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Tutorial 8

Sprite Creation

In this tutorial we shall be looking at creating personal spritesheets, this will allow you to animate your character/enemies in the game. This tutorial is more design orientated so is good for you if you are having a hard time understanding the code.

You will want to open up an image editing program such as Paint or Gimp.

Step 1

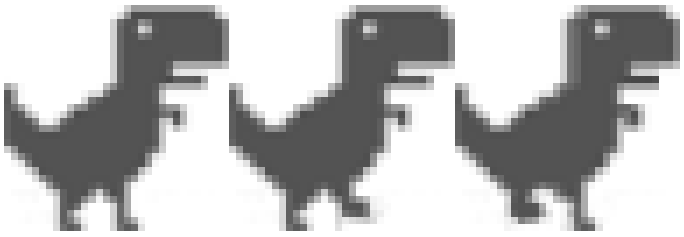
Acquire an image that you want to use as your sprite in this tutorial I will be using my dinosaur but feel free to use something else.

When making sprites you need to think about what you want to animate, in this tutorial we will only be covering running but you could also have jumping crouching etc.

The next thing you will want to do is create the frames for the next part of the animation, if you are creating the sprite by hand go ahead and create them, more frames is better as it makes your animation smoother. If you are getting the frames from somewhere, make sure you have them and you know their order.

Note: Each frame must be the same height and width!

My dinosaur only has 3 frames and looks like this:

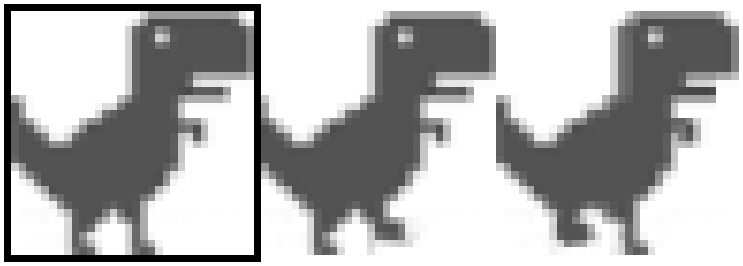


You can see that in the first frame his feet are on the floor, in the next one his front leg is raised and then in the last frame his back leg is raised, loped over and over it gives the illusion that he is running.

Step 2

This is where you put all of the frames together, in your image editor, create a new image of an appropriate size. Each of my dinosaurs have a height of 32 pixels so we can give the image a height of 32 pixels. Each frame has a width of 32 pixels, we have 3 frames so the width of the image should be 96 pixels.

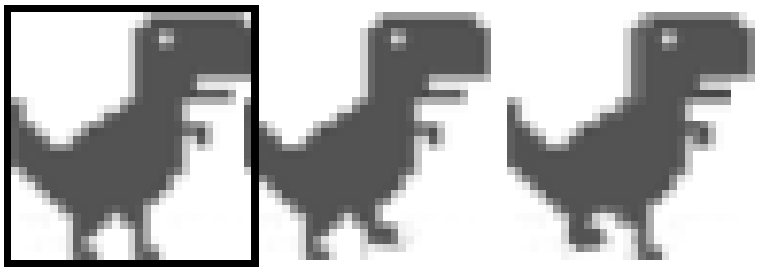
When you put each frame into this image put them next to each other in the order that they should be played. Ensure that they don't overlap each other. The way that our game works is we give a height and width of each frame, this is used to get a portion of the image as the frame e.g:



If you overlay a frame then the previous one will get part of that frame in it and the next frame will be missing some of itself causing some strange looking animations.

As a box is generated from the image you will want to ensure that it is filled as much as possible. This will make it much more realistic with hit detection, if we had some white

space underneath our dinosaur, it would always be floating above the ground which is not very realistic!



This shows off a frame overlapping.

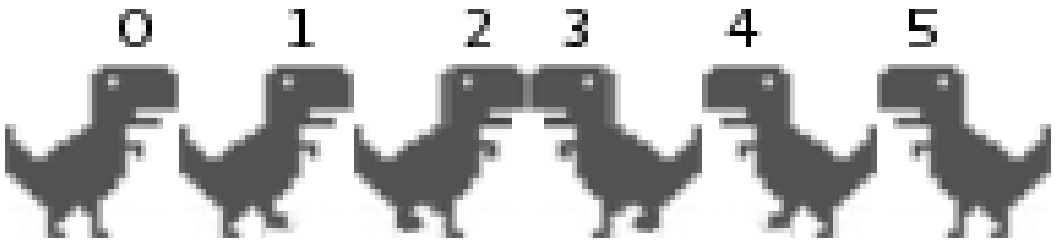
Step 3

Dealing with different animations. Say we want to add in a running animation to go the other way, all we need to do is get the frames for it and add them onto the existing frames.

A very easy way of reversing an animation is by flipping the images, doing this gives us something similar to this:

Exactly the same animations are used but the dinosaur is backwards!

So how do we tell the game which frames are for what animation? By telling it what frame numbers to use for each animation.



So for our right running animation we use the frames 0, 1 and 2, for our left running we use the frames 3, 4 and 5!