

OmniGraffle Pro v5 Tips and Tricks

2009 Chris Hulett
chulett@318.com

OmniGraffle Professional is a unique graphics application with many potential uses. In some ways it behaves like a typical design application, such as those in the Creative Suite or Pages. Looking deeper, OmniGraffle provides a feature set and workflow specially tailored to creating charts, diagrams and other info-graphics. OmniGraffle is produced by the Omni Group and is, as of November 2009, in version 5. A 30-day trial download is available from www.omnigroup.com-omnigraffle.

The intention of this document is not to serve as a comprehensive guide to OmniGraffle, but rather a collection of things I have noticed while working in the app which may be useful to others. For a more comprehensive tutorial, I highly recommend checking out the videos and materials proved by Omni at the above URL.

Herein OmniGraffle may be referred to as OG.

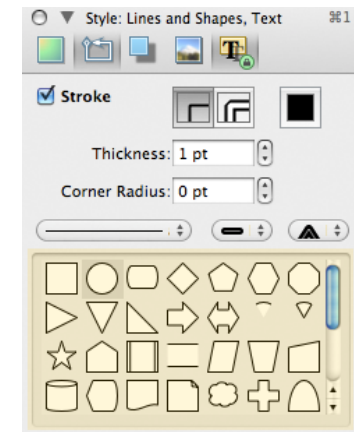
Objects

OmniGraffle is a decidedly object-oriented application. Everything, including the canvas, shapes and lines are just objects defined by their properties. This is good to keep in mind when working with OmniGraffle, and essential to the extensive AppleScript integration discussed later in this document.

Shapes

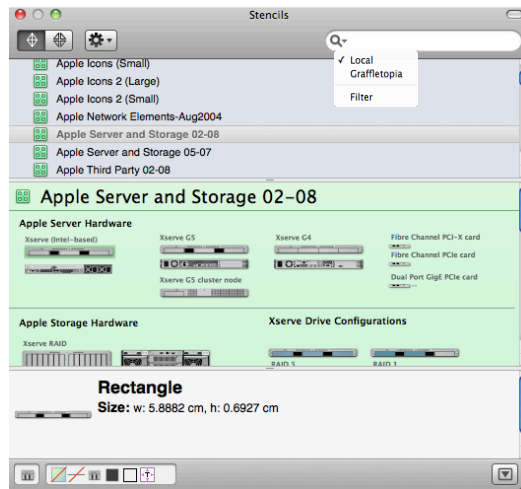
Somewhat hidden in the Lines palate you will find the built-in shapes. The shape tool and this palate are used together for one of OG's most basic functions, drawing shapes. Because the shape of an object is just a property of an object you can select different shapes without loosing your existing text and formatting.

These built-in shapes are handy, allowing you to change the shape of an object without affecting its other properties, such as text and style. For example, the square in this image can become the cylinder simply by changing the shape property. Riveting, I know.



Stencils

Stencils are essentially shapes with preset properties, typically an image overlay. They are organized into sets, available in the Stencils palate.



Stencils can be stored in both `/Library/Application Support/OmniGraffle/Stencils/` or `~/Library/Application Support/OmniGraffle/Stencils/`. Manipulation of the files within these folders will affect the stencil library available within OG. If you have been using OG for a while and have quite a few extra sets of stencils, you may notice that the performance of the Stencils palate will be decreased. To temper this you may want to manually move unused stencils out of the above mentioned folders and re-launch OG.

Graffletopia

Graffletopia.com is a site devoted to sharing OmniGraffle stencil sets. A wide variety of illustrations, from Apple hardware to electronics components to Legos, are available and ready for use within OG. You can search Graffletopia's database of stencils directly from the Stencil palate, as seen in the illustration. Click the magnifying glass in the search box to change the search path from Local to Graffletopia.

Occasionally, OmniGraffle will not successfully download a found set of stencils, but they are typically still available for download at the site directly.

Custom Stencil Sets

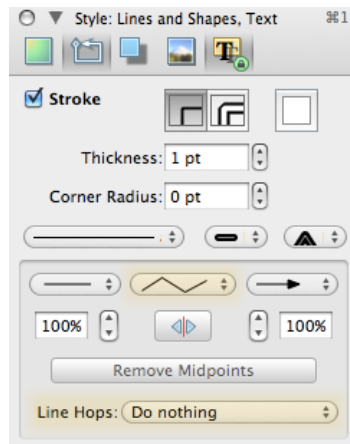
If you can't find a set of stencils that fit your purpose, it is fairly straightforward to create your own. Find an image of your device, drag it onto the OmniGraffle canvas and you're ready to go. When dealing with non-rectangular objects, masking tools such as Photoshop or Preview and Pages' Instant Alpha feature are sometimes necessary to create clean stencils.

Also available online, icon collections frequently provide loving renditions of objects you can use as stencils within OmniGraffle.

Once you've created your own stencils it is probably a good idea to save them for later. Create a new stencil set from the `File > New Resource` menu and drag the images you wish to save into it. You could just store a folder of images, but those would not retain OmniGraffle specific properties.

Lines

Lines, aka connections, can be cleaned up quickly using a few of the options found in the Lines palate.

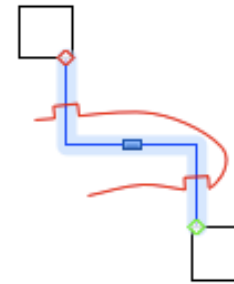


Line Type

OmniGraffle provides four styles of lines; straight, curved, orthogonal and bézier. Like shapes, you can change the style of existing lines by selecting them and changing the line type property. Sometimes it is more convenient to just use straight lines when drawing your graffle, then change them to something prettier later on.

Line Hops

To clarify how lines interact, you can add little hops when they intersect another line.



Orthogonal Line Handles

When selected, orthogonal lines present a little blue handle you can use to adjust the position of the segments.

You can double-click any spot on a line to create anchors as well.

Object Properties

As mentioned above, shapes and lines are defined entirely by their properties. Anything about an object you set from the inspector is reflected in that object's property for that setting. In some cases the OmniGraffle interface distinguishes “Styles” and “Properties”, but in practice they are essentially the same thing.

You can copy some properties from object to object using Style Brush, controls in the Format menu or the Style Tray.

Some properties are very similar to those found in other applications, such as; fill (the color or gradient overlay), stroke (the border or line properties) or image overlay.



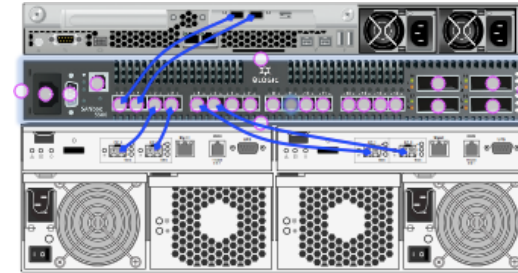
Other properties are specific to OmniGraffle. The shape and line-hop functions discussed above are good examples of these, and there are a few more which I find especially compelling:

Magnets

Magnets are anchors for lines connecting shapes. By default lines will connect pointing directly at the center of a shape or stencil. By adding custom magnets you can connect lines arbitrarily to any point on the object. Be careful though, as selection can get tricky when you have lots of magnets in a small area.

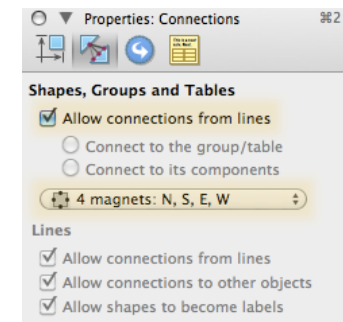
Using the magnet tool you can add anchors to the ports of a machine, then draw lines illustrating the actual cable configuration. In the following illustration the magnets are the pink circles. You will only see the magnets when hovering

over the shape with the magnet tool, or when dragging a line to make a connection.



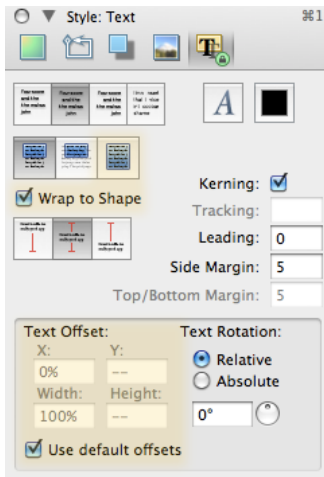
You may easily add magnets around the edges of shapes easily using the magnets property in the Connections inspector.

The opposite of setting magnets is disallowing connections to an object altogether. It can become very frustrating when working with lines if they keep trying to connect to a large shape in the background instead of your intended object. To prevent this behavior uncheck the "Allow connections from lines" property for any shapes you do not wish to connect.



Text

Text and its style is a property of the shape it is labeling. Even if you create a stand-alone text area, OmniGraffle treats it as if there is an invisible shape behind the text.



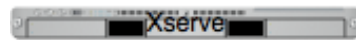
You can save yourself a lot of hassle by setting the text properties appropriately for the items you are labeling.

For example, when adding arbitrary text to label geometric shapes the Resize to Fit option will automatically stretch or shrink your shape to fit the text.

Similarly, the Wrap to Shape option will prevent your text from spilling off the sides of your shape.

Useful especially when using illustrated stencils, the Text Offset property can vastly simplify labeling of objects. For example, here are two versions of the exact same object:

With no text offset:



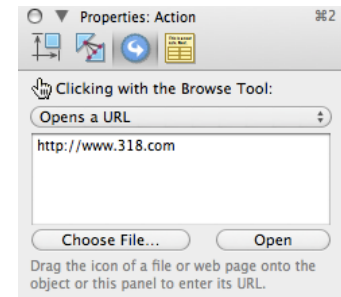
With the Y axis offset 100%:



As you can see, the text is almost unreadable when overlaying the image of the server. If you have a graffle with many stencils you can select all of them, then adjust the text offset en-masse for a consistent look and easier editing.

Action

OmniGraffle can not only create static graphical presentations, but also dynamic, interactive presentations. A special property of an object is its action when clicked in presentation mode. Clicking an object can navigate around the graffle, open a file or URL outside OG, or anything else via scripting.

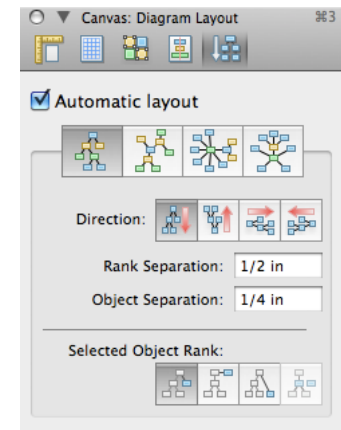


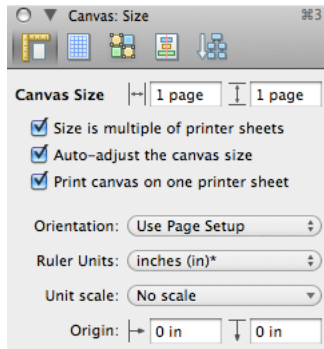
Layout

Automatic layout is especially useful when arranging a large number of objects. When drawing typical diagrams it provides an easy way to evenly space elements for a clean finished product. In more sophisticated diagrams the tool can use a system of ranking objects to create accurate hierarchical maps of relationships. The simplest method of affecting that ranking is to use OG's Outline column, which well covered in Omni's tutorial videos available on their website.

Automatic layout is invaluable when generating graffles with AppleScript, as will be discussed below.

Found in a different section of the Canvas palate, the Print canvas on one printer sheet option does...what it says – scales your entire diagram onto a single sheet



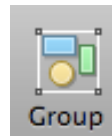


of paper. With this function enabled you needn't worry about stencil sizes, but be careful your text doesn't print too tiny.

If you are creating a diagram of a physical space you can set the Unit scale of your canvas.

Grouping

Grouping and ungrouping objects can be a bit confusing because a single object can be grouped multiple times. For example, let's say you group two shapes together. Then, you select that group and group it with a third shape. If you were to select the group of three and use the ungroup feature the grouping of the two original shapes would remain. Think about groupings before you commit them, otherwise it will become difficult to select single objects you wish to edit.



AppleScript

OmniGraffle has extensive AppleScript functionality that can be used to do pretty much anything you can do in the GUI, sometimes more. This is useful in two ways:

Using AppleScript to automate tasks within OmniGraffle

Frequent, repetitive tasks within OmniGraffle can be automated through simple scripts, much like Actions in Photoshop. For example, when creating network diagrams I like the lines to be on the lowest level, behind all the other objects. This script will select all of the lines and move them to their own layer, behind the current layer of the graffle:

```
tell application id "com.omnigroup.omnigrafflepro"
  tell canvas 1 of document 1
    set lineLayer to make new layer at end of
      layers with properties {name:"Lines",
        visible:true}
    set layer of every line to lineLayer
  end tell
end tell
```

Using scripts to dynamically draw Graffles based on data

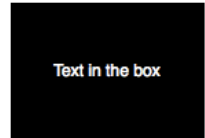
This is where the scriptable functionality of OmniGraffle is most impressive. Using the built in AppleScript library you can build complex diagrams from any data source you can parse. I have a script which gathers data with the network scanning tool Fing, then attempts to draw a representation of the network and discovered hosts with OmniGraffle. I based that script on one created at Apple to diagram Podcast Producer workflows automatically. Another very clever individual wrote

a script which builds a map of your social relationships based on your iPhoto faces database. Most of this goes beyond the scope of this document, but a few things I found particularly useful are:

Copy As > AppleScript

One of the most helpful features when scripting OmniGraffle is the Copy As > AppleScript function. Any object (or multiple objects) can be copied from OmniGraffle and pasted into your script for repetitive use. This is also useful because it allows you to dissect objects to reveal their properties in order to understand how to generate them dynamically from other data. For example, this script draws a box with some text:

```
tell application "OmniGraffle Professional 5"
  tell canvas of front window
    make new shape at end of
      graphics with properties
        {name:"Square", tag:"TagNameHere",
          draws shadow:false, size:{140, 97},
          origin:{158, 151}, fill color:{0, 0, 0},
          text:{text:"Text in the box", color:{1,
            1, 1}, alignment:center}}
  end tell
end tell
```



Let's say instead of the static text in the box you wanted to use the current OS X user's short name. You could alter the above script to generate and use an AppleScript variable for the text, such as:

```
set currentUser to do shell script "whoami"
tell application "OmniGraffle Professional 5"
  tell canvas of front window
    make new shape at end of
      graphics with properties
        {name:"Square", tag:"TagNameHere",
```



```

draws shadow:false, size:{140, 97}, origin:
{158, 151}, fill color:{0, 0, 0}, text:
{text:currentUser, color:{1, 1, 1},
alignment:center}}
end tell
end tell

```


Object Tags

Tags are a property of objects that is almost entirely hidden in the OmniGraffle GUI. They can be extremely useful when scripting because they allow you to uniquely identify objects within your graffle in a way that is not visible in the finished product. For example, the script above tags the new object it creates as "TagNameHere". You could then follow up with something like this to find that shape and change the text:

```

tell application "OmniGraffle
Professional 5"
tell canvas of front window
set targetGraphic to first
shape whose tag is "TagNameHere"
set text of targetGraphic to {text:"different
text", color:{1.0, 1.0, 1.0},
alignment:center}
end tell
end tell

```




rectangle you could just change the name property in the script, such as:

```

set currentUser to do shell script "whoami"
tell application "OmniGraffle Professional 5"
tell canvas of front window
make new shape at end of
graphics with properties
{name:"Circle", tag:"TagNameHere", draws
shadow:false, size:{140, 97}, origin:{158,
151}, fill color:{0, 0, 0}, text:{text:currentUser,
color:{1, 1, 1}, alignment:center}}
end tell
end tell

```



You can view tags in the OmniGraffle GUI by hovering over objects until the tooltip appears.

Shapes

It is simpler to script the creation of objects when using the built-in shapes instead of stencils. Sticking with the above examples, if you wanted instead create a circle instead of a

Other Tips

Keyboard Shortcuts

It takes some practice to be able to use OmniGraffle quickly. Learning keyboard shortcuts helps tremendously. Keyboard access to tools behaves differently in OmniGraffle than in Adobe applications. In both cases a single character access the tool, but in OmniGraffle the tool only remains selected as long as the key remains pressed. Some of the most useful tool shortcuts are:

t – text tool. Hold t, mouse over an object until its border pulses, then click to edit the label

s – shape tool

c – line tool (or connection tool)

v – selection tool

space – hold while clicking and dragging to navigate around a graffle.

OmniGraffle, like any graphics application, benefits from more screen real estate. If that is not possible, here are some shortcuts which are useful for getting the most out of a small screen:

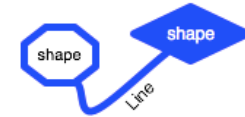
cmd+shift+I – Show/Hide Inspectors

cmd+0 – Show/Hide Stencils

cmd+shift+= and **cmd+shift+-** – Zoom

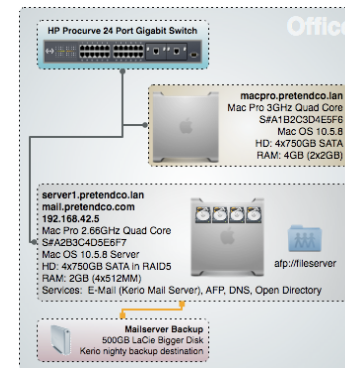
Overlapping Shapes

By using identical colors and line thickness and removing the end-points from lines you can make continuous shapes with no break between them.



Containers

If you want to label an object with lots details I recommend creating a resize-to-fit box and labeling that, then adding your desired image as so. In my experience these are easier to arrange aesthetically, and allow you to alter that box' color to differentiate different classes or types of objects.



Also, changing the type of stroke around a shape, such as the dotted border here, can make things more visually interesting.