CREATING 2D SPRITES AND USING THEM IN UNITY

Adil Salamat 2019

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Introduction

In this report I will be explaining how to make sprites, this will include downloading a program to create the sprites, how to use the program to make sprites, and how to export the sprites to Unity. I will also mention how to use those sprites within Unity and turning them into objects with animations.
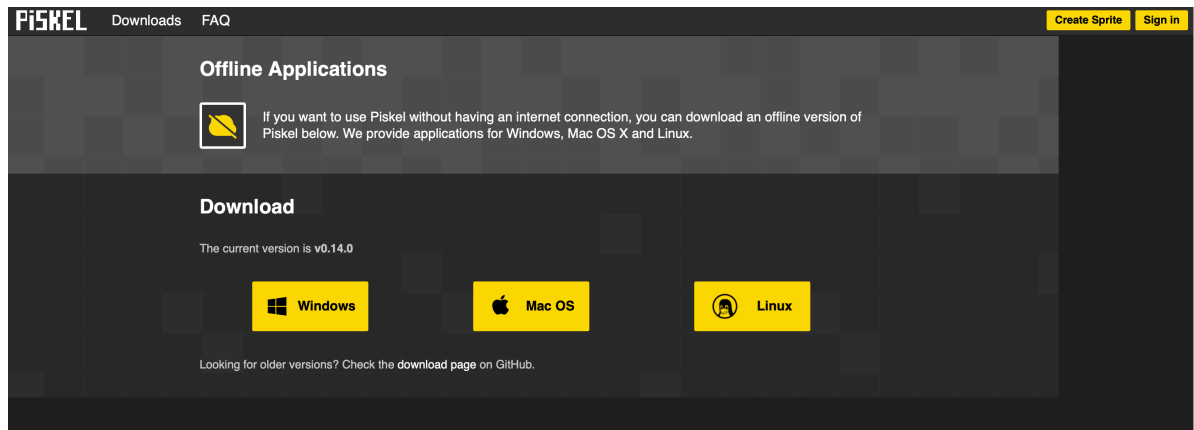
Downloading Piskel

There are a number of editors available to create 2D sprites. The art style for my game is going to be the same as the original, so I decided to use an application called Piskel. Piskel is a free online editor for animated sprites and pixel art. You can use the tool online or download the application.

First head over to the website https://www.piskelapp.com and press the download button on the top right of the website.
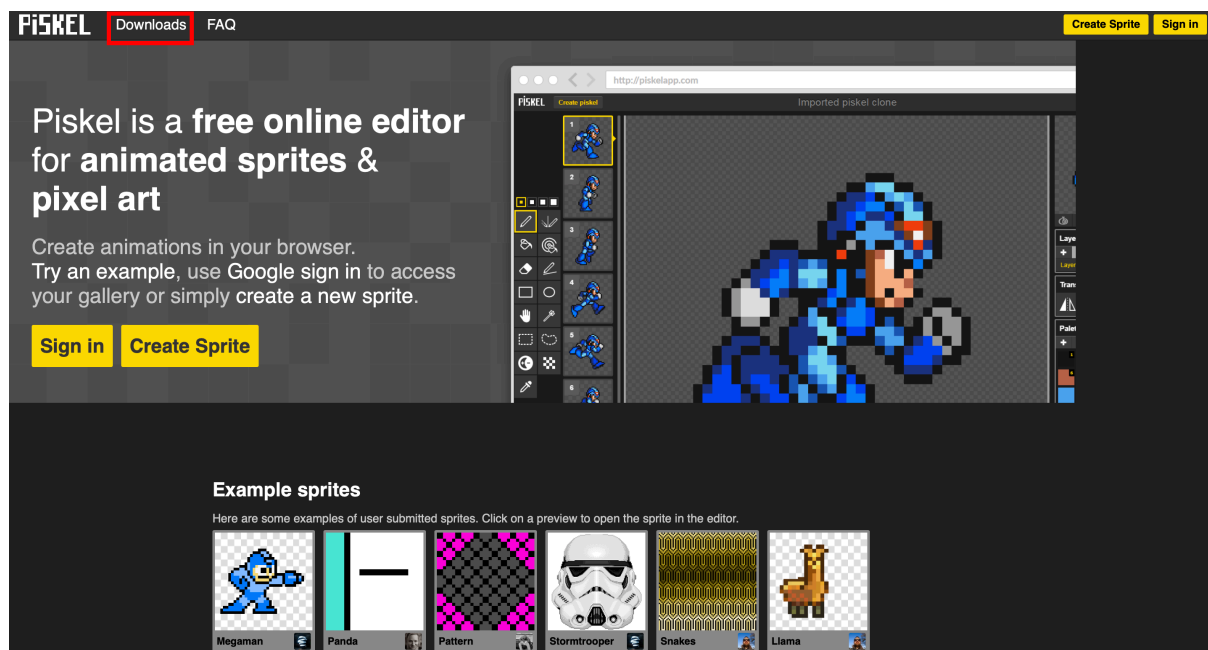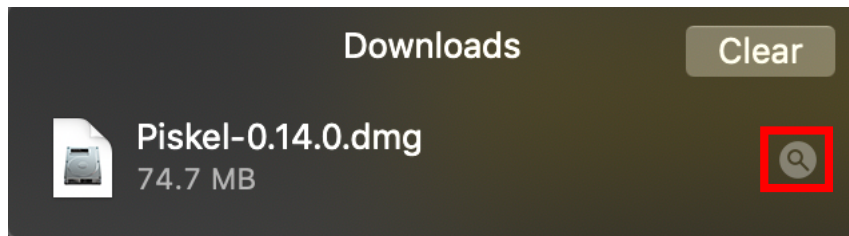

Choose the correct operating system, I will be using a Mac so I will download the Mac OS version
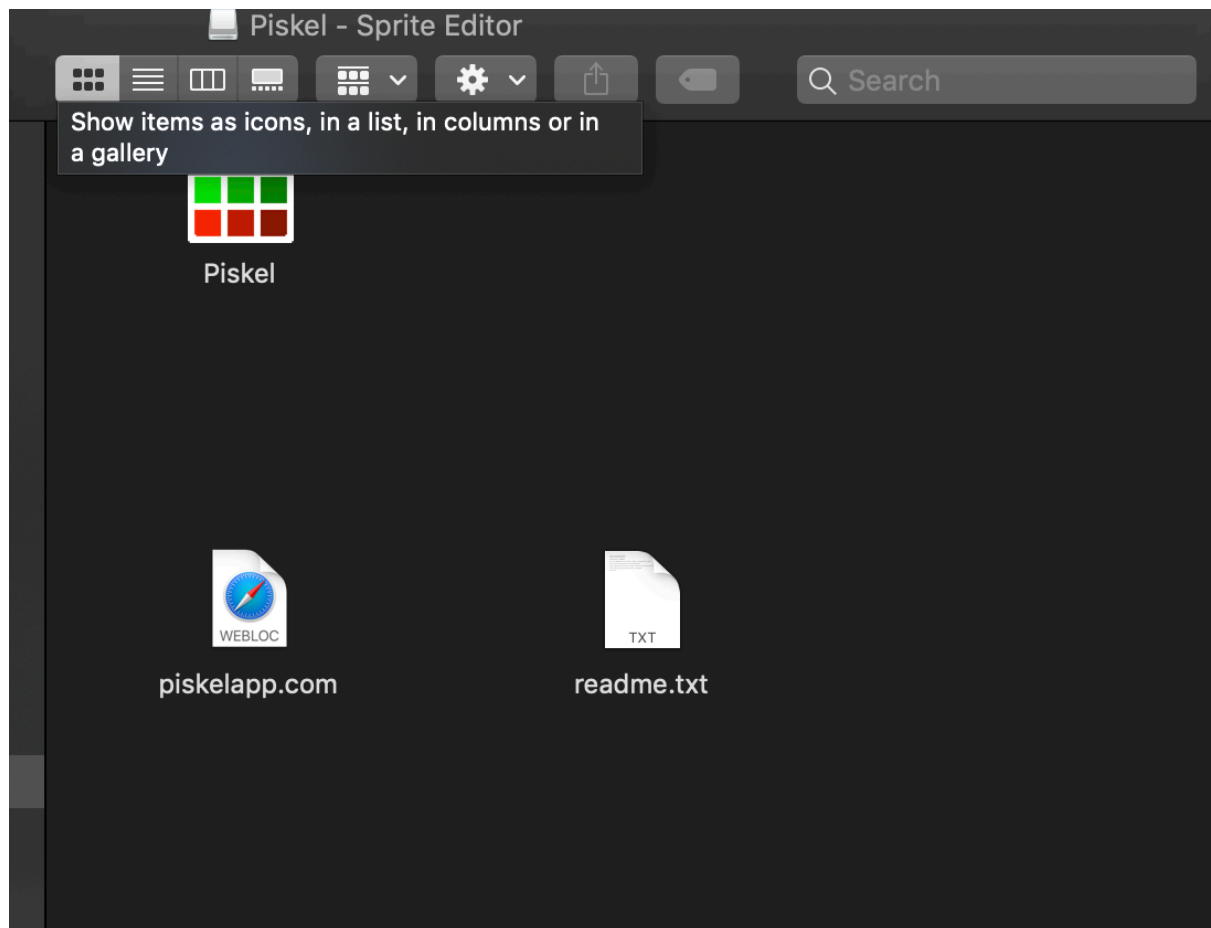
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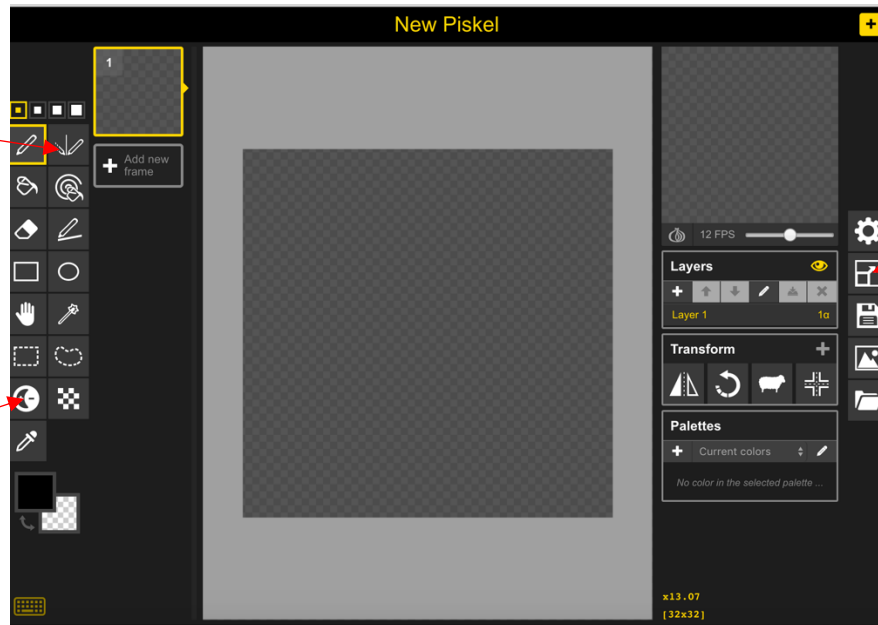Wait for the download to be completed, once it is press the magnifying glass in the right of the download

Run the Download, it should open this folder shown below. Finally run the program titled Piskel.

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Using Piskel

Once you open Piskel, you are greeted to a canvas with tools on the left, controls on the right, and settings on the far right, as well as a preview in the top right showing your images in motion (if you have made more than 1 frame). Below I have annotated a few important tools/settings.

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Mirror Tool – this tool allows you to draw a line on the canvas, this line will act as the centre of a mirror, anything done on one side will be copied onto the other.

Lighten/Darken Tool – this tool finds a lighter or darker shad of the current colour that you select, giving off the impression of shadows or lighting. This is an effective tool for giving additional detail to sprites.

Resize – this allows you to resize the canvas, with options to resize the content as well and to. Keep the scale or not

Export – allows you to export you creations as a gif, png, zip or other file types.

Here is a quick example of what can be made within a few minutes using the tools provided. (viewed in preview mode)

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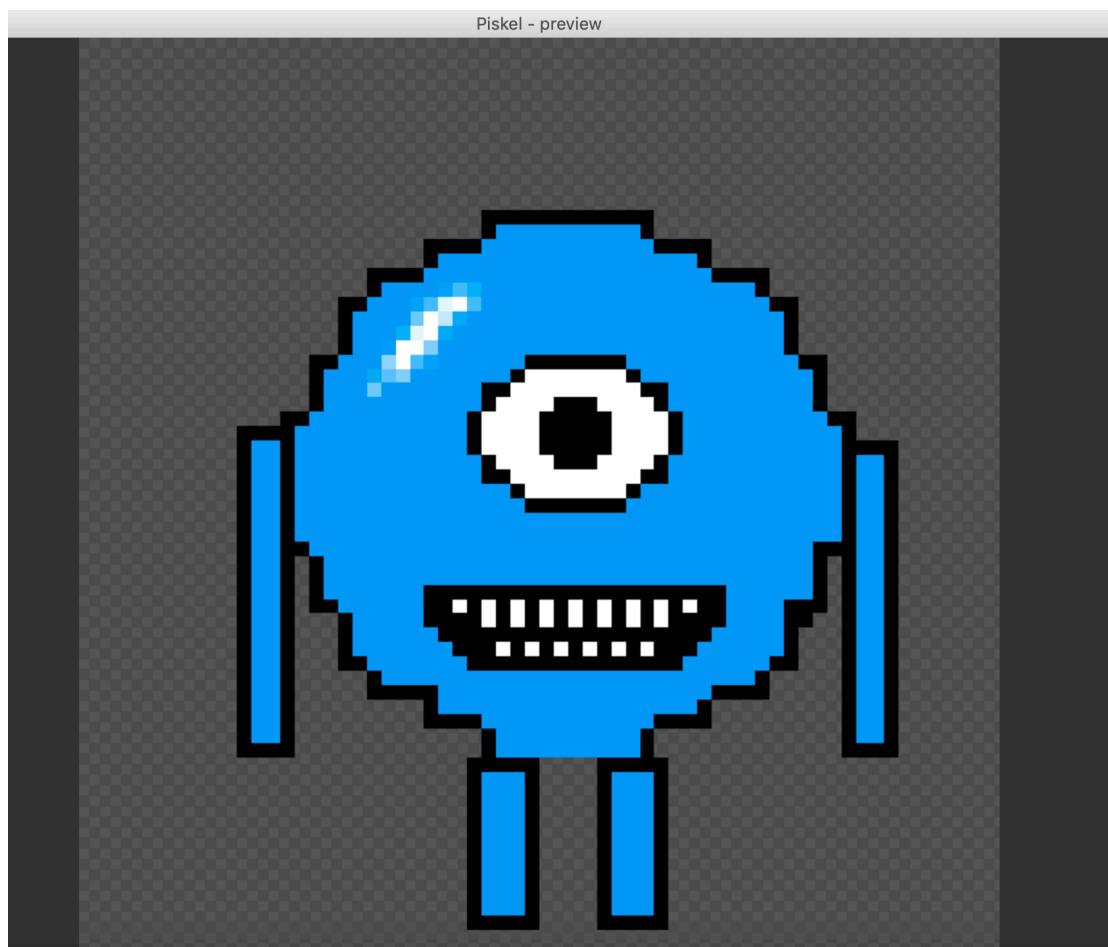
Creating my Sprites

I need to make a number of sprites for my game. Pacman, 4 Ghosts, 4 Alternative Ghosts, the Pellets, and the Super Pellets. These sprites will be relatively simple, I will make slight changes to the original game but making said sprites and their animations won't be that complex.

Here is the completed Pacman Spite. I made Pacman a cube but made sure he has the same animation where his mouth opens and closes as he moves.
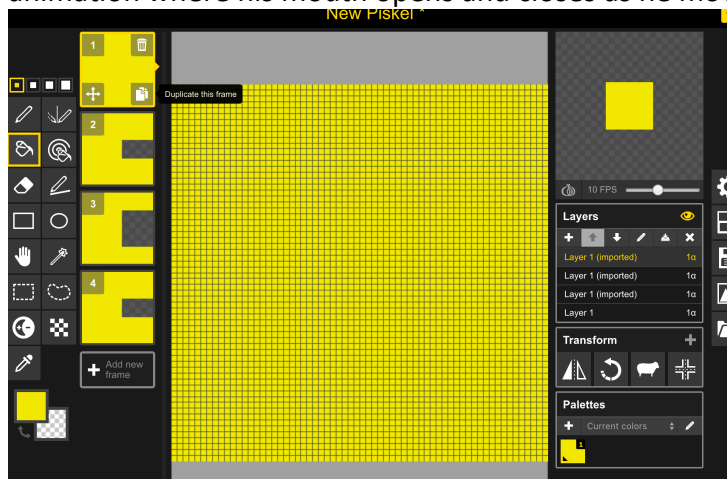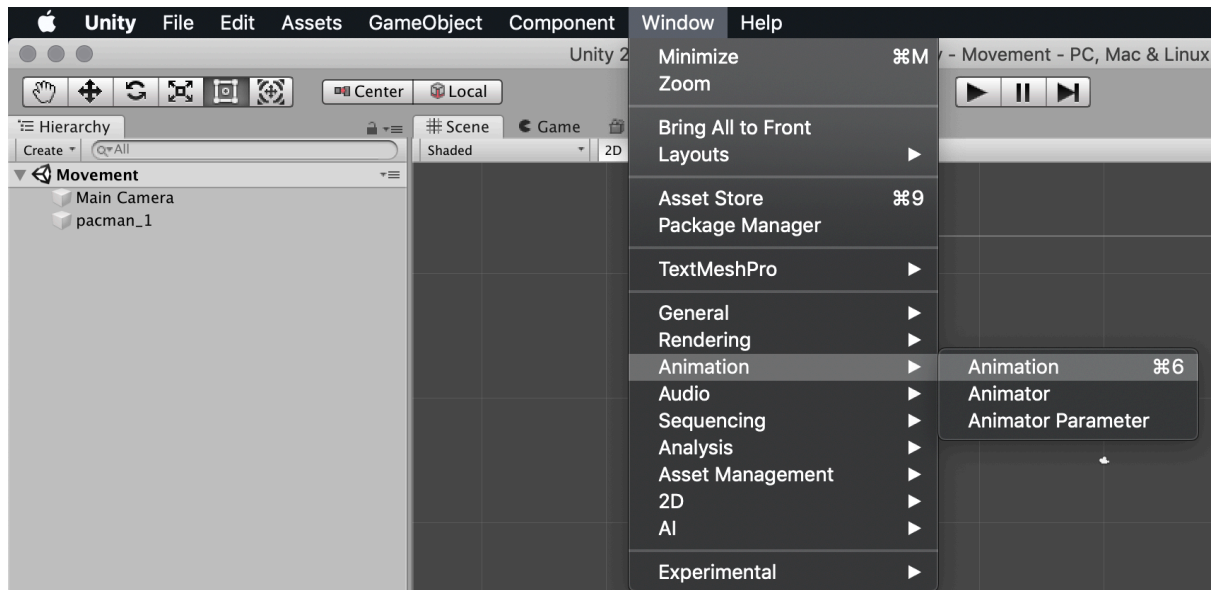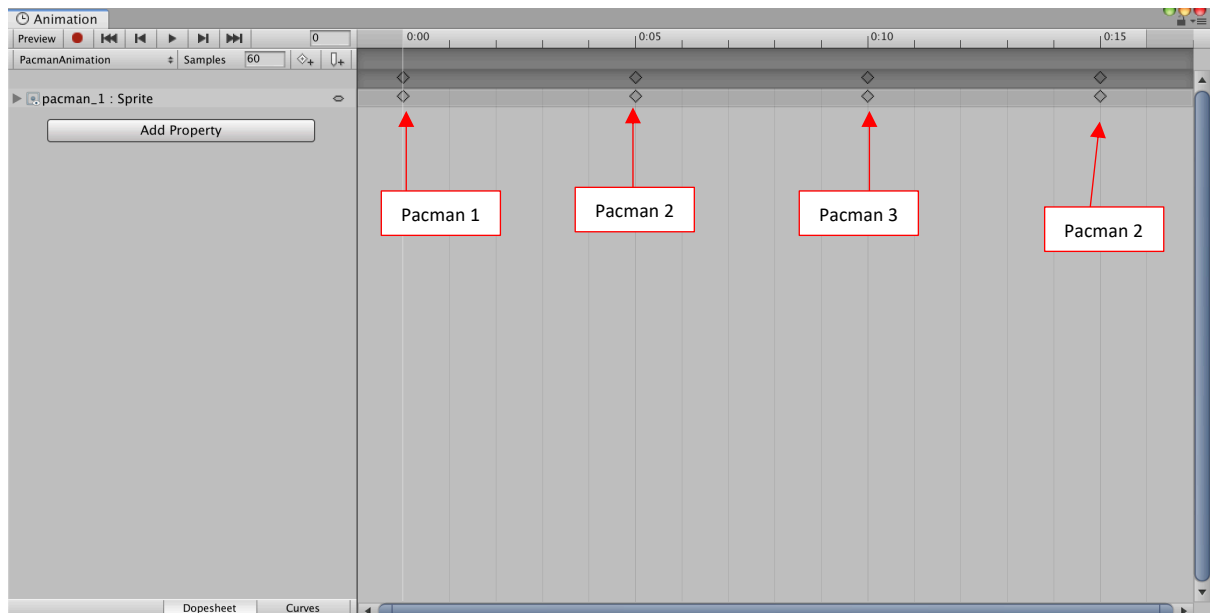

Using the sprites in Unity

First you have to import the assests made into unity, its best to make folders first (just above where it says create) titled graphics and another called animations. Once you import the images into graphics folder you can make the animation.

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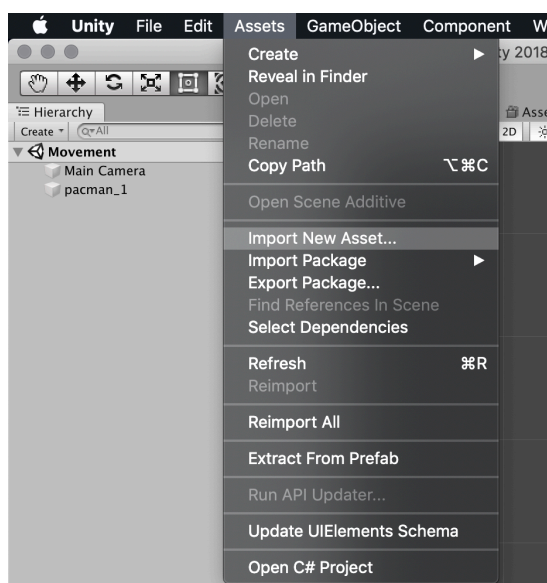
To make an animation, select the Pacman object, then "Window", then animation

This window should open, drag the images onto the timeline to create the animation. Using the record button to create the animation, save this to the animation folder.

Conclusion

To conclude, we have looked at Piskel and how to use it, creating a sprite, then taking those creations over to Unity and implementing them into the projects by animating the sprites.

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Bibliography

Used for download for Piskel as well as words used to describe the application from the home page.

Descottes, J. (2019). *Piskel - Free online sprite editor*. [online] Piskelapp.com. Available at: https://www.piskelapp.com [Accessed 10 Nov. 2019].

Used for help for importing sprites and creating animations

Technologies, U. (2019). *Unity - Manual: Sprites*. [online] Docs.unity3d.com. Available at: https://docs.unity3d.com/Manual/Sprites.html [Accessed 10 Nov. 2019].