µPaint is a free entry-level bitmap paint program. It has just two tools: Pen, to draw any kind of shapes; and Brush, to paint on the canvas with any shape you may have in your library. It is all about shapes. Any of these can be transparent and have a texture and a color. The program is easy and intuitive to use, without loads of complicated tools and settings dialogs. Yet, I think you can have fun using it, and even get nice results!

...read on!

µPaint 5

µPaint 5 has been developed with Mac OS X 10.4, 10.5 and 10.6. It has not been tested in Mac OS X 10.3 and below nor in Mac OS X 10.7 and up. Therefore I am not aware of problems that might exist with those versions of the OS.

To start the application double-click its icon in the Finder. µPaint takes for itself the whole screen space, although the menubar and the Dock are still visible. You can resize de window to the size best suits your needs.

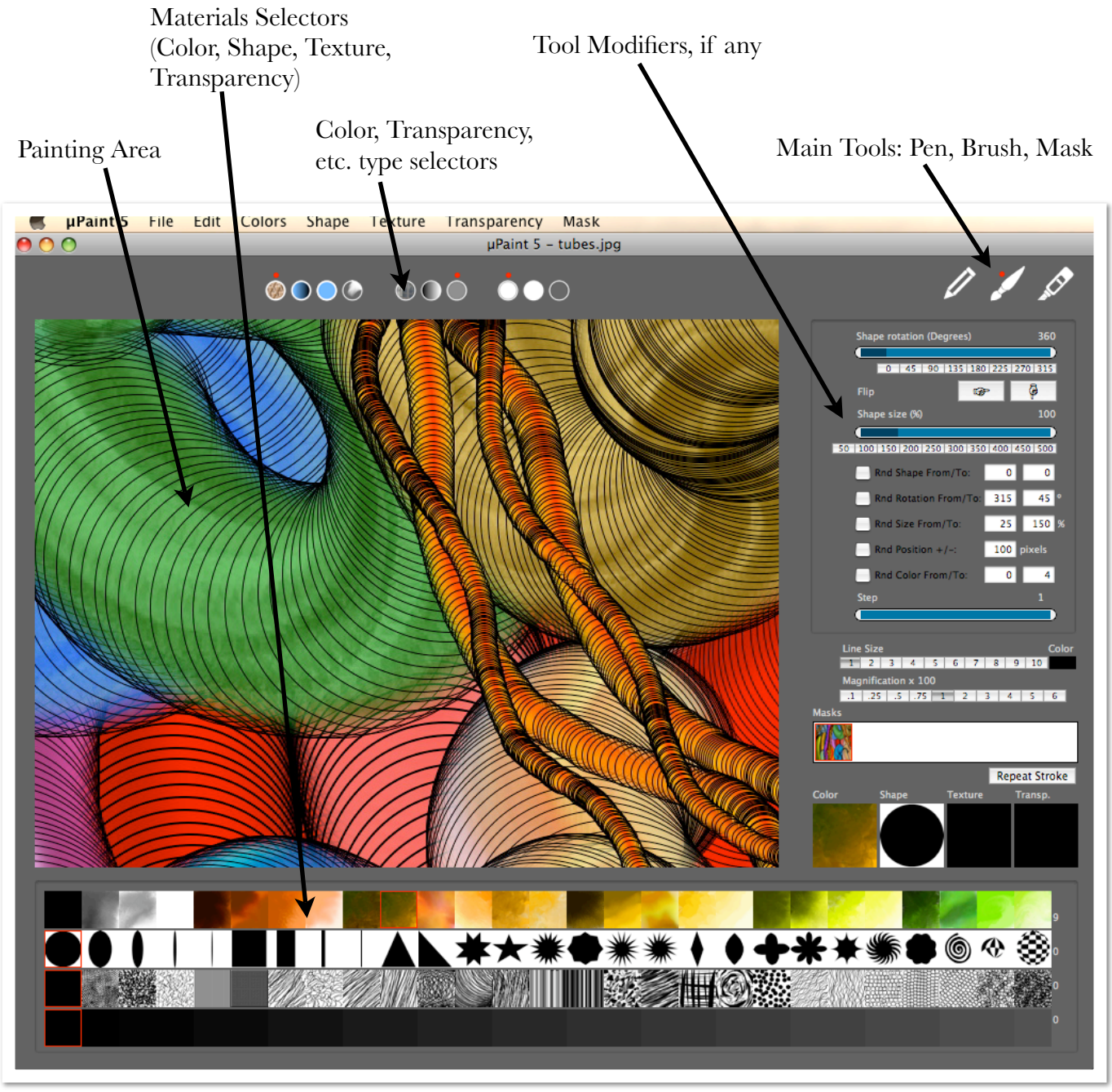
For news or new versions of the program go to this link.

I beg the pardon of those more english-literate than me. As English is not my mother tongue, surely many errors will have found its way into the text. Excuse me, for my only intention is this manual to be read by as many people as possible.

Index

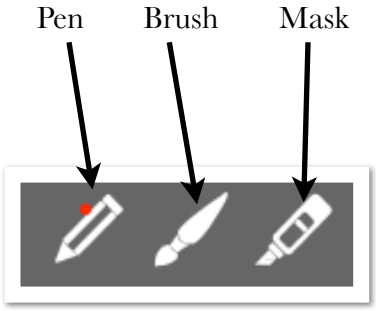
1. Overview

Below there is a screen capture of µPaint main window. A picture occupies the bigger part of the window. Below it you can see the Material Selectors: Four of them. From top to bottom: Colors, Shapes, Textures, Transparencies. To the right of the picture area you will find, on top, the Brush Panel, with several modifiers of brush action. Below are the Line Size and Color selectors, the Magnification selector and four small display that show the current color, shape, texture and transparency. Above the painting area there are several selectors (to change the type of color, etc.). On the top-right the three main tools are to be seen: Pen, Brush (selected in this capture) and Mask.



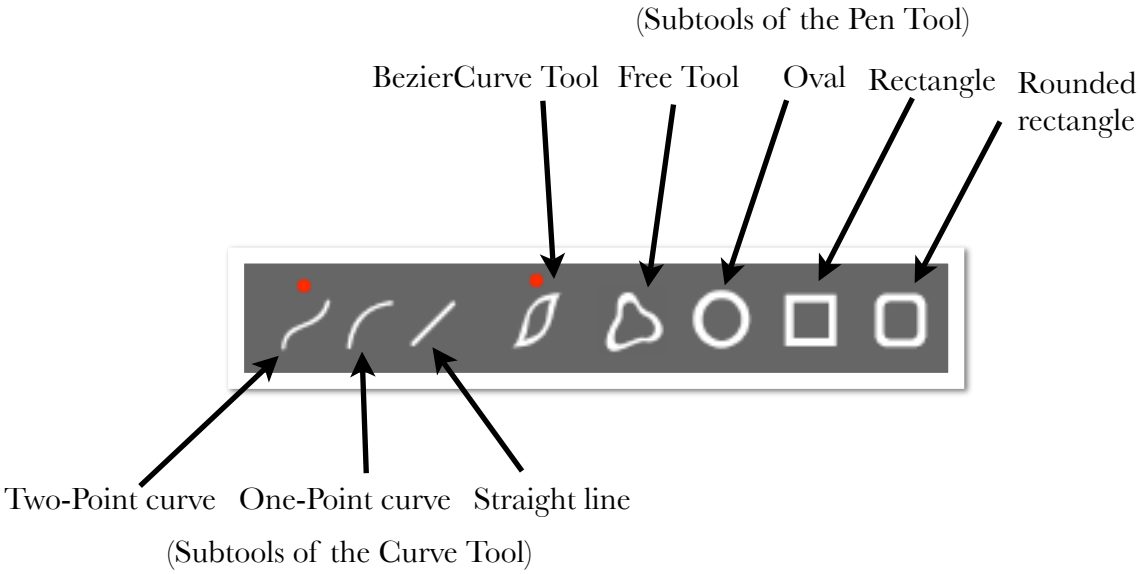
2. Main Tools

Main Tools are two: Pen and Brush. The Mask Tool simply redirects the output of Pen and Brush to the Mask layer. The selected tool is marked with a red dot, except the Mask Tool, which turns red to indicate it is active (and recording a mask layer). Click any of the tools to select it. When you select the Mask Tool it remains selected until you click on it again. Then is deselects itself, and mask recording is stopped.



3. Sub Tools

The Brush and Mask Tools have no subtools. But when the Pen is selected several subtools appear. From left to right: Bezier curve, Free, Oval, Rectangle and Rounded Rectangle. The first one draws two-point or one-point curves, or straight lines. The second, free-form shapes. The other three draw the type of shape they depict. The Curve (Bezier) Tool has itself three subtools, then: two-point, one-point and line tools. The tools and subtools appear and disappear from the display as needed.



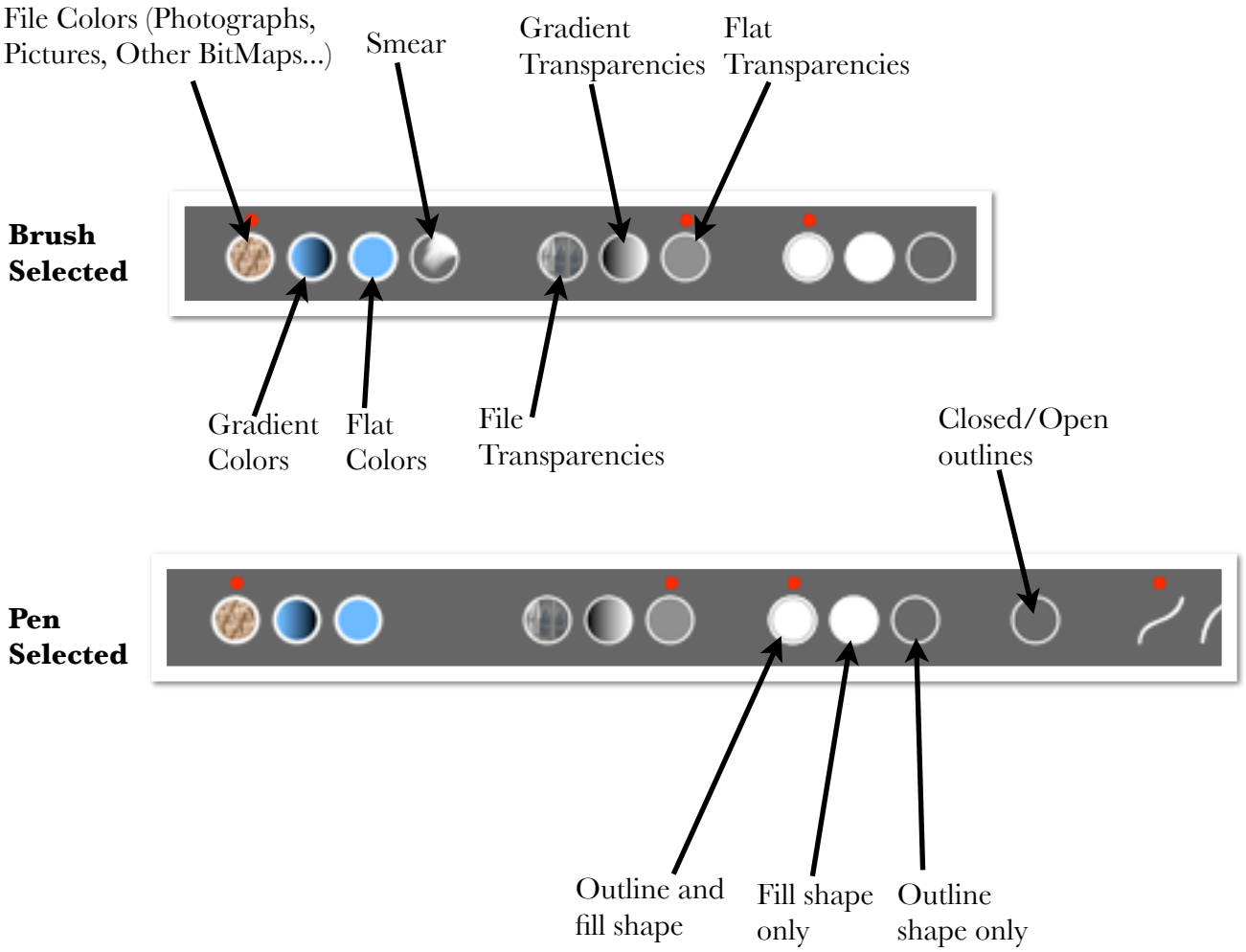
4. Other selectors

Placed at the top of the window there are other selectors, to choose the type of color, the type of transparency, if the shapes are to be outlined or not and, if so, if the outline will close itself or not.

The Smear button does not appear when the Pen Tool is selected, since it does not apply. The Closed/Open outline button is hidden when the Brush Tool is active, since in this case shapes are always closed.

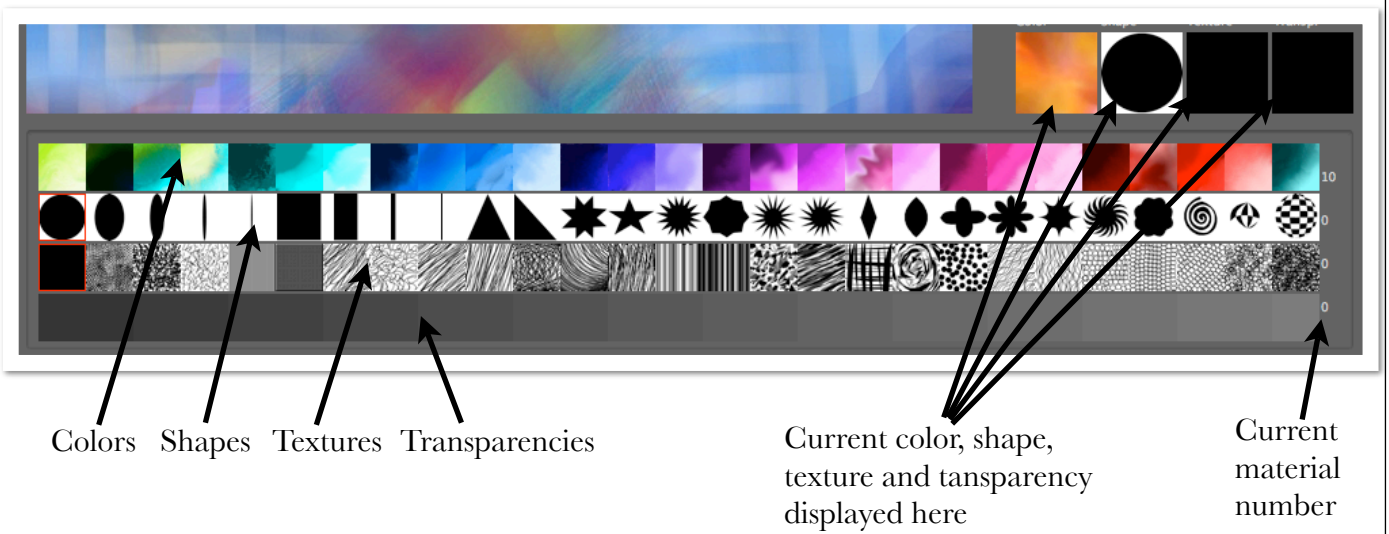
To select any of the material types, click once on it with the mouse. A small red dot will appear above it to indicate it is selected and active. The corresponding material set will be displayed in the materials selectors below the picture area, if needed.

When you click the Smear button the colors selector (Bottom of the picture) will disappear, since you cannot select a color while smearing, as smear itself is a type of color.



5. Materials Selectors

The Materials Selectors are four strips to be found at the bottom of the window. They display the current colors, shapes, textures and transparencies. You can move them, to see those that do not fit into the current display in two ways: dragging horizontally with the mouse, or hitting the appropriate keys on your keyboard (see the table below).



To move the Materials Selectors with the keyboard, as well as to perfomr other actions, follow the next table. The letters are actually the keys you must press, *without* Command-key. The first four columns only move the Selector, without actually selecting anything. The second four columns do select the specified item. Only shapes can be rotated by 5 degree increments.

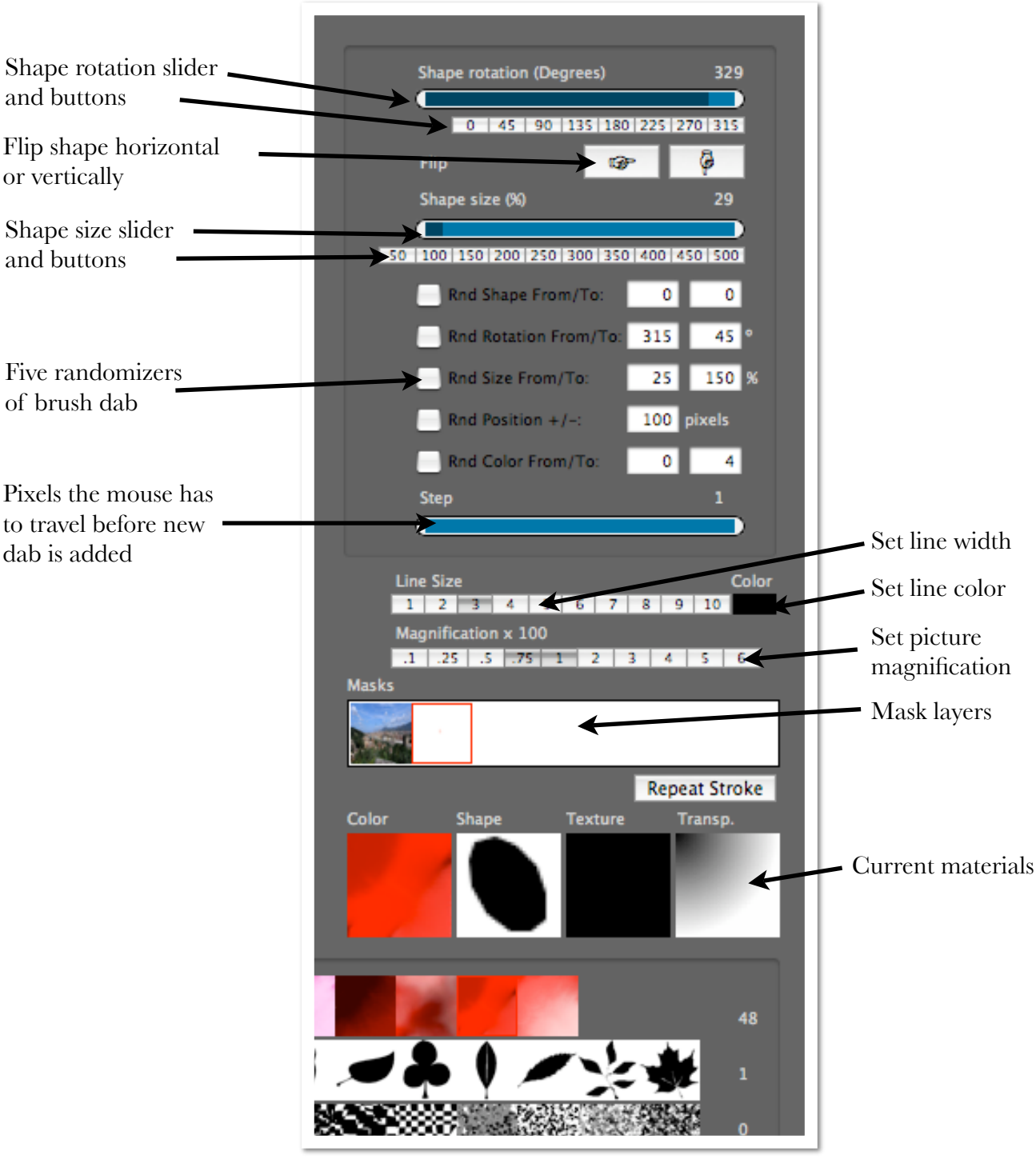
	Go First	Page Down	Page up	Go Last	Select First	Select Prev	Select Next	Select Last	Rotate 90° CW	Rotate 5° CCW	Rotate 5° CW
Colors	1	2	3	4	5	6	7	8	9		
Shapes	Q	W	E	R	T	Y	U	I	O	0 (zero)	P
Textures	A	S	D	F	G	H	J	K	L		
Transparencies	Z	X	C	V	B	N	M	,	.		

CW: Clock Wise. CCW: Counter Clock Wise

6. Brush Panel

When the brush is selected, the Brush Panel is displayed. Below it are the Line Size and Magnification selectors, the Masks display, the Repeat Stroke/Last button, and the four small boxes that show the current color, shape, texture and transparency, including rotation status.

The Brush Panel allows you to set the Shape rotation, Flip the shape horizontal or vertically, set the Step at which the different dabs will be added to the canvas (in pixels), and set the different 'Randoms' that can add variety to your brush strokes. We will see it later.



7. Materials

There are four types af what we call matrials in µPaint: Color, Shape, Texture and Transparency (other programs call this last one Opacity). Color, Texture and Transparency are, in the end, pictures. Shapes are collections of points that define an inside and an outside. The inside shows the color, texture and transparency information provided by the other three materials.

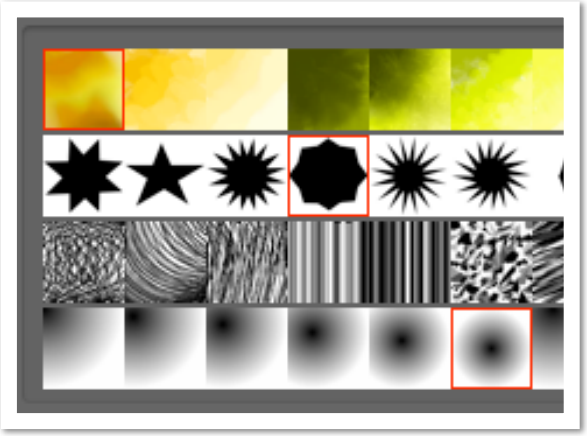
Picture materials (Colors, Textures, Transparencies)

These materials can, in turn, be of three types (Except Textures): File, Gradient and Flat. Textures are only of the File type.

File materials are any kind of bitmap file µPaint can open. Three libraries of File materials are provided with the program, which can be found in the Colors, Textures and Gradients folders of the main application folder. These folders contains simply a number of .jpg pictures the programs reads on startup. If you want to add others or remove any, simply add your files to this folder, or delete the ones you do not like. You can also build your own libraries (folders), collecting the desired pictures in specific folders, and exchanging them with the default at run time. Though you can use any kind of picture, you should be cautious with file sizes. Big pictures can slow a lot the program. The File Materials provided are 100x100 or 200x200 pixels jpg archives, small enough to be easily loaded.

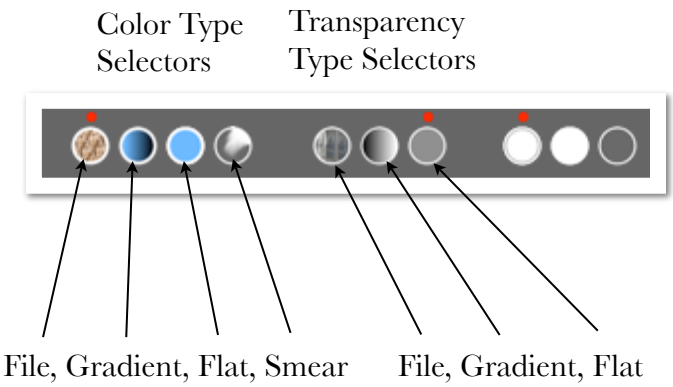
You can use a µPaint picture as a File Material (Color, Texture or Transparency). Simply paint one, and choose the menu command .../Store Picture. The current picture will be added to the corresponding Material Library and can be used as any other already loaded (Keep sizes small!). By storing a picture you do not save it. Therefore, the next time you open µPaint your stored picture will not be there. If you want to store permanently a picture as File Material from within µPaint, export it also (menu File/Export), as jpg for example, to the appropriate Material Folder of the µPaint Folder. In this way you can use µPaint itself to build File Materials libraries.

As to how these materials behave, colors are resized, if necessary, to the size of the brush. If the picture and the brush have not the same aspect ratio, the color picture is stretched, enlarged or disorted to fit the brush. File Transparencies act the same way. Textures, in the other hand, are never stretched to fit the brush size. They are always pasted into the brush in its original size. When the texture picture is smaller than the brush dab, µPaint simply adds more pictures, in a tiled way, to fill it completely, so that texture is consistent throughout your work and picture.



The four Materials selectors. From top to bottom: Colors, Shapes, Textures and Transparencies.

To select the material type you want, use the Type Selectors on top of the window.

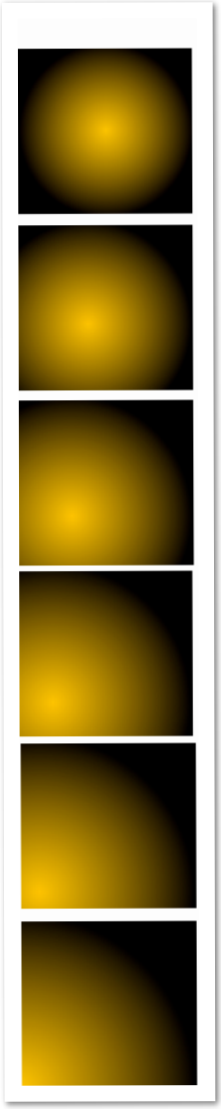


Textures do not have type selectors, since they are always File materials.

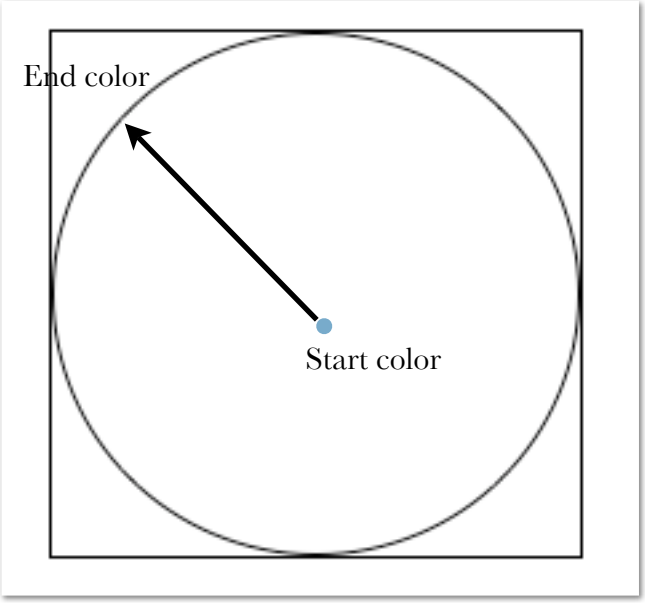
Gradient materials are colors or transparencies that reproduce a smooth transition between two colors or two shades of gray. These gradients are already precalculated, and displayed in the bottom Material Selector when the gradient type selector is clicked. These precalculated gradients comprise more or less all you would probably need, considering that µPaint is an entry level program and that, therfore, its users will not probably look for a very sophisticated gradient construction system. The gradients provided, together with the ability to flip them horizontally and vertically, and rotate them to 90, 180 and 270º will surely be enough for most tasks. Users can not add more gradients to the library, nor delete any of them.

Here is the way they are implemented:

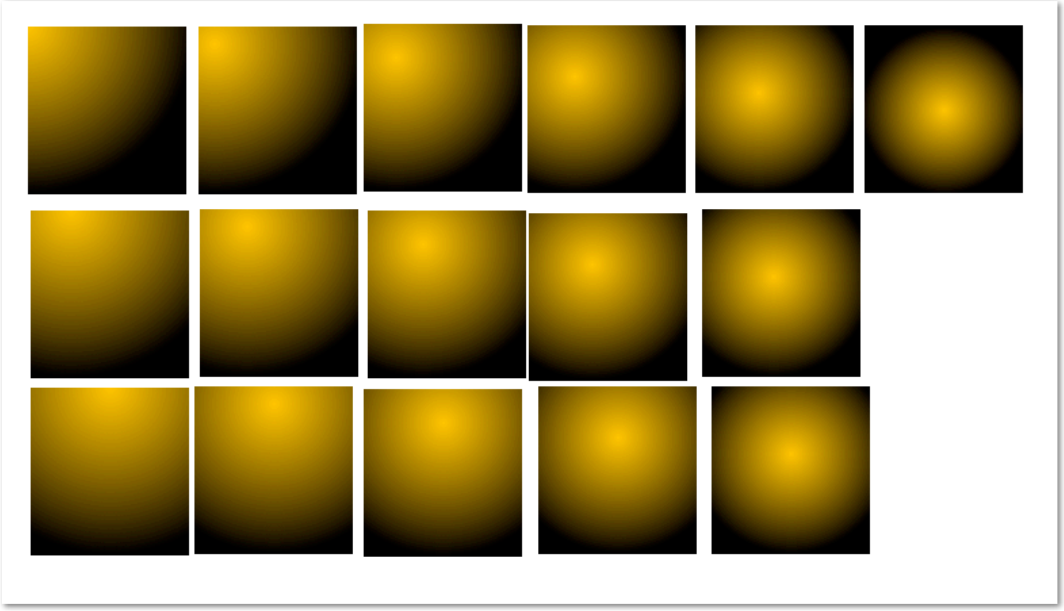
First you have 16 **circular inset gradients**. Circular means that the start color is a single point from which circles of a color each time more similar to the end color spread outwards, until the end color is reached. Inset means that this last circle is inset in the rectangle that contains the brush shape. This way the four corners are fully painted in the end color.



Some gradient colors

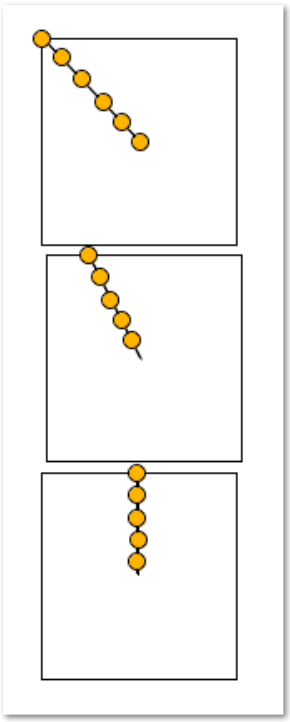


Circle inset gradient representation

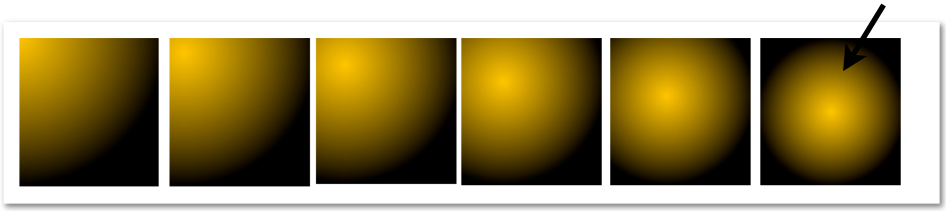


The sixteen circular inset gradients

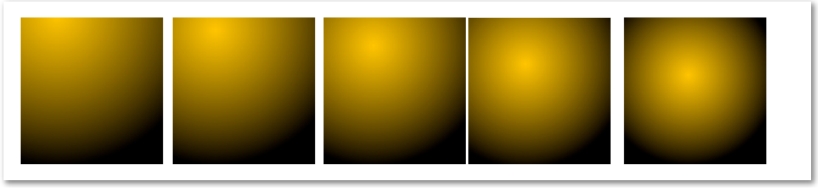
Pictured above you will see the 16 circular inset gradients. In the first six the center of the gradient (the start color) is placed in six equidistant points of the line that joins the top left corner with the center. Therefore the **sixth gradient** (#5) is the precisely **centered** one, and the most appropriate for rounded or oval shapes, and the most appropriate (talking now only of transparencies) for building a smooth brush, the dabs of which will most perfectly blend with each other. The next ten gradients, in groups of five, are formed along a line that goes from 1/4 of the rectangle side to the center, and from 1/2 of the side to the center. They are in groups of five because there is no need to repeat the center gradient. Here is a schematic representation of these gradients.



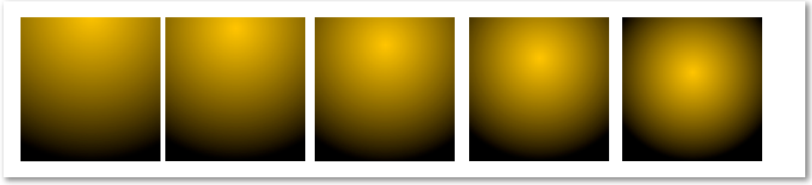
Centered circular inset gradient



Gradients 0 - 5

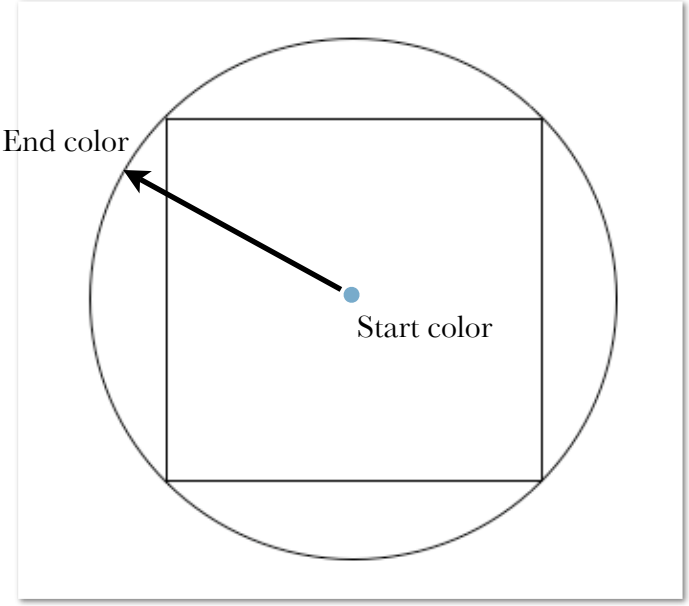


Gradients 6 - 10



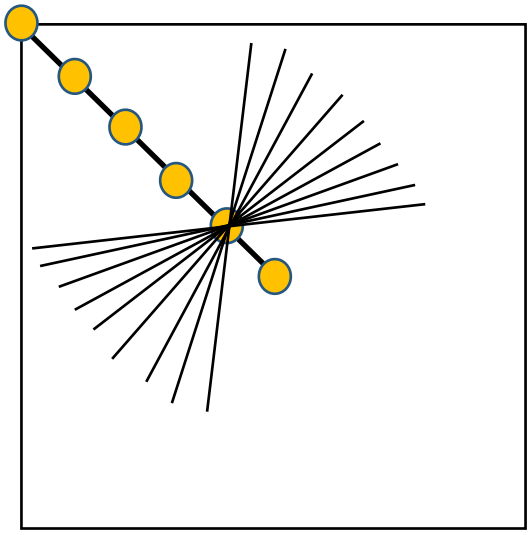
Gradients 11 - 15

The next sixteen gradients are the **circular offset gradients**. They are very similar to the inset ones, but in this case is the rectangle enclosing the brush dab what is inset in the end color circle, instead of the opposite. This way the end color is really only reached in the corners (or some of the corners) of that rectangle. This type of gradient is more convenient for rectangular or irregular shapes. The **gradient #21** in the Materials Selectors is the centered circular offset gradient.



Then come the **linear gradients**. These are somehow easier. They are built from lines that go in color from start to end color. The following ten gradients are the purely vertical and horizontal ones. Of course, horizontal gradients can be obtained from rotating vertical ones but, as these two types are quite used, the program provides them both to ease its selection. You can flip them to obtain the remaining sides.

Next come the **oblique gradients**, which are linear gradients but neither horizontal or vertical. A schematic representation would be as follows:



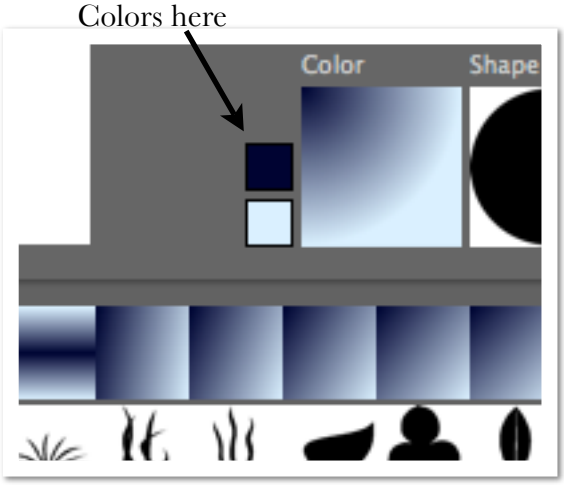
As you can see, there are nine gradients, from almost horizontal to almost vertical, along six centers, from topleft corner to center of the rectangle. Therefore, there are 54 oblique gradients to choose from. Along with the possibility of flipping and rotating them, this should provide for most needs. Of course, you have to think in each case what kind of conversion would produce the desired gradient, but you will get soon used to it.

You can edit the gradient materials using the menus Colors/Gradient Colors/Edit... and Transparency/Gradient Transparencies/Edit... In the first case you can choose the Start and End colors. In the second, the Start and End transparency.

Flat materials are pure colors or shades of gray (for transparencies) with no variations along the covered surface. These colors can be displayed either as spectrum colors, in which all colors are shown in a rainbow-like manner, or as shades between two colors. You can switch between them with the provided menus (Colors/Flat Colors), that let you also choose different quantities: 25, 50, 100 or 256 shades or 100 (10x10) or 256 (16x16) spectrum colors. To change the colors to be shaded or to form the gradients see later.

Fast colors selection. When Gradient or Shade Colors are selected, two small color squares appear by the side of the Current Color Box. Clicking on them will alow you to change the Start (Top) or End (Bottom) colors.

Change Flat Colors here



Final Materials Warning: File Colors are supposed to be, effectively, *color* pictures, File Textures are supposedly grayscale pictures apt to act as textures, and File Transprencies should ideally be smooth grayscale pictures appropriate to be used as such. But µPaint has no File Colors or Textures archive types, or any other machanisms, that will prevent you from loading whatever you want wherever you want. Therefore you can load color pictures in the Transparencies Material Selector, or textures in the Color Selector. It is up to you. While this can be quite messy, you can also get curious or even interesting results. You cannot harm the application experimenting this way. In the other hand you do have to load shapes and nothing else into the Shapes Material Selector, and the program has its own file type for that, and will not allow you to load other materials. This is because shapes are not pictures, but sets of points that can be outlined, resized and freely rotated, and the program would crash if you tried these commands with the wrong object.

SHAPES

As it has been just said, shapes are collections of points. They enclose an inner region that will display the color, texture and transparency of your brush. Shapes are made in µPaint with the Pen Tool. Anything drawn with this tool is a shape. You can not import shapes from other programs or formats. If you make a shape you want to add to the library, choose the menu Shape/Store. The last shape drawn with the Pen Tool will be added to your Shape Library in the last position. The Shape Selector is not moved for you to see the new added shape.

You can save your libray, open or append libraries, et. (see Menus section).

8. Pen Tool

The Pen Tool is for drawing shapes

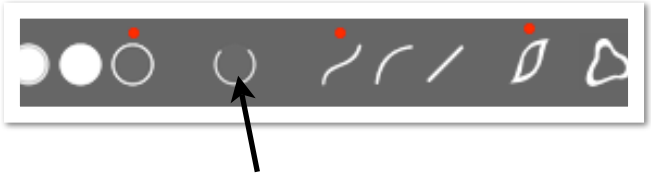
Select the Pen Tool

Then select one of the subtools: (From left to right) Bezier curve, Freehand, Oval, Rectangle, Rounded rectangle.

If you select Bezier curves, then you should also select one of three sub-subtools: (From left to right) Two-point curves, One-point curves, Straight lines.

Then draw in the image area. With all subtools, except bezier curves, your shape will be finished once you release the mouse. You can fill it with the current color, fill and outline, or simply outline it with the line thickness and color or your choice. If you choose to outline it, with Freehand and Bezier Tools you can lastly choose whether the shapes will close the outline automatically (in case you do not finish it yourself) or not. See later. Ovals and rectangles always close themselves. In the Materials selectors situated at the bottom of the window, choose also the texture and transparency your shape is going to have. Use the Line Size and Color buttons to set these attributes, if your shapes are outlined.

To set the shape **closed** or **open**, click once the open/close button on top of the screen. It is only visible when you can use it. When the circle seems to be broken, your shapes will remain unclosed, such as you let them. When it looks closed, your shapes will close themselves (with a straight line) if you do not end your drawing where you started it.



Open/Close button

PEN SUBTOOLS

There are five Pen Subtools: Bezier Curve, Freehand, Oval, Rectangle and Rounded Rectangle. The use of the last four is quite straightforward: Click your mouse and hold, drag and release. Once you let the mouse button go, your shape will be computed and rendered in place.

The Bezier curves are a bit more complex and you should learn how they work.

Lets start with **straight lines**:

1) Click the mouse wherever you want your first (or only) line to start. Hold mouse button.

2) Drag the mouse. A line (Of the thickness set with the Line Size buttons) will follow the mouse pointer, starting in the first spot you clicked at.

3) When you are happy with the line, release the mouse.

4) Two red dots (big red dots; we call them ***handles***) will appear over the line, one in the starting and other in the ending points.

5) If you now move (Click and drag) the *first* handle, you will move the entire line as a block. If you move the *second*, only the ending point will be moved. This way you can fine-tune your line, if needed.

6) If you want to create another line (to make a polygon, or any kind of shape made out of straight lines) click outside any of the red handles. If yo simply click, a line will be added between the end point of the previous line and the clicked one, and you find yoursel in point 4) of this list. If you click and drag, go to the point 2) of the list.

7) With this procedure, draw as many lines as you need. Everyone is connected with the previous one.

8) When done, click once in one of the handles. This means "shape over". Your new shape will be computed, with its color, texture and transparency, and rendered.

Only the last line has handles. The handles on one line disappear when you start drawing the next. Once the line lose their handles they become bitmap and are no longer editable. You can not reselect them later to adjust them. Therefore, if upon completing a polygon, you decide is not what you wanted, the only solution is undoing it and starting over.

One and two-point curves drawing procedure is very similar. Only that they have **control points**. Obviously one-point curves have one control point and two-point curves have two. The first draw "C" shaped curves and the secon, "S" shaped curves. This is only an aproximation, of course. You can draw "Cs" with the two-point curves, though you can not draw "S" lines with one-point curves.

1) Start as with straight lines, and proceed as far as the point 3) of the previous procedure.

2) When you release the mouse the handles do not appear.

3) Click and hold in the point where you more or less expect the first control point to be. This needs some experimentation, but you will soon get it. The first part of the line will now bend towards the mouse pointer. The first part is the half of the line between the start point and a point in between of start and end points. Release the mouse when satisfied.

4) Click and hold again where you suppose the second control point will be found. Drag around, moving the second half of the curve.

5) Release when you think is time.

6) Four handles will appear, at the start and end points, and where the first and second control points are. Move them to adjust the shape, if needed.

7) Click outside the handles to start a new curve, or inside any of them to finish the shape.

This is the method for drawing two-point curves. For **one-point** curves is identical, except that they have only one control point, which bends the whole curve towards it, and handles will appear after setting the first (and only) control point.

Repeat Last. If you click this button, the last shape drawn will be repeated, in the same position. This is handy in cases you think the effect you got is not the one you wanted.

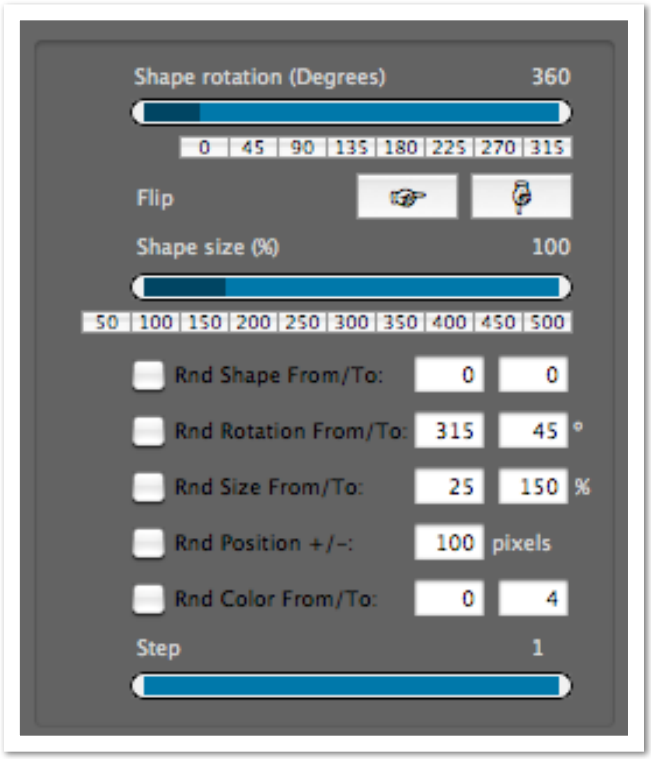
Undo the action, choose new color, transparency or texture, click outlined/filled... and click Repeat Last.

9. Brush Tool

Wth this tool you actually paste continually a shape into the canvas. You select the shape in the Shape Material Selector, at the bottom part of the screen.

The Brush Panel

After selecting the shape you want to work with, you can modify it in several ways. You can, of course, choose the color, transparency and texture from the Color, Transparency and Texture material selectors, but you can also use the Brush Panel:



From top to bottom, you will find:

1) Shape rotation slider and buttons. Drag the slider to set the rotation angle, or choose some predeterminate angles with the buttons below it. Angles count starting at 12 h. (0º) clockwise until reaching again 12 h (360º).

2) Flip. These two buttons flip the shape. The first one horizontaly and the second vertically.

3) Shape Size slider and buttons. Controls the size in percent increments. The original size is, therefore, 100. To double the size (horizontally and vertically) choose 200 and so on.

4) Rnd Shape From/To. In the two fields to the right of this checkbox write the numbers that appear to the right of the Shape Material Selector when you click on a shape. As you paint the shape of the brush will change randomly between those contained in the interval.

5) Rnd Rotation From/To: Write the angles (in degrees) between which the shape will randomly rotate as you paint.

6) Rnd Size From/To: Write the percentual sizes your shape will move through your strokes (100 is the original size).

7) Rnd Position+/-: Your shapes will appear in a random position within a saquare of side 2n (n being the figure you write in the box), and centered on the mouseClick.

8) Rnd Color From/To: Write the two colors you like (choosing from the numbers that appear to the right of the Color Material Selector). The color of the next brush dab will be randomly chosen between them as you paint.

9) Step. Is the number of pixels the mouse has to travel before a new dab is added to the canvas.

As you must have already seen, µPaint does not use ***continuous* brushes**: strokes that, no matter how fast you draw, show no holes in its path. Rather, µPaint adds a new dab (a new shape) to the canvas in each mouseDrag event (do not mind if you don't know what this is).

Therefore, if you move your hand fast enough, the dabs will be drawn separated one from each other. If you set Step to 1, for example, this step will only be kept if you draw slowly enough. Otherwise the dabs will be more separated. While this can be an issue at some moments, in others allow for some interesting effects. In any case we think that, given µPaint's stress in shapes, continuous painting is less interesting.

Repeat Stroke. If you click this button so that it appears selected (gray), when you next clik in the canvas, the whole last stroke will be painted, instead of a single brush dab. While repeating strokes you can change any of the brush attributes, to get other effects.

10. Mask Tool

The **Mask Layer Selector** is a Material Selector as the four other at the bottom of the screen. You can click the mask layer you want to work with to have it selected. You can drag it with the mouse, if you have more layer than those that fit in the display. You can use the menu 'Mask' to delete, hide or move the layers (see later).

Mask Layers are a bit different than layers in other programs. In µPaint, when you make a new layer you first draw some masks in it and then paint into those masks. They are in fact floating masks more than true layers.

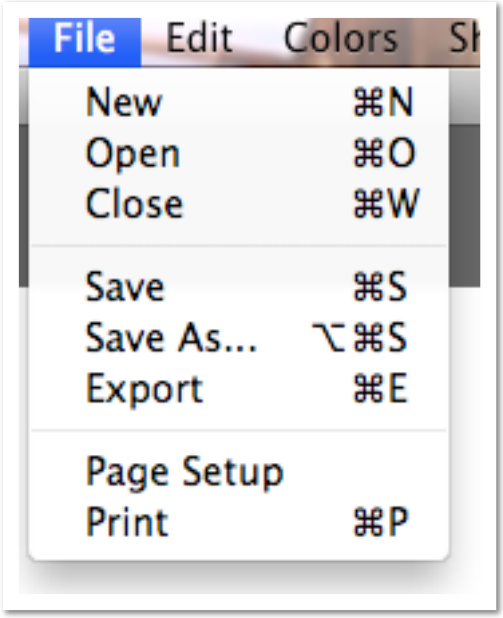
You can draw any number of masks in a layer, or only one, you choose it. And you can use either the Pen or the Brush. If you use this last tool, bear in mind that each dab is added as a separate mask. Therefore undoing the las action will erase the last dab of the last stroke, not the whole last stroke. As µPaint has 16 undo levels, if you paint a stroke with more than 16 dabls, you will not be able of undoing it all.

You **start a new layer** simply by clicking the Mask Tool Icon, on the top-right of the screen (with the look of a cutter). The icon will turn red. Paint your shapes (with Pen or Brush). Initially they will appear in red, though you can change the color to better see them (Depending the background colors). Once you have finished painting masks, click the Mask Tool Button again to **finish the layer**. The icon will

turn white again. All your shapes will be rendered white also, with nothing inside. You have now to start painting in them. Your strokes or shapes will only appear inside the masked areas. Depending on the transparency and texture settings of the masks, you will be able to see more or less through them. When you **make the masks**, they inherit the **current texture and transparency**, but it is possible to change them at any moment, with menu commands (see menus section).

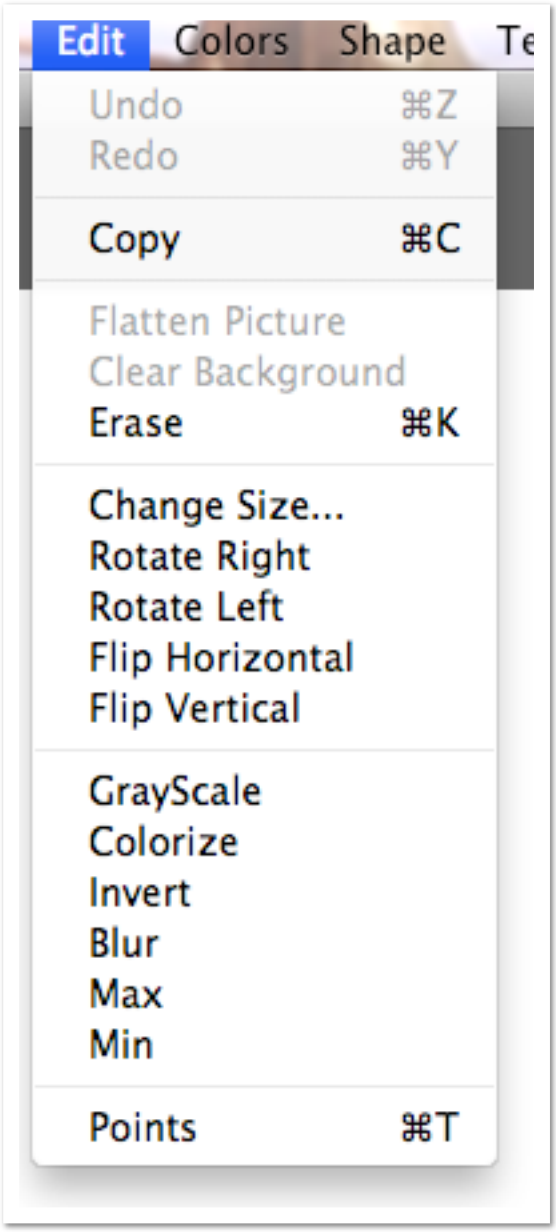
11. Menus

File Menu



New: Creates a new µPaint picture. Shows a dialog to set the width, height and resolution of new picture. Click Ok to actually create it. The previous picture, if any, does not disappear. You can go back to it at any moment pressing PageDown key.
Open: Displays a dialog for locating a picture to open. Can be a µPaint picture, or any kind of graphic file µPaint is able to open. µPaint files keep the layer information.
Close: Closes current picture. Asks for saving it, if modified.
Save: Save current picture. If it has been previously saved, is saved to the existing path, replacing old file. Otherwise, acts as Save As...
Save As...: Opens a dialog for naming and saving your picture as a µPaint file. The name given to the picture is displayed in the window title bar. The layers are saved with the file.
Export: Opens a dialog for saving your picture as any of several graphic formats, with some options. The layer information is lost in the exported picture -not on your actual archive. When you Export a picture, µPaint considers it has not been saved (Only exported!), and the picture is not tagged as saved. The name of the exported file is not displayed in the window title bar.
Page Setup: Opens a dialog for setting some printer page characteristics.
Print: Opens the standard print dialog.

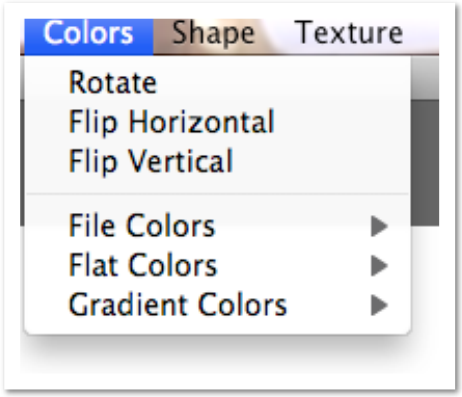
Edit Menu

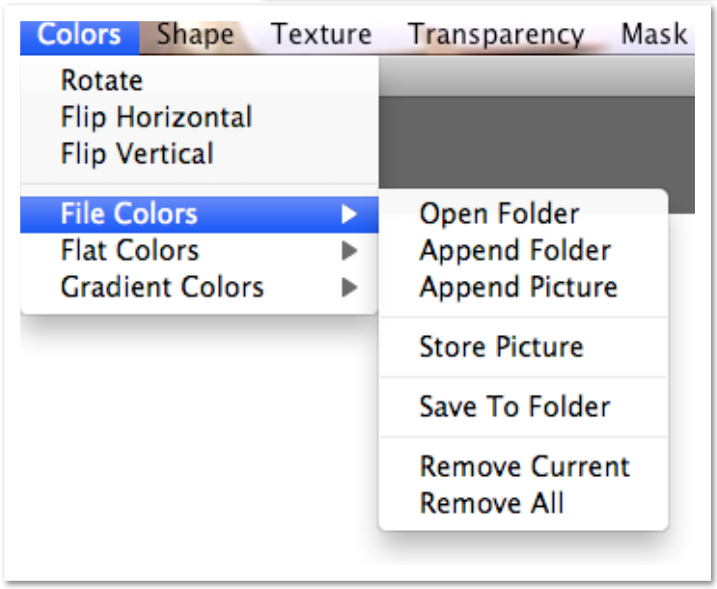


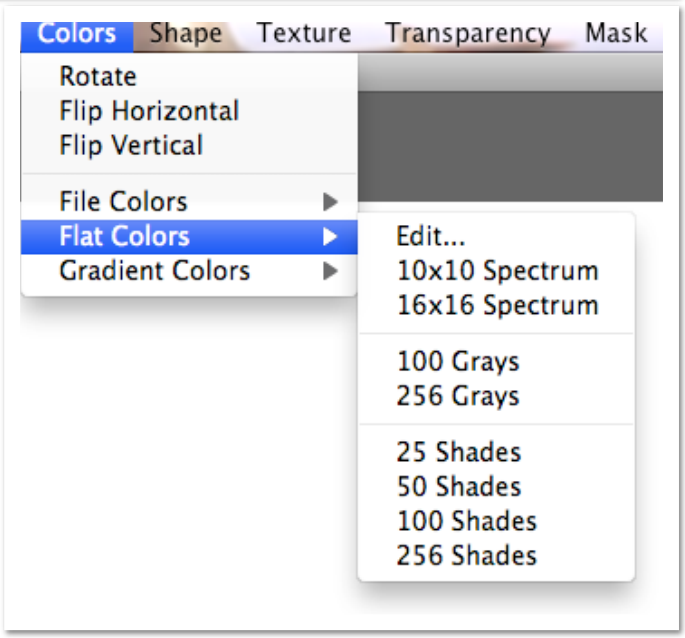
Undo: Restores the canvas to the sate previous to the last painting action. When painting masks, deletes tha last mask. In case of a brush stroke, if painting masks, deletes anly the last dab. If painting normally, deletes the whole stroke.
Redo: Performs again the last undoed action. Does not work with masks.
Copy: Copies the whole picture (Flattened) into the clipboard, where it remains to be used by other applications. Has no use inside µPaint.
Flatten Picture: Pastes all mask layers onto the background, and deletes them. Converts a multilayered picture in a simple one.
Clear Background: Deletes all painting in the background (Layer 0), making it white.
Erase: Clears background and erases all layers (Reset picture). You end up with a single blank background.
Change Size...: Opens a dialog for changing size or resolution of picture. Creates a new picture, preserving the original unaltered (Move between pictures with PgDown, PgUp). Layer information is lost.
Rotate Right: Rotates the whole picture 90º clock wise. Creates a new picture, preserving the original unaltered (Move between pictures with PgDown, PgUp). Layer information is lost.
Rotate Left: Rotates the picture 90º counter clock wise. Creates a new picture, preserving the original unaltered (Move between pictures with PgDown, PgUp). Layer information is lost.
Flip Horizontal: Creates a new picture which is a specular image of current picture. The mirror would be placed below the current picture. Creates a new picture, preserving the original unaltered (Move between pictures with PgDown, PgUp). Layer information is lost.
Filp Vertical: The same, but the mirror would be placed to the right of current picture.
Grayscale: Makes a grayscale version of current picture. Creates a new picture, preserving the original unaltered (Move between pictures with PgDown, PgUp). Layer information is lost.
Colorize: Choose Flat Colors. Choose any of them. Choose 'Colorize'. A new version of current picture will be made, in monochrome, with the selected hue. Creates a new picture, preserving the original unaltered (Move between pictures with PgDown, PgUp). Layer information is lost.
Invert: Inverts the color of every pixel of current picture. Creates a new picture, preserving the original unaltered (Move between pictures with PgDown, PgUp). Layer information is lost.
Blur: Softens the current picture. Creates a new picture, preserving the original unaltered (Move between pictures with PgDown, PgUp). Layer information is lost.
Max, Min: Performs these pixel operations on the current picture. Creates a new picture, preserving the original unaltered (Move between pictures with PgDown, PgUp). Layer information is lost.
Points: Opens a small palette with information on the current mouse position.

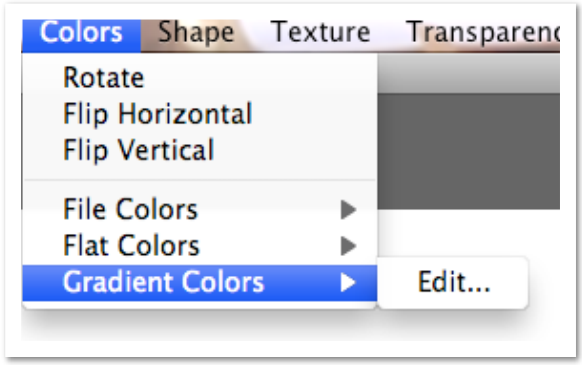
Colors Menu

Rotate: Rotate color 90º clock wise
Flip Horizontal and Vertical: Flip color.
File Colors.
Open Folder: Opens a dialog for locating a Folder. If it contains readable pictures, loads them as colors, erasing the previously open.
Append Folder: Opens a dialog for locating a Folder, and appends any readable picture to the current colors.
Append Picture: Opens a dialog for locating a picture, and appends it to the current colors.
Store Picture: Appends current picture to current colors. Does not save the picture to disk.
Save to Folder: Opens a dialog for locating or creating a folder, and saves there all current colors, as pictures.
Remove Current: Erases current picture from the current colors list.
Remove All: Erases all current colors. Clears the current colors material selector (The last used color is kept in memory, until you choose another one).
Flat Colors.
Edit: Opens a dialog for editing the colors of flat colors: In it you will find two color boxes and one text field. Click on the color boxes to choose the Start and End Colors. Write a number to set the number of colors. A shaded strip of colors will be created, from Start to End colors.
10x10 Spectrum: Displays in the Colors Selector a Spectrum type color list with 10 hues and 10 shades of each (100 colors).
16x16 Spectrum: Displays in the Colors Selector a Spectrum type color list with 16 hues and 16 shades of each (256 colors).
100 or 256 Grays: Displays a Flat Color List of 100 or 256 shades og gray.
25, 50, 100, 256 Shades: Displays a Flat Color List of 25, 50, 100 or 256 shades of color, Using the current Start and End colors.
Gradient colors.
Edit: Opens a dialog with two color boxes: Start and End colors of gradients.

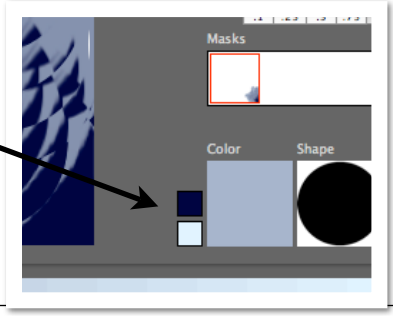






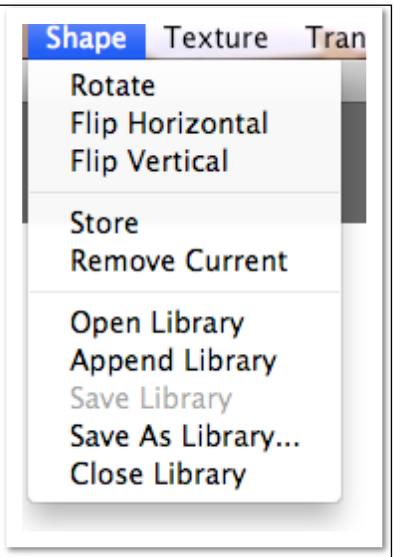


Click here to edit Start and End Colors



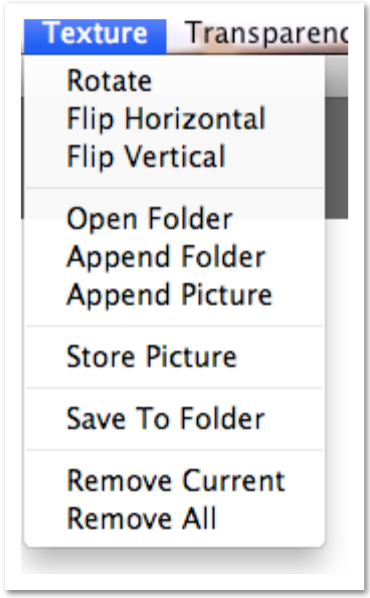
Shape Menu

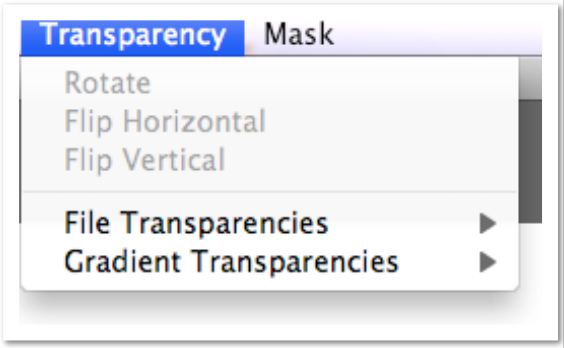
Rotate: Rotate shape 90º clock wise.
Flip Horizontal and Vertical: Flip shape.
Store: Appends last shape made with the Pen Tool to the shape list.
Remove Current: Erases current shape from the list.
Open Library: Opens a dialog for locating a shapes library and loads it. Current library is closed.
Append library: Opens a dialog for locating a shapes library, and appends it to current one.
Save Library: Saves current shape library with the name and location it had (Overwrites old file).
Save As Library...: Opens a dialog for saving the current shape library with other name or in other location.
Close Library: Closes current shape library, leaving a blank Shape Material Selector.

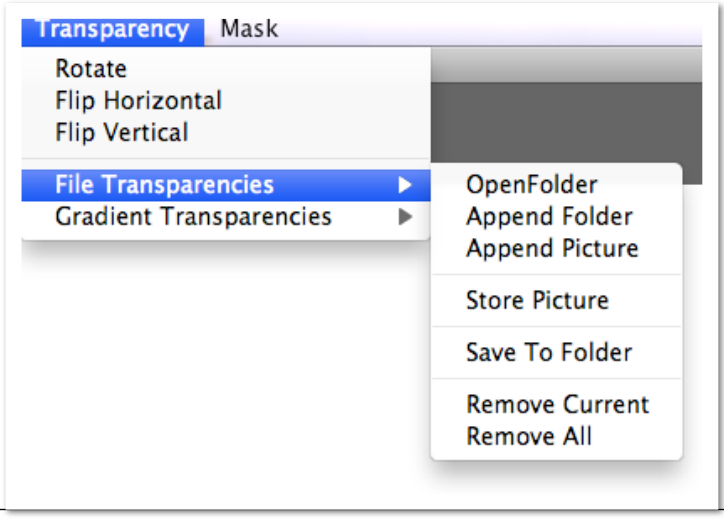


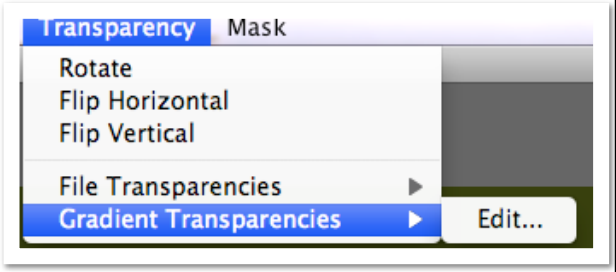
Texture and Transparency Menus

Texture and **Transparency** menus are very similar to the Colors menu, as texture and transparency can also be picture or, in the case of transparencies, flat or gradient materials. See the **previous page** for an explanation of each one of the menus.

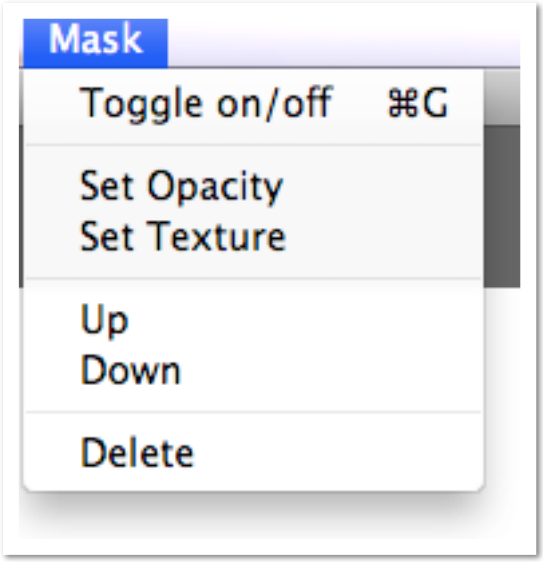








Mask



Toggle on/off: Switches the visibility of current layer, to be able to work beneath it without trouble.
Set Opacity: Changes the transparency of all masks of current layer to the currently selected in the Transparency Material Selector.
Set Texture: Changes the texture of all masks of current layer to the currently selected in the Texture Material Selector.
Up: Moves the current layer one step upwards.
Down: Moves the current layer one step downwards.
Delete: Kills current layer.

12. Other Keyboard Shortcuts

Page Down: Shows any previously created picture still in memory. You may have as many open pictures as your memory will allow.
Page Up: Shows the next picture in memory (created after the current one).
Space+Click: Center the picture.
Space+Drag: Move around the picture. Use when the magnification is such that you can not see the whole picture, or when you want to paint with more accuracy in one border or corner.
Command+Space+Click: Zoom in 20%.
Alt+Command+Space+Click: Zoom out 20%. This command concflicts with the Finder command for search. To avoid the conclict try to press the Alt key *after* pressing the other two.
Command+Click: Pick color from the picture. The picked (flat) color will show in the current color box, no matter what type of color you are using. Your current color list will not be modified.

(For the remaining keyboard shortcuts see page 7).

End