



→ BEST PRACTICE

PIXEL ART ANIMATION

Trevor Van Meter uses *ImageReady's* animation tools to create a ten-frame run cycle for a pixel animation featuring the character he created in issue 117

SOFTWARE: IMAGEREADY

Imagine you have been hired to create a side-scrolling action game based on the fantastic world of the Cake And Ice Cream Kid (created last issue). First, you'll need to come up with a style guide to use as a reference while you animate your characters.

A static image of the Cake and Ice Cream Kid and her sidekick Yogurt the Frog has been included on the cover CD, so you can either use this or create a character of your own. You can use these images to keep things to scale, and as a quick grab palette for colours and recycled shapes.

For this tutorial, you will focus on creating a run cycle that can be used throughout the game. This will loop through the run animation every time the main character runs from place to place.

Because you are trying to create a loop here, the animation will need to start where it stops and vice versa. First you'll rough it out, and then try to ensure there is a

smooth transition from the last frame back to the first.

It's worth recycling as much as you can to save some time, and to make everything look symmetrical. For a run cycle to work there must be two steps, and if those two steps do not feel symmetrical, the character will look as if it's running with a limp!

DOWNLOAD



DOWNLOAD
Click here to download the files you need to complete this tutorial

TIME NEEDED

3-4 hours

INFO

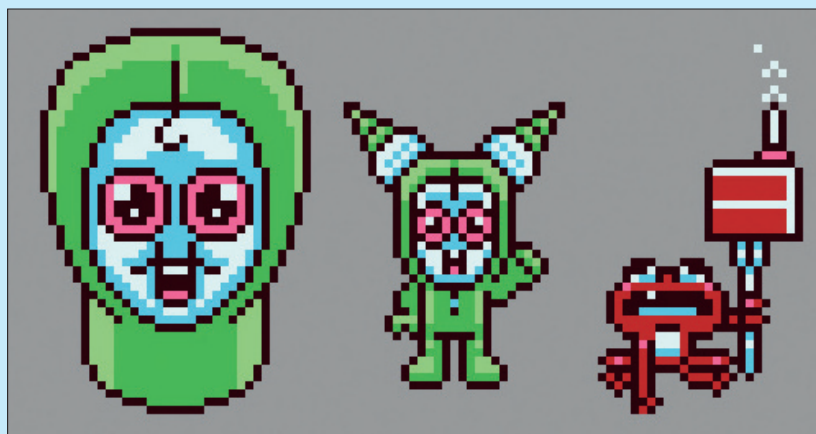


Van Beater (aka Trevor Van Meter) creates web-based games and interactive experiences. His 'real world' clients include Citi Bank, HBO, Red Bull, Hasbro, Lego, Mazda and Verizon, among many others. Find out more by visiting either www.vanbeater.com or www.trevorvanmeter.com.

→ TEN-STEP TUTORIAL



1 Open ImageReady and create a new file at around 100x100 pixels. This is just a suggested starting point. The scale will of course depend on the final dimensions of your game. Whatever the size, try to keep the sprite nice and small to enhance its cute factor. Use the *RoughSketchHelp.psd* file on the cover CD as a reference if you get stuck along the way.

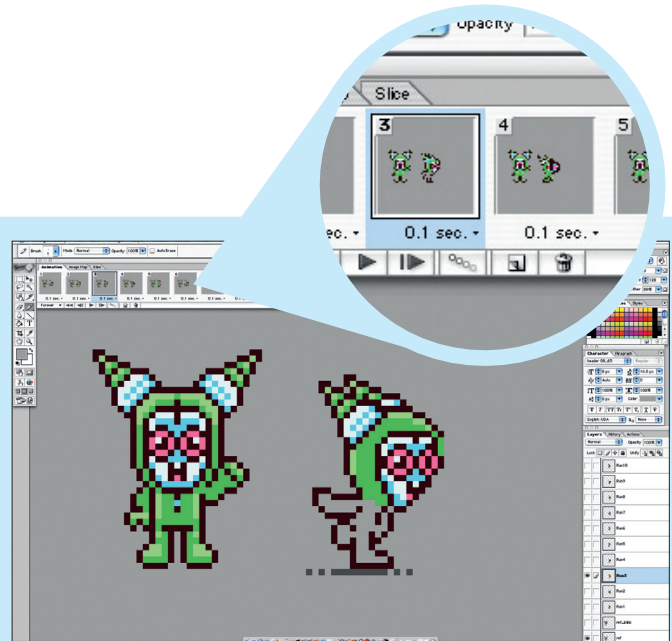
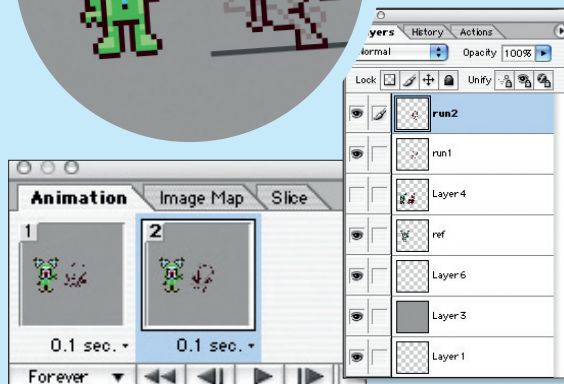


2 Create a style guide to follow while you animate. For this tutorial I took two characters and did my best to translate them into the pixel world. I didn't get the scale right the first time around as you can see. It's best to choose your battles when working this small. Sometimes you will need to let go of certain details for the sake of clarity.

3 Now you have a general idea of what The Cake And Ice Cream Kid will look like in the pixel world, you can animate a run cycle. This run cycle can be used for either running right or left in a game. The programmer will just flip the art accordingly. It's usually best to start with the most extreme frame of art – in this case, the peak of the run. Rough it out with the Pencil tool (single pixel).



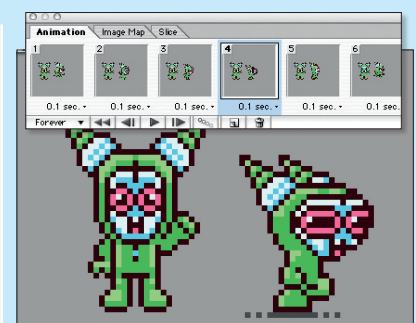
4 Now that you have a starting point, add a frame in the animation window by clicking on Duplicate Current Frame. Duplicate the Run 1 layer in the Layers window, delete that art and then name that layer Run 2. Turn the opacity of the Run 1 layer down to 20 per cent. This will create an onion skin effect. Now rough out the next frame.



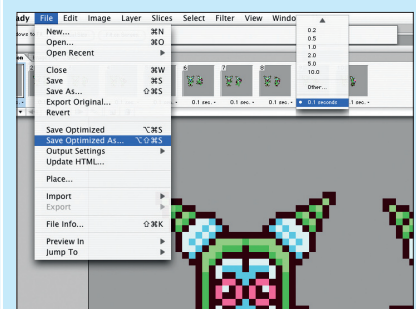
8 Now go back and start to clean up and polish each of the frames. Use similar recycling techniques where you can. For example, here the rendering of the head in frames 1-5 was reused in frames 6-10. However, you should never recycle out of sheer laziness.

KEEP IT NEUTRAL

You'll find that it helps to work on a neutral coloured background. Most of the time I use a medium grey. Also, try drawing a straight line underneath your art to use as a ground/horizon line. This will help you ground your animation precisely.

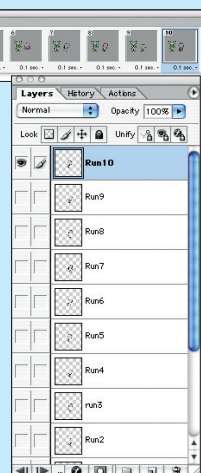


9 Experiment with different animation techniques to accent certain extremes. For example, in frames 4 and 5 shown here a smear technique was used on the eyes to exaggerate the bouncing fat head of the Cake and Ice Cream Kid.

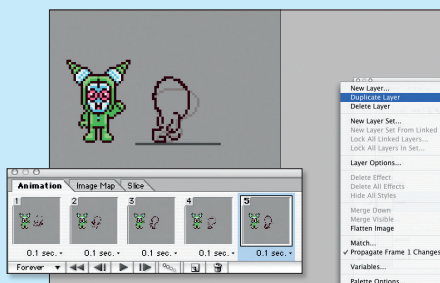


10 Now test your animation (if you haven't already). Make sure that you have a .gif optimization setting in your Optimization window. Go to File→SaveOptimizedAs... and save your animated gif. Test it out in a browser and tweak the frame playback in the animation window under the Frame Preview. **arts**

6 Now that you have created the first five frames of art, you can reuse them to make the next five frames to create that loop. Duplicate Run1-Run5 in the Layers window. Reveal the Run1 copy layer and rename it Run6. Repeat this process to create Run7-Run10 using the Run2-Run5 copies.



5 Repeat step 4 until you have created five frames of art. Use the previous frame as your guide and hide the other layers of art when they don't apply to the current frame. Don't try to make the art perfect just yet. For now just focus on the gesture and capturing the motion. This will lay the groundwork for your final animation.



7 Now modify the art you have created so that the character's arms and legs flip to the opposite side. When you're finished, the animation should appear fluid and smooth. Use the previous frame and the next frame as your guide.

ACT IT OUT

If you are unsure how something moves, act it out. Go outside and watch yourself or a friend run. Now do it in slow motion. Pay attention to the weight distribution of your body. How does shifting weight affect your body? How does this vary for different body types? This will make a huge difference to the overall success of your animations.