Soda Editor by Juan Marcelo Portillo

Why “Soda” Editor?

The first thing that came to mind when thinking of a name for a ‘Sprite’ Editor.

Undo/Redo Operations *(Ctrl + Z Undo, Ctrl + Y Redo)*

Operations are recorded and can be Undone/redone:

- Drawing (any Shape or brush)
- Creating Layer
- Deleting Layer (this includes deleting layers added via file loading)
- Activating Layer

(more commands can be added by adding new commands through the FSodaCommand parent class interface)

Brush Properties

Drawing on the Screen using “SodaBrush”.

Customizable Brush Properties (e.g. Brush Size, Brush Colour & Brush Type)

- The Brush Colour can be changed by clicking on the “Palette” Button.

(the palette button’s colour reflects the current colour of the Brush)

- The Brush size can be changed by dragging the “Brush Size” slider up and down.
- The Brush Type can be changed by clicking on the different buttons under “Brush Type”

Current Brush Types are as follows:

1) Free Drawing Brush
2) Circle Shape Drawing Brush
3) Rectangle Shape Drawing Brush
4) Straight Line Drawing Brush
5) Eraser Brush

(more brushes can be added by overriding the FSodaBrush class functionalities)

Pixel Scaling & Resolution

Tell the Editor how big you want the Sprite pixels to look (e.g. a Scale of 10 means that it takes the editor 10 ‘real’ pixels to draw one ‘sprite’ pixel.

(for arbitrary resolutions, go to SodaCanvas.cpp and change the ‘resolution’ variable from 64 to another value to change the image size in runtime. Default is 64 to make 64x64 sprites. A runtime solution to change the resolution has not been added yet).

Sprite Layers & Animations

Each layer represents a sprite. If multiple layers are added, when clicking on the 'Play' button, the animation will start and will play the sprite layers in order. Toggle the 'Reverse' button to switch the direction of animation. The animation is currently set to 5 frames per second. Click the 'Pause' button to pause and stop on the lastly played sprite layer.

Preview of the Sprite Layers can be seen on the right hand column, under "Preview".

(to change different frame rates of animation, simply call SodaCanvas::setPlaybackFPS(int FPS) to set the desired animation FPS. A runtime solution to change the playback FPS has not been added yet).

Saving & Loading to PNG

Currently, Soda Editor exports all the layers in one Save function call. If the user is saving to "Documents/TestSprite.png" each Sprite Layer will be in the Documents directory with the name "TestSprite[N].png" where [N] represents the layer index.

Loading currently loads one image per function call and, if necessary, rescales it to fit the Canvas. The image is loaded in a new sprite layer.

(not only PNG, but other formats are supported, as per https://docs.juce.com/master/classImageFileFormat.html. Support for PNG was seen to be the most relevant for this assignment. However, support for other formats can be easily added by adding other formats in the format ".PNG;.JPG;…" to the SodaCanvas::saveCanvasToFile function)

Other Hotkeys

V: Toggle Grid Visibility

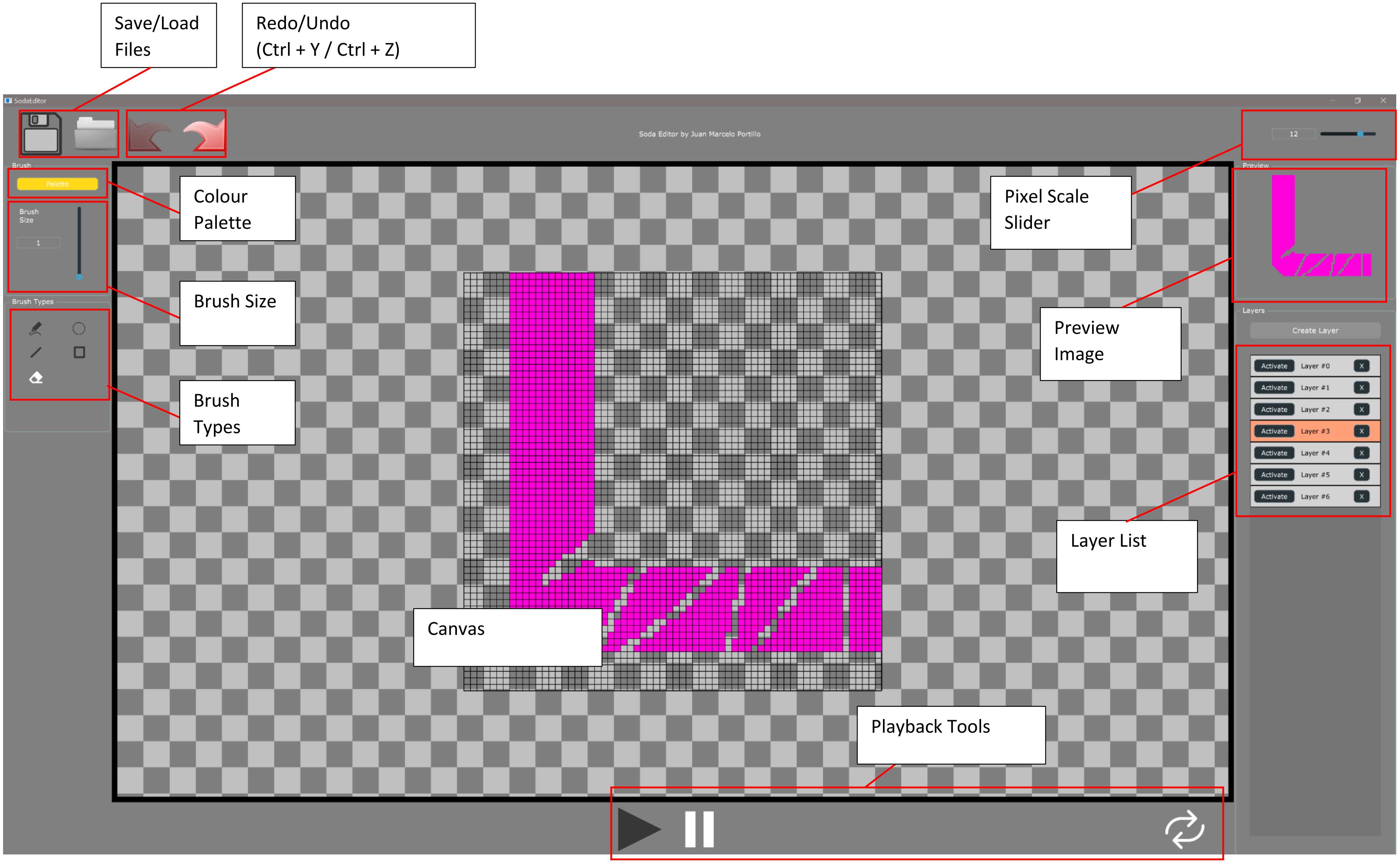
Things to Note:

- Projucer was used to develop this app. Projucer is a third-party GUI Library, much like Qt. I used this tool simply because it gave me free license without forcing me to make the project open source (like Qt does!)

- Projucer uses comment regions like the following to determine what is user-generated and what is Projucer-generated. This only occurs for files that have these comment regions. Other files without comment regions are written by me.

```
pixelScaleSlider->addListener (this); //generated code
//[UserPreSize]
   //inside these region is my code!
//[/UserPreSize]
setSize (600, 1000); //generated code
```

- Some of the code generated by Projucer can look hard-coded but those settings can easily be changed in the Projucer Program Interface.


Save/Load Files
Redo/Undo (Ctrl + Y / Ctrl + Z)
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Brush
Palette
Colour Palette
Brush Size
1
Brush Size
Brush Types
Brush Types
Pixel Scale Slider
Preview
Preview Image
Layers
Create Layer
Activate Layer #0 X
Activate Layer #1 X
Activate Layer #2 X
Activate Layer #3 X
Activate Layer #4 X
Activate Layer #5 X
Activate Layer #6 X
Layer List
Canvas
Playback Tools