COMP20030: Web Design

Fireworks CS5

Fireworks is an image and vector graphics editor. There are many toolbars and windows to master along with context sensitive popup menus accessible by clicking the right mouse button. (e.g. if you right click some text you should see a popup menu relevant to text! – with font size options etc.)

Contents

How to

Windows and tool palettes

In order to become proficient at Fireworks you must master the use of the various windows that are dotted around the screen. At first they seem quite daunting as there seems to be a never ending list of options that vary according to the tool being used. If the window you are looking from is not visible (or has got lost between the tons of other stuff onscreen) simply go to the windows menu and select it

Each tool has its ***own*** specific control window (select window->properties to see this window). For example the Polygon Tool Control Window allows you to alter the polygon itself. You should click on a few tools just to see what controls they support.

Objects

Fireworks deals with graphics as objects. This means that once shapes have been drawn they can be moved, transformed or edited.

1 Select Objects

There are two object selection pointers in Fireworks !! 

The black pointer is used for selecting groups of objects or symbols. The white pointer selects individual objects (even those contained in groups) and can also select individual points in an object. To select more than one item at a time simply hold down SHIFT while selecting the items.

2 Move Objects

Once you have selected you item(s) simply drag them or cut and paste them as usual. (Note that if you cut and paste between documents of differing resolutions the image may have to be re-sampled. e.g. if the first image is 96 pixels per inch and the second is 200 pixels per inch then the item you have cut and pasted has to be re-sampled to increase its resolution to 200 pixels per inch)

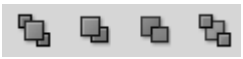
3 Group Objects

Simply select all the objects that you wish grouped and right click the mouse and choose group from the popup menu. To ungroup items use the ungroup option.
Remember that to select a group you have to use the group pointer tool !!

4 Join Objects

A neat trick to make composite objects. Let's say you want to create a filled shape with a hole in it. Draw the shape and make it filled. Draw an ellipse (it doesn't matter what colour since its going to take on the properties of the shape its joined with) Drag the ellipse over the shape where you want the hole to be. Select both the shape and the ellipse and click modify > combine paths > join et voila. To undo this simply click the split option, as opposed to join ***(Quite a mouthful, but every line or shape in Fireworks is treated as a separate vector or PATH)***

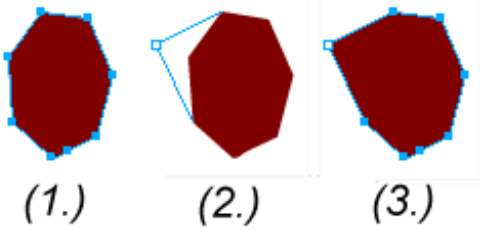
5 Stack Objects

Since Fireworks deals with objects it is possible to have one object in front of another, or obscured behind it. We can control the stacking of objects using  in order “Bring to Front”, “Bring Forward a Level”, “Send Back a Level” and “Send to Back”.

(THIS IS NOT LAYERS, that is a procedure where you have several canvases one on top of the other some of which may be transparent - Imagine a page showing a scene and then placing transparencies on top of the page to add parts to the scene. Whereas stacking is simply which object is in front of which and only applies to the current layer only)

6 Edit the Geometry of Objects

Since all pictures in Fireworks are objects it is possible to reshape them once they have been created. To do this use the white selection tool  and click on the object to be changed. You should see a series of square points at the vertices of the object *(see 1 below)*. Click on one of these and drag to reshape the object *(see 2 below)*. When you let go you’ll see the new shape *(see 3 below)*. You can also select several points at once by holding down shift, or make the straight sides into curves (see Bezier section) or add new points to the shape *(see next section)*



7 Add points to an object

Select an object as if to change its Geometry, then using the pen tool  click anywhere on the lines joining two existing vertices to get a new point. If you click on the line to add a point and drag without releasing the mouse button you get a Bezier curve.

8 Resize Objects

It is possible to change the size of an object by simply editing its geometry and moving its vertices, but an easier method is to select an object then click on the scale tool  This then allows you to stretch or rotate the object in various directions.

Drawing

1 Draw a Line

Using the pen tool  click on where you want to start your line, then click for the next point and so on.

Alternatively, you can use the line tool. Click on the point where you wish to start the line and then drag to where you want it to end. Release the mouse button once you've reached the end point.

2 Draw a Bezier Curve

Create a line using either of the methods above. Use the pen tool  to click any point along the line and drag the mouse to get a curve (if the line isn't selected, you'll have to select it first using the pointer tool. Each Bezier curve has one or two handles – little lines that extend from the vertex of the line and which can be dragged to various positions to change the nature of the curve.

3 Draw a Polygon

To draw an irregular polygon, simply follow the method mentioned above for drawing lines except that your start point and your end point should be the same. To draw a regular polygon use the polygon tool from the shapes part of the tool palette 

Applying Properties

1 Stroke

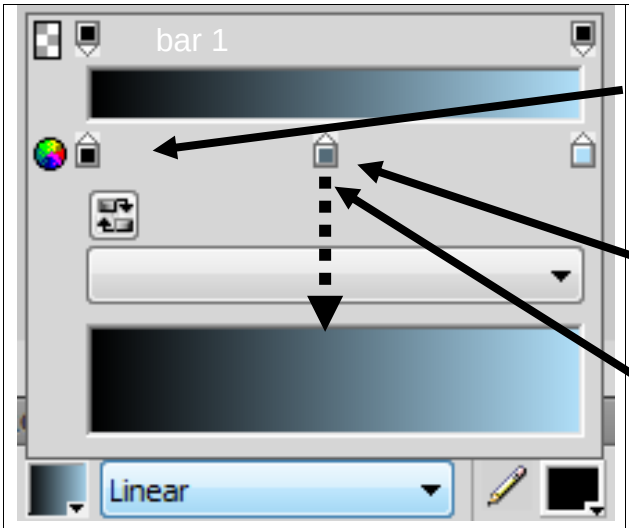
Stroke refers to the style of line which encompasses your object. You can choose various styles, thickness and colour settings from the stroke panel

2 Fill

Fills refer to the pattern visible within the shape itself. We can choose from solid, various gradients and patterns

3 Gradients

You can create your own gradient by editing an existing one. If you click on the edit icon in gradients the following screen will appear to show you the current gradient.



Click somewhere beneath bar 1 to create a new colour at that point.

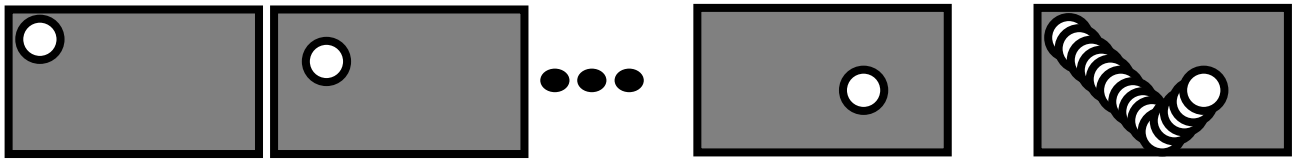
Double click on the coloured squares to change their colour.

Drag a coloured square straight down to delete it.

4 Transparency

The transparency tool appears repeatedly on many toolbars and allows you to set the transparency form 0% - completely transparent to 100% - completely opaque

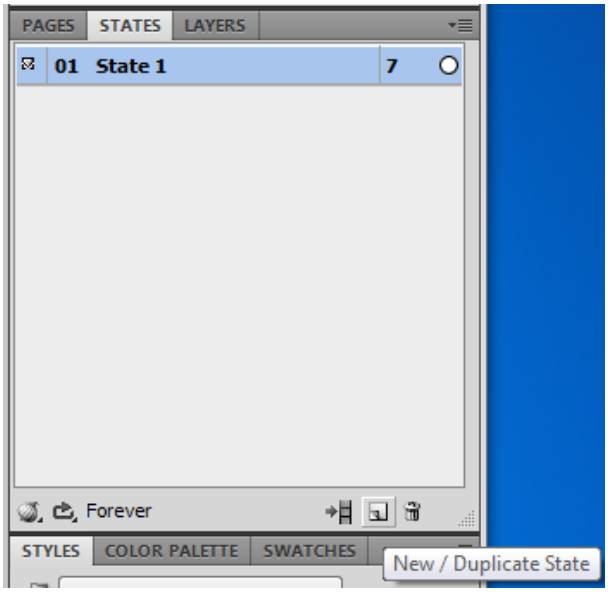
States



Frame 1 Frame 2 ... ...Frame 20 Showing all frames at once

States allow us to create animations in Fireworks. Just like in a simple flip book, each state, or frame, represents one stage in an animation, which when run at high speed produces a smooth animated effect.

The states window shows us which frame we are looking at and allows us to move between them. The easiest way to create a new frame is to duplicate the current one (since most things are going to stay the same between frames anyway. If there is an item which is constant across all frames (e.g. the sun) we select it in one frame and choose Copy to Frames in the Frames options menu (see below). this copies the image to all of the frames if we wish. It is possible to slowly build up an animation in this manner but we can also take advantage of fireworks Tweening abilities.

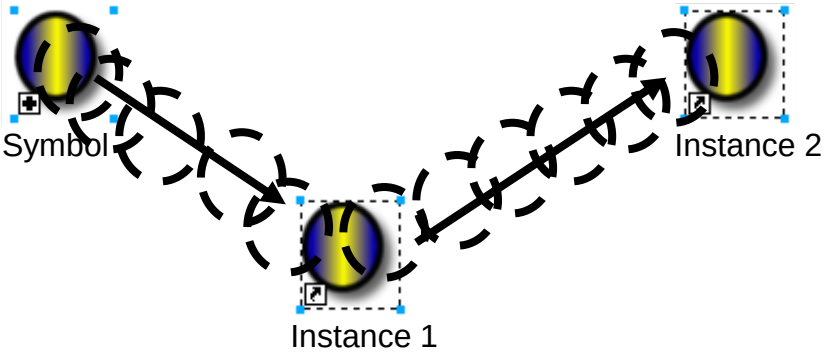


Tweening

Tweening is the process where instead of drawing every frame we draw only key instances and get the computer to fill in the rest. Let's take the example of the bouncing ball. First we draw our ball. Next we make it a symbol, this is done by going to the Modify menu, then symbols then convert to symbol. When you have created a symbol it will appear with a cross icon (see below). Next we copy the symbol and paste it to where we want it to go. When we paste a symbol we get what's called an instance of that symbol which also has a cross icon in the centre. Note that to select either the symbol or its instance(s) you must use the black or group selection tool.

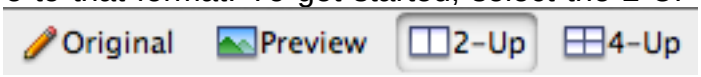
Now we simply select the symbol and its copied instance, right click and choose symbols > tween instances. A popup menu appears asking us how many in between frames are to be generated. The more frames the better the animation, but the bigger the file and the slower the download. It also asks if they are to be distributed to frames. If you choose yes a state (frame) will be created for each intervening stage of movement, which when played in sequence give the impression of animation. If not then all the stages of the animation will appear in the current frame.

You may apply any transform to the instance – rotation, enlarging etc. and the computer will faithfully create the intervening stages in the animation. It is also possible to use several instances. Instead of pasting just one instance of the symbols paste several, then select them all at the end an tween. The pop up box asks how many intervening steps between each instance and then animates in sequence from the original symbol to the first instance then the second and so on.

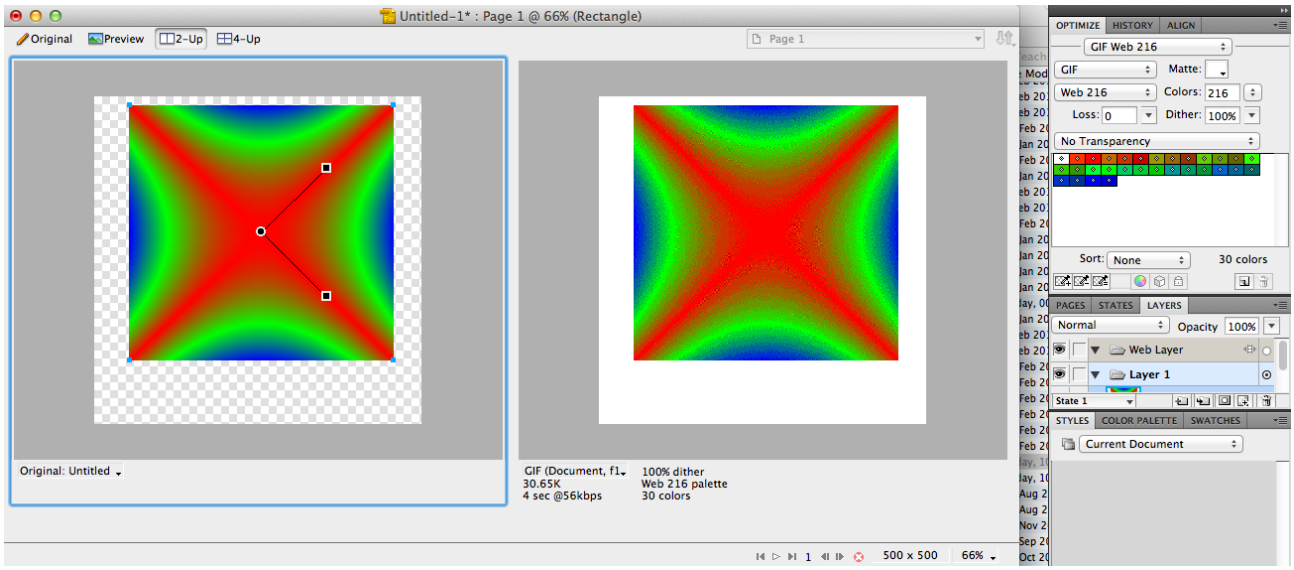


Note that for an animation to be visible in a web browser it must be saved as an animated gif. You should keep the canvas small so that you can have more frames, but not too many!

Exporting

The default file format for Fireworks is PNG. If we want to save as a gif or a jpg we must export the picture to that format. To get started, select the 2-UP option at the top of your editing window. 

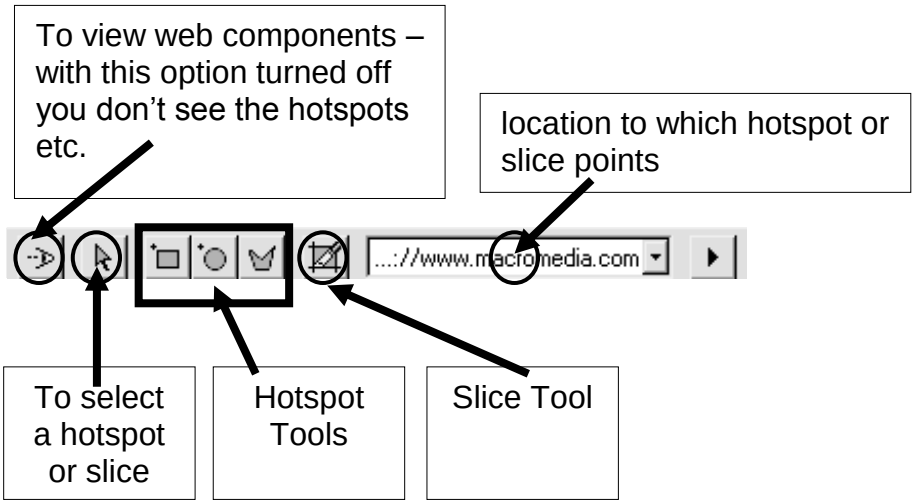
When you choose 2-UP from the menu you are presented with an optimise panel, along with various options for customising the output of your picture. There are options here to change the output format (gif etc.) the palette being used (web-safe etc.) It also shows the download time (estimated).



	If your image is an animation select animated gif websnap from the format menu.

Web

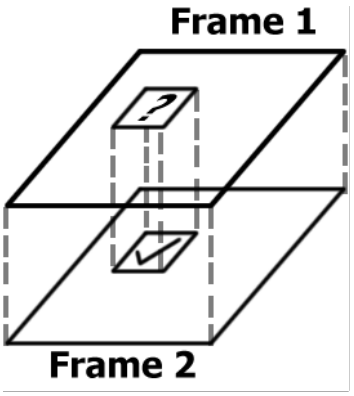
Fireworks also supports image map generation.



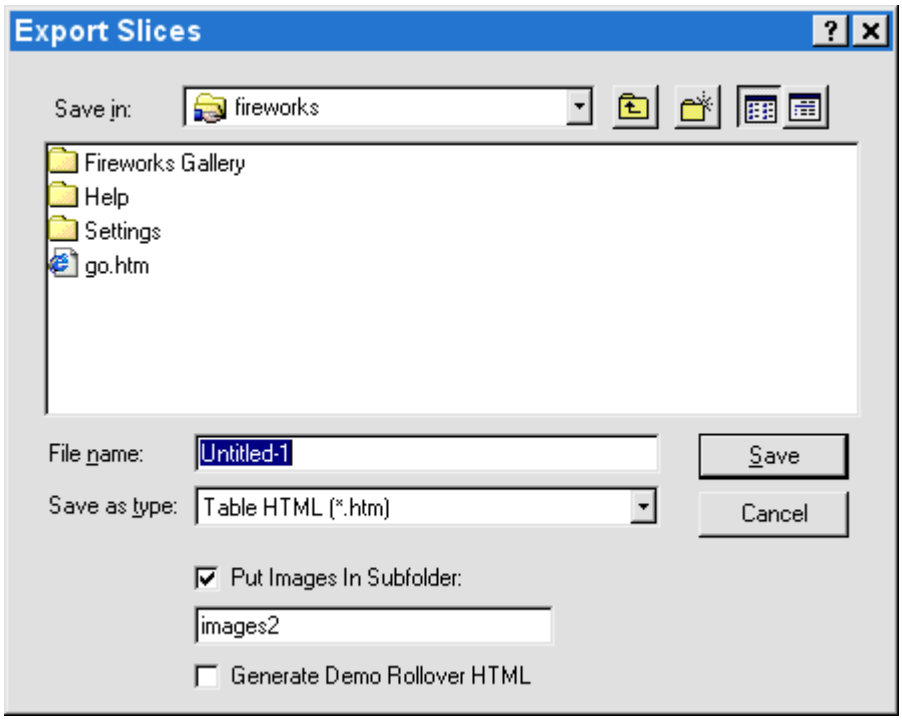
The web components can be made visible or invisible so as not to intefere with your page design. To select a web component use the web selection tool. Hotspots are created in much the same way as in Front Page

The Slice Tool lets us create javascript rollovers. Using the slice tool we can cut our image up into segments. Each segment becomes a cell in a HTML table. When we create a slice we select what url it points too like a hotspot, but can also malke it a roll over. A rollover is an image which changes when a mouse hovers over it or clicks it. So we can make a piece of text light up perhaps when a person hovers their mouse over it. The ordinary state of the image (think of it like a button) is represented in frame one frame two contains the active state of the image for when the mouse hovers over it and so on.
So once you've created the image, and the slice rollover – make sure you create a graphic ***in the same location*** in frame two to appear when the mouse hovers. Note that only the contents of the active slice will be swapped for the contents of the same slice in frame two. An easy way to deal with this is to create frame two as a duplicate of frame one – then you are assured that everything is in the same place.

In the example below a square slice has been made in the image. The slice has been made into a rollover with the mouse over state or hover state visible in frame 2. The default state of that part of the web page will therefore be a ? in frame 1. But when some one moves a mouse over it it will change to a check mark √ as in frame 2. Note that the active image in frame two has to be in the same slice as the original to be changed.



Web pages generated using Fireworks must be saved using the EXPORT SLICES Option from the file menu.



You are then asked to select a type – HTML Table, and where to put the images. Usually putting the images in a subfolder is a good idea. This web page can then be viewed in a browser. It goes without saying that structuring layout in a real web page by using tables is, of course, bad practice.

Web Design (COMP 20030)

Practical 3

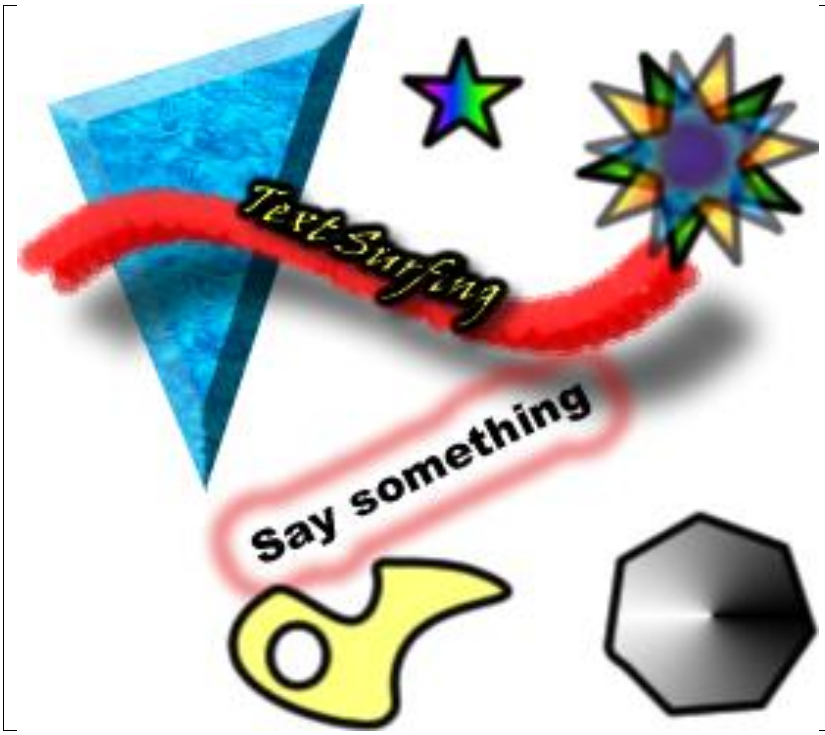
Image Editing with Fireworks

Fireworks is a powerful tool for creating web graphics. There are lots of tutorials on the Web describing its capabilities. Don't be afraid to use the online help to learn more about what it can do.

Create a folder called **practical3**. Save all files related to this practical and all files generated by fireworks in this folder.

Exercise 1

Create the following image:



Width	**:**	**500 Pixels**
Height	**:**	**500 Pixels**
Canvas	**:**	**White**
Resolution	**:**	**96 pixels per inch**
SaveAs	**:**	**practical3\q1.png**

Blue Triangle
Use **:** Pen Tool **Stroke** **:** None
Fill **:** Pattern - Blue Wave **Filter** **:** Inner Bevel - Flat

Hint ***:*** *Click on the first point again to finish the shape*

Red Bezier Curve
Use **:** Line Tool & Pen Tool **Stroke** **:** Unnatural - Viscous Alien Paint

Hint ***:*** *Choose stroke before drawing line. Draw straight line before clicking the middle of the line with the Pen Tool and drag to get the curve*

Say Something
Use : Text Tool **Font** : Arial Black 29pt Bold
Effect : Glow

Hint : *Use the Transform Tool to rotate the text. Increase the offset of the Glow to get the Halo effect. Replace the words "Say Something" with your own personal message.*

Yellow Blob

Use : Ellipse Tool, followed by Reshape Area  followed by join
Stroke : Basic-Soft Rounded

Hint *: Use the reshape tool twice with different sizes*

Text Surfing
Use : Text Tool **Font** : Bookman Old Style, 29pt, Bold, Italic
Stroke : Basic -Soft Rounded **Fill** : Solid

Hint *: Use Attach to Path from the text menu but copy and paste the path first! You may need to edit the endpoints of curve to make the text centred.*

Conic Polygon
Use : Polygon Tool - seven sides **Fill** : Cone - Black, White
Stroke : Basic - Soft Rounded

Hint *: Make sure you choose polygon not star on the control window*

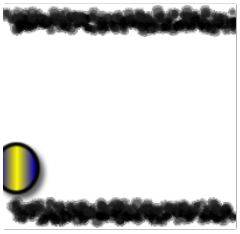
Spectrum Star
Use : Polygon Tool **Fill** : linear gradient - spectrum
Stroke : Basic - Soft Rounded

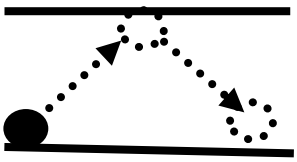
Hint *: it's a 5 sided star*

Kaleidoscopic Stars
Use : Polygon Tool **Fill** : Ripple gradients (emerald green etc.)
Stroke : Basic - Soft Rounded

Hint *: The stars are stacked. Some of them are partially transparent (using the Layers panel).*

Exercise 2





Width : 200 Pixels
Height : 200 Pixels
Canvas : White
Resolution : 72 pixels per inch
Save As : practical3\q2.png
Export As : practical3\q2.gif
Export Format : Animated Gif

Create a 20 frame animation, (10 frames per instance of the tweening) of a bouncing ball. The frame delay should be 10 / 100th sec, and the image loops infinitely. The lines are drawn using a stroke of unnatural viscous alien paint. NB: Make sure that you save as an animated gif!

Submission Instructions

Create a zip file containing all of this week's solutions.

In Windows you can select the "Practical 3" folder, right click and choose send to > Compressed (zipped) archive.

In Mac OS X, you can select the "Practical 3" folder, right click and choose Archive.

Name your zip file in the format of "*name*–practical3– *studentnumber.zip*", replacing name and *studentnumber* with your own name and student number. e.g. "Bloggs,Joe–practical3–12345678.zip". Upload your zip file using the Practical 3 submission form available on Moodle.