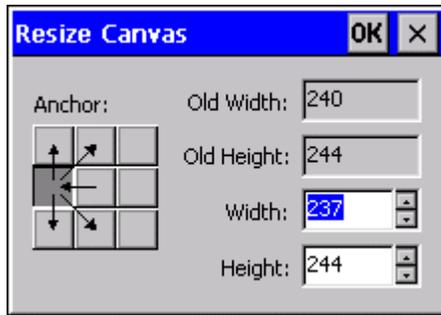
- **Capture Screen:** prompts for a delay and then takes a snapshot of the screen and puts it on the clipboard.
- **Crop Image:** shrinks the current image, cropping it to the bounds of current selection.
- **Bright/Contrast:** adjusts the brightness and contrast of the image.



- **Color Curves:** adjusts the color inputs and outputs of the red, green, or blue (or all three) values. The x-axis of the graph represents the old pixel values (0 to 255), whereas the y-axis represents the new pixel values. The curve represents the correlation between the old and new values. By drawing a curve with the stylus, the new color values will take effect. For example, by drawing a curve that is shown on the left, the dark colors will be brightened, the midrange colors darkened, and so on. The document will generate a preview of the effect as the curve is drawn.
- **Invert Colors:** changes black to white, blue to yellow, etc. taking effect on the whole document, or on the current selection.



- **Image Size:** scales the entire image to increase or decrease its dimensions. Enabling "constrain proportions" will retain the aspect ratio of the original dimensions while entering new values. The interpolation mode determines how the pixels are combined to form a scaled image. Nearest Neighbor is the fastest, but results in the lowest image quality. Bilinear Interpolation smooths the pixels as the canvas stretches, and is most desirable under most circumstances. Bicubic Interpolation smooths with a more complex algorithm, which results in a higher-quality image but an increase in processing time.

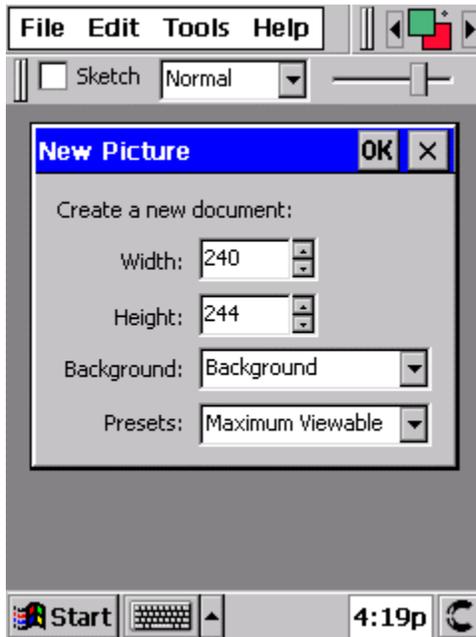


- **Canvas Size:** cuts or adds to the canvas, giving it a new set of dimensions. The Anchor area specifies where the pre-affected image is to be placed in the new image.
- **Filters:** contains the filters that you can apply to the document (or selection). Blur, Desaturate, Emboss, Find Edges, Motion Blur, Sharpen, or Sharpen More.

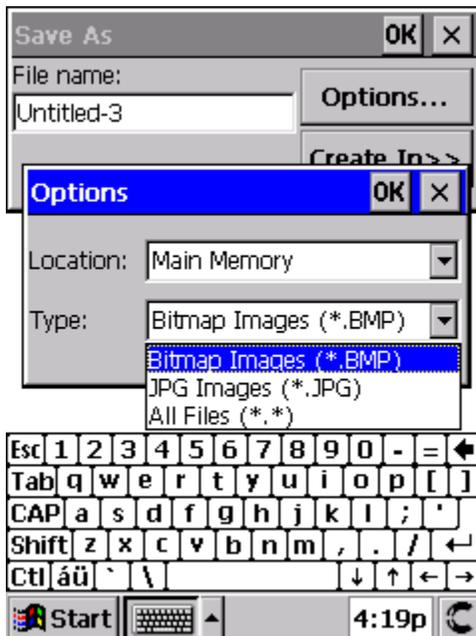
Document Management

Pocket Artist can open images in BMP, GIF, JPEG, and 2BP formats.

Work can be saved in BMP or JPEG formats.



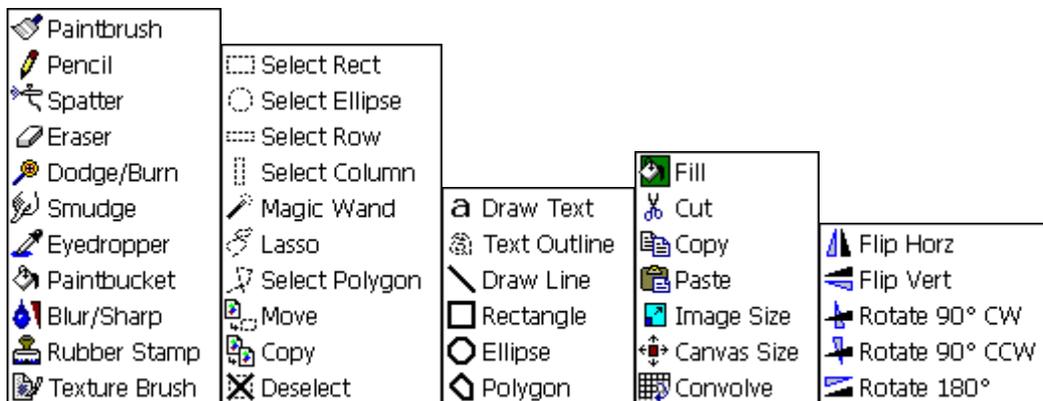
When you start a new document, this screen appears. Prompts for the new height and width of the new graphic and background must be specified. Some predefined widths and heights are available for quick access to common dimensions.



“Save As” yields the screen above, where name of the document should be entered. To specify which format to save the document in, click "Options..." and specify BMP or JPG.

Painting And Tools

The Pocket Artist tool popup menus are as follows:



Each persistent tool has its own status/options bar.



Pocket Artist features "smart sliders." By dragging the dial back and forth, the value of the slider is shown, along with a description of what the slider is affecting.



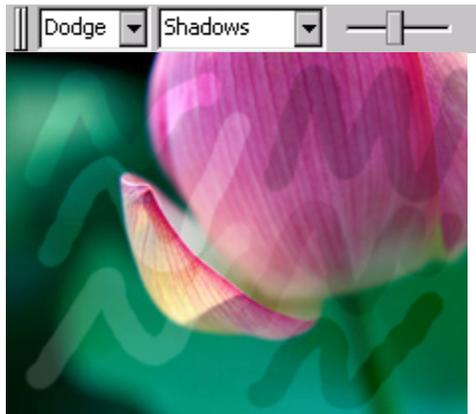
Paintbrush: the standard paintbrush. By clicking and dragging in the document window, you paint with the foreground color using the current brush. You can also hold down Shift (HPC) or Action (PPC) and click, and it will draw a line from the last point of which you drew. The Sketch checkbox puts the brush in Sketch mode. As you draw in Sketch Mode, your brush strokes are cascaded onto those you have already made. In other words, the brush effect gets darker and darker as you go over the same area. In the above example, the top stroke is Paintbrush at 20% opacity in Normal Mode. As you sketch over the same area, it doesn't get any darker than 20%. In Sketch Mode (the second stroke), it gets darker and darker. In the third example, the Blending Mode has been set to "Multiply," and the Sketch Mode keeps darkening as one goes over the same area. The "Normal" box chooses the blending mode for the Paintbrush. Blending modes are described below. The slider affects opacity of the brush.



Pencil: puts the current brush in a "Clamped Mode" by creating hard edges. For example, the edges of the diamond brushes are light and soft (and drawn that way with the paintbrush) but with

the pencil they are hard and drawn on/off on a pixel-by-pixel basis. Options are identical to Paintbrush.

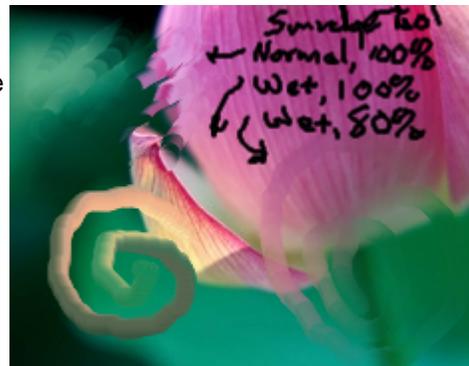
Eraser: draws with the background color and there is no Sketch Mode



Dodge/Burn: lightens or darkens parts of an image. The options enable the user to affect shadows, mid-tones, or highlights, as well as the pressure of the dodge (lighten) or burn (darken). In the image above, the first column of strokes is Dodge, the second is Burn. The top row is affecting Highlights, the second is affecting Mid-tones, and the third is affecting Shadows.



Smudge: produces effect akin to taking a wet finger to a painting. It has the Blending Mode and opacity option of the Paintbrush tool. The 'Wet' option is where the smudge changes take effect. We recommend opacity is turned down to 90% or so when wet, to allow the original image to "bleed back through" as one is painting.



Eyedropper: looks at the image and grabs the color at that point and uses it as the foreground color. There are several options to how the color is retrieved from the image. A 3x3 or 5x5 surrounding box can be used to fetch the image (if the point is in a 'noisy' group of samples) and there are "averaged" and "weighted" modes, where in weighted mode, points near the center of the box sample are given more weight to the average.



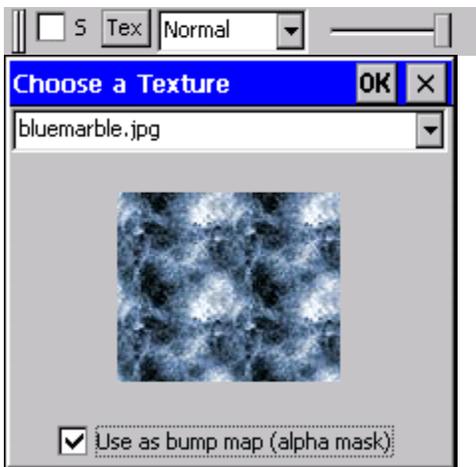
Paintbucket: fills an area with the current foreground color. You pick a tolerance value of 0 to 255 ("Tol." in the options bar), and then by clicking in the image, a flood will take run across all pixels whose colors are within the tolerance value of the original pixel you clicked on. Clicking "AA" enabled antialiasing of this flood fill. Blending mode and opacity are additional settings to control the fill.



Blur/Sharpen: blurs and sharpens bits of the image interactively. Select the "pressure" (amount) of the tool and draw on the image to blur or sharpen individual parts of it.



Rubber Stamp: takes one area of your image and paints it into another area. By holding down Action (PPC) or Shift (HPC) and tapping, you set the "source point." Then, let go of the key and all strokes after that act as a stamp coming from the source point. In the example to the right, the source was set on the cusp of the petal to the left of the main flower. When "Aligned" is unchecked, you get behavior as of that in the bottom left of the example. Each tap acts as if the source is put right there in the image at that position. By enabling "Aligned," each tap results like that of the example near the right, where the relative position of the source of the stamp is saved between taps/drags. Blending mode and opacity values are also able to be set.



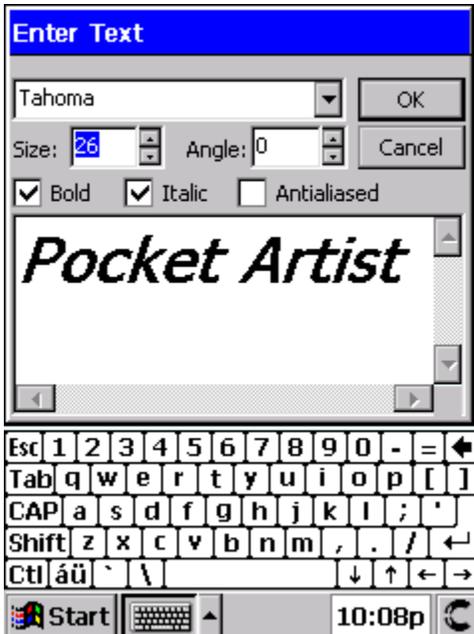
Texture Brush: paints with an external picture as its "source." Click the "Tex" button to bring up the Texture choice window (shown at right). A listing of images found in the "Textures\" subdirectory off of the Pocket Artist install directory will be shown here. By choosing an image, it will be shown in the window. Clicking OK will bring you back to your document. Painting in the document will now use the texture (and tile it appropriately) instead of the current foreground color along with the current brush shape. By enabling the "use as bump map" with the texture brush, the tool takes on a completely different feel. Now, the current foreground color and brush are used, but the texture acts as a "rough surface" that you are painting on -- for example selecting the canvas texture makes it appear as though you are painting on canvas.



For best results, enable the Sketch mode for this tool (the "S" checkbox), and set the opacity to a low value (around 20% to 40%).

Text/Shapes

-  Draw Text
-  Text Outline
-  Draw Line
-  Rectangle
-  Ellipse
-  Polygon

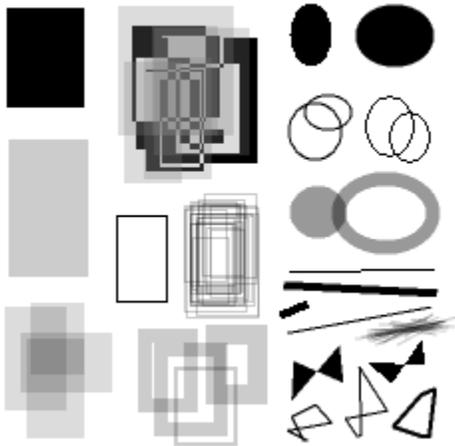


Draw Text/Text Outline: used to enter text into Pocket Artist. Draw Text will make a new floating selection on your document with the text entered in the current foreground color, while Text Outline will simply make a selection based on the text you enter. Options include font name, size, bold, italic, and whether the font should be antialiased. There is an experimental "angle" feature where the text can appear at an angle. By tapping (when the Text tool is selected) in the

document, the "Enter Text" dialog will pop up and prompt for the text -- tapping OK will float the text (or outline) on the document. By tapping and dragging a rectangle on the document, will bypass Pocket Artist's auto-calculate of the text rectangle. This is useful for chopping off the text, or when working with text at an angle.

Pocket Artist
Pocket Artist
Pocket Artist
Pocket Artist

Above is a sample of the Text tool. The first line is "Pocket Artist" in bold italic Tahoma. The second line is the same, with anti-aliasing turned on. The third was two instances of the text tool. The first was set to gray and blurred after placement, and then black text on top, creating a drop shadow effect.



Rectangle: By tapping and dragging, you create a rectangle on the document. Hold down Shift (HPC) or Action (PPC) to make the rectangle a square. The options are opacity and blending mode, as well as whether to fill the rectangle or have it use an outline instead. Check the box next to "1px" to make the rectangle draw as an outline. The thickness of the rectangle outline can be set as well.



Ellipse: draws an ellipse. Hold Shift or Action to make a circle. The "AA" checkbox specifies if the shape/outline is to be drawn antialiased (smooth).

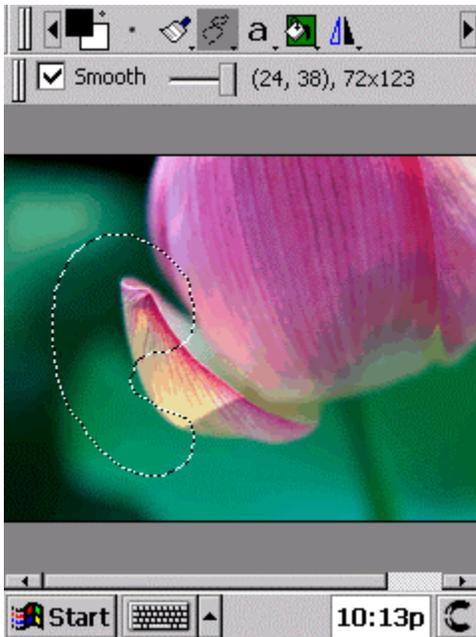


Polygon: draws a polygon. By repeatedly tapping where the points of the polygon should go, then tapping at or very near the first point, a polygon will be drawn.



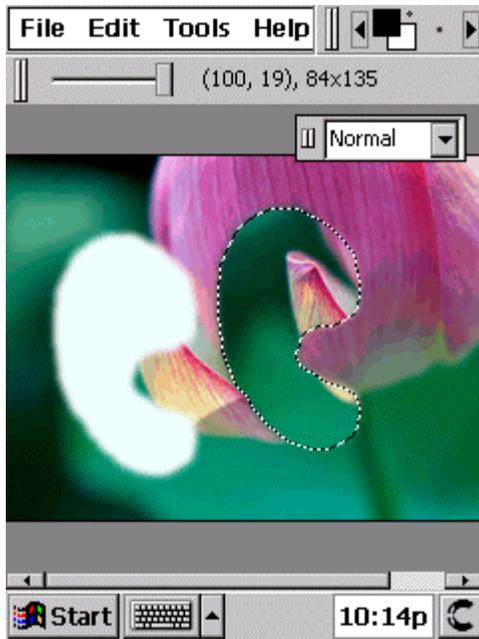
Draw Line: draws a line. By tapping and dragging, you set the start and end points of the line.

Selections

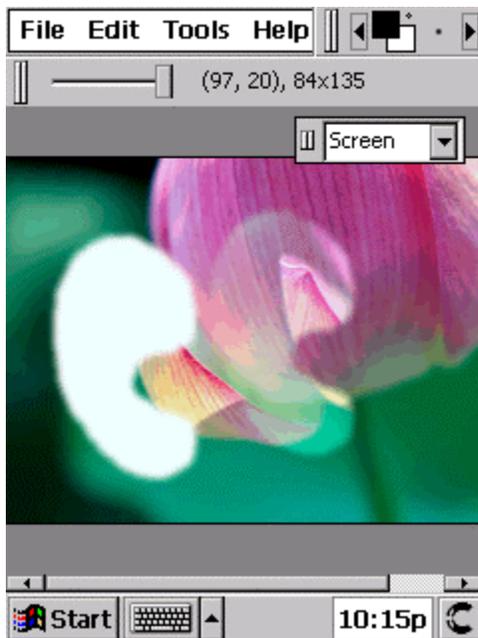


Pocket Artist supports full 8-bit depth of a selection – where the selection does not have to have hard edges and lie on pixel boundaries, but can take on 256 values of opacity in which some edges are soft, some are hard, etc. Pocket Artist features a rich set of selection tools and techniques to make selections. Most paint and manipulations are "constrained to the current selection." Selections can be moved around on the screen by either tapping inside the selection, or by pressing up/down/left/right on the Windows CE device (or using the cursor puck on a Casio E100 series).

A selection can be "defloated" or "floating." A defloated, or "normal," selection is "laid on the document," where you are still blurring (feathering) it and manipulating it to your liking. It bounds the data that would be erased with a Cut operation, or duplicated with a Copy operation. A floating selection is one that contains RGB data -- a piece of a picture.



For example, if you paste (after a cut/copy), you will have a floating selection that contains whatever was on the clipboard.



Above is an example of a floating selection. Above, the lasso tool was used and the selection feathered (blurred), and then a cut command was issued, filling the selection with white. It was pasted on the document again. It has become a floating selection, and may be moved around. When there is a floating selection, a pop-up window of blending modes will appear. You may adjust the opacity by moving the slider (have a selection tool active before pasting) and the changes will be shown dynamically in the document. The dashed outlines have been hidden via the "Toggle Outlines" command on the Edit->Selection menu, and the blending mode has been changed to Screen. Note that you can still see the contents of the floating selection (somewhat). By changing blending modes you are still retaining the RGB data of the floating selection. You may defloat the selection (and yet not deselect) by choosing the Defloat command on the

Edit->Selection menu. In the next image the dashed outlines have been hidden via the "Toggle Outlines" command on the Edit->Selection menu, and the blending mode has been changed to Screen. Note that you can still see the contents of the floating selection (somewhat). By changing blending modes you are still retaining the RGB data of the floating selection. You may defloat the selection (and yet not deselect) by choosing the Defloat command on the Edit->Selection menu.



Select Rect: By clicking and dragging on the document, a rectangle outline is. Hold down Shift (HPC) or Action (PPC) before tapping, to add to the previous selection. Hold Shift or Action while dragging, to constrain the selection to a square shape. Letting go of Shift/Action while dragging will release the symmetrical constraint, and pressing Shift/Action before dragging (adding to a selection) will still add to the selection after releasing. By holding Control (HPC) or Exit (PPC) you will subtract (cut a hole in) the current selection. Releasing the Control/Exit key before releasing the stylus, will intersect the old and new selections

Select Row/Column: same as Select Rectangle, but are constrained to be a single row or column.



Select Ellipse: selects an ellipse. It has many parallels with the Rectangle Selection tool, in that holding Shift/Action will constrain to a circle, and the same rules for adding / subtracting / intersecting also apply. The "Smooth" option creates a smoother, antialiased border.



Magic Wand: akin to flood fill (see the Paintbucket tool) but instead of filling with a color, it selects the area. By tapping in an area, it selects every pixel that touches it whose color is within tolerance of the color of the pixel that was clicked. The "smooth" option creates a more smooth and antialiased shape. The same rules for adding / subtracting / intersecting also apply.



Lasso: selects any shape that you draw. By selecting this tool and drawing a quick shape on the document (a circle, figure 8, etc), that shape is selected. The "smooth" option makes the border slightly antialiased. The same rules for adding / subtracting / intersecting also apply.

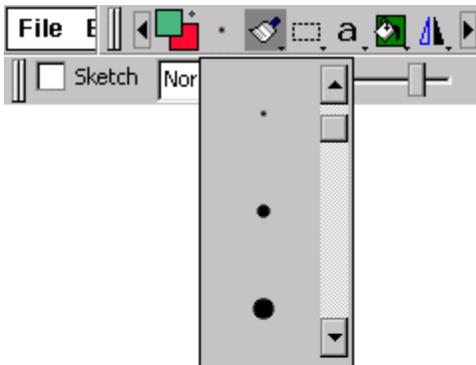


Select Polygon: selects a polygon that you draw. By drawing a polygon as you would a polygon shape, and the closing it by tapping at or near the starting point, Pocket Artist will select that polygon. The "smooth" option makes the border slightly antialiased. The same rules for adding / subtracting / intersecting also apply.

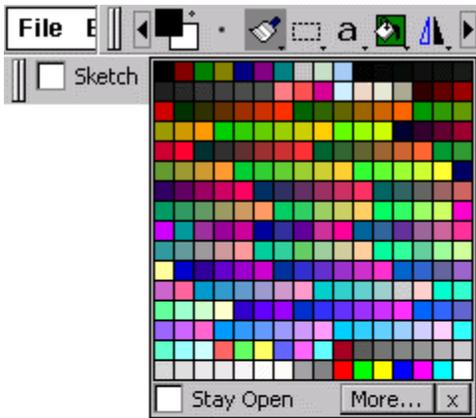


Move/Copy: take the current selection (if it is not already floating) and float it above the document for moving or copying,, changing the opacity or blending mode, and layering.

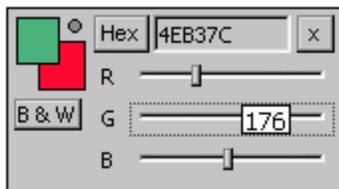
Other Tools



By tapping on the current brush, a pop-up window with all the brushes will appear. Simply tap the new brush to select. The brushes are customizable -- put BMP files up to 48x48 into the "Brushes\" subdirectory of the Pocket Artist install directory.



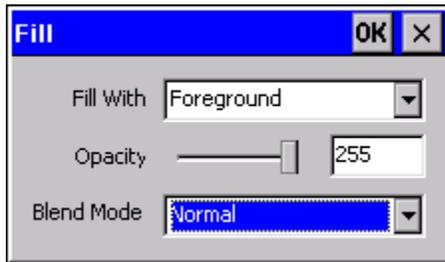
The toolbar also contains a representation of the current foreground and background colors. By tapping in that space, a window of color swatches will appear. Tap a color to set the foreground color. By tapping "Stay Open," the window will stay after selecting a new color, and "More..." will bring up a more detailed color picker (below).



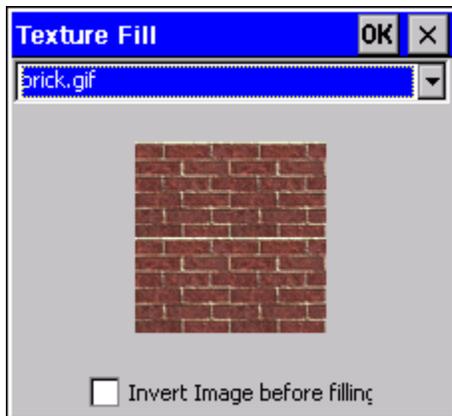
The color picker has Red, Green, and Blue sliders that control the RGB values of the current color. By dragging, the color will change and the value itself will be shown on the slider. The web-friendly hex values will be shown in the box above this, and by tapping "Hex" you can also view these values as normal decimal values (0-255). Tapping "B & W" will make the foreground black and the background white. By tapping the background color the user controls that value with the sliders. Tapping again will switch back into changing the foreground color. By tapping on the gray circle in the upper right of the two colors, you will swap the foreground and background colors. This also works if you tap the dot on the main Pocket Artist toolbar. You can move the color

picker at any time by tapping in any gray area of that window and dragging it to the new position.

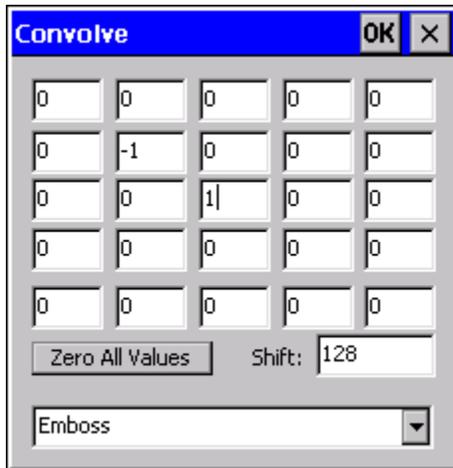
Edit Tools



Fill Tool: this fills the document (or current selection) with the foreground or background color, black, white, or a texture, with a specified opacity and blending mode. Tapping OK will execute the operation. The texture fill is intended to fill the whole document with a texture. Select "Texture..." from the "Fill With" choice and the following window will pop up:



This is much like the texture brush, where you select from images that are in the "Textures\" subdirectory of your Pocket Artist install directory. The option is also there to invert the image (useful in some cases) before filling with it. A useful example is filling with a canvas image, at 20% opacity on Multiply mode -- it makes the document look as though it were an actual canvas surface.



Convolve: performs a manual convolution of the image. Convolution is the process of taking a square matrix with odd dimension (in this case, 5x5) through the image, pixel by pixel, and calculating a new value for each pixel. The new value is calculated by "centering" the matrix in the pixel in question, summing up the values of the matrix multiplied by the color values of the neighboring pixels, then dividing by the sum of the entries of the matrix.

Cut/Copy/Paste and **Image/Canvas Size:** functions found on the Edit and Tools menu.

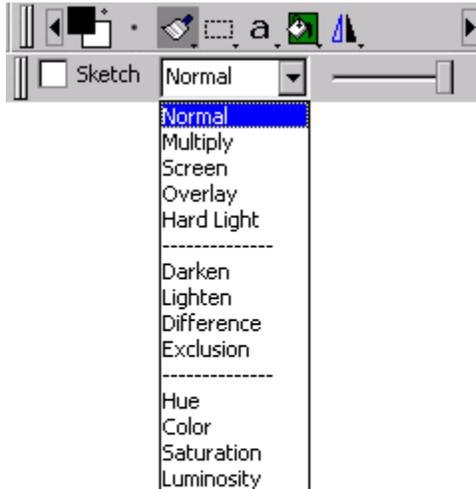
Flip Horizontal/Vertical and **Rotate Clockwise/Counter-Clockwise 90/180 Degrees:** will affect the whole document or the selection.

Filters



Pocket Artist is packaged with several image-processing filters. Above is an example of some included. There are six examples; clockwise, starting in the upper left, they are: find edges, emboss, sharpen, motion blur, desaturate, and Gaussian blur.

Colors and Blenders



Blenders are a way of mixing two colors to provide a new one. They can be simple (such as the Normal blender, in which the color on top replaces the color on the bottom), to complex (such as the Overlay blender, which involves several factors, giving the appearance of a colored transparency overlay). Below are descriptions of the blenders.

Normal: involves replacing the bottom color with the top color.

Multiply: takes the two color values (on a 0 to 1 scale) and multiplies them together, yielding something darker than the original.

Screen: resulting color is always brighter than the two colors that combine to form it.

Overlay: acts as if the top layer is like a color transparency on top of the bottom layer.

Hard Light: provides “light” for the bottom layer.

Darken: yields a color that is the minimum of the two colors.

Lighten: takes two colors and outputs their maximum.

Difference: takes two colors and computes the absolute value of their difference. Therefore, large color differences are seen as brighter, and where colors are more similar, the result is darker.

Exclusion: when top and bottom colors approach the same value, result is grayish, not black.

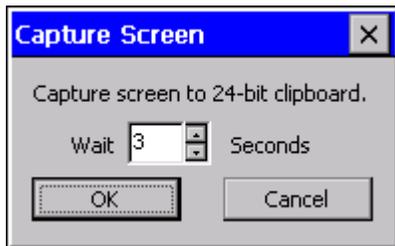
Hue: takes the hue of the top color (that is, Red, Yellow, Cyan, etc.) and replicates the bottom color with the same hue - retaining the saturation and luminosity.

Color: top and bottom colors have same hue and saturation.

Saturation: bottom color has the same saturation (richness) as the top color.

Luminosity: bottom layer has the same luminosity (brightness) of the top layer.

Other Features



Pocket Artist can capture the screen display and copy it to the Pocket Artist clipboard for pasting into your document. Picking "Capture Screen" on the tools menu will prompt for a time delay, at which point you may set up for the capture. Your Windows CE device will beep when it is capturing your screen.

Pocket Artist can set the current picture to the desktop by picking "Use As Desktop" from the File menu. Desktop images can only be saved in BMP format (a limitation of CE). Pocket Artist will prompt if you would like the image to be tiled, and whether to switch to the desktop temporarily to view the image.

Tips

This section of the documentation provides some tips and advanced usage for Pocket Artist, and will expand as people contribute. If you would like to submit a tip, mail artist@conduits.com.

Handheld PC Keyboard Shortcuts:

- B Brush
 - C Copy Tool
 - E Eraser
 - G Smudge
 - H Toggle Selection Outlines
 - I Eye Dropper
 - J Air Brush
 - K Paint Bucket
 - L Lasso
 - M Square Selection tool
 - N Pencil
 - O Dodge Burn
 - R Blur Sharpen
 - S Rubber Stamp
 - T Text
 - V Move Tool
 - W Magic Wand
 - X Swap Foreground/Background Colors
 - Z Zoom in (Shift+Z Zoom out)
-
- Ctrl+A Selects All
 - Ctrl+B Brightnes and Contrast
 - Ctrl+C Copy
 - Ctrl+D Deselects
 - Ctrl+Shift+D Feather Selection Menu
 - Ctrl+F Fill Menu
 - Ctrl+I Inverts Colors
 - Ctrl+Shift+I Inverts Selection
 - Ctrl+M Curves
 - Ctrl+N New Document
 - Ctrl+O Opens file
 - Ctrl+S Saves current file
 - Ctrl+V Paste
 - Ctrl+X Cut
 - Ctrl+Z Undo
 - Ctrl+Shift+Z Zoom to 100%