Fireworks: Drawing Tools

Vector images can be created in Fireworks in a number of different ways. Using a combination of the shape tool, the pen tool, the freeform tool or the line tool you can create custom designs, with their own flair.

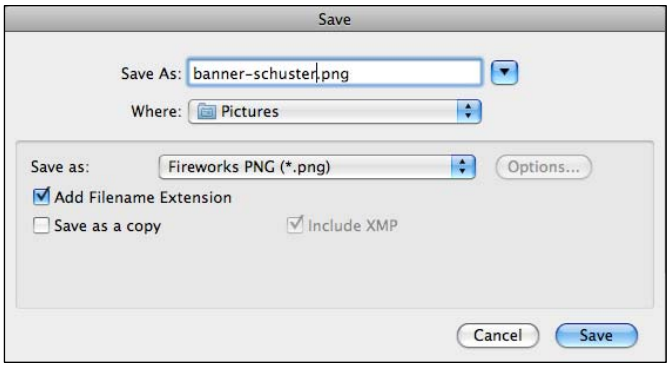
TERMINOLOGY

Below are common terms used in the Fireworks environment:

Fireworks-PNG	The native file format for Fireworks – also known as the "editing" or "source" file. The source PNG is always editable and retains all filters, layers, etc.
Vector	Vector graphics render images using lines and curves (vectors) that include color and position information. Vector graphics are resolution-independent and won't change if you adjust the size, shape, etc.
Raster	Raster graphics are composed of dots (pixels) arranged in a grid. The dots fit together like tiles in a mosaic. Raster graphics are resolution-dependent - the color data is a fixed grid that is a particular size. Reshaping or enlarging raster images will effect the quality.
Guides	Guides are lines that you drag onto the document canvas from the rulers. You can use guides to mark important parts of your document, such as the margins and the document center point.
Slices	Web objects that are the basic building blocks for interactivity in Fireworks. You can view, select, and rename them through the Web Layer in the Layers panel. Slicing cuts up a Fireworks document into smaller pieces and exports each piece as a separate file.
States	States are used to build animations using layers to organize objects that are part of the backdrop. You can set timing, movement, delays, etc., in the States panel.
Layer	Layers organize the structure of a document and divide the document into discrete planes, as if the separate illustrations were drawn on tracing paper overlays. Layers are stacked from top to bottom and sit on top of the canvas.
Web Layer	The Web Layer appears as the top layer in each document. It contains web objects, such as slices and hotspots, used for assigning interactivity to exported Fireworks documents.

NATIVE FILE FORMAT

Fireworks has it's own Fireworks-PNG format that is referred to as the "native" file format – or the original authoring file that retains all of the original authoring tools, layers, pages, etc. It is often compared to the Photoshop PSD file format.

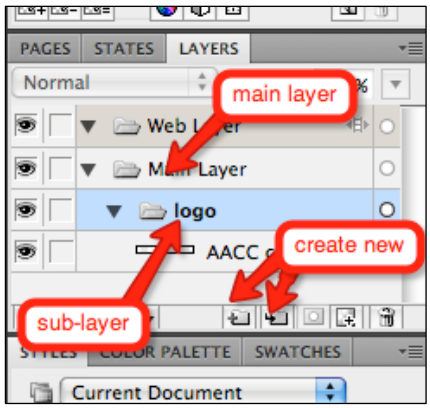


This file format is **different** from the standard PNG file format – the standard format that is sometimes used on the web. This standard PNG file format is referred to as a "flattened" PNG, and will result in the removal of original editable features.

LAYERS

Layers are some of the most important elements used in any image editing tools. Fireworks is no stranger to layers, and they can be used in many ways:

- Web Layers: interactive elements, slices, hotspots, etc.
- Main or Image Layers: the topmost layers that contain elements and sub-layers
- Sub-layers: a group of elements inside of a layer



New Layer or New Sub Layer icons add layers or sub-layers to your design. Dragging layer folders inside of one another creates sub-layers from original Image layers.

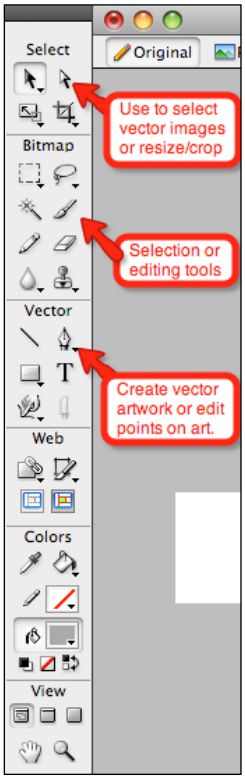
IMPORTING FILES

Fireworks can work with both Bitmap and Vector images easily. You can easily import various file formats (Illustrator, Photoshop, Rich Text, etc.) into a Fireworks PNG file and incorporate them into your new designs:

- Select **File > Import...** and navigate to your file
- Adjust any import settings (depending on the type of file you are importing)
- Drag the "L" mouse across the document, sizing the imported graphic

TOOLS

The **toolbar** features a number of tools that you can use with either Bitmap or Vector tools.



Bitmap Tools:

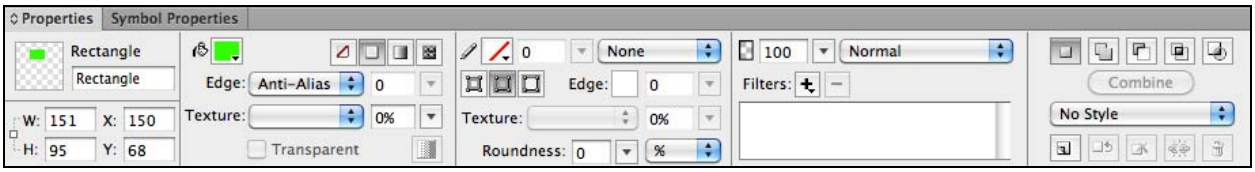
- Selection tools like **Marquee** and **Lasso** (under Bitmap) select portions of bitmap images so you can edit that portion.
- **Paintbrush** and **pencil** tools allow you to **draw** on your bitmap – making permanent changes to a bitmap image.
- **Eraser** tool allows you to remove portions of a bitmap.
- **Blur, Smudge, Dodge, Burn** tools allow you to apply photographic techniques to bitmaps.
- **Corrective** tools, like the **Rubber Stamp, Replace Color** and **Red Eye** removal tool allows you to copy and reuse pixels of a bitmap image.

Vector Tools:

- **Line** tools draw straight, horizontal or vertical lines; hold SHIFT key down to restrain the line;
- **Vector** tools create separate editable objects, unlike the Bitmap tools that you can edit and manipulate;
- **Pen** and **Vector Path** tools create artwork on a point system – click to create a point, click & drag to create curves;
- **Shape** tools are an extensive set of **pre-built** shapes that allow you to quickly create shapes from stored information;
- **Text** tool creates vector artwork that is editable and scalable.

PROPERTIES PANEL

Use the **Properties Panel** to edit settings for individual tools as you select them, or for graphics or objects that already exist on the canvas. Use letters on your keyboard to jump to individual tools (shortcuts show when you hover over them).



*The **Properties Panel** reflects the editable properties of the **selected** tool or object.*

SELECTIONS

The main **selection** tool arrows allow you to control a shape or piece of artwork on the art board. The main selection tool is a **black-filled** arrow, and allows you to move, resize, and manipulate vector artwork, shapes and bitmaps as a whole.
The **sub-selection** tool arrow is a **white-filled** arrow, and allows you to select individual points on a shape or vector artwork, and manipulate the curves of the drawn item.

SHAPES

Fireworks offers a number of **shape** drawing tools in the toolbar. The three main shapes are the **rectangle**, **ellipse** and **polygon**.

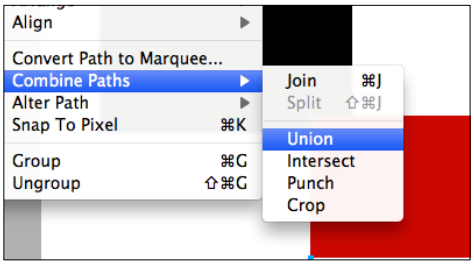
- Select one of the shape tools from the **Vector** category in the toolbar,
- Drag out with your mouse to draw a shape,
- Hold down the **SHIFT** key to constrain *proportions* and *sides*.

Use the **Main Selection** (filled black arrow) tool under the Selection category in the toolbar to select a shape on the stage. Change **properties** like stroke thickness, color fill, size, and corner roundness (in squares) in the **Properties Inspector**. You can also adjust the **sides** and **shape** of *polygons* in the Properties Inspector.

Use the **Sub-Selection** (white filled arrow) tool under the Selection category in the toolbar to ungroup and select basic points on the shape path.

COMBINING SHAPES: Combining two shapes is easy. To combine two shapes, you would do the following:

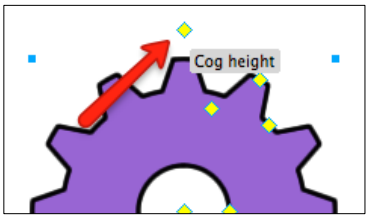
- Using the selection tool, and SHIFT-click on two overlapping shapes to select them;
- Join shapes using the *Union, Intersect, Punch* and *Crop* options found under the Combine Paths dialogue box:
  - Select **Modify > Combine Paths...**



Below are the options you have when combining paths:

- **Union**: unites two shapes and fills the combined shape with the top-most fill / stroke color.
- **Intersect**: creates a shape from the intersecting area of two shapes, filling the shape with whatever fill / stroke color is in the background.
- **Punch**: creates a shape from two overlapping areas, by "punching" through the bottom shape.
- **Crop**: combines two shapes, cropping or masking the bottom image with the top image.

AUTOSHAPES: Pre-drawn vector shapes in the AutoShapes panel.



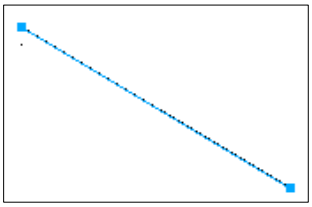
- Select **Window > AutoShapes**
- Select an AutoShape and drag it to the canvas (see RIGHT)
- Use **blue property handles** to manipulate the drawn AutoShape.
- Roll over **yellow handles** (see RIGHT) for tool tips on how to **customize** features of that specific AutoShape

LINE TOOL: A simple vector tool is the **Line** tool, found in the **Vector** category in the toolbar. Lines are created by at least two points, connected by a line.

- Select the **line tool** in the toolbar
- Select a **stroke color** in the toolbar or Properties Inspector
- Click and **drag** to create a line or series of lines
  - Hold down the SHIFT key to restrain the orientation and angle of the line
- Adjust line thickness, color, texture and type in the **Properties Inspector**

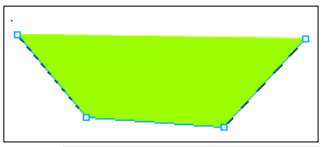
PEN TOOL: Create paths, lines, or shapes, by clicking to create anchor points that connect lines from one point to another using the pen tool.

Creating Lines: To draw a line, simply do the following:



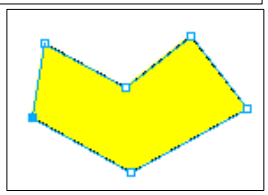
- Select the pen tool,
- Make sure the line fill has a color designated in the toolbar,
- Click once to create a point on the artboard,
- Double-click once more on the artboard to complete the line.

Creating OPEN-Path Shapes with Point-to-Point Lines:



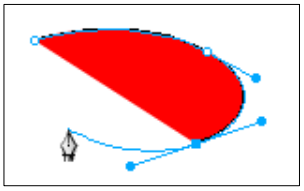
- Clicking and creating points creates a filled / stroked shape,
- To create an **open-path**, double-click on the last point,
- Shape will have an open side, where no line connects path.

Creating CLOSED-Path Shapes with Point-to-Point Lines:



- Using the pen tool, click and create points,
- End the shape by clicking on the first point to close the path.
- **NOTE**: You'll see a **small open circle** when the mouse rolls over the first point, indicating you are **closing** the final path.
- **Hover** over an existing point and **click and drag** to curve the anchor
- **Hover** over an existing anchor point and **click** to delete the point

Creating Shape Objects with Curves:



- Create a curved shape by **clicking and dragging** with the pen
- A **Bezeir curve** is created as you click and drag
- Points are connected with curved lines and anchor points have handle-bars to control the curve of the object.
- Use the **Sub-selection** tool to edit individual points or to adjust a path's curve.