

# User Manual for The MemeMachine

## Getting Started

See build.txt to compile and run the program.

## The Main Window Program

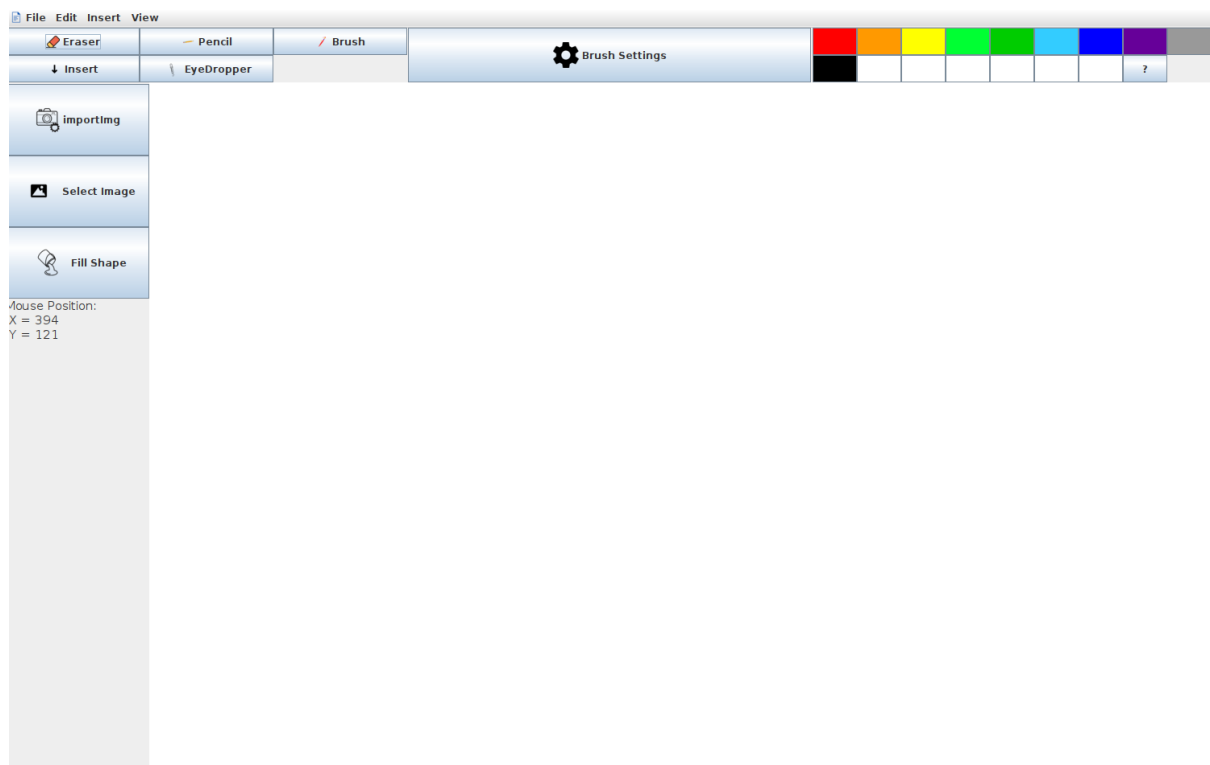


Diagram 1. Showing the main window of the program

You should be greeted with the main application window of the program based on Diagram 1

We can split the program to 5 different main components of this pixel editor:

- 1) The stationary toolbox - this is where you can select the different types of tools to apply onto the canvas such as Brush, Eraser, Insert, Eyedropper and Pencil tool.
- 2) It also comes with a brush setting feature where you can adjust the thickness of brush and the dashed distance. Adjusting the thickness of the brush will also adjust the thickness of the eraser, size of shape inserted.
- 3) We also have a colour toolbox, this is where you can change colours to be drawn on the canvas. Clicking on the empty colour palettes allows you to insert custom colours.
- 4) The side of the window also has a toolbar with different features integrated such as importing images onto the canvas, selecting the images allows the image to be

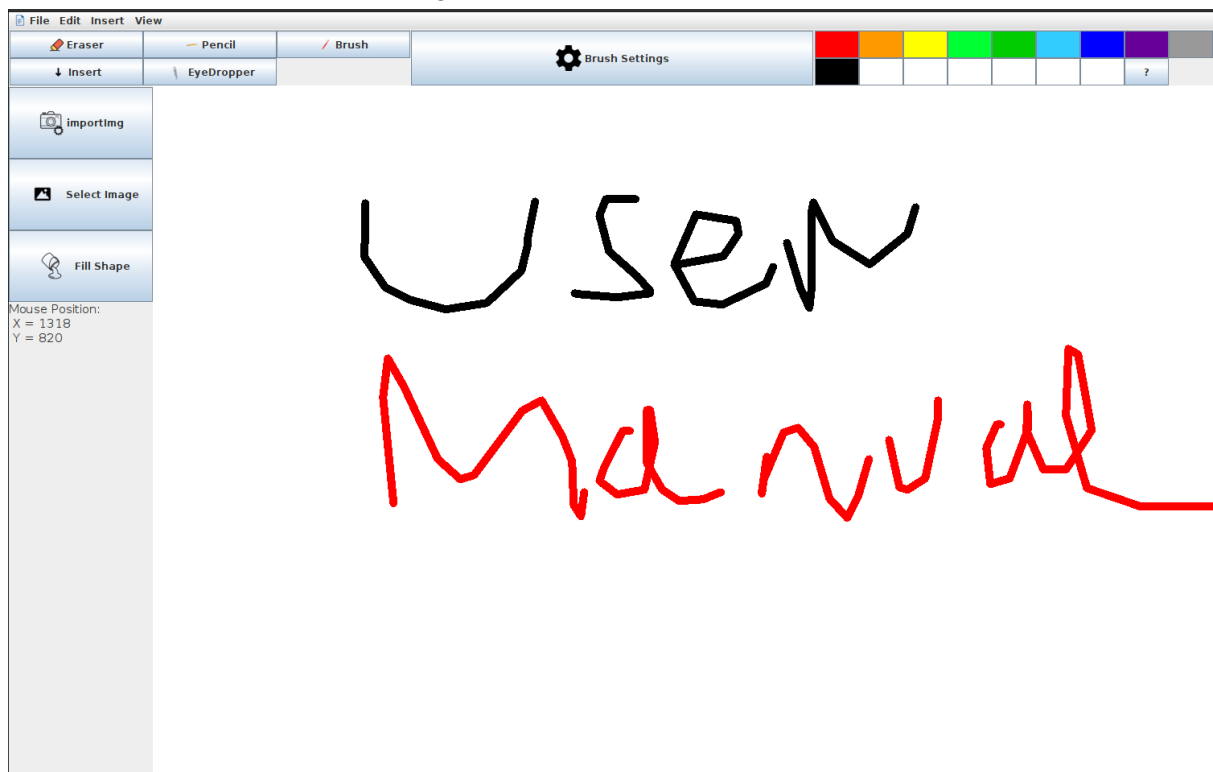
repositioned on the canvas, Fill shape will allow you to fill a given area drawn on canvas to be filled with colour. The change background feature allows you to change the background of the canvas. The side window also has a coordinate tracker for your cursor when your cursor is hovering over the canvas.

- 5) The top of the window also has the window toolbar with different options:
- a) File- has save, open and exit functionality
  - b) Edit - contains Undo/Redo and also a Colour Wheel that you can also add custom colours to the palette.
  - c) Insert- has an option to insert an image.
  - d) View- has an option to zoom in or zoom out of the canvas.

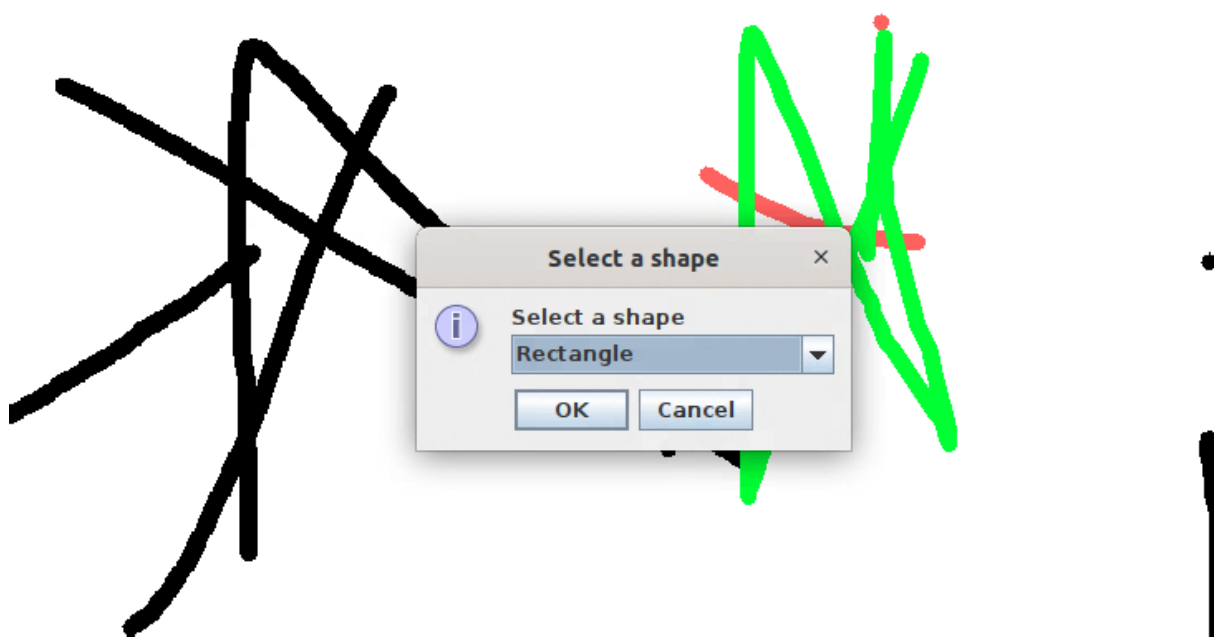
## Drawing On Screen

To begin drawing on screen, switch to Brush mode by clicking on Brush tool square. Next, click and hold and begin to drag your mouse/touchpad. The method works similarly with the erase and pencil tool.

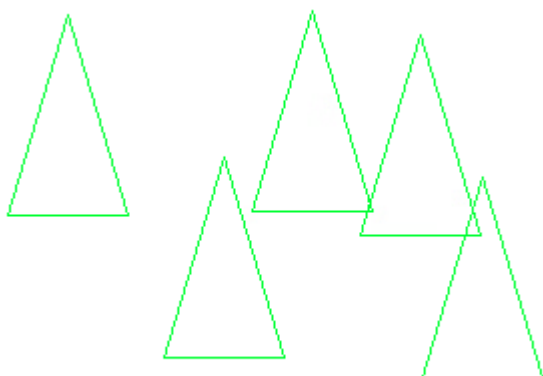
Your canvas should have drawings on the screen as follows:



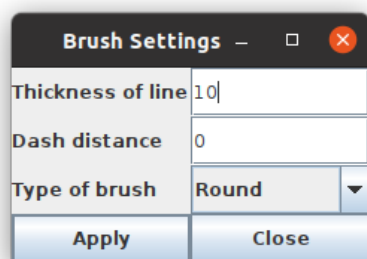
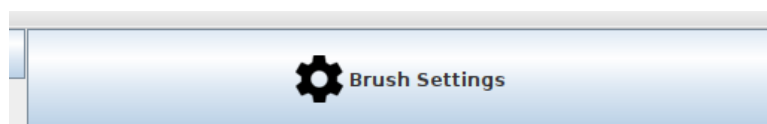
To insert a shape click on Insert tool and a popup window will appear, you can select multiple shapes based on the dropdown menu attached.



The size of the shapes are dependent upon the brush size, their colour is that of the brush. Here is an example containing Triangle shape chosen



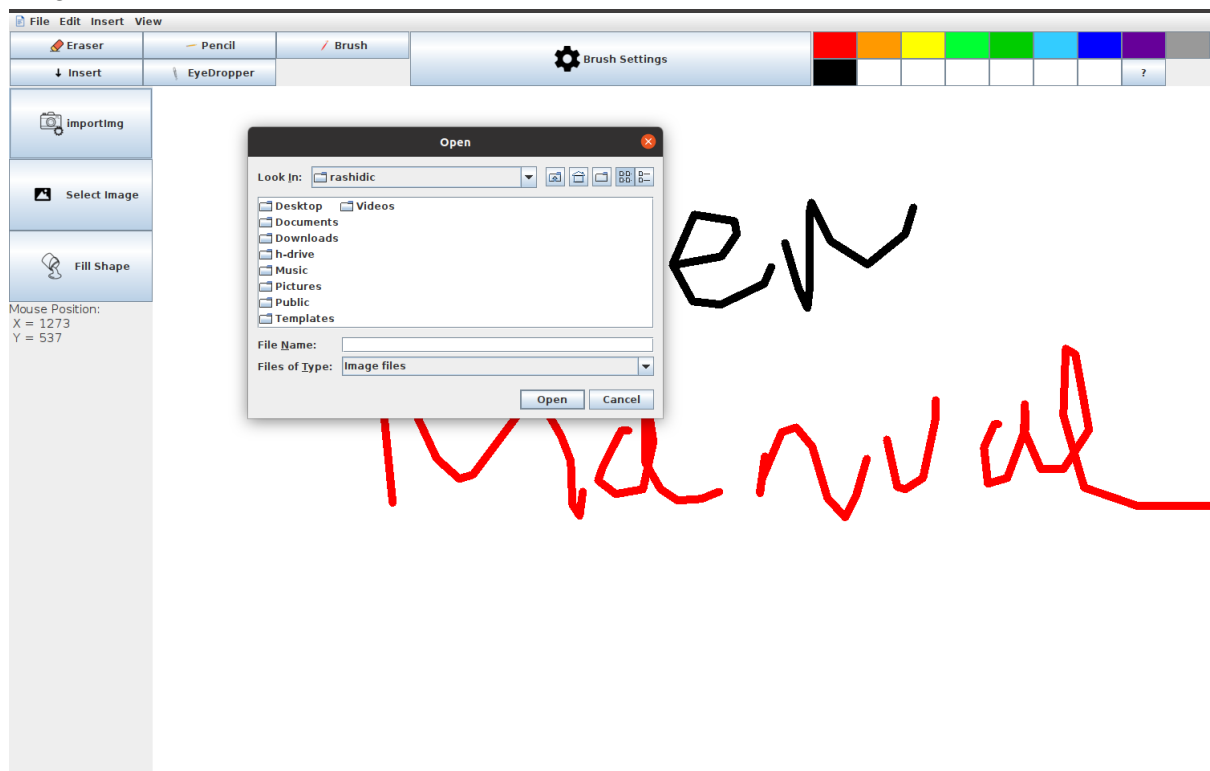
## Brush Settings



Clicking on the Brush Settings button opens the pop-up as shown. From here, you can adjust the thickness of the line, where the default is 10. You can also make the lines dashed by increasing the distance between dashes, where a dash distance of 0 is a normal smooth line. Finally, you can change whether the lines you draw have round edges, or square edges. In order to cause these changes to go into effect, you press the apply button, which also closes the menu.

## Importing and Moving Images

Click on Insert from window toolbar or ImportImg button to select which image to choose. The image should appear on the top left of canvas.



To move any images, click on the “Select Image” button, it should turn yellow. Double click on the image and hold your mouse to move it around.

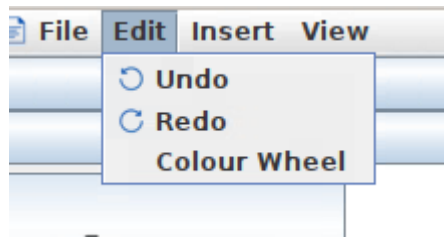


## Undo/Redo

To perform an undo/redo operation, you can right click on canvas that will prompt a small menu

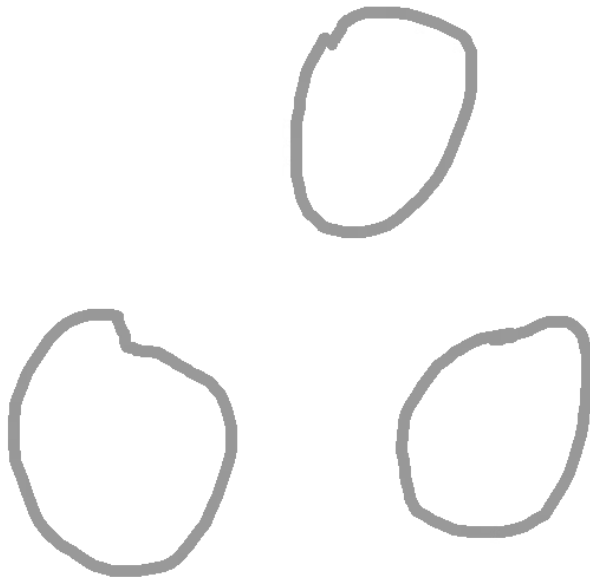


Or as an alternative, you can click Undo/Redo under the “Edit” option located at the window toolbar.



## Fill Shape

Before filling a shape make sure you have an area that has been drawn on the canvas or you already have inserted a shape. For example, the canvas has a circle shape drawn



To fill an area or shape, choose a colour of your liking.

Click on the fill shape button (it should turn yellow indicating it is on), from there click inside the area of the drawing you want a colour to be filled.

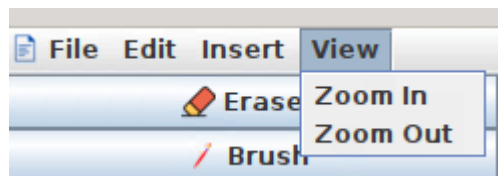


Quick note, fill shape will automatically turn off after you have filled an area with a colour.

## Zoom In/ Zoom Out

This feature allows you to zoom in and zoom out of the canvas

Click on View option located at window toolbar and you can choose to zoom in and zoom out



## Cut and Paste

The following feature allows you to cut a selected area of drawing and paste the selected area you have cut back onto the canvas.

To cut an area of the canvas, right click and select the cut option.



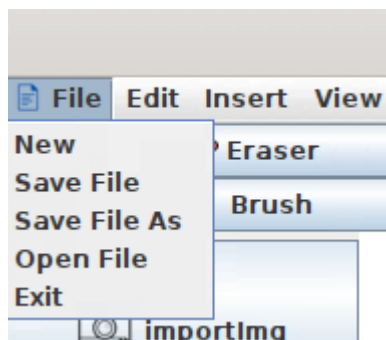
From there click and drag your mouse, a rectangular shape will appear after you have released your mouse.



To cut the selected area, click on the selected area of the canvas and it should clear out the drawing.

For pasting, right click and choose paste option. From there, click on any area of the canvas.

## Saving Your Canvas



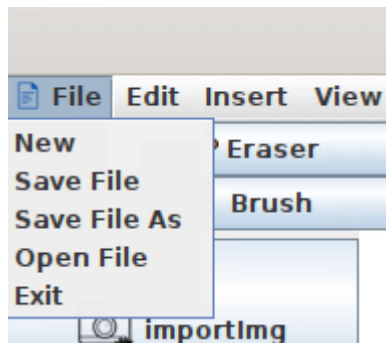
Click on “File” feature to allows you to save your canvas, there are two types of saving feature;



“Save File” - allows you to save the current canvas on the current directory in .png file format.

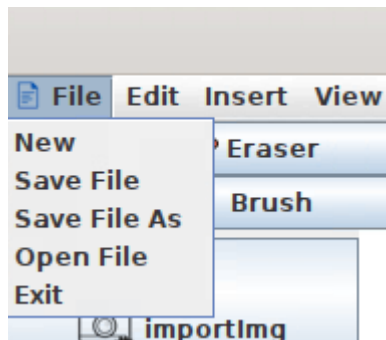
“Save File As” - allows you to save the current canvas on the current directory in .png file format.

## Opening Your Canvas



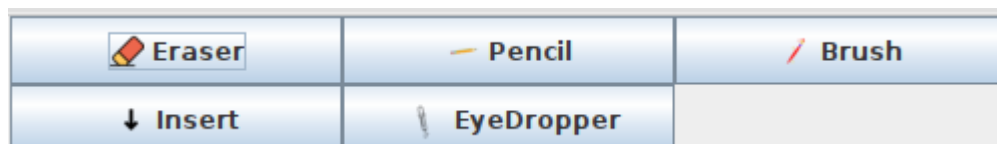
Click on “File” and choose “Open File”, choose your filename. This will load an image containing drawings of your canvas onto the canvas.

## Creating a New Canvas



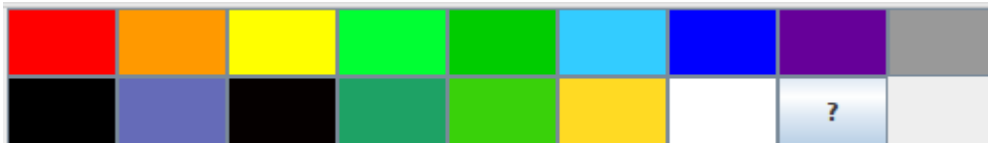
Click on “File” and choose “New”. This will load a new blank canvas.

## Eyedropper Tool

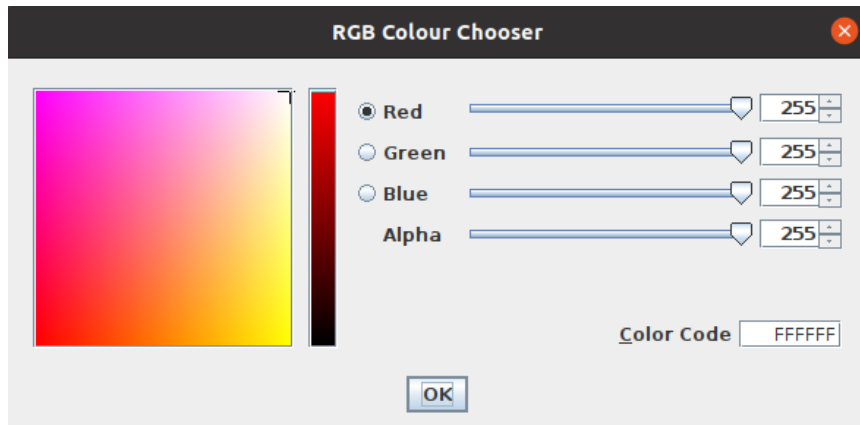


Select the eyedropper tool from the brush toolbox. Clicking on the canvas afterwards changes the brushes colour to that of whatever pixel was clicked on. The brush is automatically activated afterwards for your convenience.

## Custom Colours

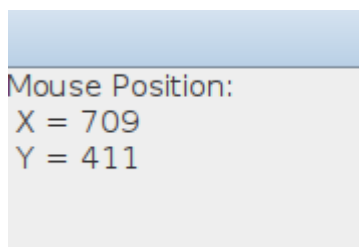


Below is our colour toolbox, we have some essential colours ready to choose and you can select your own custom colours by clicking one of the blank white colour squares. When the blank colour square is clicked a RGB colour slider will appear allowing you to make a custom colour of your choosing by using the sliders or inputting your own custom hex colour code.



Your chosen custom colour will now be added to the colour toolbox!

## Mouse Position



On the toolbar on the left hand side of the screen, the application tells you the position of your mouse on the canvas, which allows you to monitor exactly which pixel you are drawing on.

## Hotkey Shortcuts

Hotkey combination	Shortcut effect
Ctrl + s	Save

Ctrl + d	Save as
Ctrl + c	Copy
Ctrl + v	Paste
Ctrl + z	Undo
Ctrl + y	Redo