# Sprite Hero User Guide

## Purpose of Program

Sprite Hero is a sprite editor. Sprite editors are used for creating a series of images that can be used in games, etc. for basic animations called sprites.  Sprite Hero provides all the basic functionality for creating sprites and exporting them to an animated GIF format.  Sprites are created in Sprite Hero by creating multiple image frames, which then are sequenced together to form an animation.

## Creating a new sprite

When Sprite Hero is opened immediately a dialog appears asking the user what size of sprite canvas is desired, from 4x4 to 512x512 pixels.  Upon selecting the desired size, a canvas with one animation frame is created at that size and is available for editing.  The figure below shows the start-up dialog box that the user pics from.
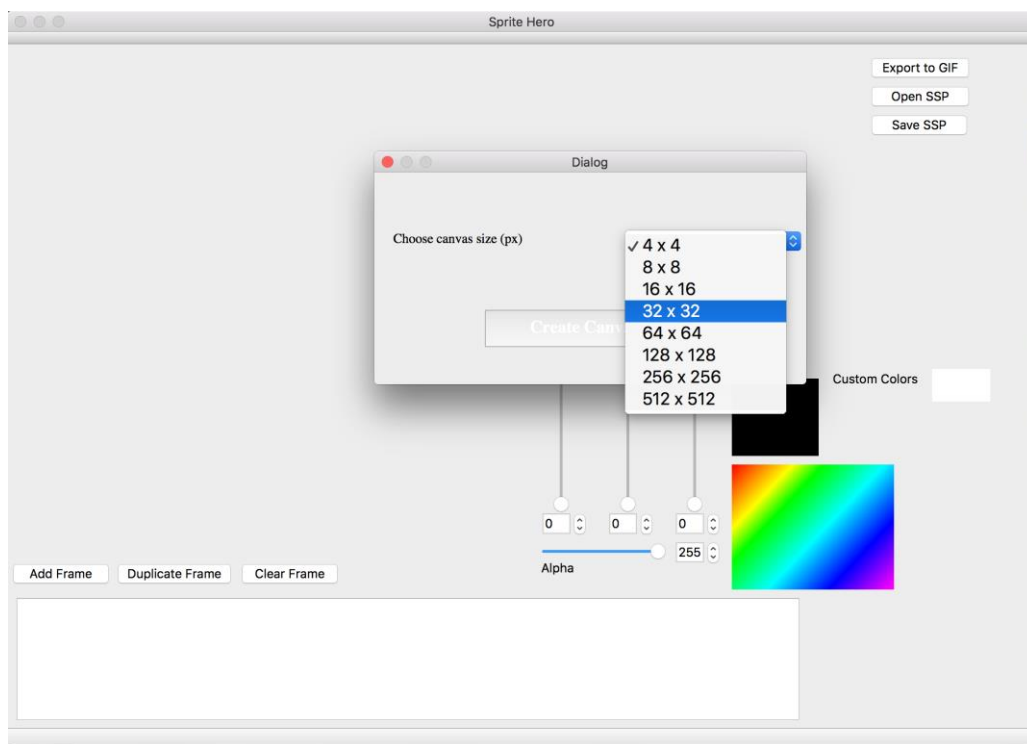
# Frame and Animation Editing

## Choose a color

On the right hand side of the program is the color editor.  Colors are encoded in RGBA format, the user can select a desired color either by manipulating the sliders corresponding to red, green, blue, and alpha to get the desired color, or can click on the color gradient display to select a color from a color wheel to be the primary editing color.  The figure below shows the color wheel picker on a Macintosh computer.
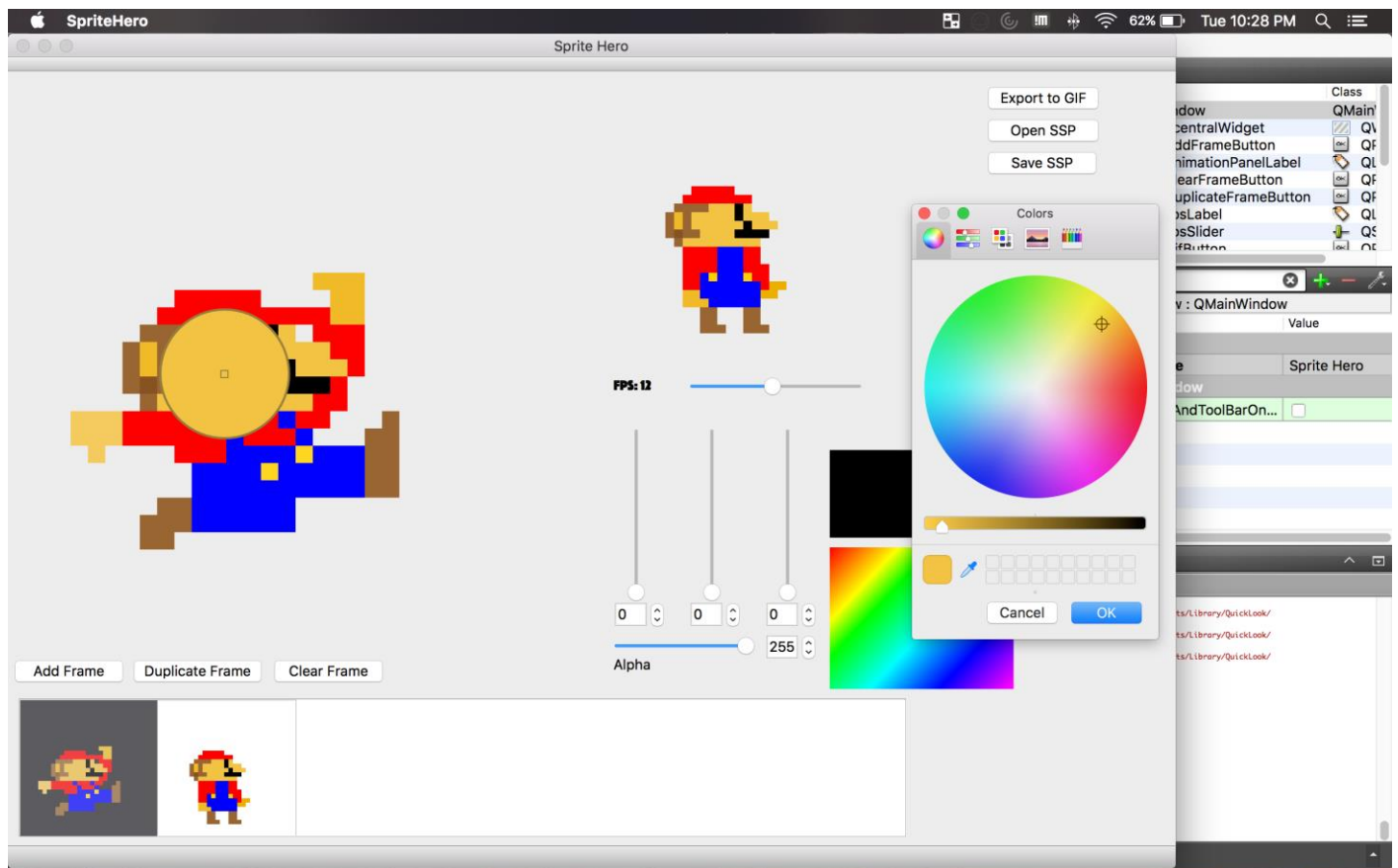


## Edit a frame

Frames are edited by clicking on the editing window.  When the user clicks on a space in the editing frame, the pixel at that location is set to the current color.  By right clicking on the mouse, the user can erase pixels, setting them back to a transparent state.  Pixel strokes can be made by clicking either mouse button and dragging the cursor around the editor.  The figure below shows how the user has edited two animation frames to create a Mario sprite.

## Add a new frame

At the bottom of the screen are several options.  Adding a frame inserts a new frame at the end of the end of the frame sequence.
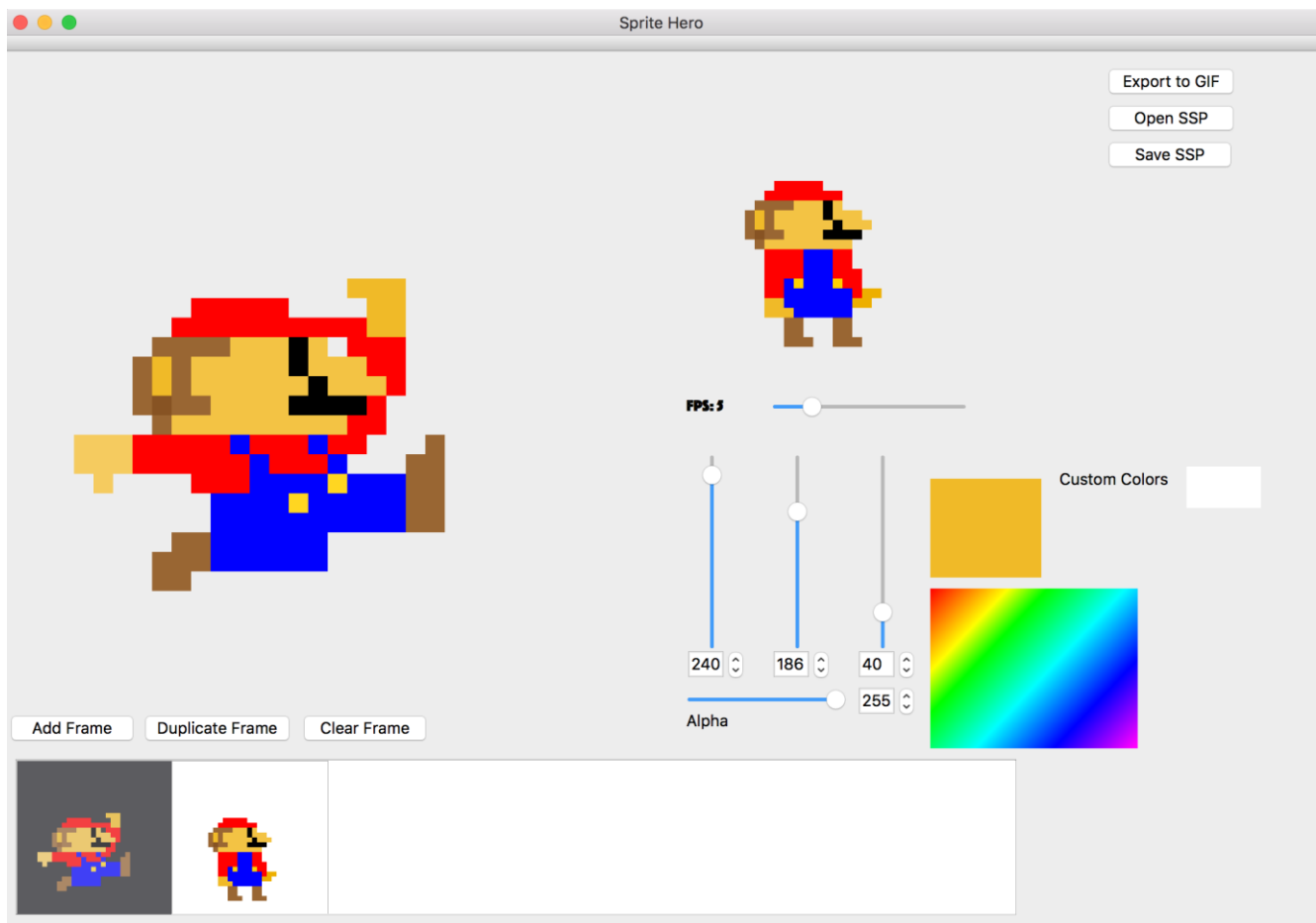


## Duplicate an existing frame

Duplicating a frame copies the current frame into a new frame at the end of the sequence.

## Clear Frame

Clears the frame by setting all the pixels back to their original transparent state.

## Animation Preview Pane

A preview of the animation is shown in the top-left corner and is updated as the user edits frames. The user can set how quickly frames change in the animation by adjusting the Frames Per Second (FPS) slider under the pane.
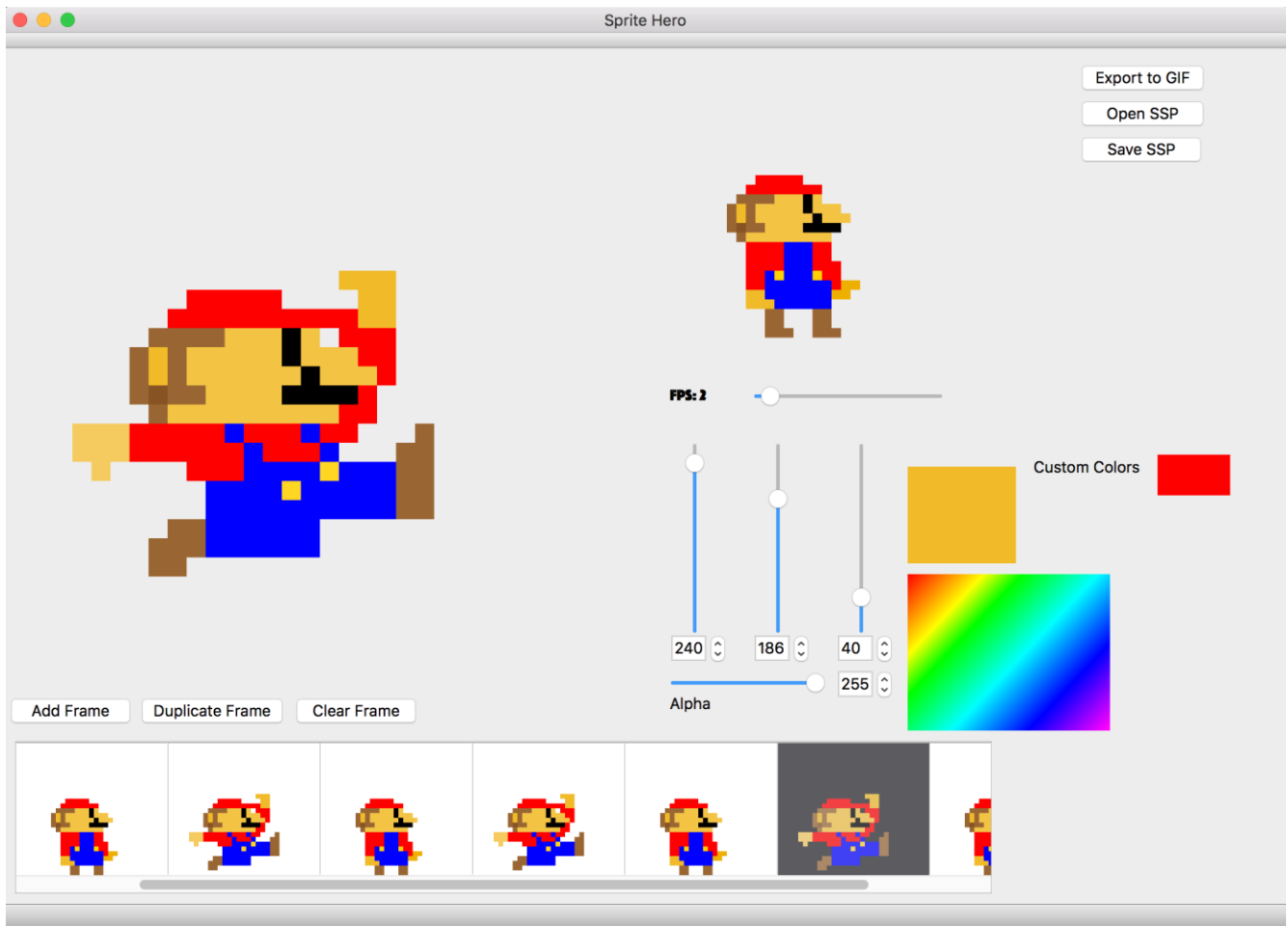
# Sprite Files and GIF export

## Saving a file

Above the animation pane are several options for file saving, opening, and exporting. Saving a file opens a dialog box, into which the user can select a save location and file name.  Sprite information is saved into a .ssp file. The figure below shows the layout of the saved sprite on the left as a .ssp file on the right.
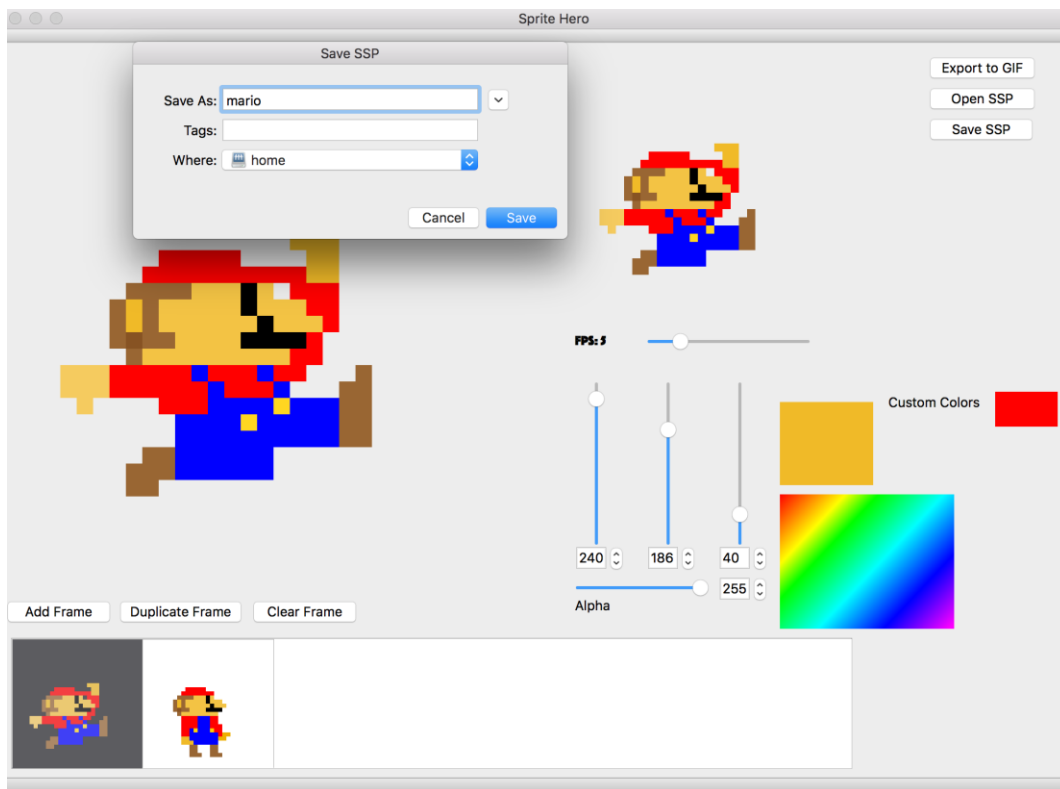
## Opening a file

Clicking the open file button will open a dialog, into which the user can select a saved .ssp file. The file will open an existing sprite for further editing.
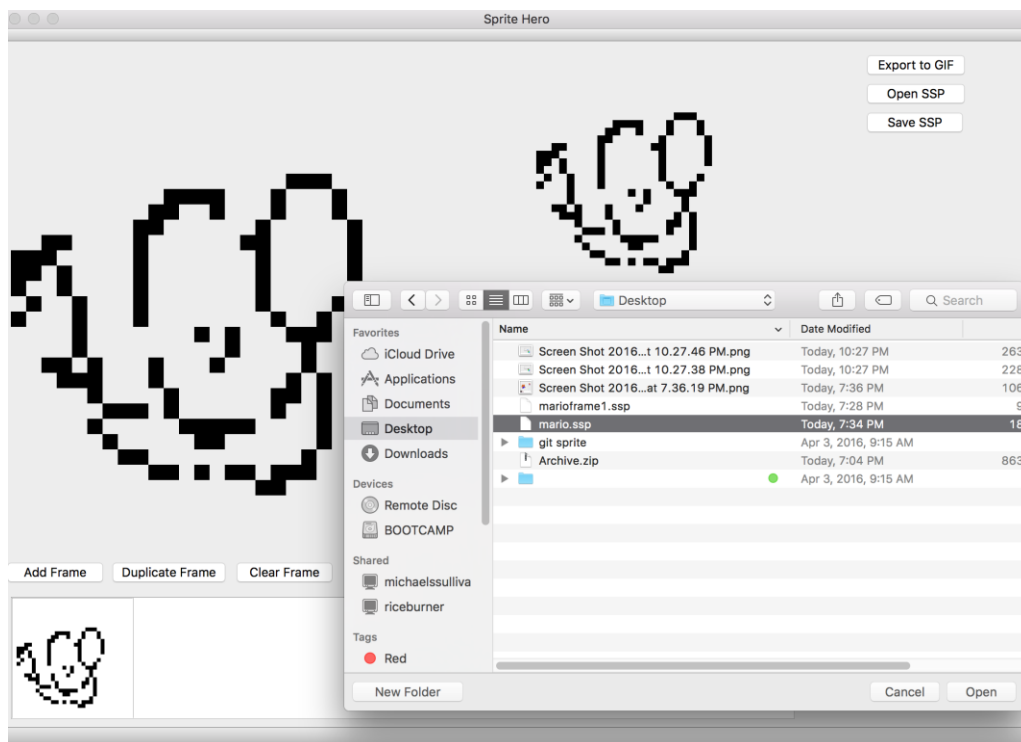
## GIF Export

Sprites can be exported to an animated .gif file using the export gif dialog. Clicking this button will open a save location dialog, into which the user specifies a save location and file name. The program will then export all frames in the current sprite to an animated gif file of the same size as the canvas and the same frame rate as specified in the preview pane.