@sketchdesigner

Sketch Docs

sketchapp.com/docs/

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Introduction

Sketch is a vector drawing app intended for designers of all sorts. Vector-based drawing is by far the the best way to design websites, icons or interfaces. On top of this vector editing we have added support for basic bitmap styles, such as blur and color corrections.

We've made Sketch both powerful and easy to understand. Experienced designers can easily transfer their existing skills in a matter of hours, and replace Adobe Photoshop, Illustrator or Fireworks for most digital design tasks.

Why use Sketch

Sketch has a great UI and was built for the kind of things you want to do when you design icons or interfaces. It's a one-window app, and what you need is always in reach. We support Multiple Fills per layer and we have the best text rendering and text styles out there. The canvas is infinite and we have some great asset exporting tools we're sure you will love.

You can view the canvas both in a resolution-independent view where you have infinite precision, or you can turn on Pixel Preview and you will know exactly how every pixel will look on export -
if you care about such a thing.

What Sketch is not

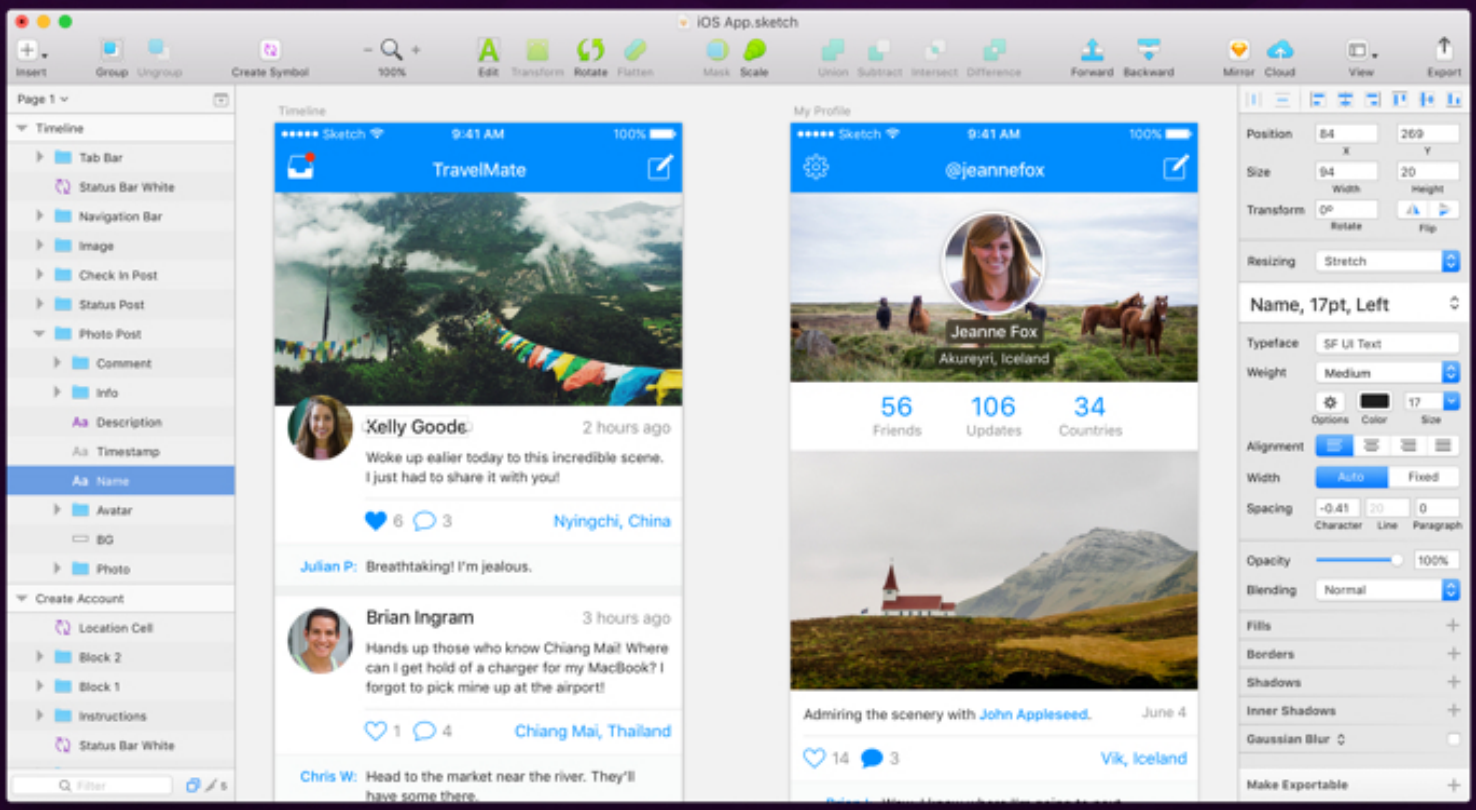
Sketch is not a bitmap editor. This means that if you want to do photo correction or draw with brushes, this is not the app for you.

The Interface

Sketch's interface is minimal by design.

The toolbar on the top contains the most important actions. The inspector on the right lets you adjust the properties of the selected layer(s). The pane on your left lists all the layers and artboards in your document, and your working canvas is in the middle.

There are no floating panels. Instead, the inspector will adapt to show you the tools you need at every moment, and hide everything else. That way you always have a completely unobscured view of your canvas.

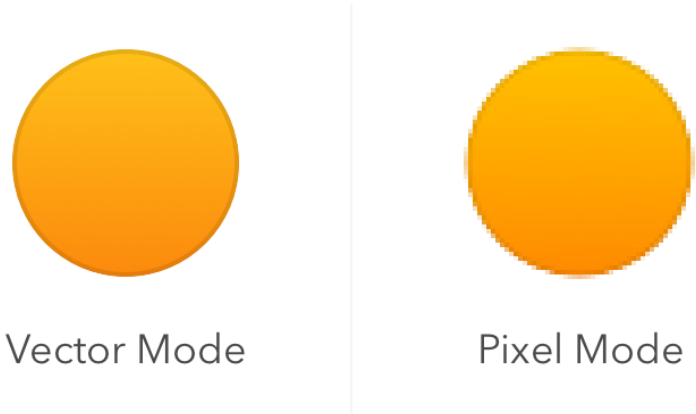


Canvas

Sketch's canvas is infinite in size; you can scroll as far as you want in any direction, so you have complete freedom on how you set up your drawing area.

If you'd like to define a fixed frame inside the infinite canvas, simply insert one or more Artboards. For example when designing mobile interfaces, many designers create an Artboard for each screen in the app and lay them out in order of appearance.

You can view the canvas both in a resolution-independent view where you have infinite precision, or you can turn on pixel preview and you will know exactly how every pixel will look when it's being exported to a bitmap format (such as JPG or PNG).



Note though that some effects such as blur will force parts of the canvas to be displayed in pixel preview mode as a blur is inherently a pixel-based effect.

Inspector

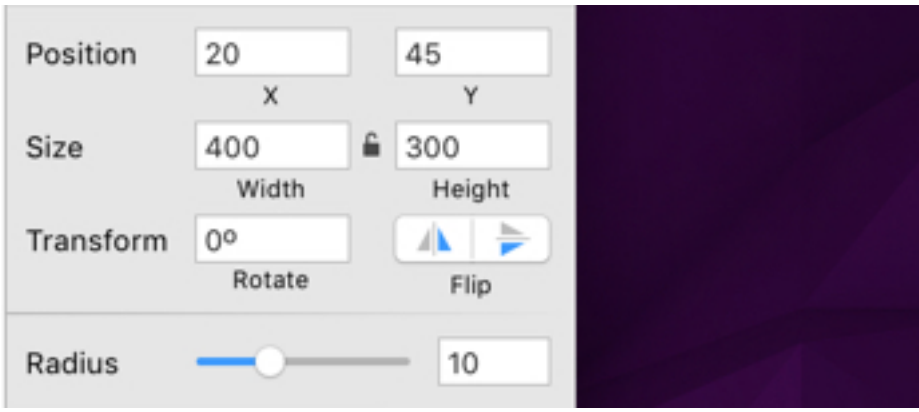
The Inspector on the right lets you adjust the settings for the current layer, or the options for the current tool. When you have a layer selected you will see that the inspector is divided into sections.

Alignment Options

In a bar at the very top of the Inspector are buttons for aligning and distributing layers. These buttons will become active when you have more than one layer selected. More information about this feature can be found under **Moving Layers**.

Layer Properties

The layer properties are visible in the top part of the Inspector; the position, size, opacity, blending, and (depending on the layer type) a few special options, like corner radius for a rectangle or the number of points for a polygon shape.

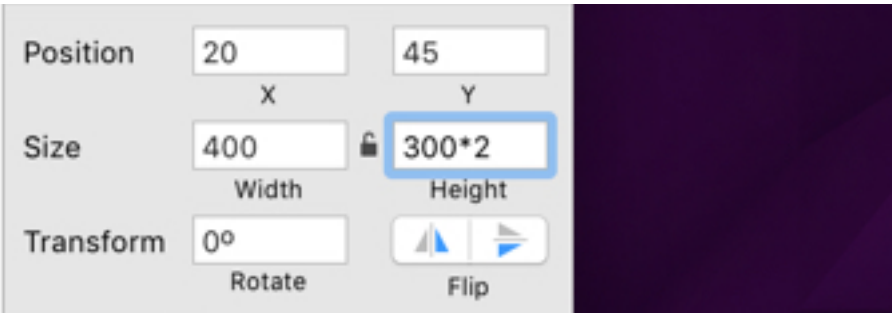


Resizing Constraints

This is something that you'll only see if you have a layer selected inside a group or Artboard, and it allows you to determine how that layer should behave when the group or Artboard it's in is resized. To learn more about this feature, check out the **Resizing Constraints** chapter.

Text Fields

The text fields in the Inspector aren't ordinary text fields. If you hover your pointer over them you will see little up and down arrows appear on the right-hand size of the text field. You can click those to quickly increment or decrement the value. If you hold the Shift key, Sketch will instead increment or decrement the value by 10 times as much. Holding down the Alt key will increase/decrease it by a tenth of that size.



Up and Down

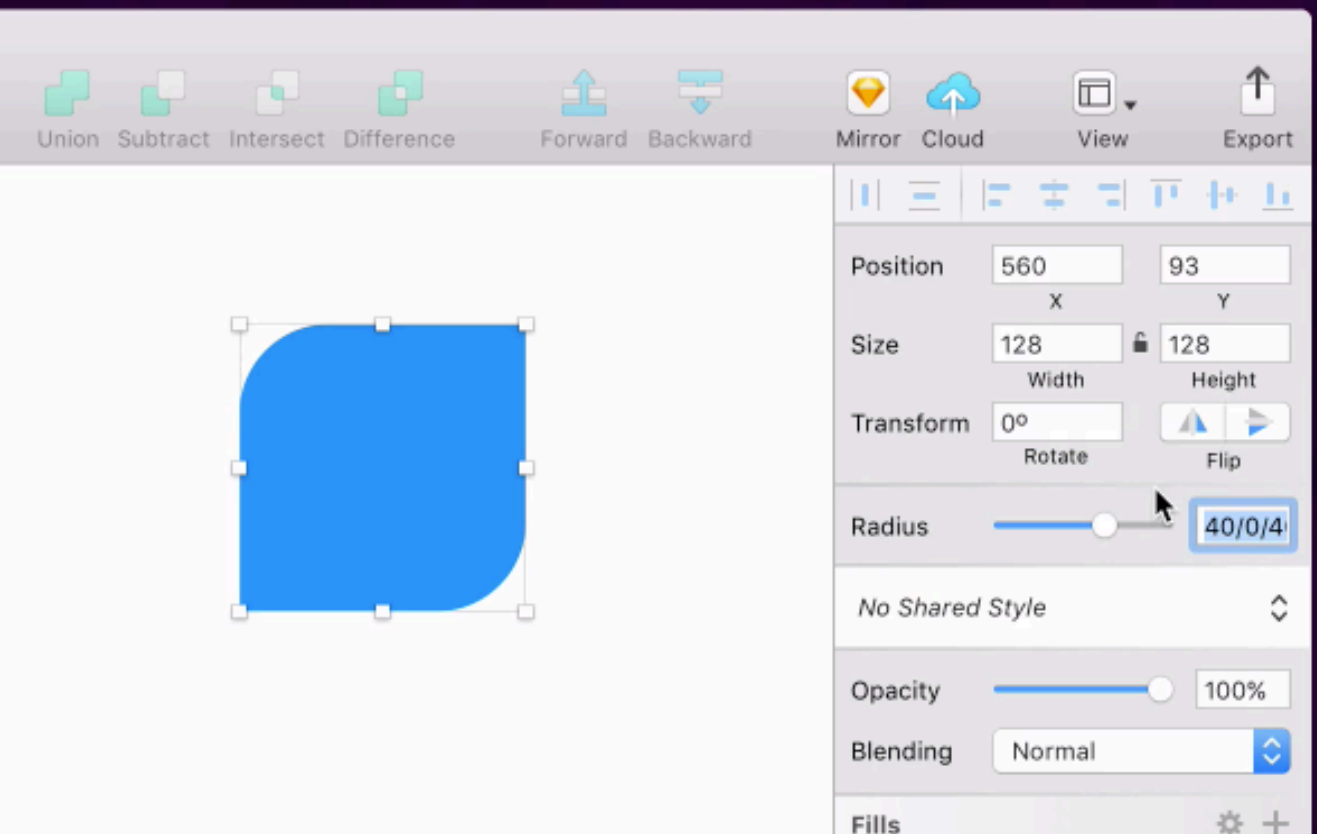
Once you are editing the text fields directly, the up and down arrows will have disappeared, but their functionality is still available. You can use the up an down arrow keys in combination with the Shift key to change the value by 10.

Math

Another great feature in our text fields is that you can perform math operations in all numerical inputs of the Inspector. You can add, subtract, divide, multiply, and in some cases, use percentage to adjust your objects, as shown below. For example, you can select a layer and use +, –, *, or / in any of the numerical fields.

In the radius input field for rectangles, you can specify a different value for each corner by using ; (eg. 40;0;40;0).

You can specify a percentage in the height or width values of an object if it is contained inside a group or Artboard. Sketch will calculate the value and resize the layer. (eg, giving a layer’s width value “10%” when its in a 960 px-wide Artboard will change its width to 96 px).



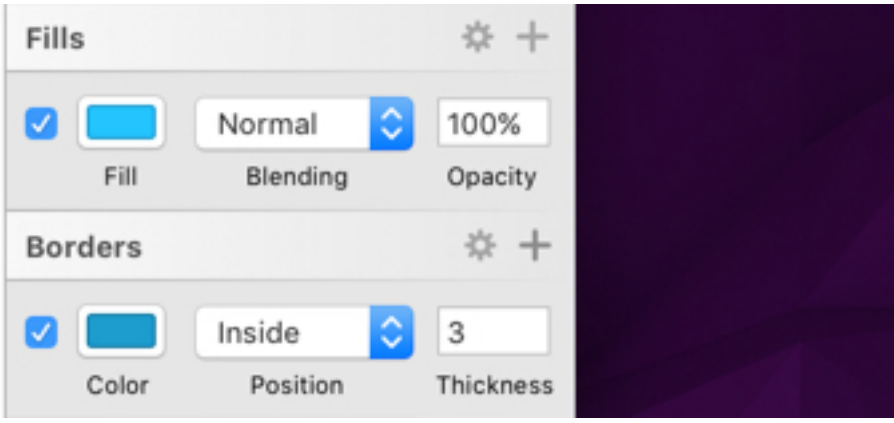
Scrubbing Values

For quickly adjusting text field values you can click-and-drag on the label under any text field to quickly increase or decrease its value. If you're not sure about the exact value you want but just want to see its effect on the Canvas, this is great way for quick experimentation.

Layer Styles

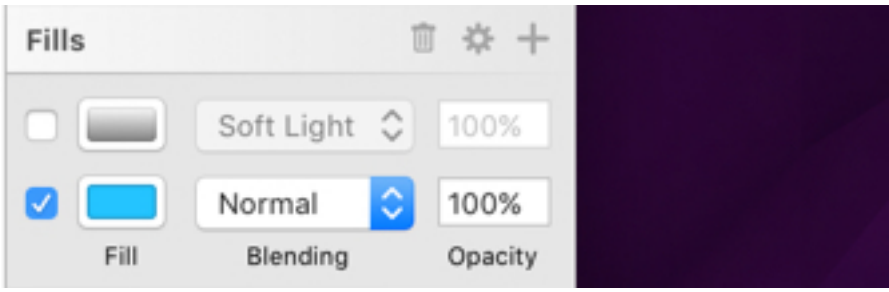
The **Fills**, **Borders**, **Shadows**, and **Blur** style attributes that can be applied to layers each have their own sections.

To add a new style attribute to a layer, just click the add button in the desired section title:



When adding a new Fill, Border, or Shadow, you'll get a popover where you can select its **color**:

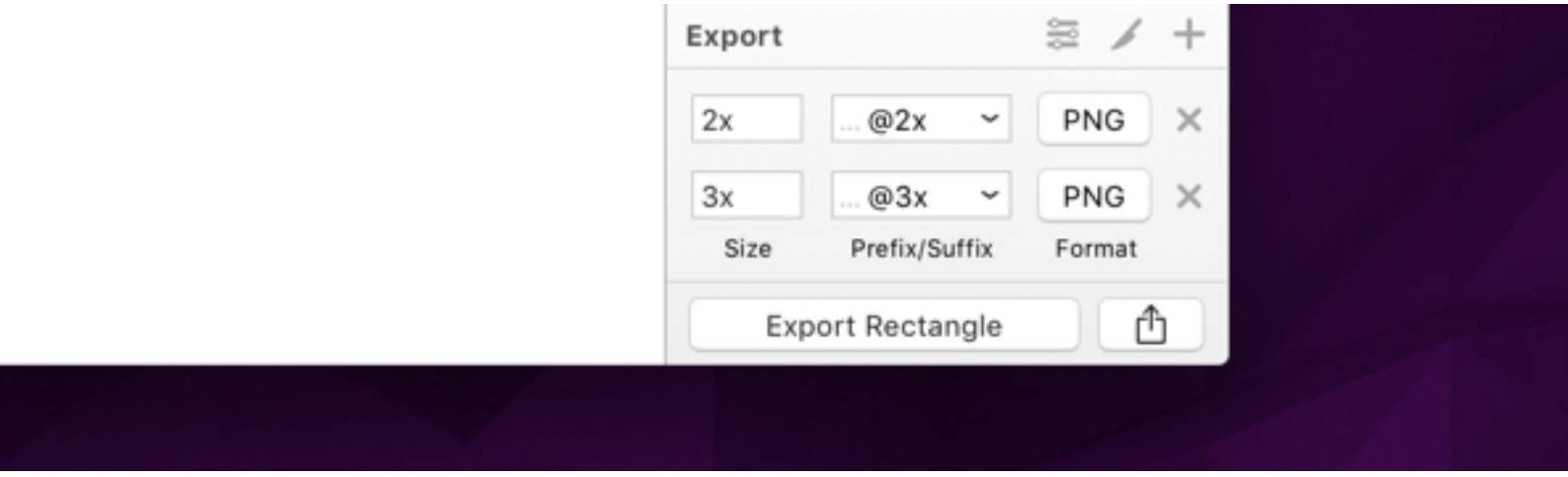
You can hide each attribute by deselecting the visibility checkbox on its left. When one or more Fills, Borders or Shadows are deselected, you can remove them by clicking on the delete button that appears on the section title:



You can apply a Blur much the same way, by selecting the visibility checkbox in the section title. You can then choose the type of blur being applied to your layer from the pop-up menu, and adjust its blur radius.

Exporting

In the bottom-left of the Inspector, you will find the Make Exportable option. From here, you can make any layer or group ready for export by pressing the add button.

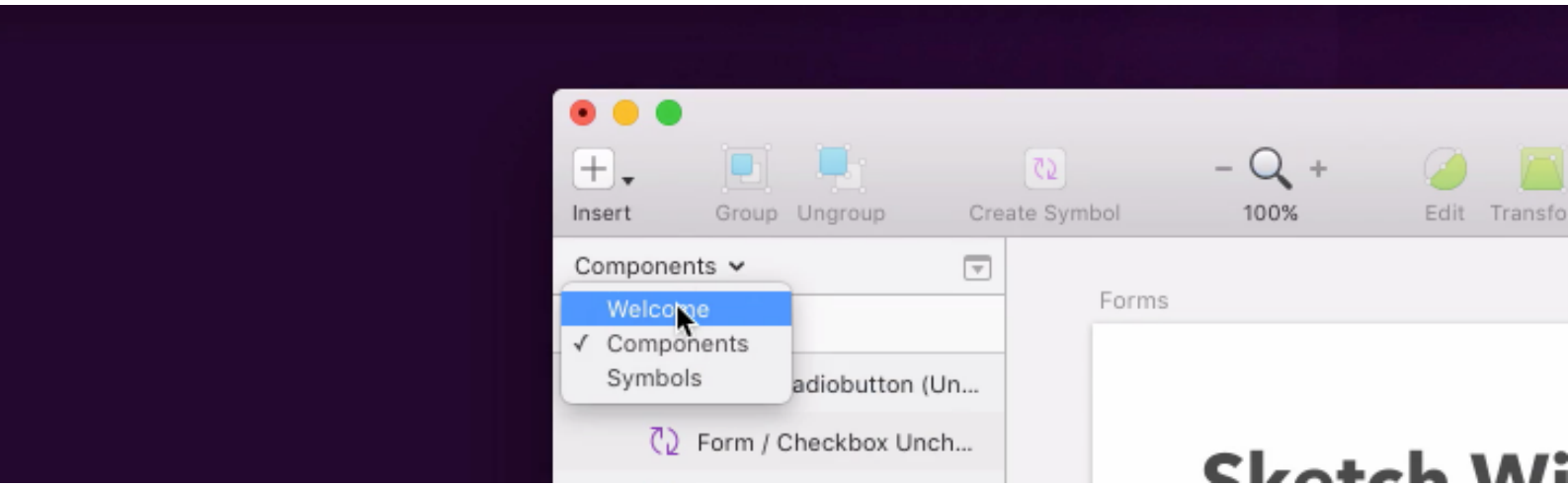


Layer List

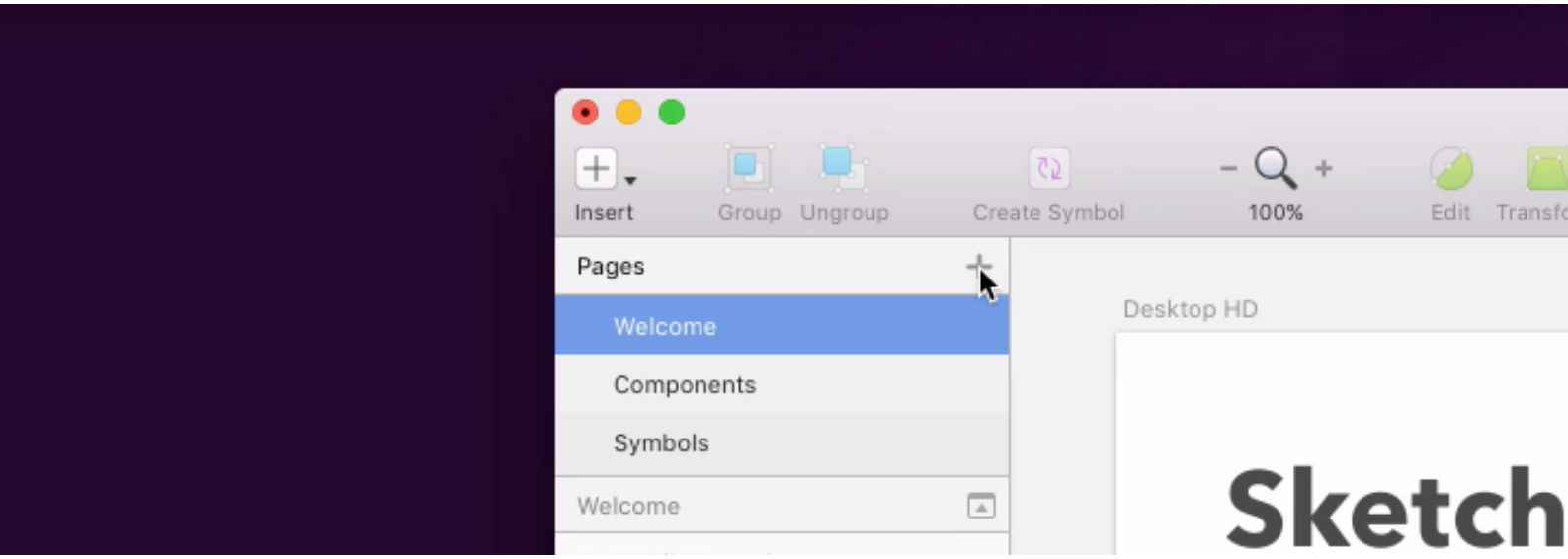
The Layer List contains all layers on the current page. Here you can view each layer's attributes, such as whether it's hidden or locked, as well as being able to organize your document by renaming and reordering layers.

Multiple Pages

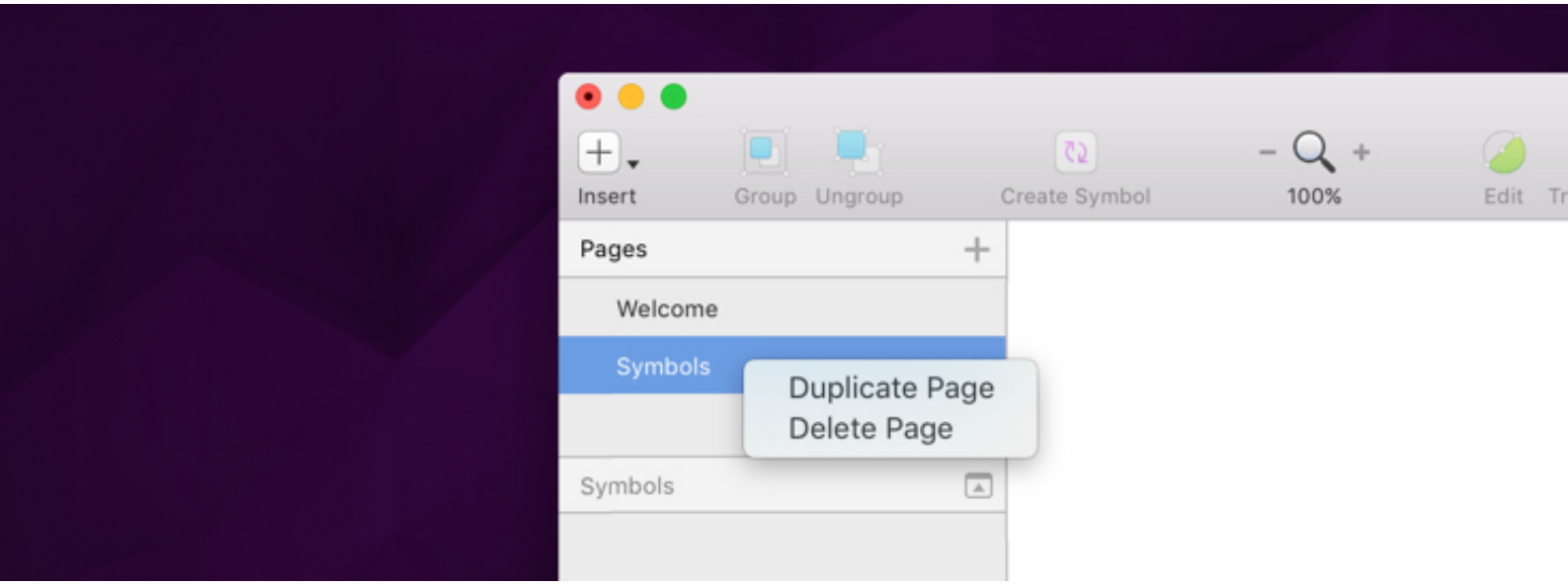
Sketch enables you to use multiple **Pages** in your designs and you can switch between them via the pop-up menu above the Layer List (you can also use the Function-Up Arrow / Function-Down Arrow shortcuts). The Layer List will display the layers of the current page only.



If you want to organize or move layers between pages, just reveal the Pages pane:



Click the add button to insert a new Page. Control-click a Page to reveal a shortcut menu to duplicate or delete a Page:



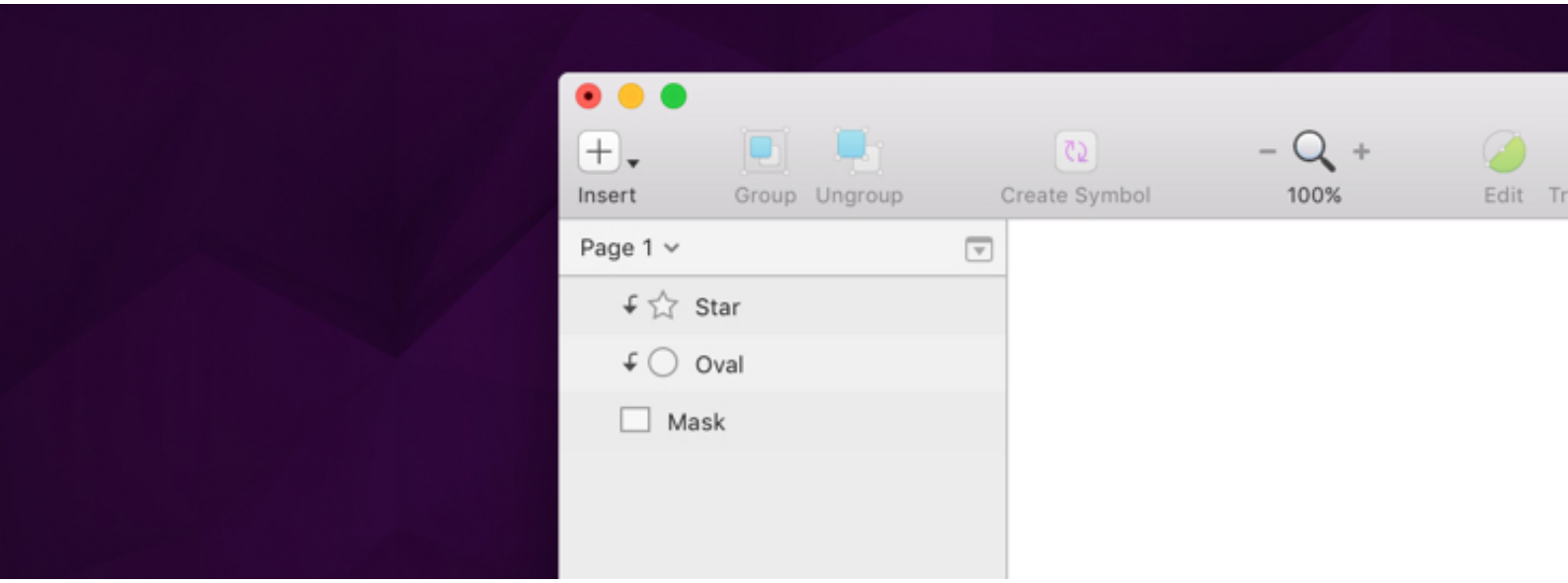
You can drag layers and Artboards from one Page to another, and can duplicate them by holding the Alt key.

Artboards

Artboards in the Layer List are displayed with a lighter color than other layers. These layers are at the top of the hierarchy, and cannot be contained within another Artboard.

Masks

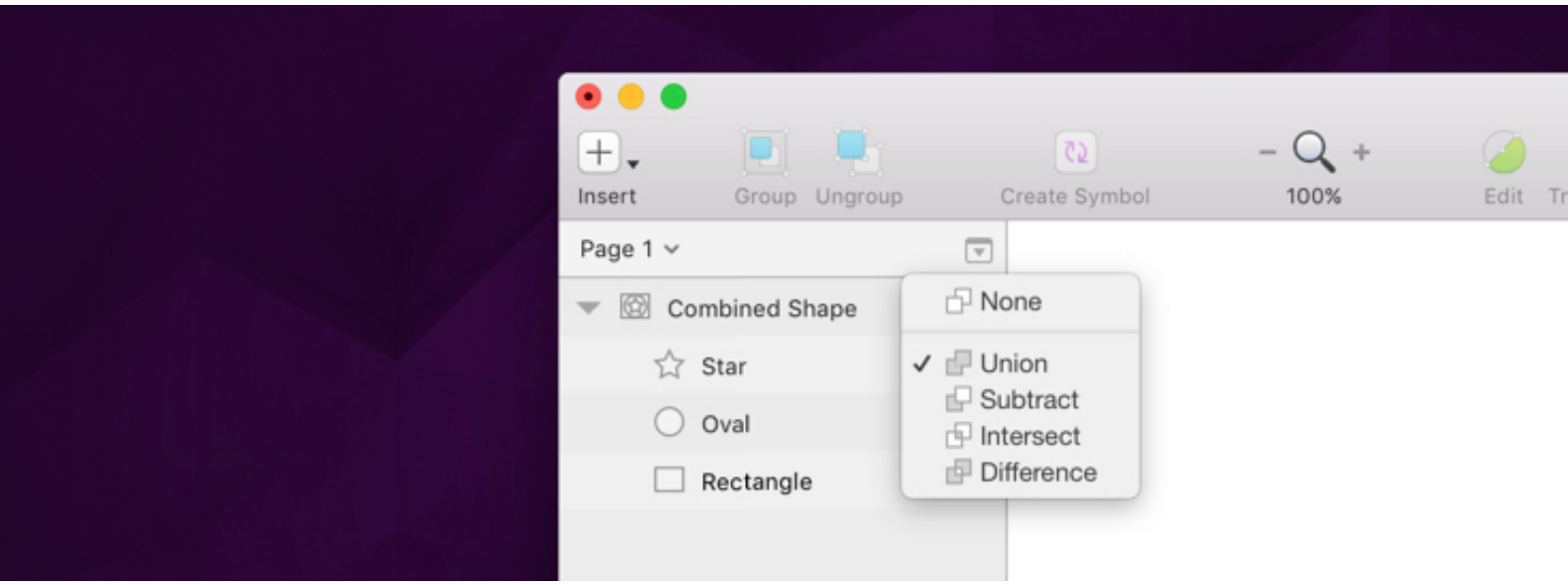
Layers that are masked will appear indented with a little arrow icon before their name and preview. These layers will clip to a layer below that is being used as a mask everything above it.



Boolean Operations

Boolean operations are a set of rules used for combining simple shape layers, into a more complex one. One of these shape layers will have a disclosure triangle next to its preview which will reveal its subpaths, which can be edited and changed at any time. Each subpath will have a boolean operation applied to it, to dictate how it ought to display within the larger shape.

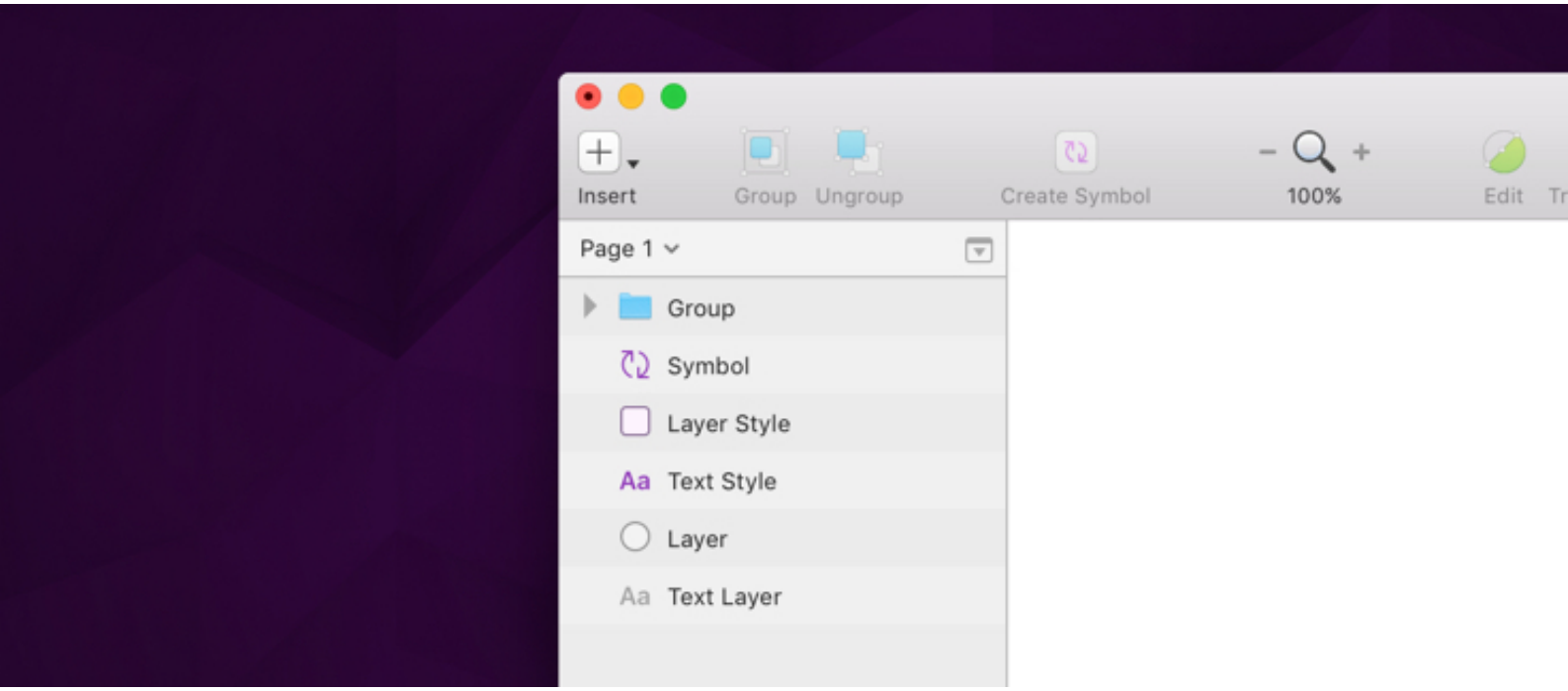
It can be a concept that's a little tricky to initially understand, so you can find more in **Shapes** Chapter.



Symbols and Shared Styles

Symbols are a group of layers that are intended to be re-used throughout your design. They can appear in the Layer List as instances of a master Symbol. These are flattened layers which can be double-clicked in the Canvas to edit their contents.

Shared Styles are used to keep layer styles consistent between multiple layers and they can be applied to both shape and text layers. To indicate that a shape or text layer is using a Shared Style, their preview is displayed in a purple color instead of the usual grey.



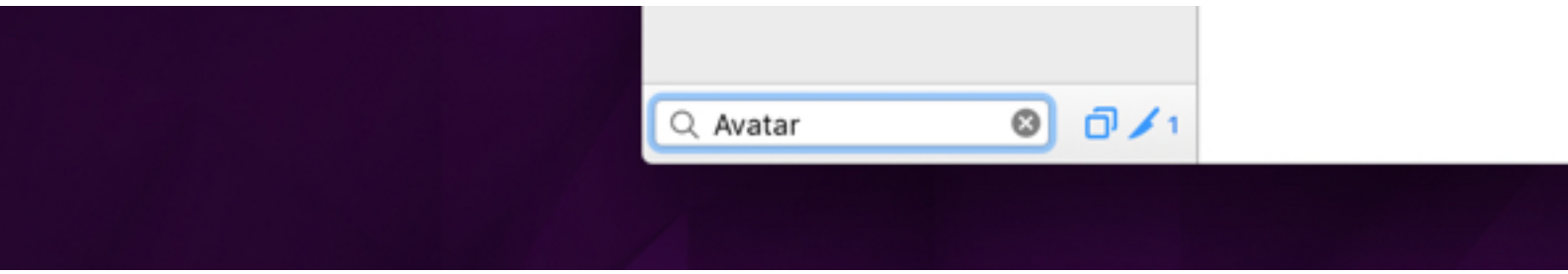
Hiding and Locking Layers

Any layer or group can be hidden from the Canvas, simply by clicking the eye icon that appears on hover—to the right of the layer name in the Layer List (or press Shift + Cmd + H). If this eye icon is visible, this indicates that the layer is hidden.

Similarly, when holding down the Alt key and hovering the Layer List, a padlock icon will appear instead of the hide icon. When clicked, this will show that the layer is now locked on the Canvas, meaning it cannot be selected or moved without being unlocked first. Selected layers can also be locked by pressing Shift + Cmd + L.

Filtering Layers

At the bottom of the Layer List sits a bar with a text box and a couple of icons. These controls can be used to filter layers from appearing in the list. To find a certain layer by its name, simply search for it in the Filter text box and the Layer List will update to display your search results.



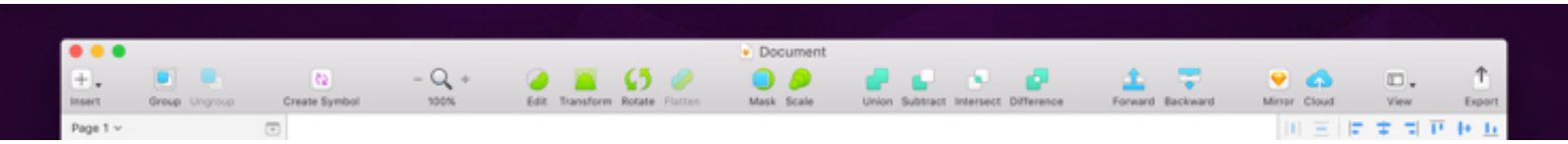
The two icons that appear next to the text box allow you to filter between regular layers, and **slices**. If you click on the Filter Layers button , your layers will be hidden from the list, and you won't be able to interact with them on the Canvas. This is perfect for when you exclusively want to work with slice layers.

Clicking the Filter Slices button however will have the opposite effect: slices will be hidden from the Layer List and the Canvas to ensure they don’t get in your way. The number that appears next to the Filter Slices button indicates the total number of **exportable layers** (including slices) you have on a Page.

Note: If you find yourself not being able to select any layers on the Canvas, be sure to check the Filter Layers button is blue—indicating that they can be interacted with.

Toolbar

The toolbar in Sketch contains all the tools you need to create your design. The default setup—seen below, contains tools that will insert layers, edit shapes, and organize your document.



The first item on the left, is the Insert pop-up menu. Any item you select here will draw a new layer while the Group and Ungroup items used for organizing your Layer List.

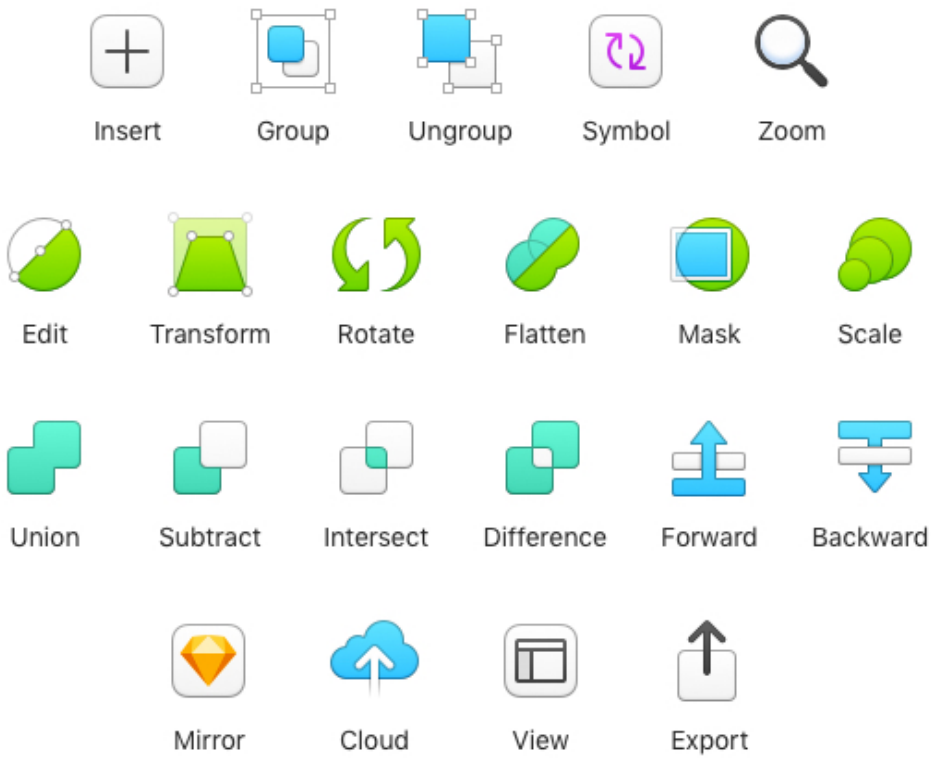
Create Symbol allows you to convert the selected layer or group into a Symbol.

The Zoom buttons let you see more or less of your document depending on the zoom level, which is indicated by a percentage under the icon.

Following that are four of the editing controls that allow you to manipulate your selected shape. Mask and Scale also become active when a shape is selected, and these tools will allow you to clip layers to shapes, and resize them respectively.

The next set of four icons are the boolean operations which are used to combine shapes.

Forward and Backward are also used for organizing your document. Mirror allows you to view your design on the web or iOS device, whilst Cloud will display the contents of your document, if uploaded. The View pop-up menu allows you to show and hide visual aids that can be used when working with complex documents. And finally, the Export button will let you export your assets.



These are just a handful of tools that Sketch offers. By Control-clicking and choosing “Customize Toolbar…” from the shortcut menu you can create your own toolbar layout.

Touch Bar

For MacBook Pro users, the Touch Bar can act as an additional pane in any app, and Sketch is no exception. Depending on what you're doing in the app, the Touch Bar will display controls and shortcuts that's relevant to that particular context. There are several main views you may come across.

Inserting Layers

When you launch a new Sketch document, or you don't have any layers selected, Sketch will display the Insert context so you can quickly get started. Simply tap on the tool of the layer you want to insert and begin drawing. Here you'll also find Zoom tools to help you navigate your document.

Layer Selection

With a shape layer selected, the Touch Bar gives you an overview of your selected layer's style, as well as allowing you to quickly access its properties to edit the layer. Tapping on the Inspector icon on the far left of the Touch Bar will reveal additional properties:

Here you can choose which field you would like to access to quickly move, or resize your layer from the X, Y, Width, and Height buttons. Once tapped, you're ready to start typing your new value. You also have the ability to rotate your layer, as well as flip it horizontally or vertically.

Fills and Borders are also displayed when a shape layer is selected, where they can be tapped to reveal their color popover. Here you can quickly scroll and select one of your presets, open the color picker, or choose a new color for your style, straight from the Touch Bar.

When a text layer is selected, some basic properties are available on the MacBook Pro's Touch Bar. Here you have options to access the properties pane in the Inspector, as well as options to adjust the text color, alignment, and layer order.

Multiple Selection

When you have multiple layers selected, the Touch Bar will display controls that will allow you to create a group out of your selection, or you can align and distribute those layers.

If your selection is comprised exclusively of shape layers, the Touch Bar will also display the four boolean operations that can be used to combine them in addition to the group and align tools.

Editing Shapes

When you have a shape layer selected, you can tap the Edit button in the Touch Bar to enter the vector editing mode. It's here where you can manipulate the shape of your layer by adjusting the vector points that appear. Each of these points can have a specific point type which will influence the outcome of the shape, and it's these options that are available in the Touch Bar—along with a Selection Tool to select multiple points.

Layers

Layers are the building blocks for creating designs in Sketch.

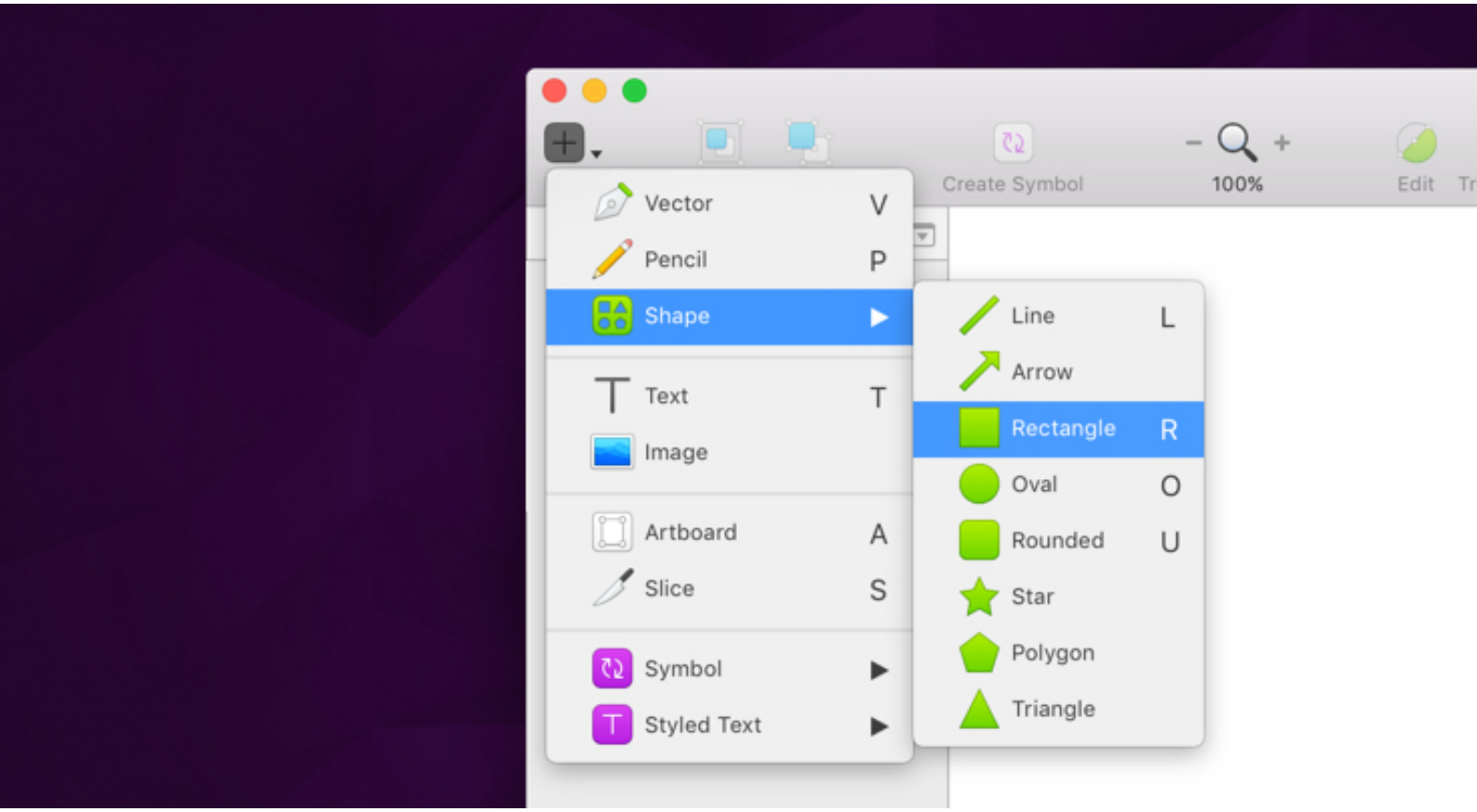
In other design tools, where the distinction between layers and objects is sometimes blurred, each object in Sketch is always on its own layer. We'll be using the terms *object* and *layer* interchangeably throughout our documentation for that reason.

Groups and **Artboards** are used in Sketch to keep your content organized and they are also treated as layers in their own right. To add new layers to your document, click the Insert pop-up menu in the toolbar or menu and choose your layer type.

Adding Layers

The easiest way to add a layer is to pick one of the standard shapes from the toolbar. Choose **Insert** › **Shape** and select **Rectangle** (R).

You will see the pointer change to the Draw Rectangle tool icon.

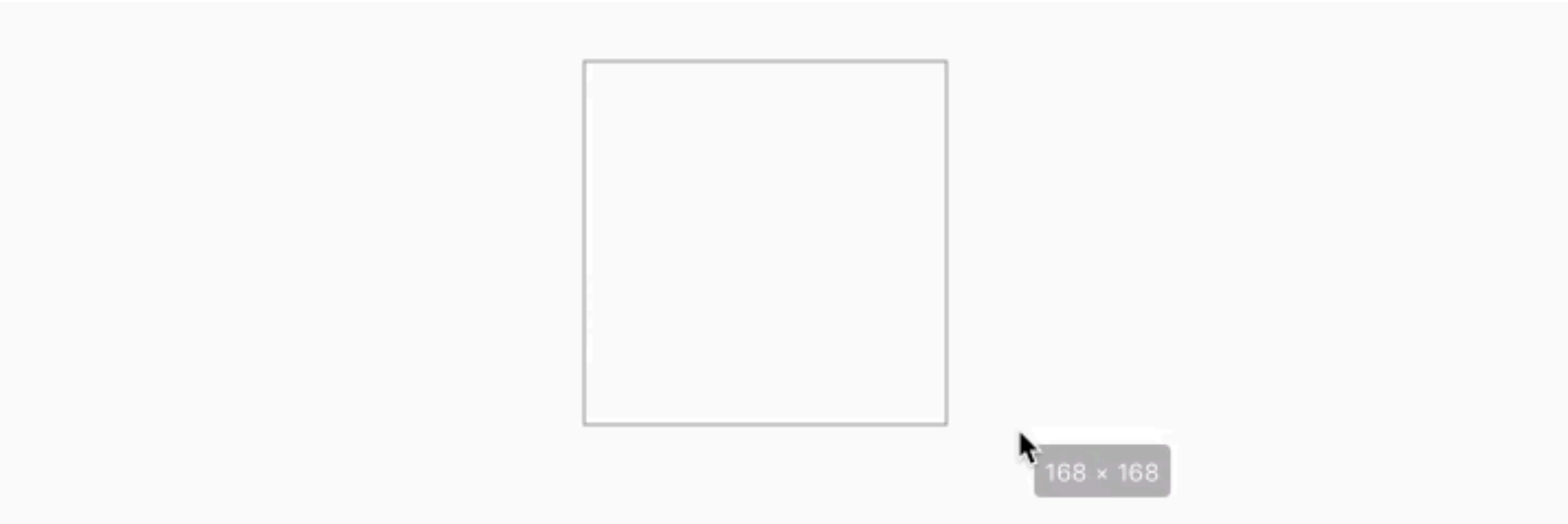


Now click on the Canvas and drag to insert your shape. When you release the pointer, the shape will be inserted and you can start manipulating it in other ways.

When you don’t have any layers selected, you can also choose to insert a new layer into the Canvas via the MacBook Pro’s Touch Bar.

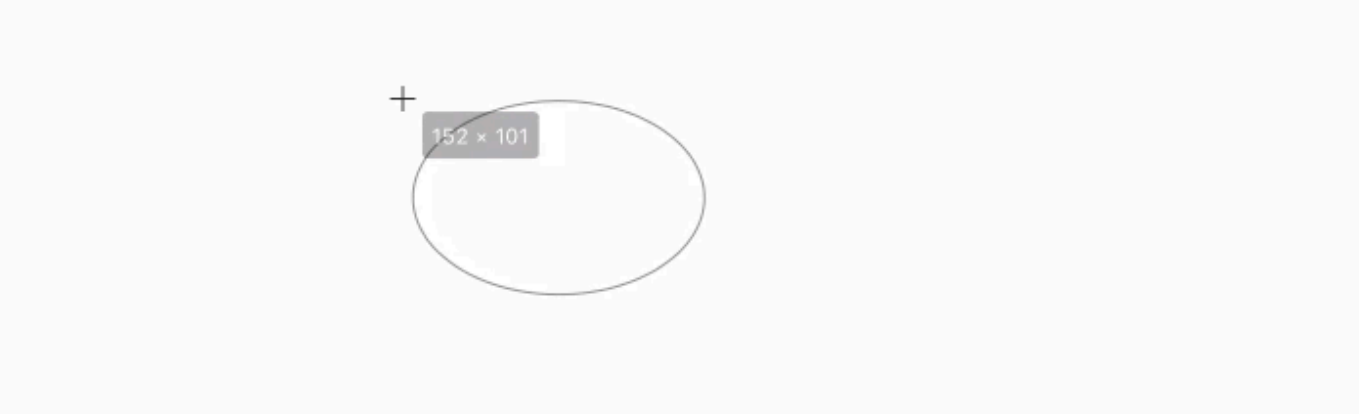
Advanced Options

As you can see, the process of inserting a shape is easy, but there are a few hidden shortcuts that give you some additional control. For example, when you're inserting a Rectangle, you can hold down the Shift key to make your new shape square:



Similarly, you can hold the Alt key to draw the new shape from its center (instead of the top-left):

If you decide that you placed the origin of your new shape slightly wrong, hold down the Space bar. While the Space bar is pressed you'll be dragging the shape's origin instead of changing its size.



While inserting a large layer in a document, you can drag outside the Canvas to make the view scroll.

Selecting Layers

Selecting layers in Sketch is easy: you just click on the layer on the canvas. Once the layer is selected, you should see eight little handles; one in each corner and one on each edge.

Note: If you don’t see these handles but are sure you selected the layer, you may have accidentally hidden the Selection Handles. To toggle them, go to View › Canvas › Show Selection Handles in the menu.

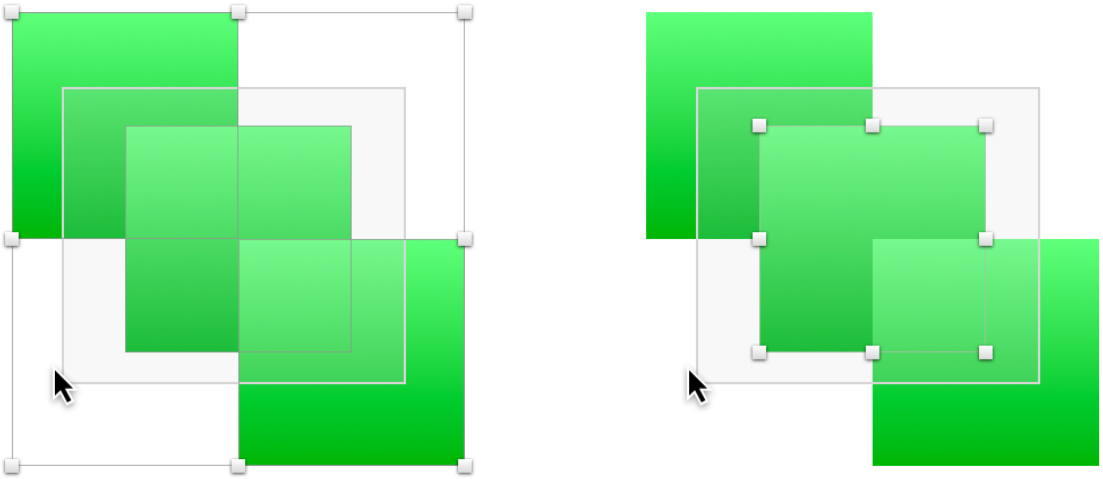
Alternatively, you can use the layer list to select a layer. Clicking a layer’s name in the list will select it on the canvas.

Selecting Multiple layers

You can select multiple layers by holding down the Shift key on the keyboard and click on another layer. If you hold Shift and click an already selected layer, it will be deselected.

Click-and-drag from an empty area of the Canvas to select everything that fits in the rectangle. Again, if you have Shift or the Command key pressed, it will extend your selection or deselect any already selected objects.

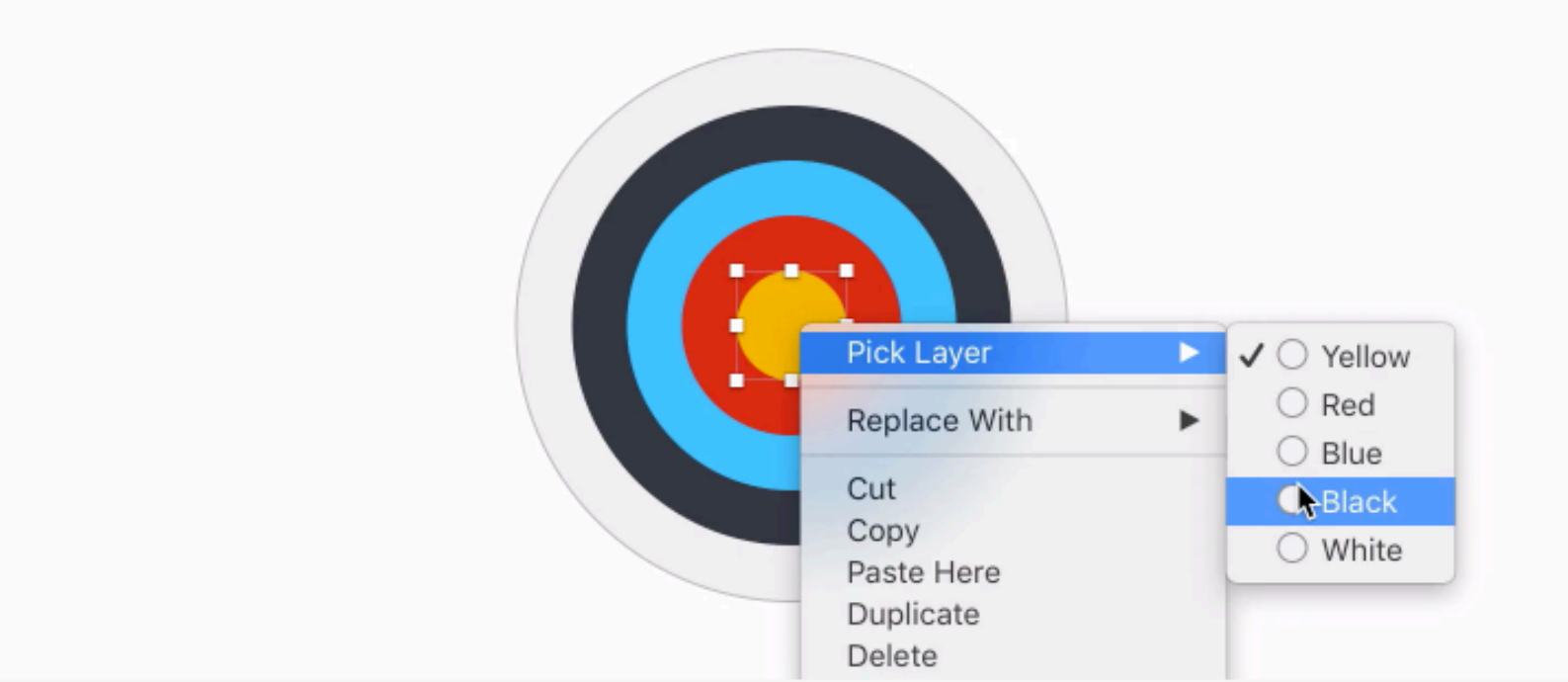
If you hold down the Alt key as well, it will only select layers that lie entirely within the bounds of the Rectangle.



On the left: Shift-drag. On the right: Shift-Option-drag.

Overlapping Layers

To make it easy to select a layer that is buried under another layer, you can Control-click and choose “Pick Layer” from the shortcut menu. There you will see a list of every layer that is under your pointer:



A convenient shorthand for this is the Alt key. When it is held down, Sketch will select the second layer under the pointer instead of the top-most one. If there are multiple layers overlapping and you want the third one then you’ll have to go through the shortcut menu as described above, but in some cases this can be a very convenient trick.

Quickly Selecting Layers in Groups

Groups are a very convenient way of organizing content, and *can* prevent layers from being accidentally edited; until you double-click it, the group is treated as a single layer and its contents can't be selected individually.

However, there are situations where you want to select a particular layer buried deep inside multiple groups. To save you lots of double-clicking while you go down deeper and deeper into the group hierarchy, you can instead hold down Command and select that deeply buried layer straight away.

Moving Layers

You can move a selected layer by grabbing and moving it around with the pointer. To restrict movement to a particular axis, hold down the Shift key as you drag.

As you move (or resize) your layer, Sketch should automatically align your layers to adjacent layers. If this doesn't happen, you might have accidentally hidden **smart guides**. To enable them, choose **View › Canvas › Show Smart Guides** in the menu.

If you hold down the Alt key while dragging, you will clone the layer, leaving the original layer in its place. If you then immediately press Cmd + D (duplicate), Sketch will insert another duplicated layer at exactly the same offset as your first duplicate.

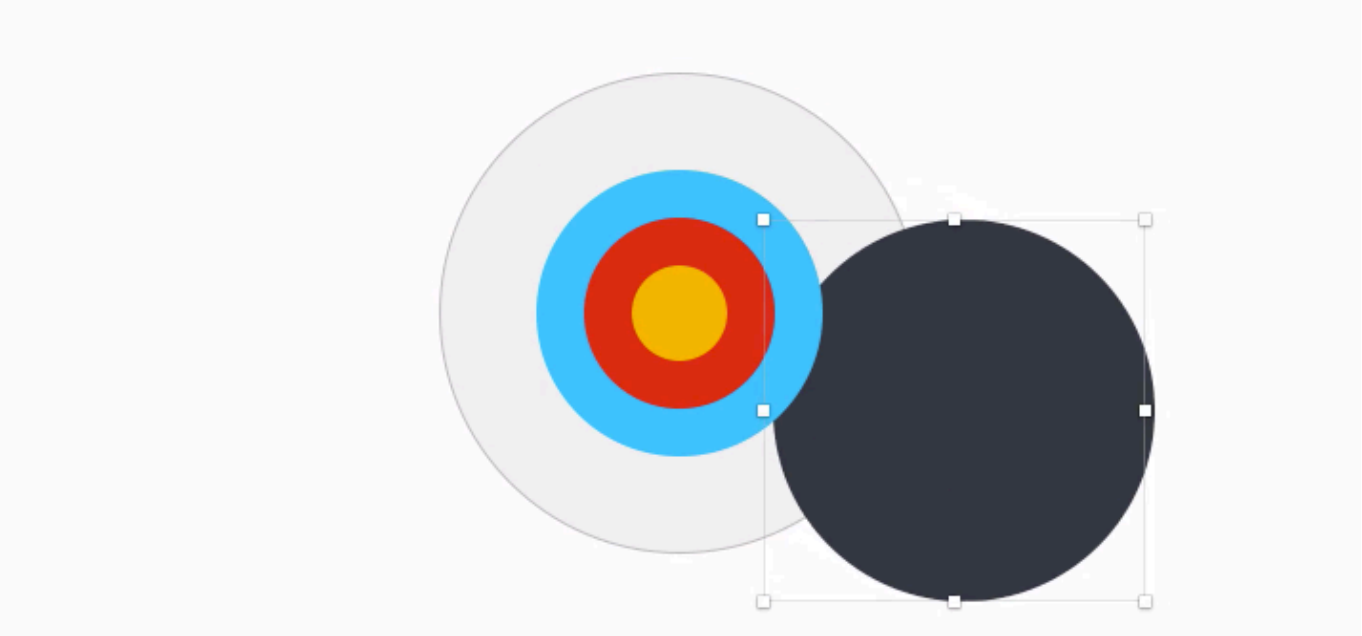
You can also drag-and-drop layers to the Pages panel to quickly move objects between different pages.

Moving an Obscured Layer

Another complication of overlapping layers is moving an obscured layer. Normally, when you click-and-drag a shape it will immediately be selected—if it wasn't selected yet—and moved to its new location.

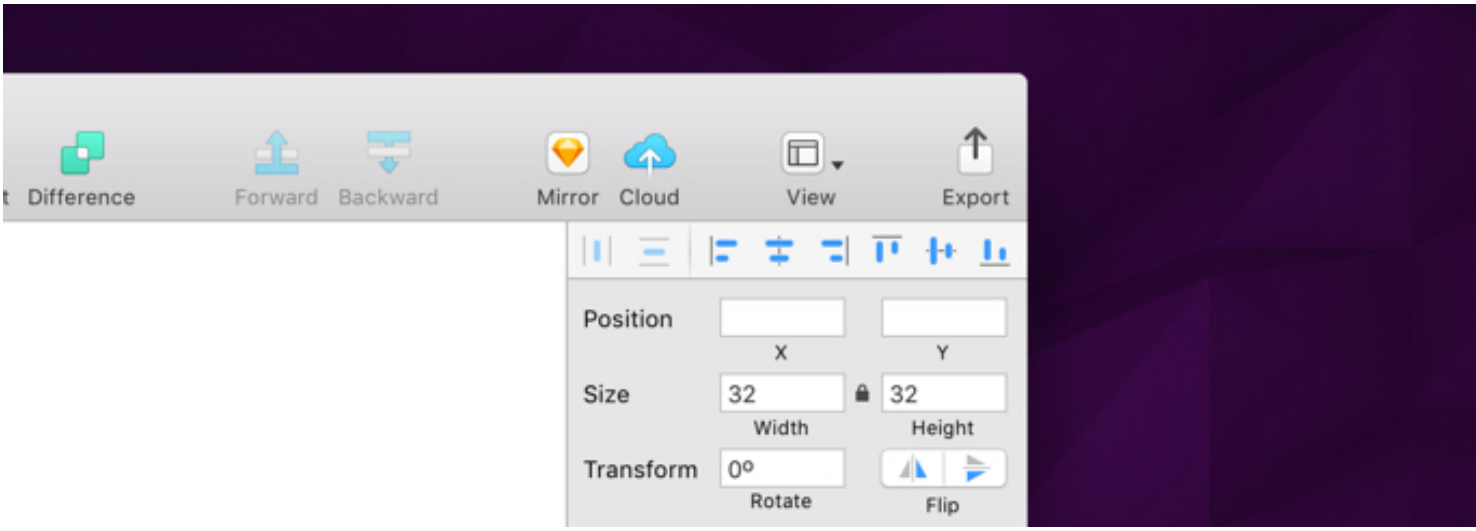
Very often this is a convenience, but it can be a hindrance as well if you've got a layer selected that is completely obscured by another layer. Clicking on the layer would instead select the layer on top and move that one.

To get around this, you can hold down the keys, Option-Command and then clicking-and-dragging will not change your selection. You can even click-and-drag somewhere completely different on the Canvas and Sketch will still preserve your selection:



Aligning Layers

In addition to quickly moving selected layers, you can align and distribute them evenly by using the following buttons in the top-right corner of the Inspector:



The first two are for distributing layers horizontally and vertically. You can also choose **Arrange** › **Distribute Objects** or use these shortcuts; Ctrl + Cmd + V or Ctrl + Cmd + H. If you want to distribute the layers with fixed spacing then you can use the **Make Grid** tool. These options also take the pixel fitting preference into account to help you to be as precise as possible.

The next six buttons (align left, horizontally, right, top, vertically, and bottom) are for aligning layers among themselves or to the Artboard.

When multiple layers are selected, the MacBook Pro's Touch Bar will display the above distribute and align controls right on the keyboard for easy access.

To align a layer to the Artboard, hold down the Alt key and choose the align button you desire. You can also do this with multiple layers simultaneously. Another approach is to first group the objects by using the **Group** item in the toolbar.

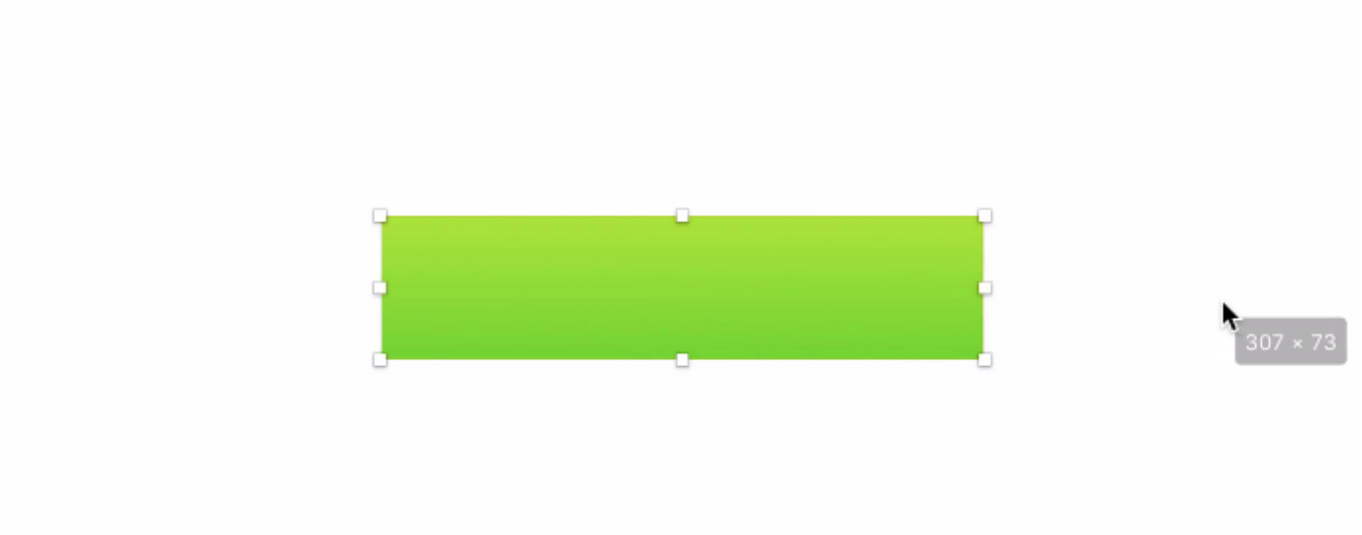
To align layers to a specific object, first lock that layer by using the lock button in the Layer List or by using Shift + Cmd + L. If no specific object is selected, Sketch will align the layers to the outermost layer of all those selected.

Resizing Layers

The eight handles don't just indicate selection; you can also use them to resize a layer. Grab any of the handles and drag them to resize layer. If you also hold down the Shift key (Shift) it will resize the layer proportionally; keeping width and height in the same ratio.

To resize just the width or height of a layer, grab the resize handles on the sides of the layer, to resize in both dimensions, use the corners. As you resize, you will notice the width and height measurements shown besides the pointer.

If you hold down the Alt key, the layer will resize from the middle instead of from the opposite edge:



Resizing using the Inspector

You can also select a layer and type its new dimensions in the Inspector. If the lock icon is closed, its proportions will be maintained when scaling. Also, you can use these shorthands to scale from an anchor point other than the top-left corner:

l: scale from the left (Default)

r: scale from the right

t: scale from the top (Default)

b: scale from the bottom

c/m: scale from the center / middle

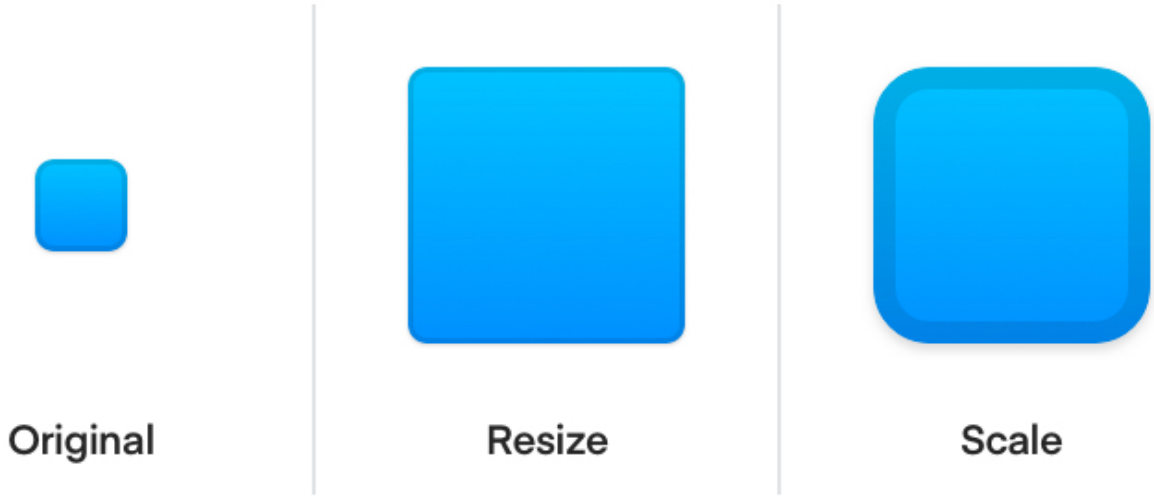
So, to scale a layer so that it's 50 pixels wide, from the right, you'd set its width to 50r.

Keyboard

You can also resize layers using the keyboard. For very pixel-precise adjustments, this is usually easier than using the mouse. To do so, hold down the Cmd key and use the arrow keys on the keyboard. Cmd → will increase the width of the layer by 1px just as Cmd ← will decrease it by one. Similarly, Cmd ↓ and Cmd ↑ will increase and decrease the height by 1px respectively. Holding down the shift key changes the 1px increment to 10px instead.

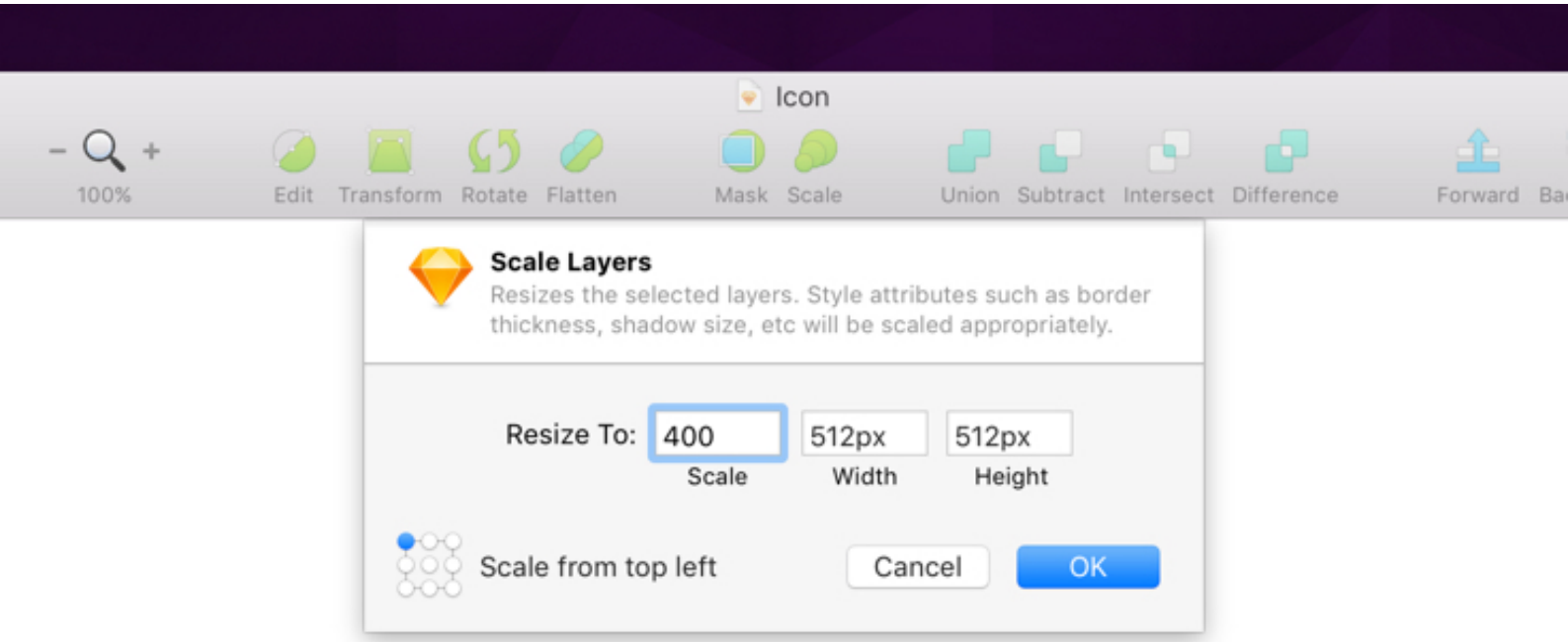
Scaling

When you resize a layer, its stylistic elements will not scale up or down accordingly; a 5 px stroke on a 50 × 50 shape will stay a 5 px stroke when the layer is resized to 150 × 150. To resize a layer and its properties (corner radius, border thickness, shadow size, etc.) all in one go, choose **Layer** › **Transform** › **Scale…** from the menu (or press Cmd + K).



Scaling layers is ideal when you want to adjust the size of an icon.

When scaling layers in Sketch, you can set the origin from where your layer will resize. Its default is to scale from the center, but defining any one of the nine available origins can remove the step afterwards where you may want to reposition that layer.



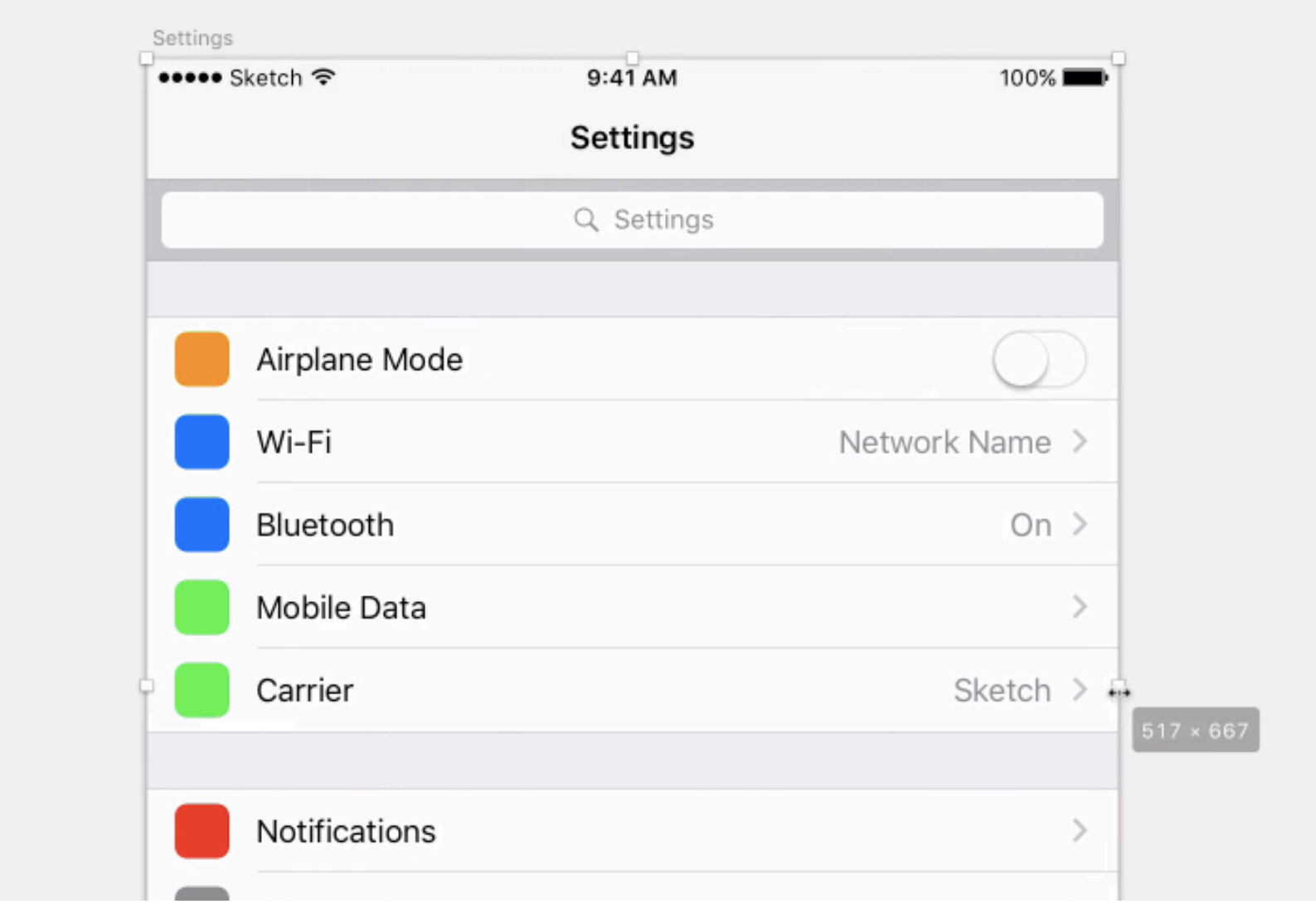
Defining the Scale origin can be a huge timesaver.

For more advanced resizing options, to determine how layers inside groups or Artboards should behave when they’re resized, continue to the next chapter: Resizing Constraints.

Resizing Constraints

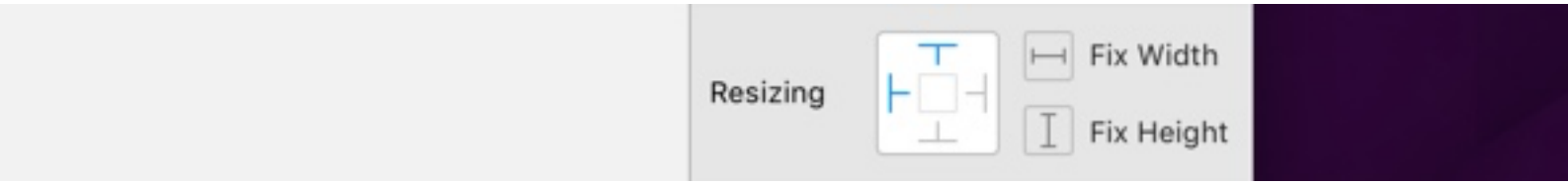
Applying constraints to layers allows you to determine how they should behave when you resize the Symbol, Artboard, or group those layers are in.

For example, you may want a layer to always stay in the middle of an Artboard—or a particular group to stay in the top-left corner of a Symbol—no matter how tall or wide an object is. All this is possible with the resizing constraints that you can apply to your layers.



Applying Constraints

Constraints can be applied to any layer that lies inside an Artboard or group. When a child layer is selected, you can see the resizing constraints appear under the layer properties section in the Inspector. This is where you can tell a layer how to behave when its parent is resized.



This section is split into two parts: On the left; you can define the edges each side of your layer should pin to, and on the right; you can determine whether the size of your layer should stretch, or remain at a fixed height and/or width on resize.

By default, none of these constraints are applied in Sketch. If you resize a group containing a layer, the layer inside the group will resize in relation to its parent too.

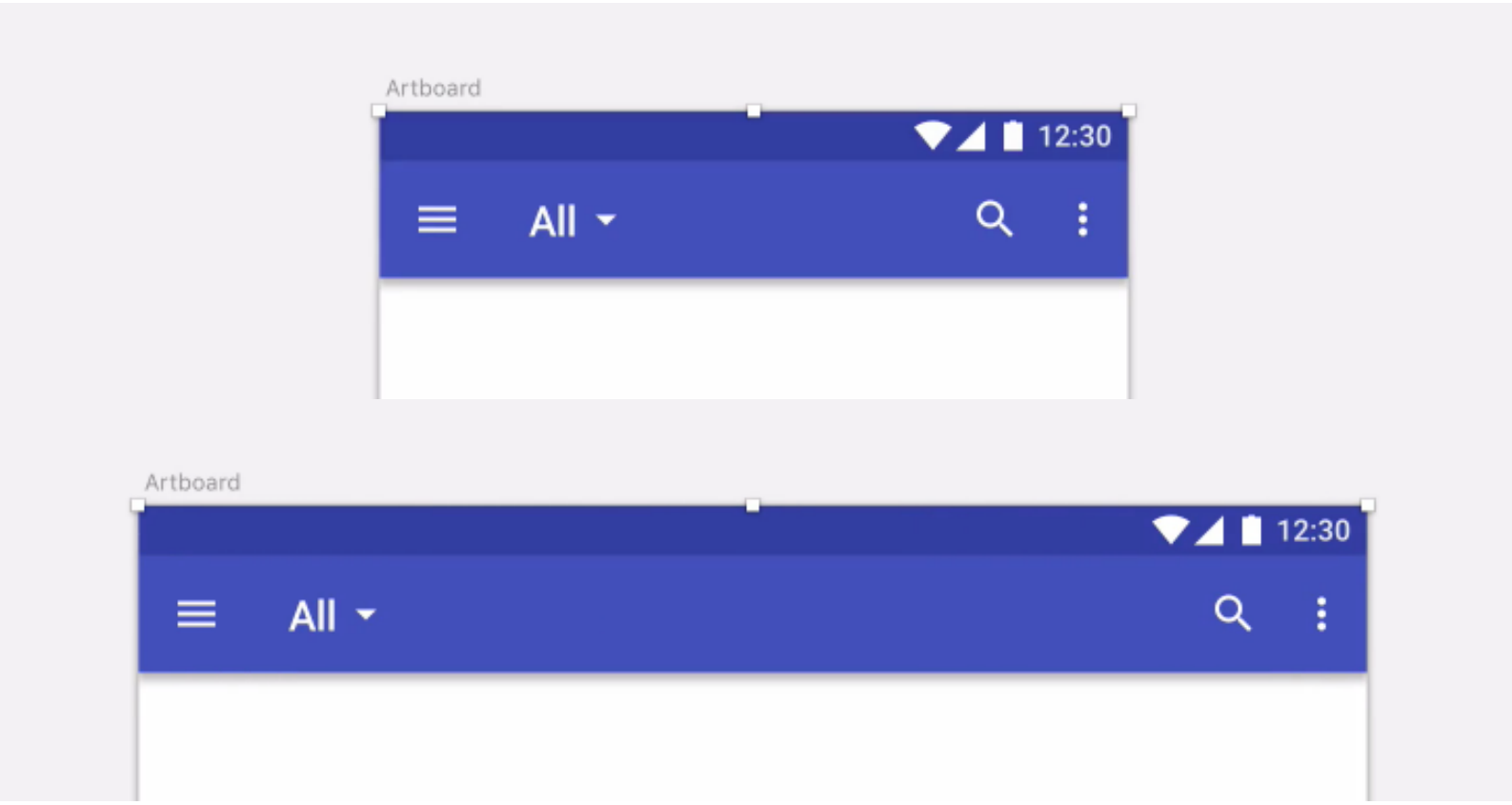
However, when you apply a constraint to pin to the left edge of the layer, and another to the right edge, this means that the distances between the edges of the layer, and its parent will be respected. Because of these rules the layer's width is flexible, meaning that this is what changes on resize.

In order for your content to adjust when you resize an Artboard, check the **Adjust content on resize** option in the Artboard Inspector.

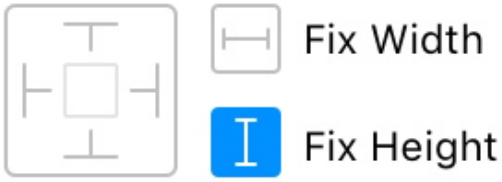
Examples

Below are some examples of common scenarios you may come across when applying resizing constraints to your layers, along with solutions on how to remedy them.

Fix to Edges



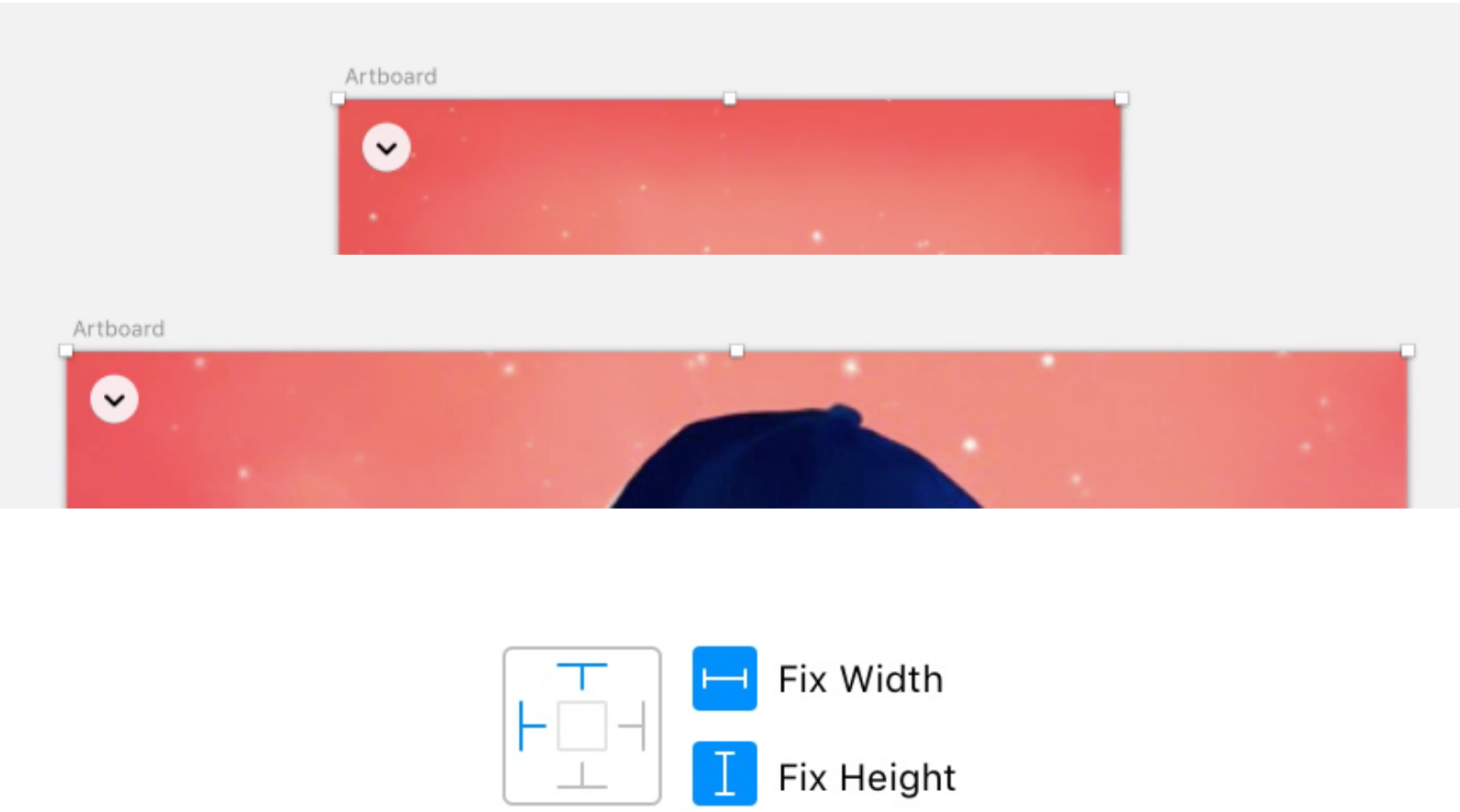
When dealing with common interface elements such as navigation and tab bars, you'll of course want them to stretch horizontally, whilst maintaining a fixed height. This is particularly easy and only requires you to apply one constraint: Fix Height, so the height doesn't grow if you resize the parent vertically.



You may be wondering why you don't need to define any constraints to fix to the edges here: Because Sketch stretches content by default, including any padding, and the layer itself—it's not necessary. As the layer is flush with the edges of its parent, no gaps will open up as the width increases.

Pin to Corner

Unlike the example above, where your layer is *near* the edges of its parent, but *is not* hugging them, then you'll need to pin it to the relevant edges so its distance does not change when you resize the parent group or Artboard. This is ideal for things like icons inside a navigation bar, or something like a floating action button.



Once you know what corner you want to have your layer “pinned” to, click the constraints (eg, bottom, right) and then Fix Height and Width to stop the layer from resizing.

Editing Layers

To edit a layer, double-click it on the Canvas or click the Edit item in the toolbar. Whatever happens next depends on the kind of layer you're trying to edit, so please refer to the appropriate section below.

Note: that at any time, you can exit layer editing by clicking outside the layer or by pressing the Escape key.

Shapes

The most common type of layers in your document will be shapes. There is a wide variety of default shapes provided with Sketch such as ovals, rectangles, stars and more.

ome of these shapes have extra options, such as the ability to add more sizes to a polygon or round corners.

To add a new shape to your document, choose a shape tool from the **Insert › Shape** pop-up menu in the toolbar. Click-and-drag anywhere in the Canvas to insert your shape. While you're dragging to insert the shape, Sketch will indicate how large the inserted shape will become. You may see the Inspector update and display some extra options for your new shape (if appropriate).

Extra Options

Some of the default shapes in Sketch come with additional options, the Star and Rounded Rectangle shapes being the most notable. For Stars, the radius and the number of points can be adjusted, whilst for Rounded Rectangles, just the corner radius.

Smooth Corners

Along with the ability to adjust the corner radius on rectangles, there is also the ability to *Smooth Corners*. What this does, is allow you to adjust how the rounded corner of your shape is actually drawn — which means it is simple to achieve the same kind of corners that Apple use in their products and interfaces.

Shape Terminology

The basic building block of a shape is a point. These are connected by straight or bended lines into a path. A shape can have one or multiple paths. If there is more than one, they are combined together using Boolean Operations into one path. Think for example of two circular paths; one big, and one small, where the small one is used to ‘punch’ a hole in the bigger one. This concept of combining simple paths into complex shapes is discussed in detail in our section on Boolean Operations.

Editing Shapes

Whenever you draw a new shape or edit an existing one, you are essentially interacting with the points directly, and the lines (called paths) that Sketch draws between those points are what you see on screen. Sometimes the paths between the points are straight lines, and at other times they are can be curved.

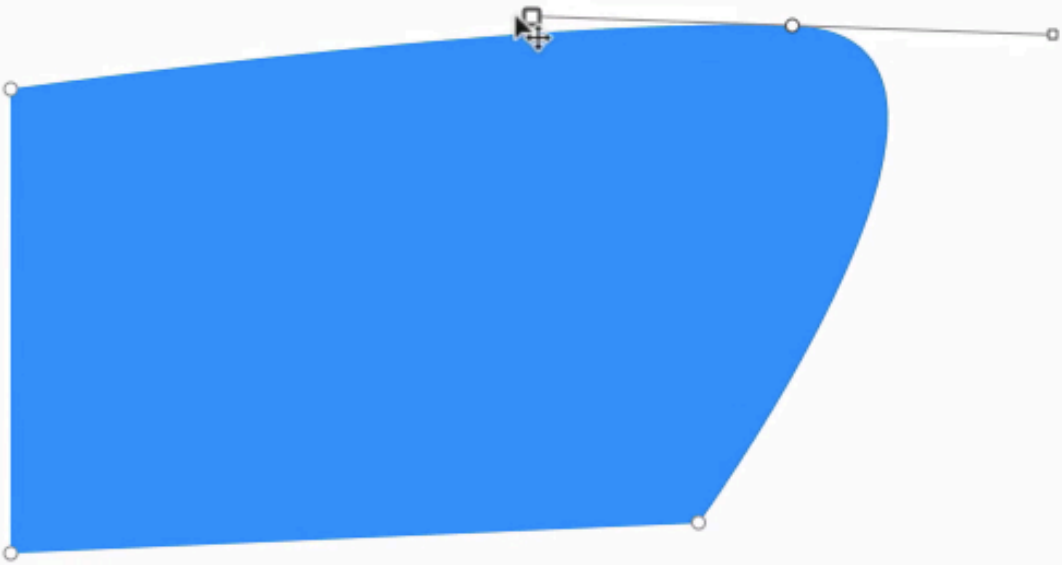
Choose **Insert** › **Shapes** › **Rectangle** from the pop-up menu in the toolbar (or press R). Draw it on the Canvas and when done, double-click it to begin editing:

You will see a circular point in each of the corners. Click-and-drag on any of these points to change their position and you will see that the rest of the shape changes accordingly. Points can snap to existing points' axes. Clicking anywhere on the path between two points will insert a new point which can be moved around independently as well. To delete a point, select it and press the Backspace key on your keyboard.

If you want curved lines instead of straight ones, you can double-click a point. You will see two little handles appear on either side of the point that control the curvature of the path on either side.

These are called the handle control points. Think of these handle control points as if they are pulling the path towards themselves.

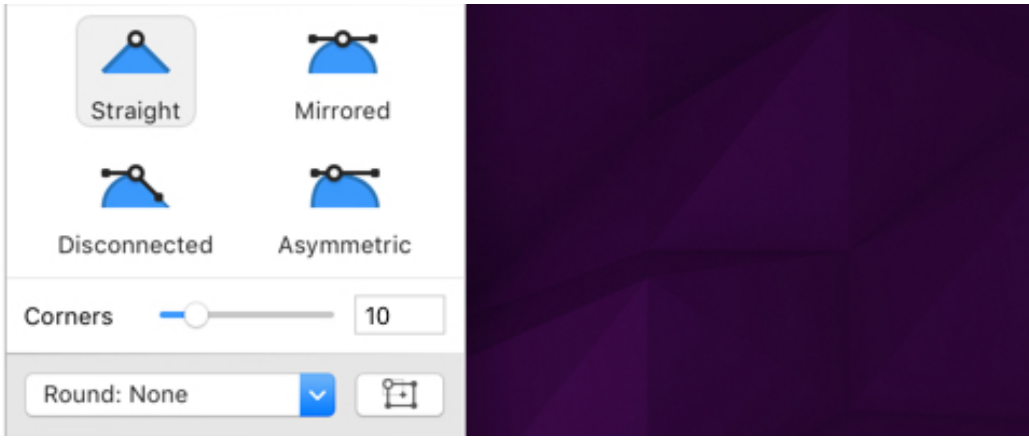
For an in-depth article about how control points work in Sketch, check Peter Nowell's excellent Mastering the Bézier Curve in Sketch.



Point Types

There are different ways in which the points limit the movement of their handle control points and, in turn, the kind of paths that are produced between them.

While editing a shape you will see that the Inspector shows you four different types for the point; Straight, Mirrored, Disconnected and Asymmetric.



Straight: If you apply the first mode on your shape you'll get no handle control points and a straight line.

Mirrored: The handle control points will mirror each other and sit an equal distance from the selected point. If a vector point is not straight, this is the default.

Asymmetric: The control points will appear similar to the Mirrored point mode, but they can appear at an independent distance from the point.

Disconnected: Control points are completely independent of each other.

Each of these point types can be adjusted in the Touch Bar when a point is selected.

If a point is set to Straight, you can use the slider under this section to turn the straight corner into a rounded one. If you choose **Insert** › **Shape** › **Rounded Rectangle** from the pop-up menu (or press U) you'll get a basic rectangle with four points where the corner radius has already been set for you.

Being able to control corner radius on a per-point basis allows you to have different radii per corner; you can just round the top two corners and keep the bottom two right-angled, for example:

Keyboard Shortcuts: you can use the number keys 1 to 4 to change the selected point's type. Hit 1 for Straight, 2 for Mirrored, 3 for Disconnected and 4 for Asymmetric.

Drawing versus Editing

Instead of starting with a predefined shape, you can also draw a shape from scratch by using the Vector tool. Choose **Insert** › **Vector** from the pop-up menu in the toolbar and click anywhere on the Canvas to add your first point. Click elsewhere to add the second.

You will see that a path now connects both points. Now when adding a third point, click-and-drag to draw a curve. If you click again on the first point, you'll close the path.

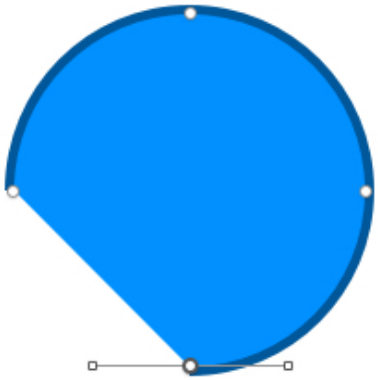
Selecting other points, inserting new points on paths, and anything else is exactly the same, whether you're editing an existing shape or drawing a new one.

Closed vs Open

A path can be either closed or open. When it is closed, the last line in the path connects back to the first. When a path is open, it leaves a gap between the last point and the first. You can turn a closed path to an open one and vice versa by going to Layer › Paths › Close Path in the menu.

Whenever you are in shape-editing mode you can add new points to a path as long as the shape is open.

Note that whenever you've applied a fill-style to your shape, the fill will draw as if the path was closed - even if the border is drawn with a gap.



Aligning Points

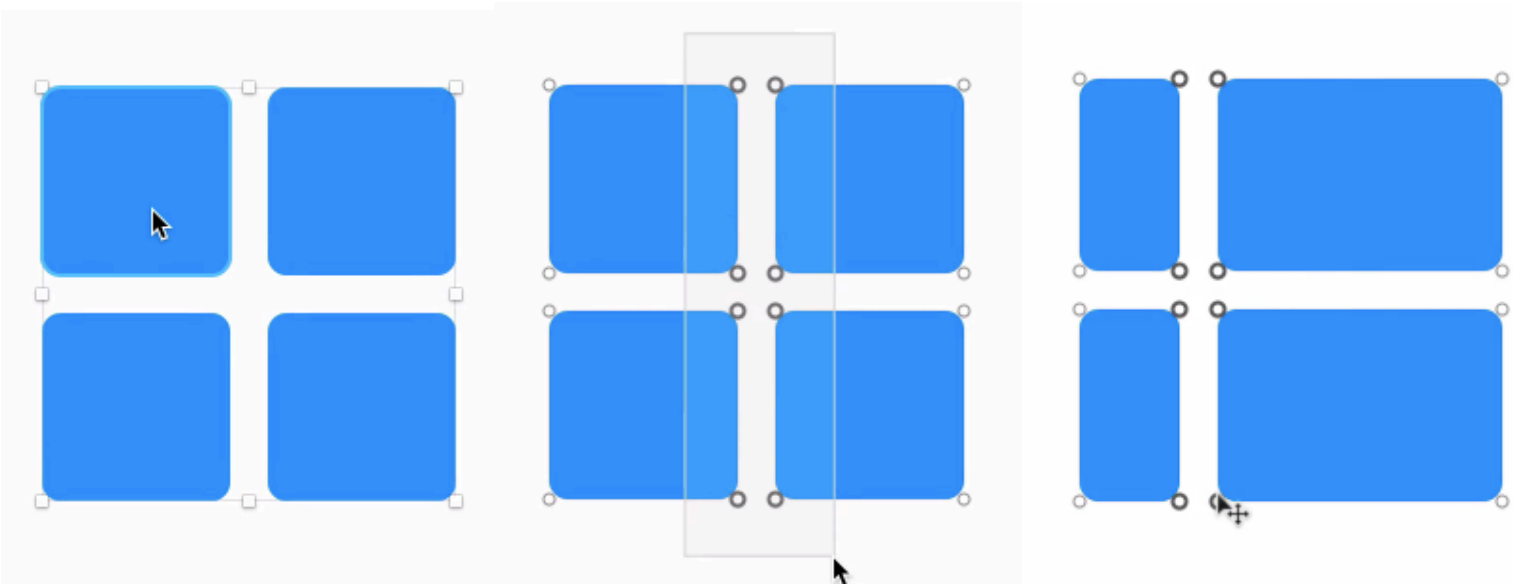
It is possible to use the **distribute and align tools** at the top of the Inspector when you have multiple points selected. Distribute will ensure three or more points will be an equal distance from each other, whilst align will make sure two or more points line up.

Multiple Selection

Something that may not be immediately obvious is that you can select multiple points and move them all at once. To select multiple points, hold down the Shift key while you click on points. Selected points will appear larger than unselected points.

Another way to select multiple points is to hold down Shift and click-and-drag from an empty area in the view to make a rectangular selection. If you're still holding down Shift when you release it will extend the selection you had before dragging with the newly selected points. If not, it will deselect the old points and just select the newly selected points.

It is also worth noting that you can edit multiple vector shapes at once. Select any layer that contains subpaths, or select two or more vector shapes and press the Enter key to begin editing. Vector points will become visible for all shapes where you can make your edits at once, without having to individually select each shape to make your changes.



Flattening Layers

The flatten feature is most commonly associated with **boolean operations**, however it also has its uses when working with individual shape layers.

When you rotate or flip a layer, or adjust additional properties such as corner radius, or the number of points — the Flatten tool will become active. This destructive action will do much the same thing, to confirm the applied transformations.

In the case of a rotated layer, Flatten will set the layer's rotation value to 0º, whilst working out the total height and width of the layer as a whole. Flattening a rectangle with rounded corners will apply new vector points at the start and ends of the curve, rather than having the point at the corner display a faux path.

Shortcuts

If you hold down the Shift key before inserting in a new point at the end of a path, it will instead align it at a 45º increment from the previous point, ideal for drawing straight lines.

When moving an existing point by clicking-and-dragging, holding down the Shift key will 'lock' its axis, in the direction you drag it in. This means that after you move a point, it will remain in the exact X, or Y position that it was before.

If you hold down the Shift key and click on a path between two points, Sketch will insert the point exactly in the middle of the line for you.

Holding down the Alt key will display all handle control points within the shape.

When clicking-and-dragging to adjust the handle control points of an Asymmetric point, holding down the Shift key will adjust the distance between the control point, and vector point without affecting the handles' angle.

Pressing the Tab key will jump between points in the order they were placed.

Boolean Operations

When a shape you need is not among the standard shapes you will have to create it yourself. The first impulse might be to to use vector tool and draw the shape from scratch. However you will find that many times, a complex shape is easy to break down into the basic shapes. With boolean operation you can do exactly that; combine basic shapes to create more complex ones.

Subpaths

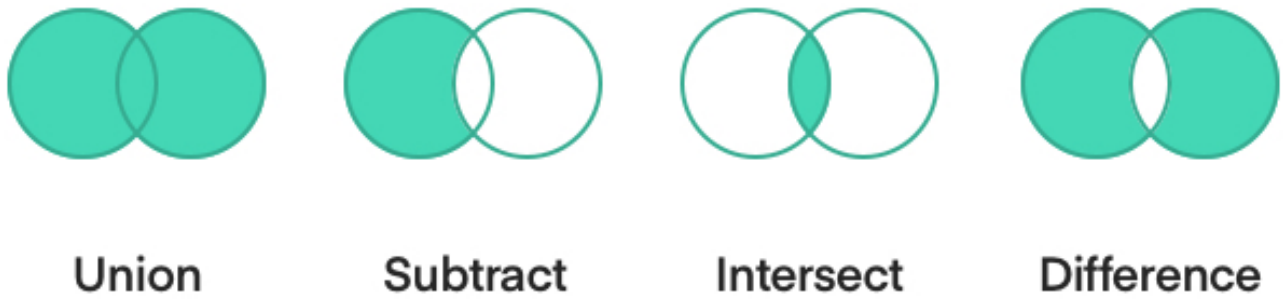
Sketch has dynamic boolean operations and before we can discuss those in more detail we have quickly revisit shapes. Most vector shapes in Sketch will consist of only one series of points, known as a *path*. However a shape can have as many subpaths as you want and the how the resulting shape will look depends on how these are combined.

When you perform a boolean operation in Sketch, it will add the topmost shape as a subpath of the second shape and use the particular boolean operation. Because boolean operations in Sketch are dynamic you can always adjust the subpaths just as you could for any other shape layer.

When editing a shape with subpaths, they can all be edited at once — simply enter the editing mode. New shape layers can be added whilst in the mode, and the'll be added above the currently selected subpath with a Union operation.

Operations

There are four different boolean operations and you will choose one depending on the situation.



Union: The result of a union operation is a vector that is the sum of both vectors' areas.

Subtract: The result of a subtract operation is a vector where the area of the top shape is removed from the one under it.

Intersect: The result of a intersect operation is a vector consisting of the parts where the original shapes overlapped.

Difference: The result of a difference operation is a vector that is exactly the part where they didn't overlap. it's the inverse of an intersect operation.

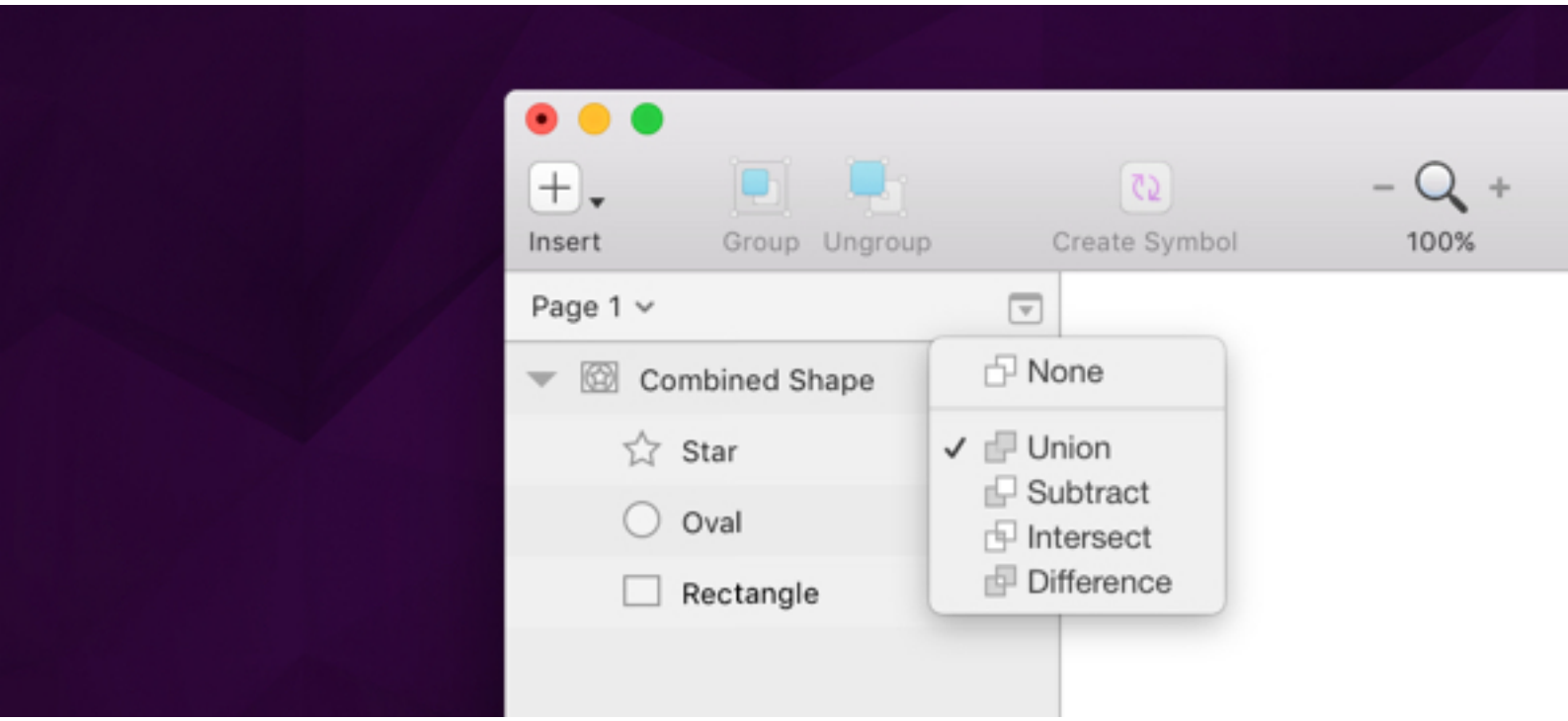
Each of the four boolean operations can also be accessed from the Touch Bar when multiple shape layers are selected, along with options to align them.

To help better explain boolean operations, this video outlines the operations explained above.

Layer List

When you have a shape with multiple subpaths in your Canvas, take a look at the **Layer List** chapter. Just like with normal group layers you will see a disclosure triangle on the left. If you click it, you will reveal a list of subpaths for your shape. The icon on the right will allow you pick a boolean operation for each subpath individually from the pop-up menu.

As the Layer List is ordered from bottom to top; the order of the subpaths is the same. The boolean operation you pick will combine the layer with the layer below. The result of that will be passed to the subpath above if there is any.



You can add shape layers to an existing boolean operation by clicking-and-dragging into the list of of subpaths, as well as drawing a new shape with a subpath selected. This will automatically give the new sublayer a Union operation.

It is also possible to hide subpaths from a shape via the Layer List. When a subpath is hidden it will change the way the shape appears, much like deleting a subpath, but this behaviour is not destructive. Subpaths can be hidden by Contol-clicking it in the Layer List and choosing “Hide Layer” from the shortcut menu, as well as the Shift-Command-H keyboard shortcut. Showing the subpath again will remember what operation was applied to it before it was hidden.

Flattening Shapes

When you flatten a shape in Sketch, it will try to represent the multiple paths inside the shape as one path; it will, so to speak, ‘flatten’ the hierarchy. However there are many paths that can’t be flattened into one. A shape with a hole inside it will always have to be represented as two paths; one for outer path, and one for the inner path.

When Sketch cannot flatten a path it will warn when you try to do so. If you persist, the subpaths you had will be replaced by different subpaths.

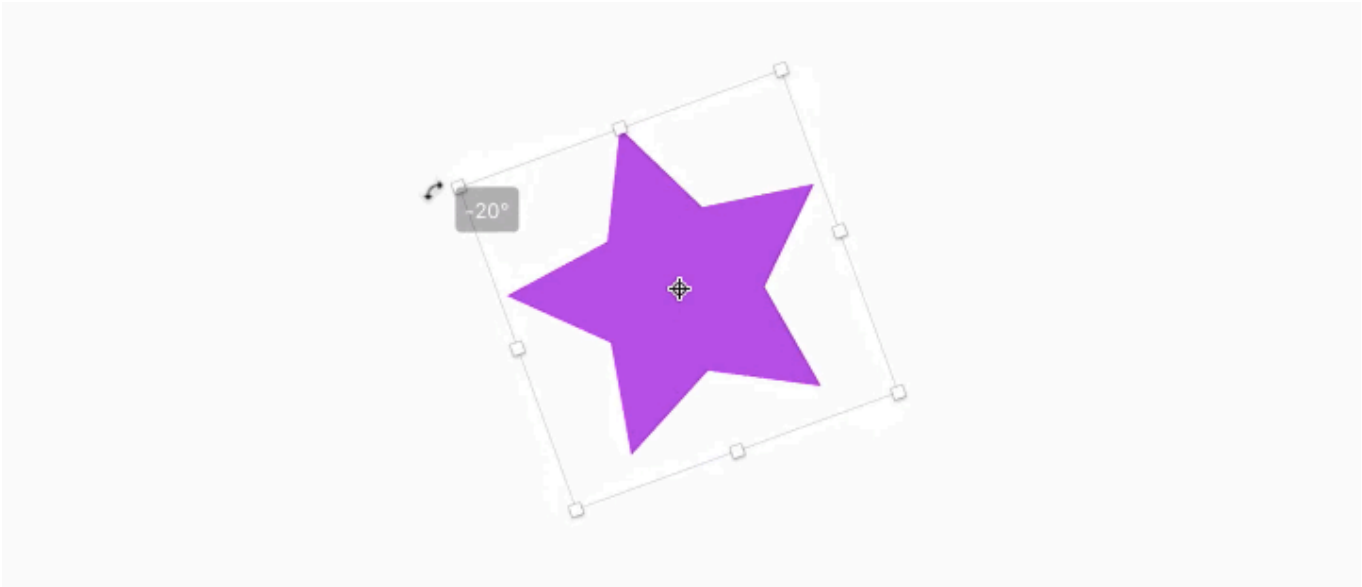
If you’re used to other design tools, you may automatically look to flatten a path after you have applied a boolean operation. In Sketch there’s no need for that; you can apply as many boolean operations on top of one-another keeping each subpath independent and editable.

Rotate and Transform

Rotating, and transforming are two similar, yet different features in Sketch that will allow you to edit your layers in various ways.

There are a number of methods to rotate your selected layer in Sketch. As rotation is a value measured in degrees, it can be edited via Sketch's inspector. This value can be changed to a plus, or negative value, to rotate clock—and counter-clockwise respectively.

If you wish to have more control whilst rotating a layer, click the Rotate button in the toolbar to enter the rotate mode. Here you can click anywhere outside of your selected layer and begin dragging to rotate in any direction. If you hold down the Shift key at the same time, you can now rotate in 15º increments. Perfect for obtaining an isometric or diagonal effect, as well as an easy way to rotate something as a right angle. Your rotation value will be visible in the inspector.



By default, layers will rotate around the middle of their selection, but it is easy to adjust its rotation origin. You can click-and-drag the crosshair marker to anywhere inside or outside your layer to rotate around that point. Just deselect, and re-select the layer to reset its origin to the middle of the layer.

You can also quickly rotate a layer or group in the canvas without going into rotate mode, by simply holding the Cmd key and dragging one of the selection handles.

Transform

The transform tool can be used to distort an existing vector by skewing the points or by creating a fake 3D effect. You can use the transform tool in Sketch to transform one or multiple layers at the same time.

Select one or more layers and click the Transform button the toolbar. Grab one of the four corners to freely transform the shape or grab a dot in the middle to move two corners at the same time to skew the layer.

When you transform a shape from a corner you will notice that the opposite corner always moves in the opposite direction as well. This makes it easy to apply perspective effects for example. However if you do want to adjust in only one direction, hold down **Cmd** while dragging.

Masking

Masks in Sketch are used to selectively show parts of other layers. For example, masking an image layer to a circle will give the image a circular shape.

Any shape can be turned into a mask. To do so, select the shape and choose **Layer** › **Mask** › **Use as Mask** in the menu
(or press Ctrl + Cmd + M).

Any layers above the mask are clipped to the shape below.

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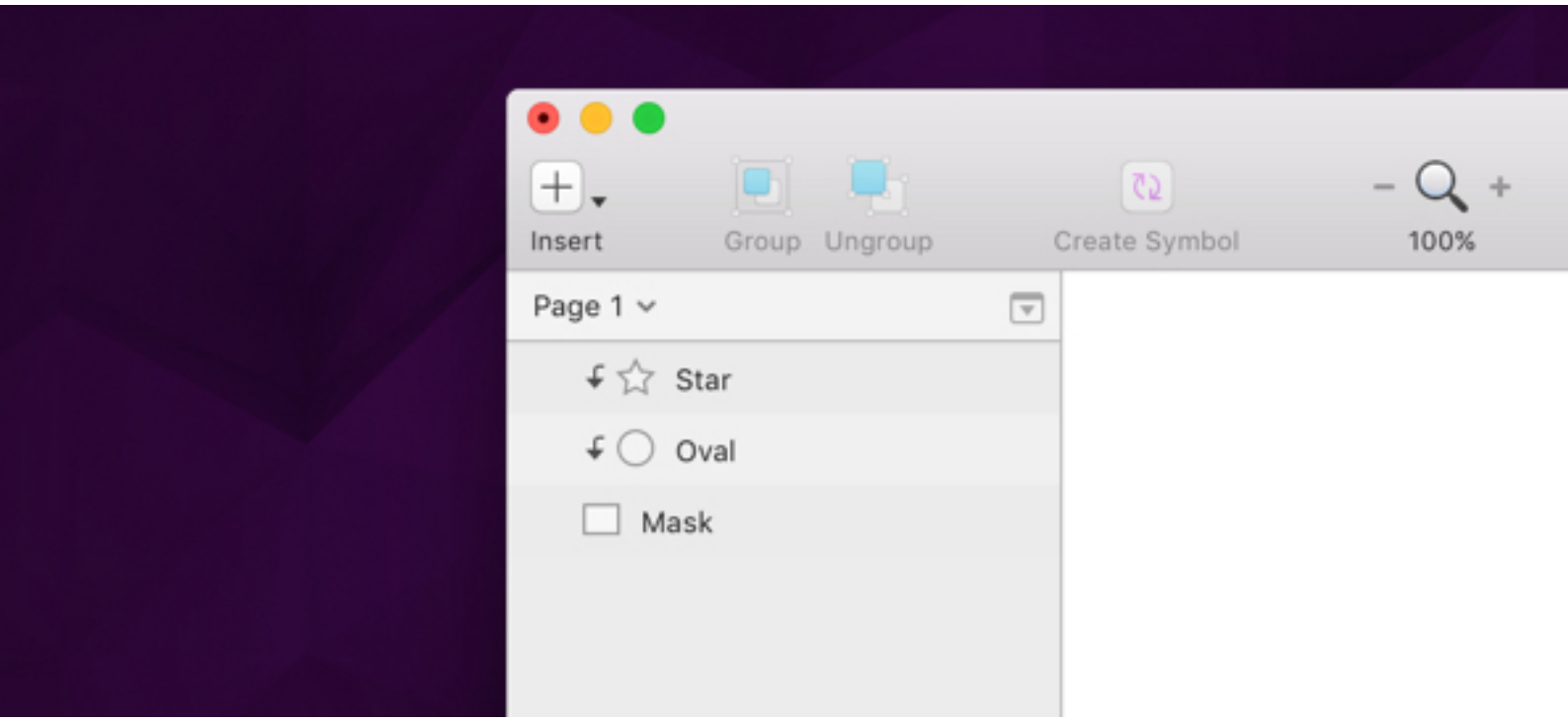


In addition, you can quickly apply a mask to bitmap images, simply by clicking the Mask item in the toolbar. This will automatically generate a rectangle behind the image to which it is masked.

Restricting Masks

If you don’t want all subsequent layers to be clipped, the best way to restrict the ‘influence’ of the mask is to put the mask and the layers you want clipped inside their own group. Anything above the group will not be clipped if the mask is inside the group.

Sometimes if grouping is not an option, another way to stop a mask is to do the following:

1. Select a shape that is currently masked but that you don’t want masked

2. In menu, choose **Layer › Mask › Ignore Underlying Mask**

This layer and any layers above it won’t be masked anymore. However, take care when you reorder layers as some may find themselves to be automatically masked!

Mask with Shape

If this all seems like a lot of work for masking an image, we have good news: Select a shape layer and an image on the Canvas and choose **Layer › Mask › Mask with Selected Shape** to use the shape as a mask on the image. Sketch will place both layers inside a new group and turn the shape into a mask.

Alpha Masks

By default, a mask works by taking its surface area and hiding the rest. Another way to work with a mask is to give it a gradient, and to use the opacity of that gradient to determine what should be visible and what shouldn’t be.

Outline Mask

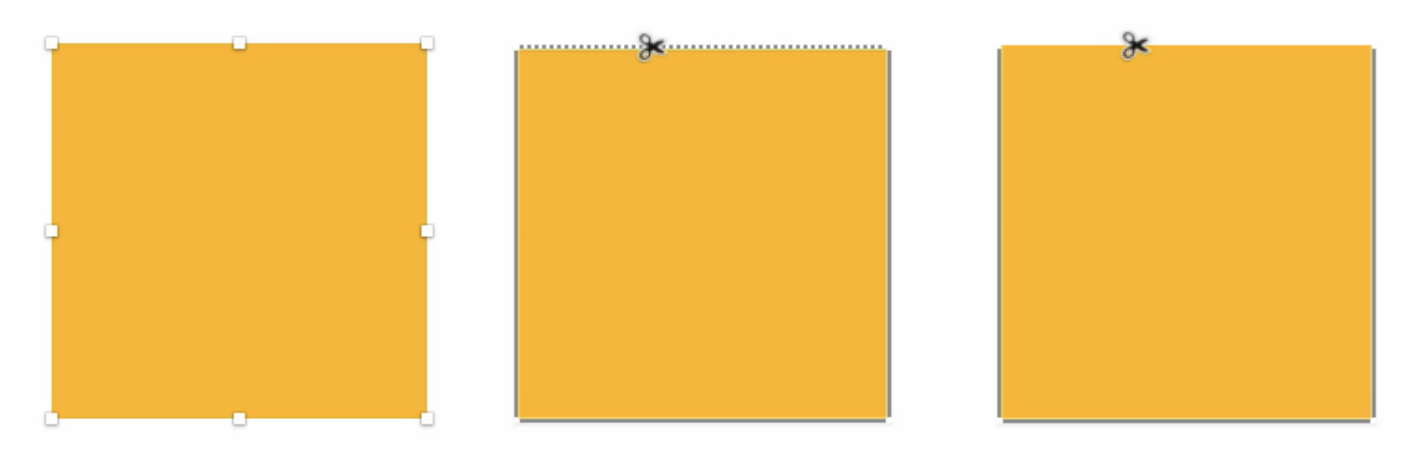
Alpha Mask

Masking video tutorial

Scissors

The Scissors tool can be used to cut away lines from an existing vector shape. Select an existing shape and select the Scissors icon in the toolbar or use **Layer** › **Paths** › **Scissors** for the menu bar.

You can then click on a line in your vector shape to cut it away. When you're finished, click outside the shape or press Enter/Escape to exit the scissors tool. When there is only a single line left, you'll leave the Scissors tool automatically.



You can then click on a line in your vector shape to cut it out. When you're finished, click outside the shape or press the Enter or Escape keys to exit the Scissors tool. When there is only a single line left, you'll exit the Scissors tool automatically.

Rotate Copies

This tool is a special one in Sketch. It's not in the toolbar by default, but you can add it by right-clicking the toolbar and choosing Customize. It's also available in the menu under **Layer** › **Paths** › **Rotate Copies**.

This tool takes one layer and rotate copies of it around a certain point. Take the example of a flower; create just one leaf, then rotate a dozen copies around the center and you'll have your flower.

Select a layer, activate the Rotate Copies tool, enter the number of copies and close the dialog. Then position the center-dot where you want it and click outside or deactivate the tool to exit it.

Splitting

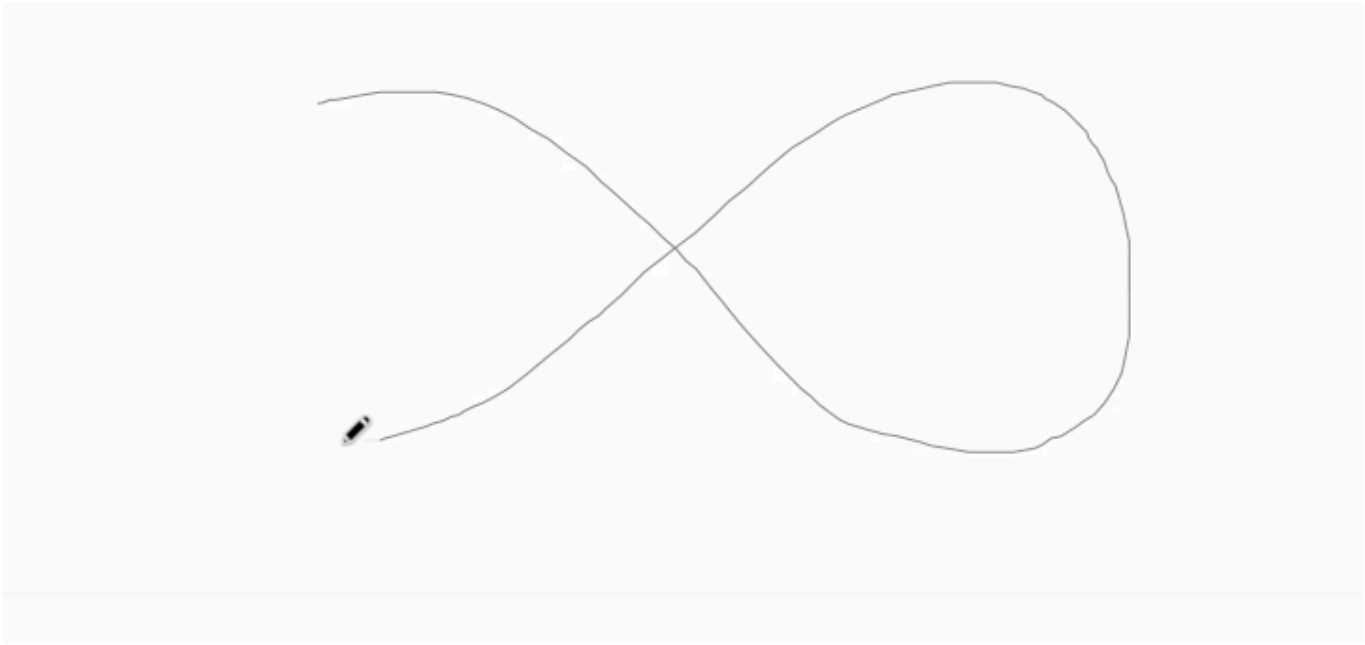
All shapes will be added as subpaths to the original shape.

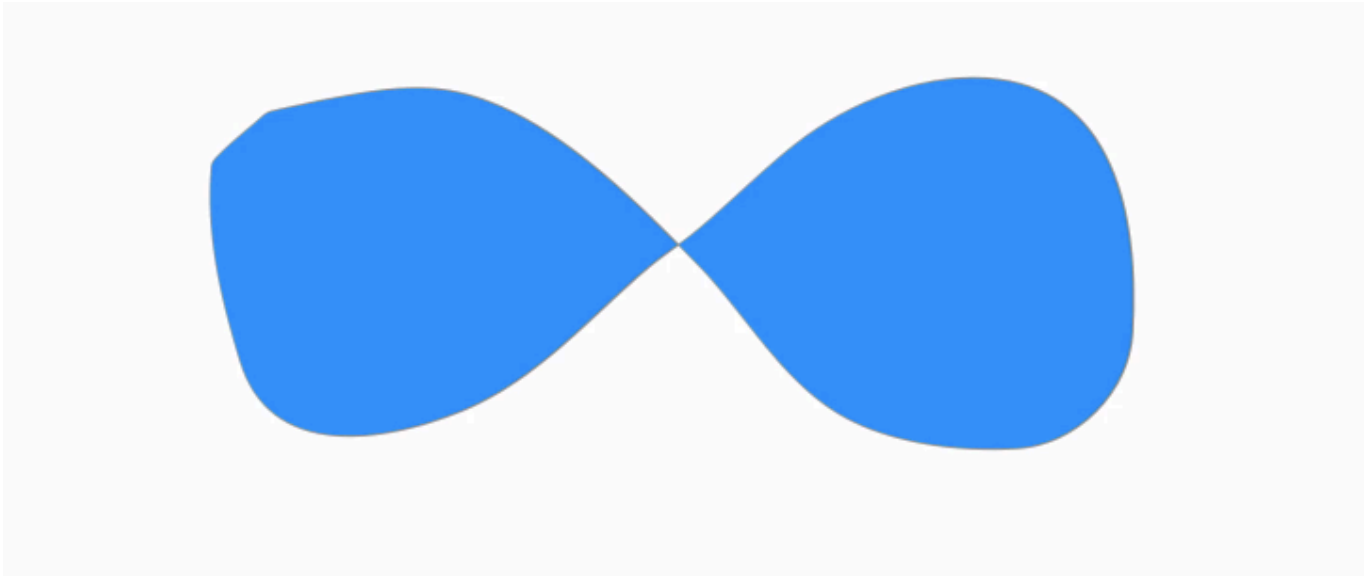
If you'd rather have them as completely separate layers, go to **Layer** › **Paths** › **Split** in the menu to turn them into separate layers.

Pencil

The Pencil tool allows you to draw freely. After you let go of the mouse, Sketch will try to smoothen the curves and simplify the path.

To select the tool, choose **Insert** › **Pencil** from pop-up menu in the toolbar (or press P).





Text

Sketch uses the native font rendering of the operating system and because of that, text looks excellent. The benefit of native font rendering is that when you're doing a website design you're sure that text looks accurate. Sketch also supports text styles so you can have multiple text layers share the same font, size, kerning etc.

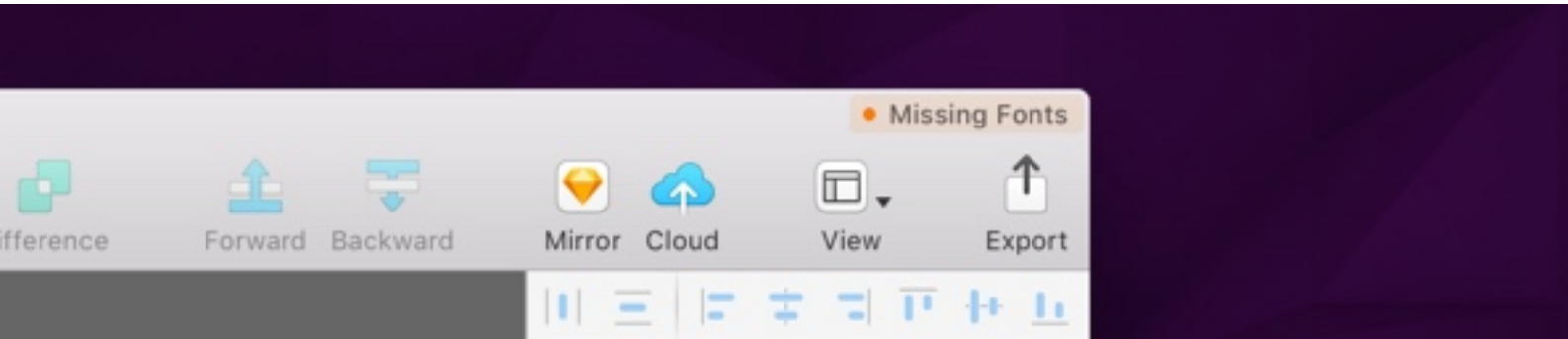
Adding Text

You can add text by clicking the text icon in the toolbar. The cursor changes to a text cursor and then you can click anywhere in the canvas to insert your text layer at that point. You will see text being added and selected so you can start typing immediately.

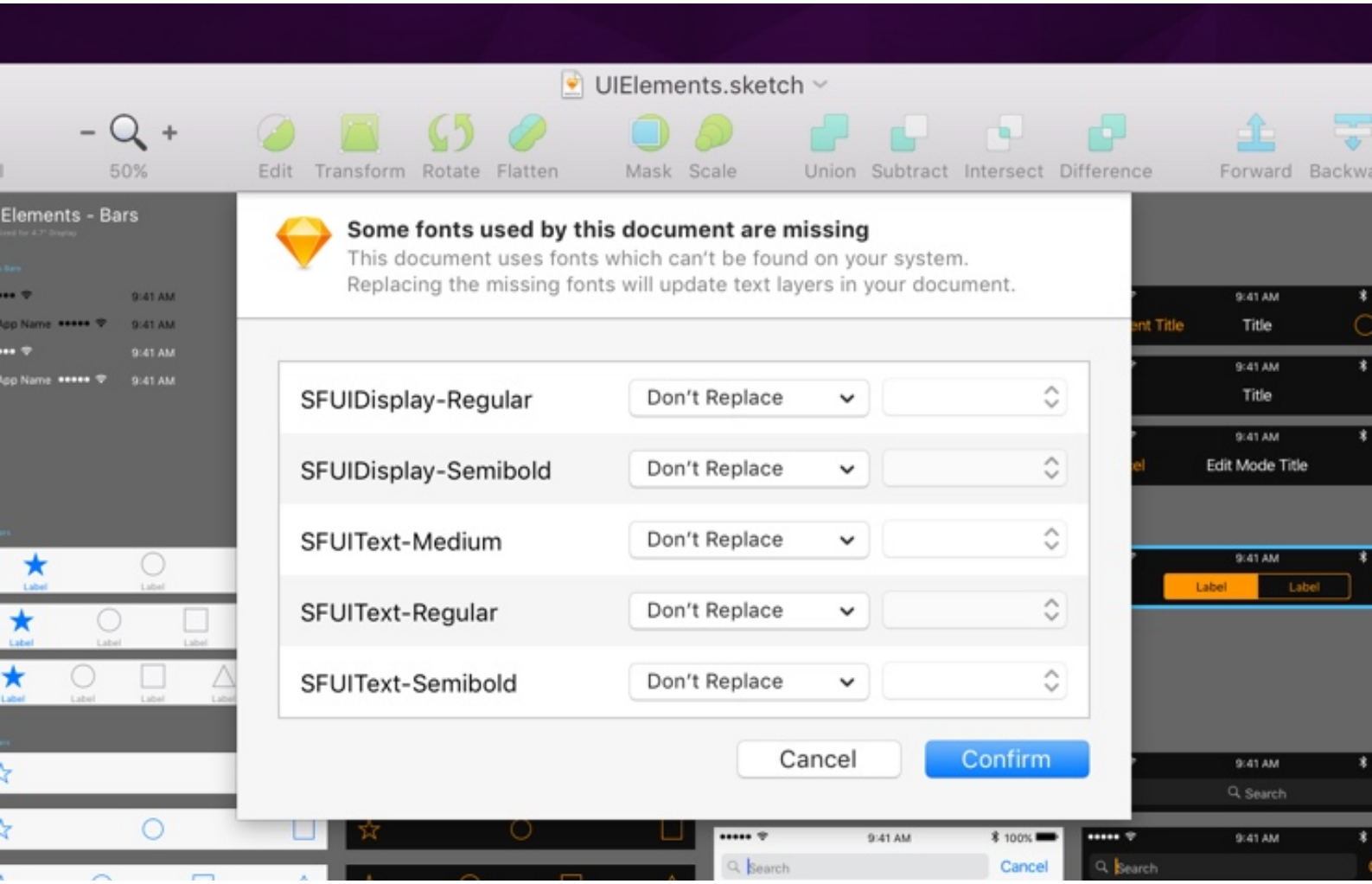
You can also click and drag to create a text box of a fixed size. When the text gets too big to fit inside the box, it will resize downwards, as opposed to a normal text box which increases its width to fit the content.

Missing Fonts

When working with Sketch files downloaded from the internet, or received from a colleague, it may contain fonts that cannot be found on your system. Sketch has been designed to deal with this case, and displays a badge in the top-right corner of the window alerting you that the design uses fonts that you don't have:



Clicking the button will reveal a dialog containing a list of the missing fonts used in the document, and allows you to substitute them by choosing a replacement typeface and font weight. Alternatively, you can use this list source and install the offending fonts.



Rich Text

Sketch has support for displaying Rich Text pasted in from other applications. For example, if you selected some text from a website in Safari and copied it, in Sketch choose **Edit › Paste › Paste as Rich Text** from the menu (or press Alt + Shift + Cmd + V). The new, pasted text layer will contain the word(s) in the font, size, and color that it had been set in.

Resizing Text

When you resize a text box in the canvas its text size will not change, except when you resize auto-width text using the resizing handle at the bottom.

Text Inspector

When you have a text layer selected you will notice that the inspector has changed to show you all the properties that apply to text.

Below the standard layer properties there's the area for **Shared Text Styles**.

Below that, you can choose and apply the various text properties that you would expect. Such as the typeface (font-family), weight (e.g. light, bold, italic), and the font size. In addition, you can also adjust the text alignment, determine whether the layer should be at a fixed, or automatic width, and adjust character, line, and paragraph spacings.

Text Color

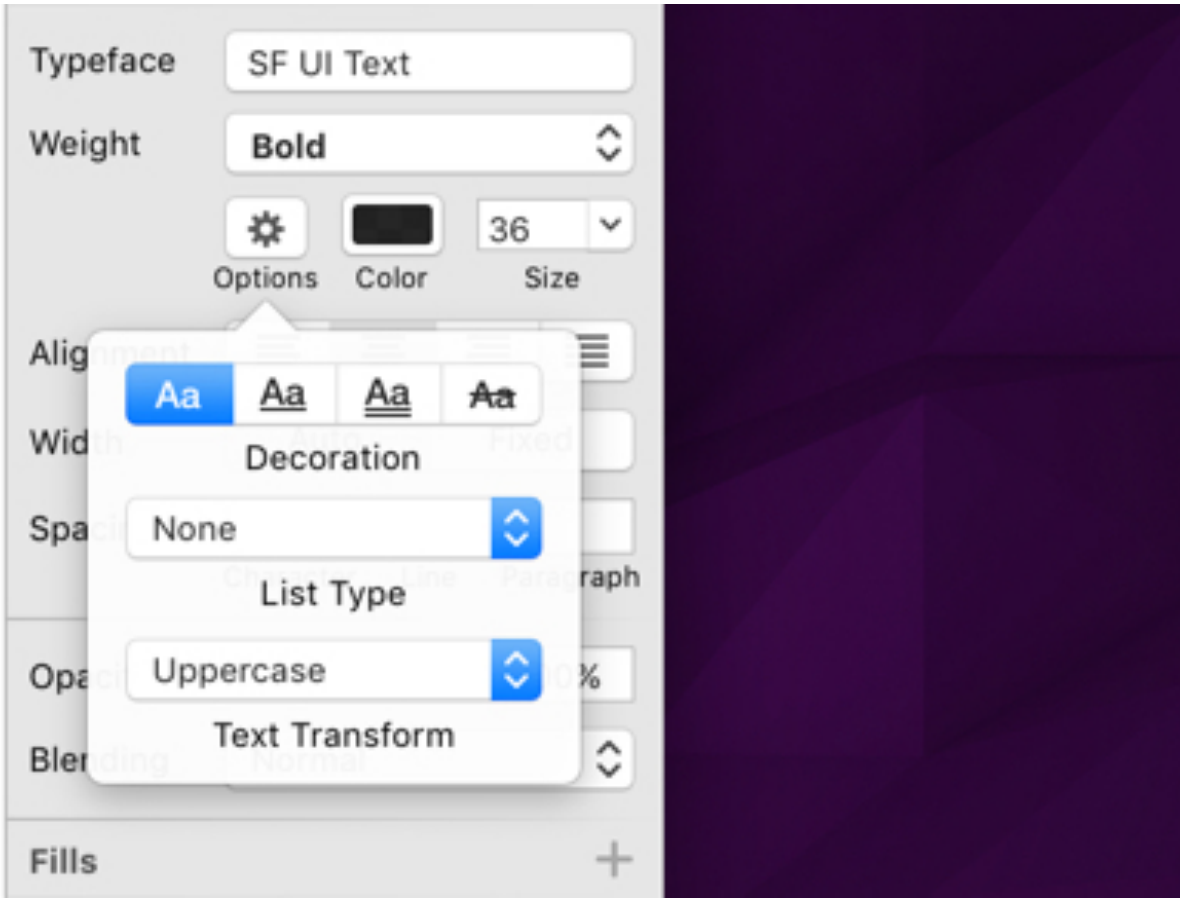
When you're editing text, you can apply specific colors to subrange of the the text. You can do so using the little Color box between the font size and the text options button.

You can also apply a general fill style to the text layer, such as a gradient. However, any fill applied here will apply to the entire text layer and it will override anything you set in the color box above it.

Text Options

By clicking the Options button , you will reveal a popover allowing you to apply text decorations such as underline and strikethrough, options to allow you to convert a text layer with many lines to a list, and options to transform the text selection.

In the text transform pop-up menu you can choose to adjust how your text looks in a way that is completely non-destructive. This means you can style your text so its uppercase, or lowercase without having to re-type it.



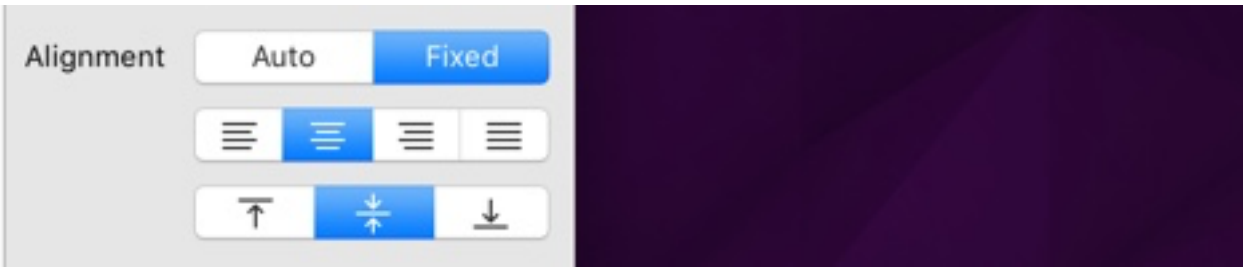
Alignment

In Sketch, you can align text horizontally as well as vertically. In order to see the changes to a text layer's alignment, you can set the text box to either **Auto** or **Fixed**.

When the alignment is set to Auto, the text box's width will expand as wide as possible to fit the text you entered, and the horizontal alignment is taken into account when you type.

When the alignment is set to Fixed, you can click and drag the handles that appear on the Canvas to adjust the height and width of your text layer. When entering text, it'll wrap and a new line will be created when a word can't fit in the remaining width.

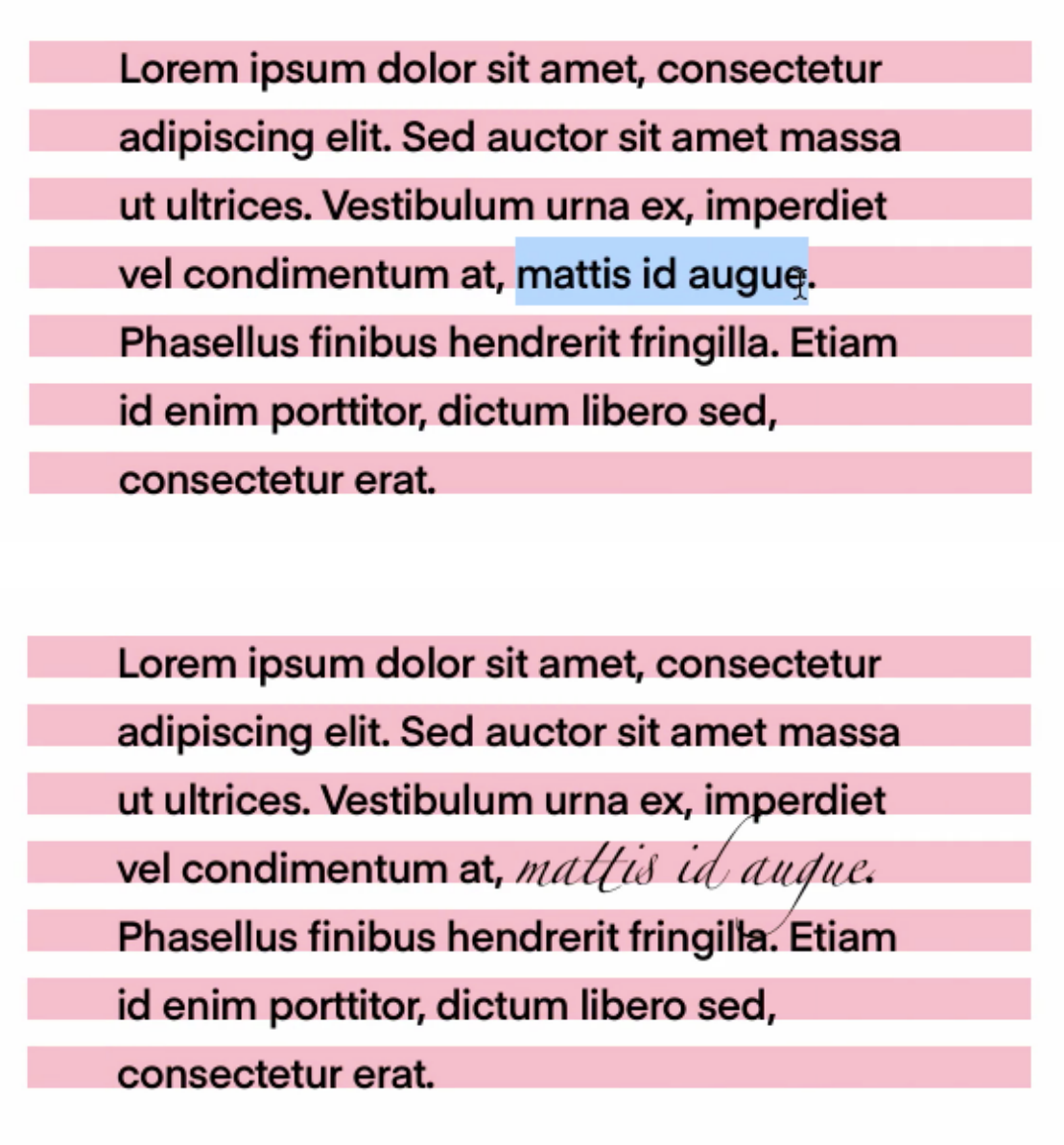
As well as being able to adjust the horizontal alignment, text can be aligned vertically to the top, middle, or bottom when you have given the text layer a Fixed height.



Line Height

Sketch maintains consistent baseline spacing for paragraphs anytime you adjust the line height. If you change the typeface or font size for a text layer, the layer repositions itself so the first baseline will always stay in place.

The consistent baseline offset is also maintained between paragraphs, even with varying fonts, as long as they have a fixed line height. This produces a beautiful predictable vertical rhythm. When no fixed line height is set, we use the one indicated by the font itself.



When you create a new text layer, it will use the *“auto”* line height rather than inheriting what was previously set. Text layer auto line height is distinct from a fixed line height of the same value, and the Inspector displays the auto value as a placeholder.

Touch Bar

When a text layer is selected, some basic properties are available on the MacBook Pro’s Touch Bar. Here you have options to access the properties pane in the Inspector, as well as options to adjust the text color, alignment, and layer order.

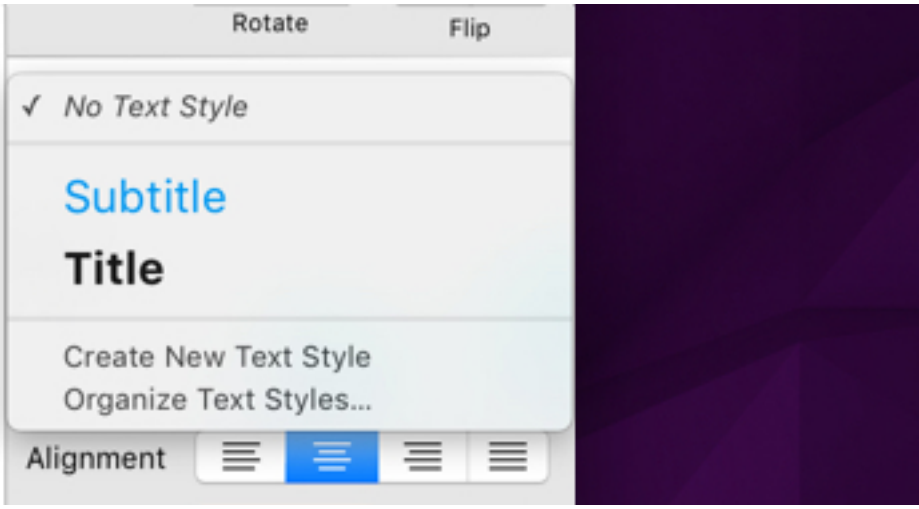
Text Styles

When designing interfaces or website that contain a lot of text layers, many of those layers will contain the same text properties. In Sketch, you can define a Text Style to apply to these layers, so you can update their style with ease.

Note: Text Styles exist on a per-document basis. You cannot share them between documents but they are available among all Pages and Artboards in your document.

Creating a Style

To create a Text Style, select a text layer, and choose **Layer › Create Shared Style** from the menu. You will see that the Inspector updates to show you the new Text Style created using the selected layer's properties applied to the style.



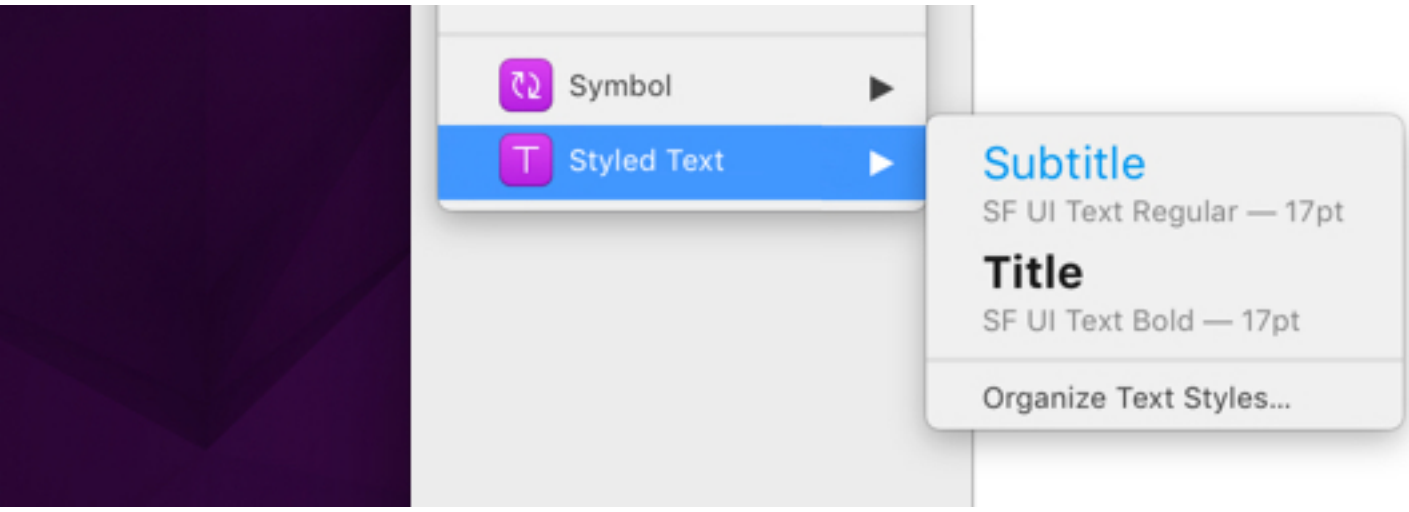
Any part of the Text Style that you modify, such as the font, alignment, etc will automatically update on the selected layer. To see these changes update other text layers with the same Text Style applied, click the Update button in the style preview pane.

If you decide that you do not want to update the style of a particular layer after making the changes, hold down the Alt key, and click the Revert button that appears in place of Update.

Insert as New Layer

To apply an existing Text Style to a text layer, select it and click the “No Text Style” label in the Inspector to reveal a pop-up menu showing you the Text Styles defined in the document.

To insert a text layer with a style already applied, in the toolbar choose **Insert › Styled Text** from the pop-up menu and select the Text Style you want to use. Then click the Canvas as if you were inserting any other text layer.



Text on Path

Sketch can apply text layers to a vector path, such as the example below:

To create this effect, you will need a text layer, and a shape layer whose path you want the text to sit on. This layer must appear underneath the text layer in the Layer List.

With the text layer selected, choose **Text › Text on Path** from the menu, then move your layer towards the vector shape. It should ‘snap’ as you drag it into place.

To stop a text layer snapping to a path, simply re-order its position in the Layer List, or choose **Text › Text on Path** again to unselect the setting.

Convert To Outlines

To convert a text layer to a vector shape, choose **Layer › Convert to Outlines** from the menu (or press Shift + Cmd + O). You will then be able to edit the individual paths and points as you could any other shape.

Warning: Take care with this approach. Once you convert text to outlines you will not be able to edit the text. Converting large quantities of text will affect performance immeasurably due to the number of subpaths and boolean operations contained within a layer.

Images

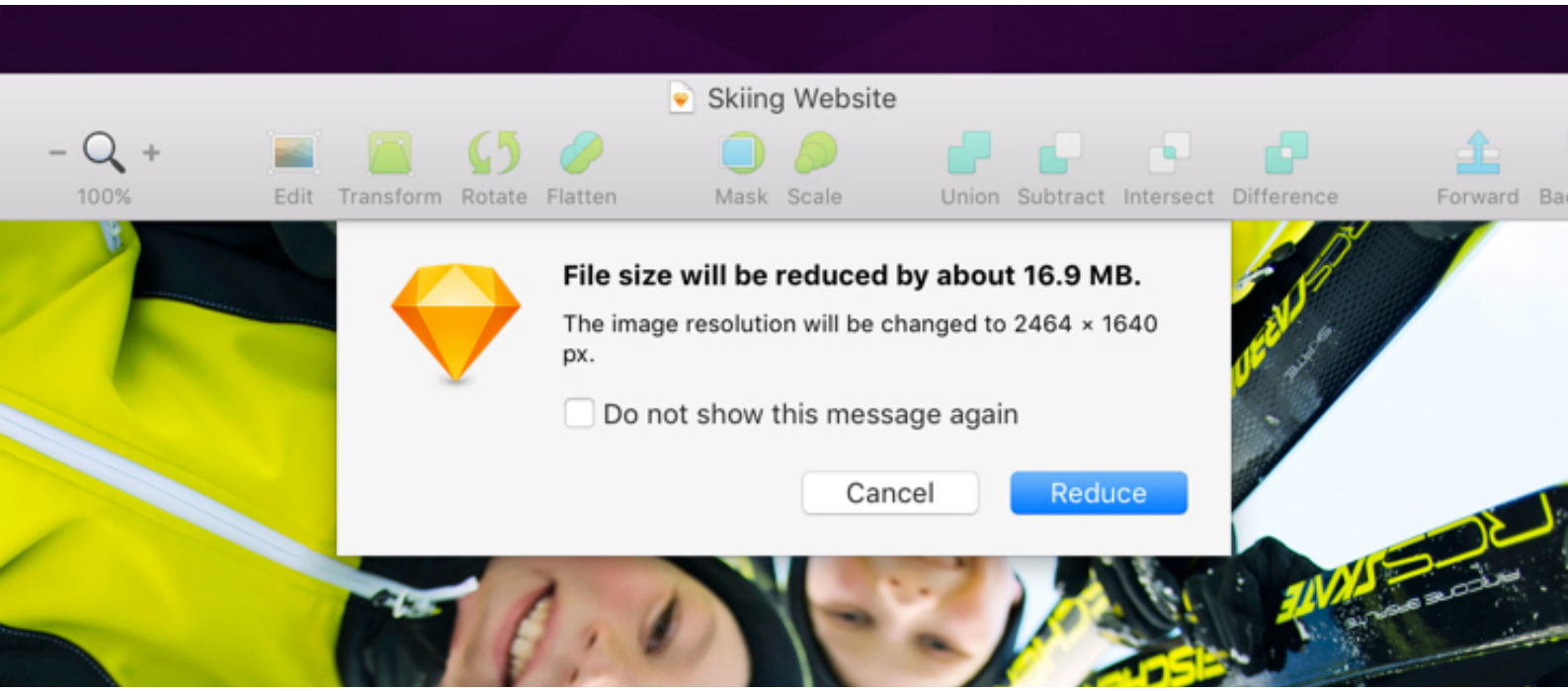
Images, or bitmaps are one of the layer types that are supported in Sketch. These can take many forms, such as screenshots or photographs, and cannot be edited or manipulated as freely as vector shapes.

Although it is not typically necessary, you can convert any layer(s) in Sketch to a single bitmap.

Choose **Layer › Flatten Selection to Bitmap** in the menu.

Reduce Image Size

When working in Sketch, it can become all too common to add images to your designs, such as photographs and screenshots. The more of these you add to your design, the bigger your Sketch document will become.



Reduce Image Size can be a very handy way to shed megabytes off your file's size.

As the overall filesize increases, Sketch may take longer to preview certain parts of your document, which is why you may want to reduce the size of the images you are using in your file. To do this, choose **Layer › Image › Minimize File Size** in the menu. Sketch will then optimize any large and resized images, (no matter if they're part of a fill, or an image layer) shrinking the size of your file to help shareability and improving the performance.

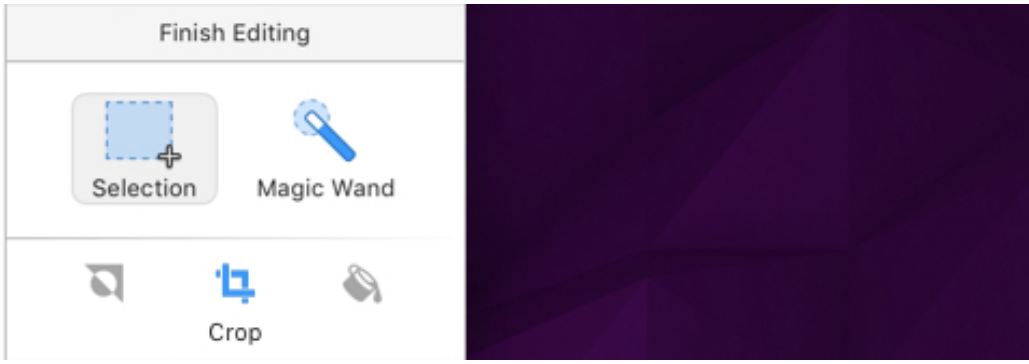
Replacing Images

To replace an image in Sketch with ease, simply select it and choose **Layer › Image › Replace…** and select its replacement from the dialog. This method will keep any style properties intact, and preserve the image's size. Alternatively, Control-click an image and choose **Replace Image…** from the shortcut menu.

If you wanted to revert an image back to its original size, choose **Layer › Image › Set to Original Dimensions** from the menu.

Bitmap Editing

Sketch contains a couple of most-common bitmap editing capabilities to help prevent you from jumping between different design tools.



To start editing an image, select it on the canvas and double-click. You will see the Inspector update with a few special tools. First you have to select an area on the Canvas, and then pick the tool you want:

Selection: Select a rectangular area on the image.

Magic Wand: Click and drag anywhere on the image to select an area. The further you drag away from the start the greater the tolerance will be.

Note that you can hold the Shift key to add to an already-existing selection, and use the Alt key to subtract from it. Once the selection is made you can either cut/copy the selection and use it for a new bitmap layer or select from the four available tools below it:

Invert: The area that was not selected will be selected now and vice versa.

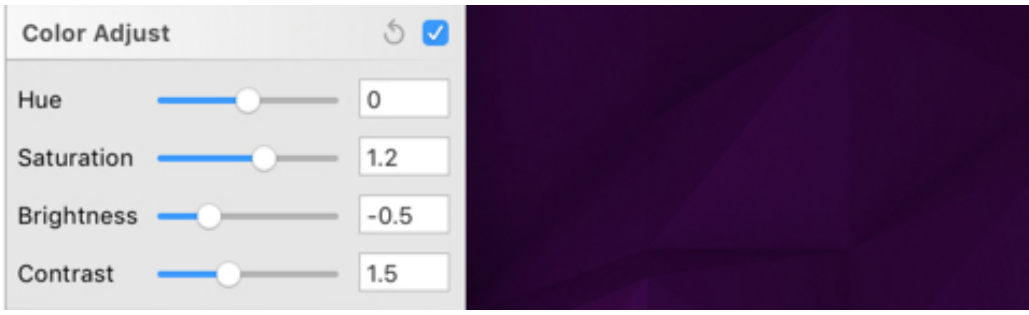
Crop: Crops the layer to only include the selected area.

Color: Fill the selected area with a chosen color. The standard color picker will appear to let you pick a color.

Once you are done editing, click anywhere outside the image, or press Return or Escape to exit.

Color Adjust

If you wish the tweak the colors of an image you can use the Color Adjust panel in the Inspector to do so. You can change the hue, saturation, brightness, and contrast in this panel.



Note: This is a non-destructive effect so you can always change your values later.

Grouping Layers

Aside from the usual layer types such as shapes, images and text, Sketch also has support for group layers, whose purpose is to contain other layers to keep your document organized.

Alongside groups, this section will also take a look at Artboards—who affect the Canvas, as well as Pages that allow you to store multiple canvases in a document.

Groups

Layers in your document can be grouped so they will appear as one layer. Like regular layers, groups can be moved and resized, whilst still enabling access to content inside.

Grouping layers is a very convenient way of keeping your document organized. Layers that are meant to appear together can be grouped to allow you to do things like toggle the group visibility, or adjust properties such as opacity and blend mode. Groups can be nested, so it can contain other groups and all this will trim your Layer List, making it easier to navigate.

To create a group, select one or more layers, then click the Group icon in the toolbar and Sketch will create a new group with those items. Alternatively, you can group layers via the shortcut menu (by Control-clicking), or by pressing Cmd + G. You can also drag layers into, and out of groups using the Layer List.

Editing Groups

Once you have created a group, you can double-click it on the Canvas, or press the Enter key to view and edit its contents. Whenever you click on an object outside the group, Sketch will take you ‘out of’ the group so that you can select other layers in your document again.

Click-Through

By default a layer inside a group cannot be selected directly without first double-clicking the group.

If you hold down the Command key however, Sketch will let you select any layer contained within a group.

To avoid this behavior and automatically select the contents of a group on click, you can select the “Enable click-through for new groups” checkbox, under the Canvas tab in Sketch’s preferences.

If you only wanted click-through applied for certain groups in your design, select the group and in the Inspector, select the “Click-through when selecting” checkbox.

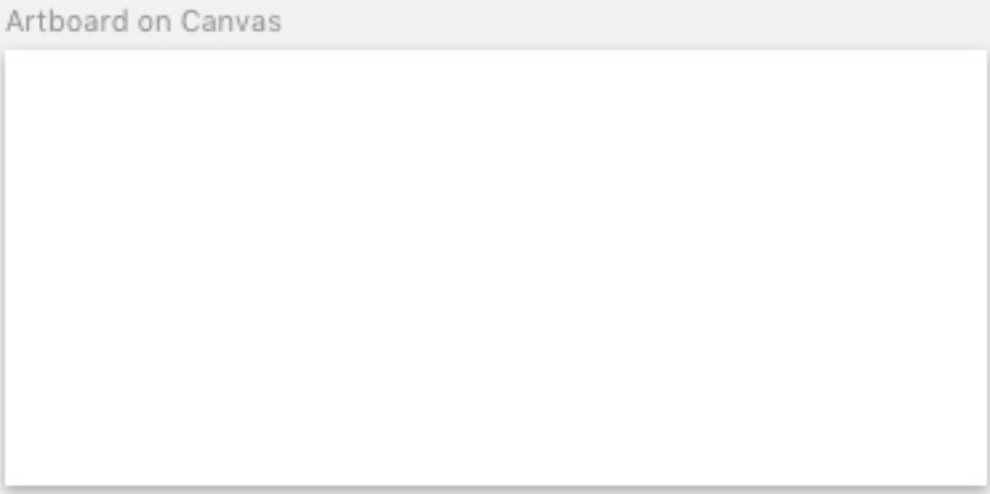
Artboards

Artboards allow you to create fixed frames on Sketch's infinite Canvas, but they're completely optional.

If you're creating a responsive web design you may want to design for different screen sizes, and each size could be contained within an Artboard. Or perhaps you're designing multiple views of a mobile app. Artboards can serve as a handy container.

Artboards behave like a special kind of group.

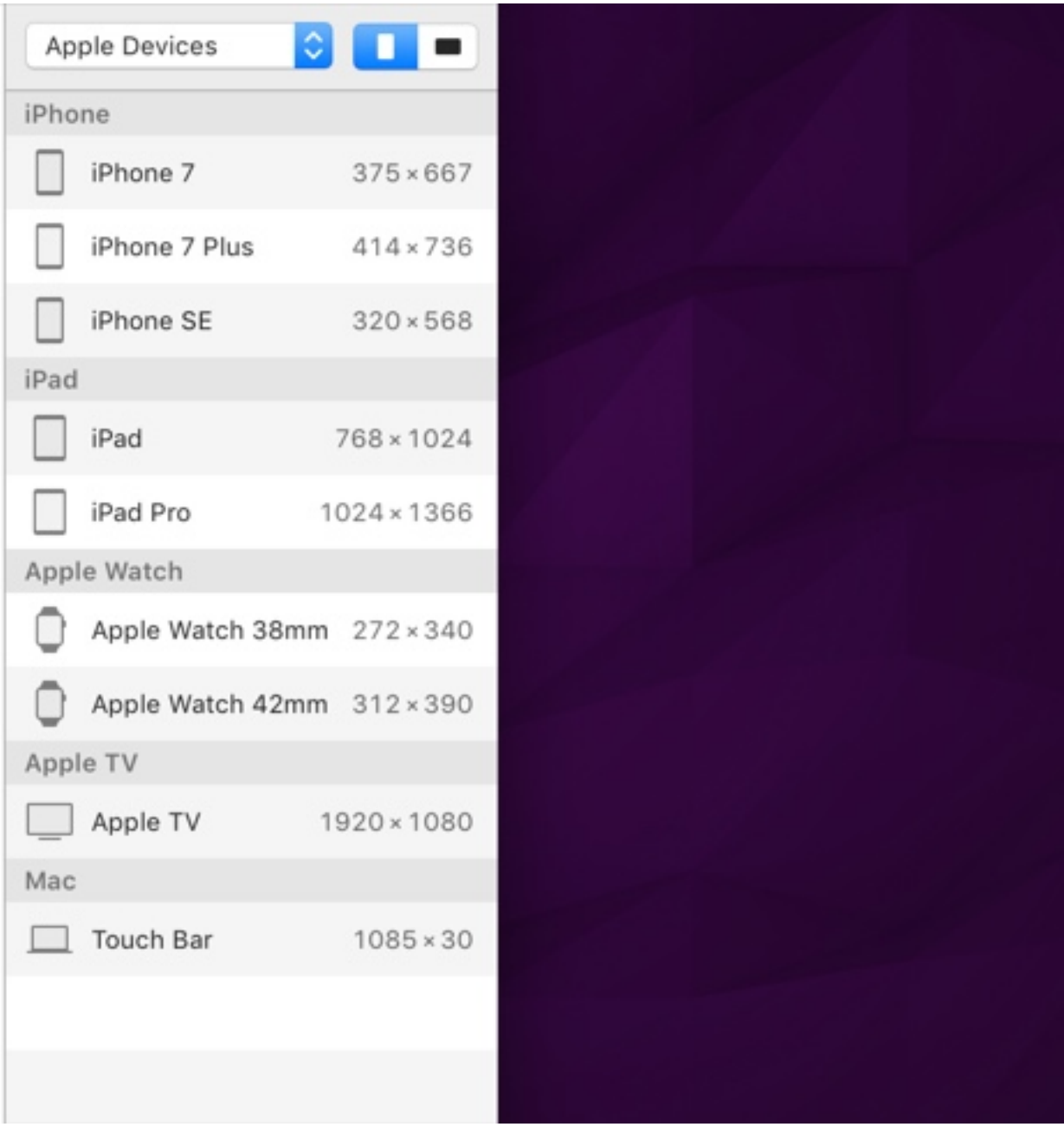
The main differences are that they are represented on the Canvas, you never have to double-click to view their contents, and they don't resize to fit the contents inside.



Artboards can be selected on the Canvas by clicking their name, or by including the Artboard fully within a click-and-drag selection. This is a handy method to be able to select multiple Artboards at once.

Adding Artboards

To create an Artboard, choose **Insert** › **Artboard** from the toolbar or menu (or press A). The Inspector will reveal a list of presets, whose categories can be changed by clicking the dropdown button at the top of



the list, along with a toggle for landscape and portrait orientations. Here, you also have the ability to add your own custom size.

Just click on a preset from the list to insert it into the Canvas. When you have a layer selected, you have the option to create an Artboard to fit around your selection at the top of the preset list.

After you've inserted one Artboard, and want to insert more Artboards of that kind, you can immediately press Cmd + D (duplicate) until you have as many Artboards as you need.

To add a custom preset, click the add button at the bottom-right of the Inspector, and enter a name and dimensions.

Moving Artboards

You can only click-and-drag an Artboard to move it, if it doesn't contain any content. The reason for this is so you can select and move content, without accidentally moving your Artboard too.

To move your Artboard, and all the layers it contains, click on the Artboard title in the Canvas, and drag. Alternatively, if you click the Artboard's name in the Layer List, you can then drag inside the Artboard to reposition it. With the Artboard selected, you can also use the position values in the Inspector to move it, or use the arrow keys to incrementally nudge it in a certain direction.

Resizing Artboards

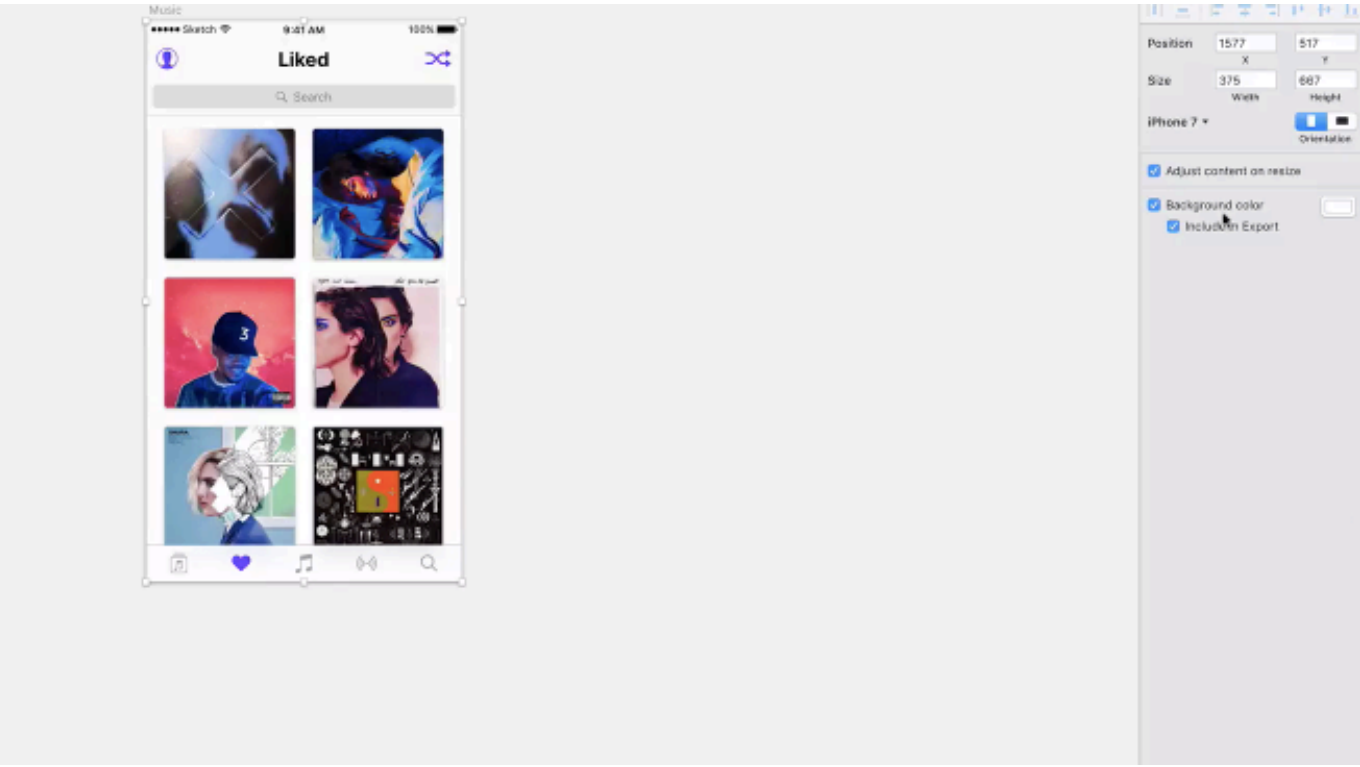
Resizing an Artboard can be done in the exact same way as any other layer. By clicking and dragging on the selection handles, or editing its height and width values in the Inspector. But as Artboards are a special type of layer, you are presented with a couple of unique options that can also modify the content within.

The “Adjust content on resize” option in the Inspector is perfect once you have applied **resizing constraints** to your layers. When selected, the layers inside your Artboard will resize **with** the Artboard itself, making this ideal for mocking up interfaces on different sized displays.

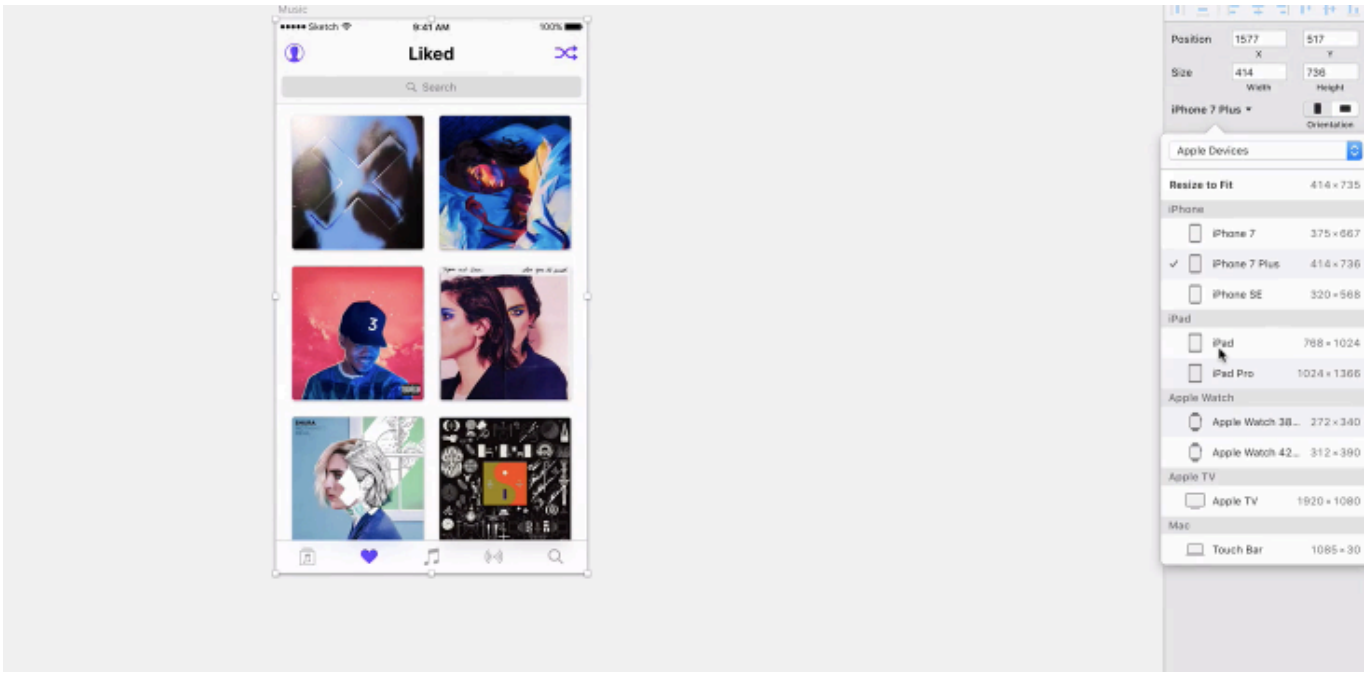
However, be careful when using this feature. Please ensure that you’ve applied constraints to the right layers within to avoid any nasty surprises!

You can choose different artboard size:

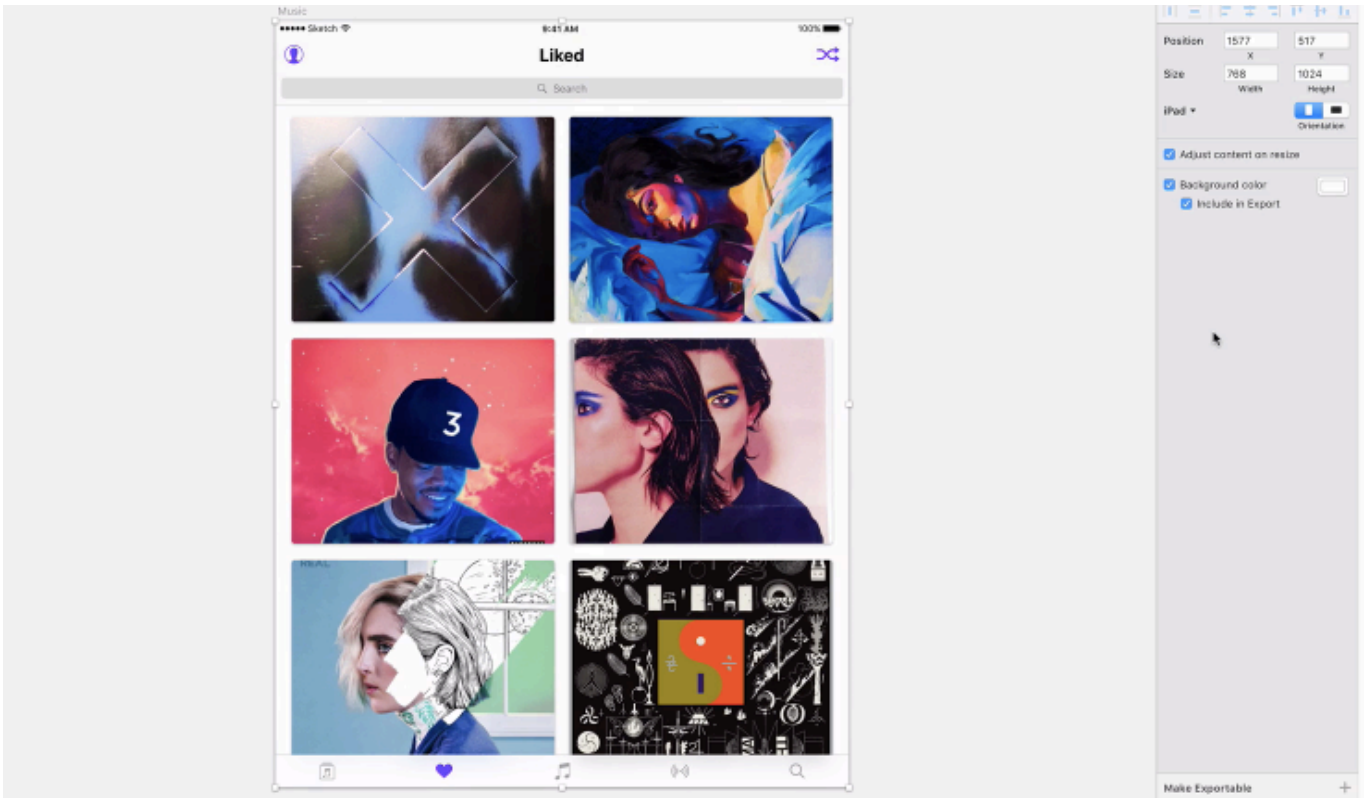
1.



2.



3.



Download the file used in the above example here.

As well as being able to resize an Artboard to an arbitrary size, you can also resize quickly, and conveniently to one of the defined presets. Click the on the preset label to reveal a popover containing all the saved Artboard presets, and choose your new size.

You can also completely adjust the Artboard's orientation, from portrait to landscape (or vice versa) and this will also change the preset values in the size switcher popover.

Resize to Fit

The Resize to Fit option will automatically resize the Artboard to fit the height and width of the layers which sit inside it. Perfect for when you're designing views on mobile that need extra height to scroll.

Switching Artboards

You can quickly jump between Artboards in your document by simply pressing Function-Left Arrow to move left or Function-Right Arrow to go right.

Deleting Artboards (Stripping)

If you want to remove an Artboard, deleting by pressing Backspace will also delete the content within. If you just want to delete the Artboard only, choose Ungroup from the toolbar (or press Shift + Cmd + G).

Grids and Rulers

As each Artboard behaves as its own canvas, within Sketch's infinite Canvas, they contain their own grids and rulers, which can be applied via the View pop-up menu in the toolbar. These will be independent to the Canvas' rulers and grids.

Templates

To see a good example of multiple Artboards being used in action, check out the default templates we ship with Sketch.

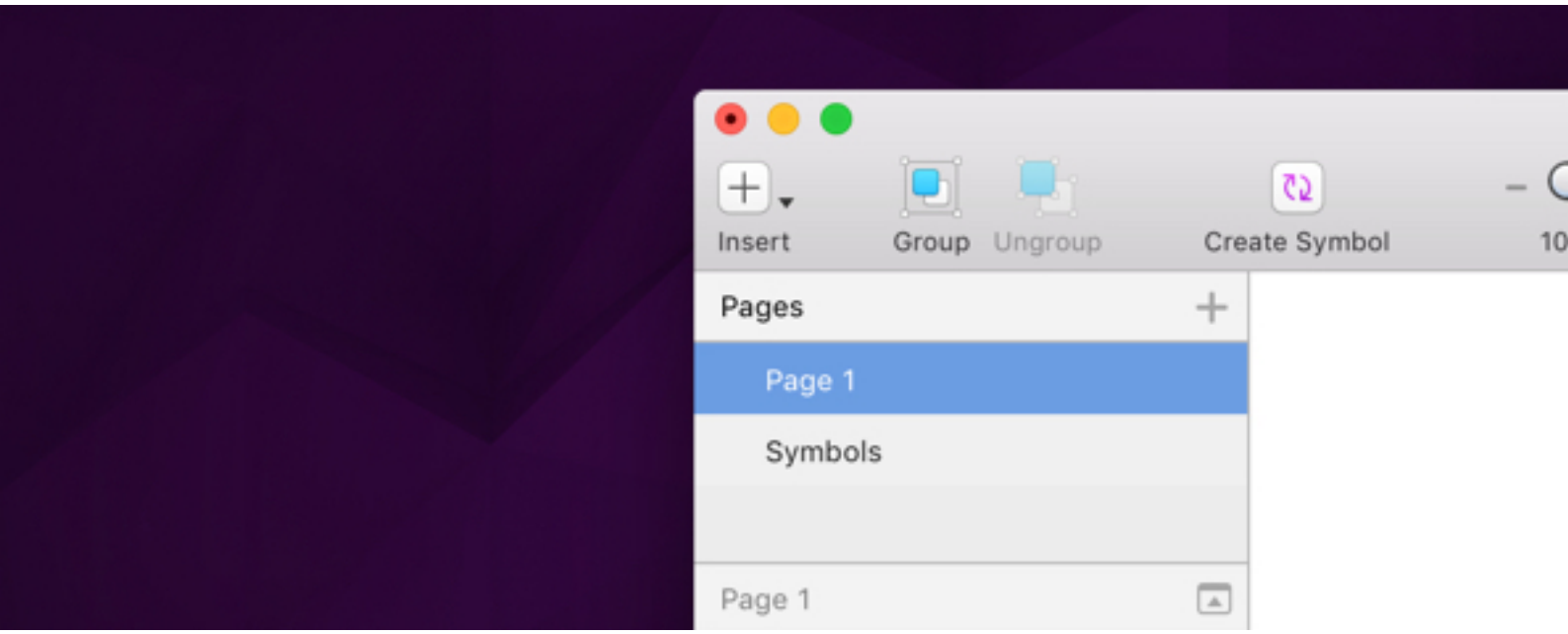
Choose **File › New From Template** in the menu.

If you select the **iOS App Icon** template you'll see Artboards for each of the common sizes.

Pages

A document in Sketch can contain any number of Pages. To add a new Page, click the Show Page List button , on top of the Layer List, and click the add button.

Using Pages allows you to store multiple canvases in a document and this has a number of benefits.



For example, when you add a new Symbol to a document, you can choose to have it automatically sent to a new *Symbols* page. This page won't behave any differently, but it will ensure all your reusable elements are stored in one place.

Another reason for using multiple Pages has to do with performance. Sketch can easily handle a dozen Artboards on Page, but depending on their content, size and the number of them, you may find it beneficial to split the work up into multiple pages.

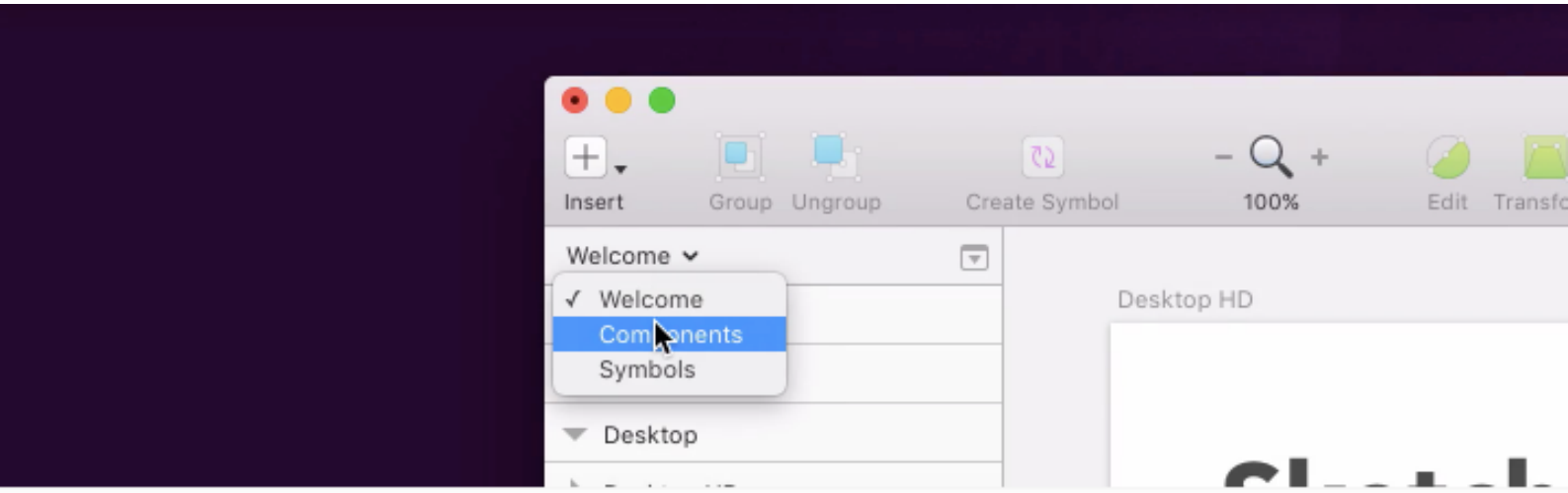
Other suggested uses for using multiple Pages are to contain multiple iterations of a design (Pages can be duplicated by Command-clicking a

Page's name and choosing Duplicate from the pop-up menu.), different pages for a web design, contain a style guide, or the extra Canvas can just be used as a playground to experiment with ideas.

Switching Pages

You can quickly switch between Pages in your document by simply pressing Function-Up Arrow to move up or Function-Down Arrow to go move down the Pages List.

Clicking on the Page name at the top of the Layer List will reveal a pop-up menu where you can choose your destination.



Multiple Selection

It's also possible to select multiple Pages in the Page List by Command-clicking their names. With multiple Pages selected, this makes organizational tasks such as deleting, and re-ordering more efficient.

Styling

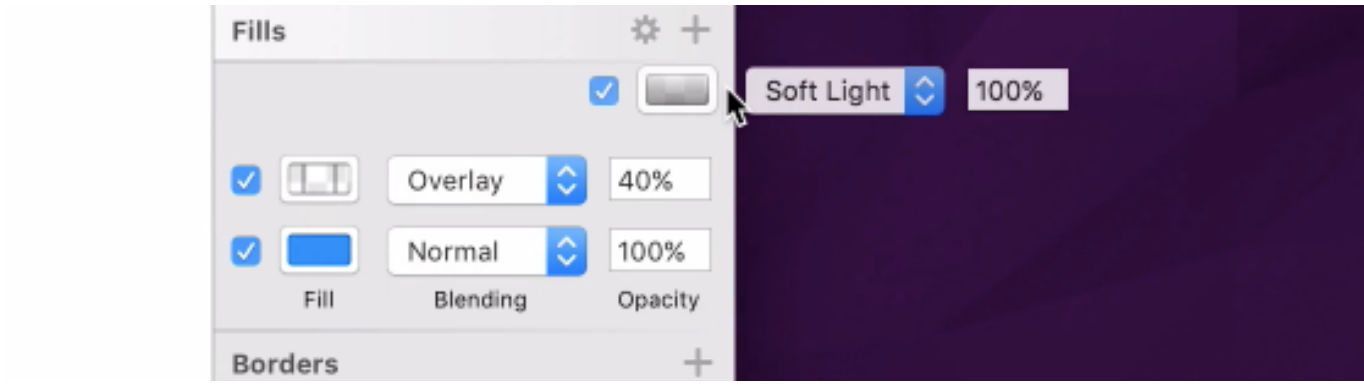
The Inspector is where you can edit and change the style properties for your selected layer.

Here you'll find a range of options and tools that'll allow you to change the color of a layer, apply effects such as shadows, and a host of tricks and tips.

Organize Properties

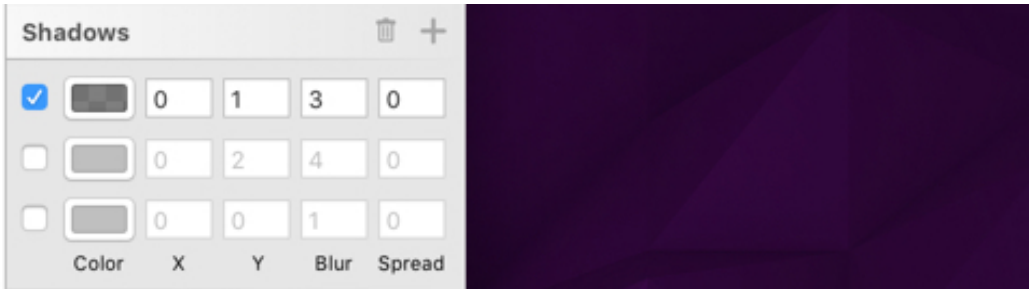
You can rearrange the order in which multiple Fills, Borders, and Shadows will appear. To do so, click-and-drag in the empty space between the style's controls, and move it above, or below another style.

You can even quickly remove unwanted styles this way by dragging it outside the Inspector.



Removing Unused Styles

An effective way to try to experiment with a new style is to have a number of Fills, Borders, or Shadows, and selectively adjusting their visibility.



You can hide each attribute by deselecting the visibility checkbox on its left. When one or more Fills, Borders, or Shadows are deselected, you can remove them by clicking on the delete button that appears on the section title.

In addition, you can Control-click a style attribute and choose “Remove” from the shortcut menu.

Copying and Pasting Styles

You may want to quickly apply a style from one layer to another, without creating a new **Shared Style**. With a layer selected, choose **Edit** › **Copy** › **Copy Style** from the menu (or press Alt + Cmd + C) to copy, and to paste onto another layer, choose **Edit** › **Paste** › **Paste Style** (or press Alt + Cmd + V).

Quickly Adjusting a Layer's Opacity

Whenever you have a layer selected you can press the 1-9 keys on the keyboard to adjust the opacity of the layer quickly. For example, pressing 9 and 6 in quick succession will set the opacity to 96%, whilst if you pressed 9—then—6 with a short delay, the opacity would change from 90% to 60%.

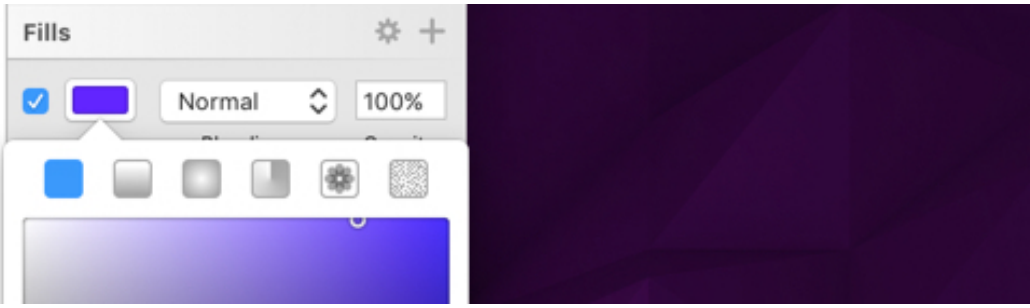
Using the Touch Bar

The MacBook Pro's Touch Bar gives you an overview of your selected layer's style. Fills and Borders appear where they can be tapped to reveal their color popover.

Here you can quickly scroll and select one of your presets, open the color picker, or choose a new color for your style, straight from the Touch Bar!

Fills

You can apply a range of different fills to layers including a solid color, different types of gradients, pattern or image fill, as well as noise. To switch between the different types of fills, click the Fill color button, then choose one of the six icons at the top of the popover.



From left to right the fill options are:

- Solid Fill
- Linear Gradient
- Radial Gradient
- Angular Gradient
- Image Fill
- Noise Fill

Note: You can quickly toggle the visibility of all fills from a layer by pressing the F key.

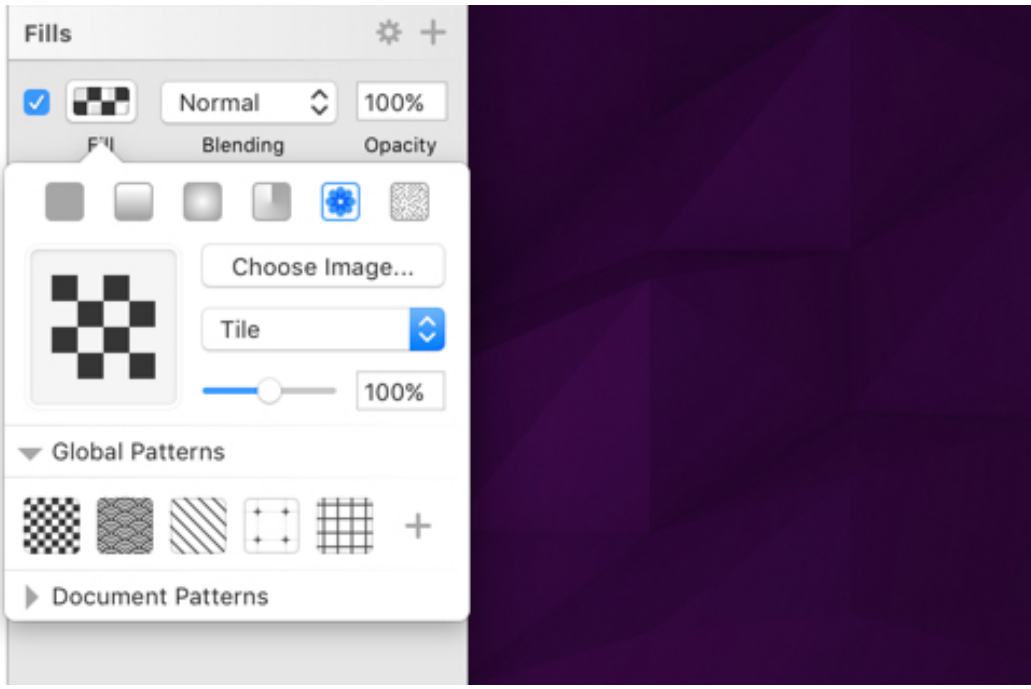
Adding Fills

To add a new Fill attribute to a layer, just click the add button in the Fills section title. A layer can have any number of fills which will be stacked on top of each other from bottom to top. Each fill will have its own blend mode and you can adjust opacity between them too.

Note: that if the top-most fill is completely opaque you won't be able to see the fills under it, but Sketch will still render them.

Image Fill

Clicking the Image Fill button will allow you to insert a custom image as a fill, or you can choose one of the available pattern presets. You can set the image to either Fill, Fit, Stretch, or Tile from the pop-up menu.

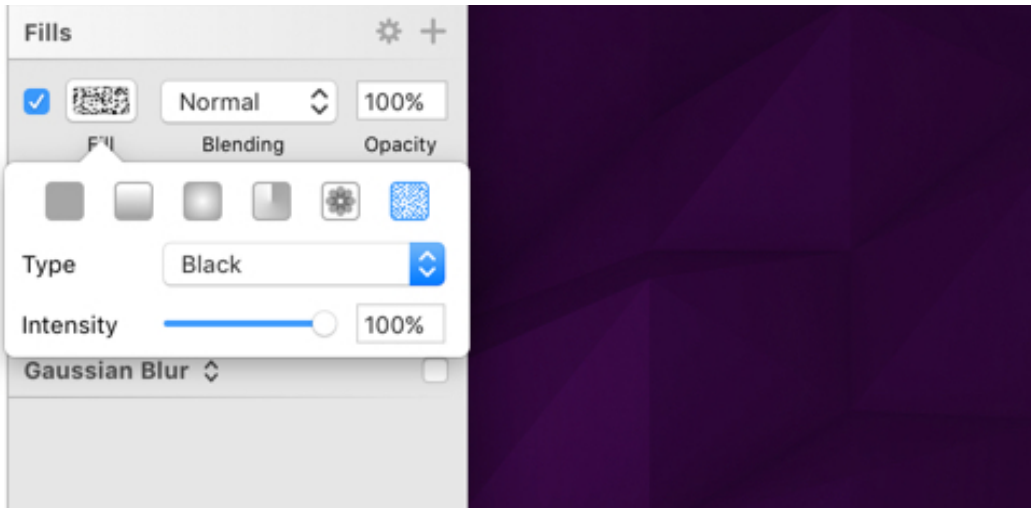


Fill: This adjusts the size of the image to fit the layer's width.

Fit: This adjusts the size of the image to fit the layer's height.

Stretch: The image will be stretched to fit the layer's ratio.

Tile: This will keep the image at its original size, but tile it to fit the layer. Its size can be manually adjusted. Useful for creating tiled patterns.



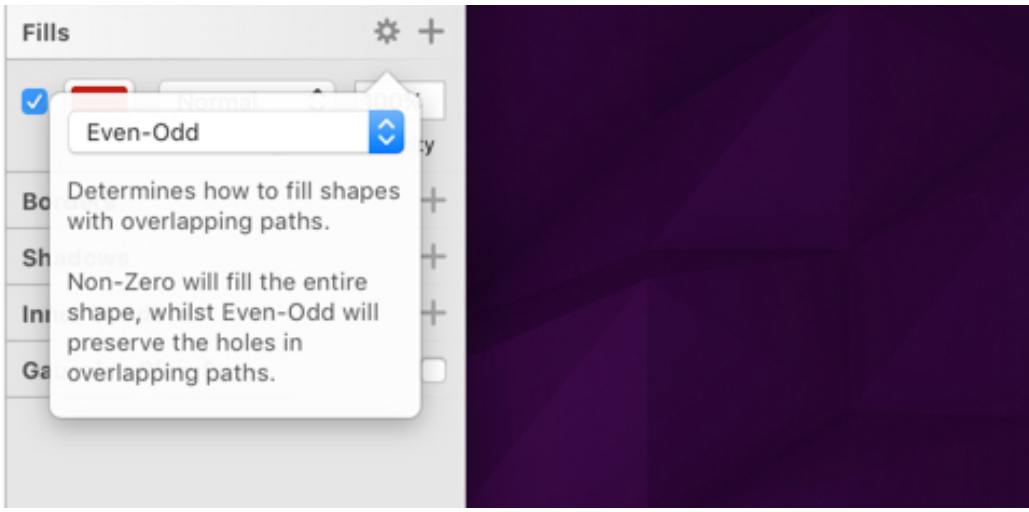
Noise Fill

A Noise Fill lets you add varying levels of grain to your layer, making otherwise dull fills and shapes slightly more realistic by adding some minor texture.

Sketch comes with four noise options; Original (from previous versions of Sketch) White, Black, and Colored. You can also apply custom blending to each noise fill.

Fill Settings

With a fill applied to a layer, you'll see a Settings button in the Fills section title. Here you can adjust something called the **winding rule**. This option allows you to define how to fill complex shapes with overlapping paths.

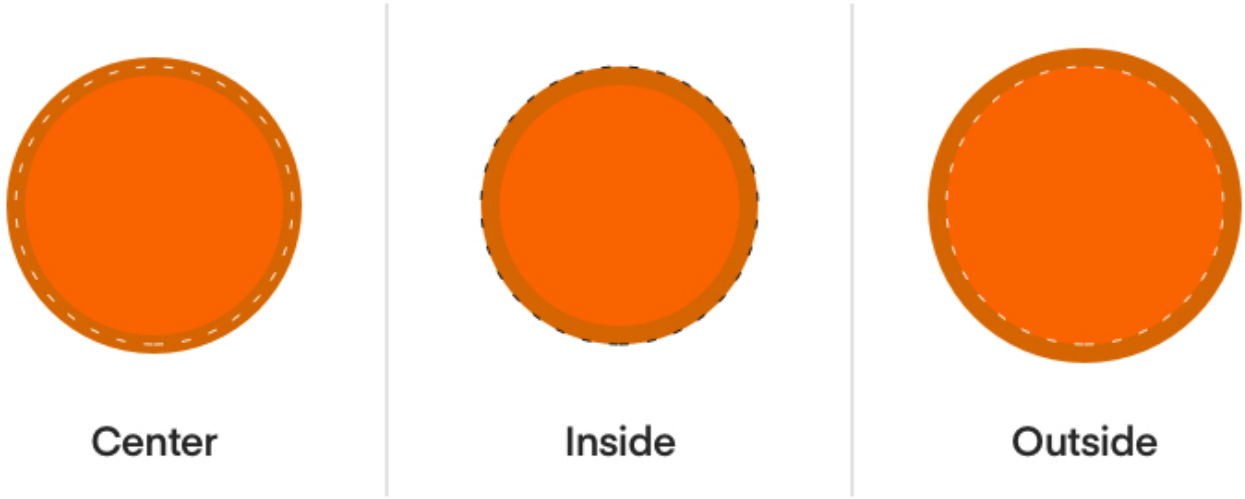


Borders

All layers except text layers can contain as many borders as you want. These can all have various thicknesses, colors, and blend modes.

Border Position

The border position can be adjusted on closed shape, by either being placed on the inside, center, or outside of the shape's outline. If you apply a border onto an open path, then the only available option would be center.

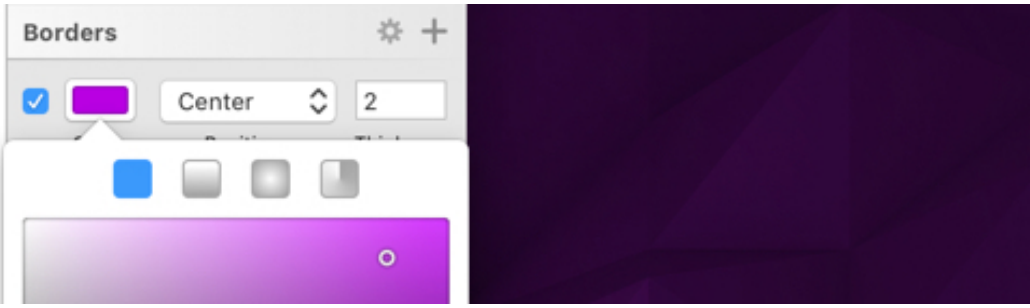


Border Colors

As with the various Fill options, you can also choose to style your borders with a single solid color, or from a variety of **gradients**.

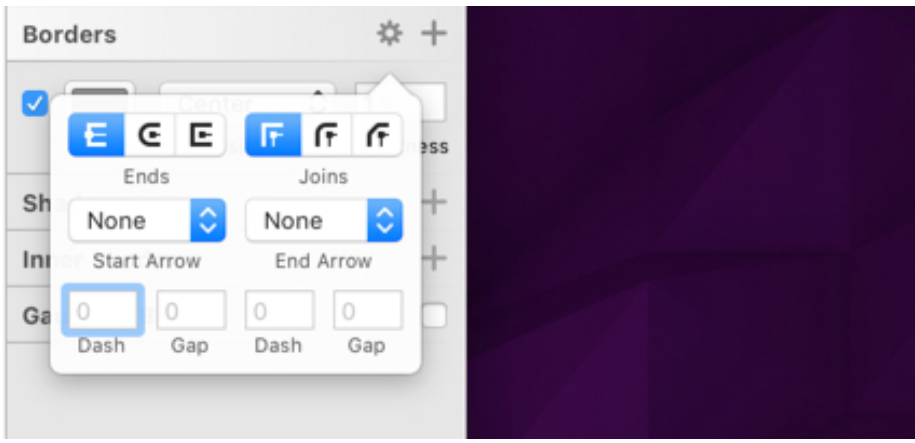
- Solid Fill
- Linear Gradient
- Radial Gradient
- Angular Gradient

Note: You can quickly toggle the visibility of all borders from a layer by pressing the B key.



Border Options

You can add more customization and options to all the borders in a layer by clicking the settings button in the Borders title. A popover will display with additional options…



Ends and Joins

Border ends are visible on line layers, and open paths. Here you have the ability to select whether a line should have a butt cap, round cap, or a projecting cap.

Butt cap: This is the default option that'll draw the border right to the vector point.

Round cap: Creates a rounded, semi-circular end to a path that extends past the vector point.

Projecting cap: Similar to the rounded cap, but with a straight edges.

Joins will be visible on both open and closed paths that have three or more points (to create a corner). They will alter how the corners of a shape should render.

Miter join: This will simply create an angled, or pointy join.
The default setting.

Round join: Creates a rounded corner for the border. The radius is relative to the border thickness.

Bevel join: This will create a chamfered edge on the border corner.

Arrowheads

In addition to choosing the border ends for line layers, you can also select arrowheads for the start, or the end of the path.

You can switch the order in which the appear by choosing **Layer** › **Path** › **Reverse Order** in the menu.

Dashed Lines

At the bottom of the border options popover, there are four text fields for configuring dashed lines.

For example, a dash pattern of 4-2 will draw the stroke for four pixels, put a two pixel gap, draw four more pixels and then so on. A dashed pattern of 5-4-3-2 will draw a stroke of 5 px, a gap of 4 px, then a stroke of 3 px, a gap of 2 px, and then repeat.

Shadows

Both styles Shadow, and Inner Shadow behave in much the same way. Shadow will cast outside of the shape it's applied to, whilst Inner Shadow will render inside the shape.

Multiple shadows can be applied to a shape where their X and Y position, along with blur radius, spread, and color can be defined. You can also adjust a shadow's blend mode inside the color popover too.

Note: When zooming in to levels above 400%, shadows with a blur value applied will seemingly disappear from layers in the Canvas. This is due to a performance optimization to ensure documents using lots of shadows will render quickly. This will have no effect on any exported assets, and they will appear with shadows applied as expected.

Spread

Editing a shadow's spread value will in-effect increase the size of the object casting the shadow. Please note, it isn't possible to adjust the spread of a shadow on a text layer.

Blurs

There are four different blur effects that you can apply to layers in Sketch. You can choose between them by clicking the title section in the Inspector, and choosing from the pop-up menu.

Gaussian Blur: A common blur type that will accurately blur in all directions.

Motion Blur: Blur only in one direction, giving the illusion of motion.

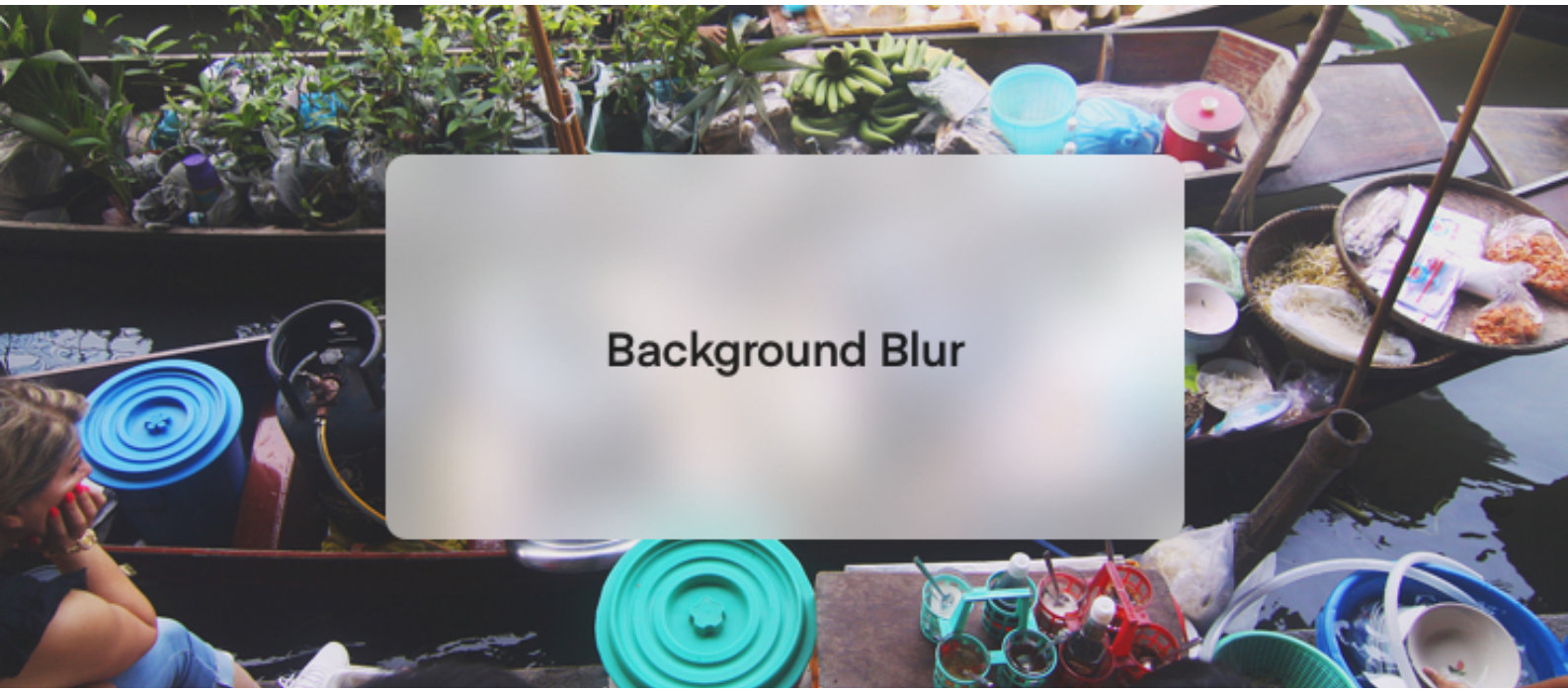
Zoom Blur: Will blur from one particular point out.

Background Blur: This will blur any content that appears behind the layer.

Background Blur

The other blurs that you can apply to layers in Sketch are visible as soon as you select them, but Background Blur requires you to adjust the opacity of your fill(s) in order for the effect to be seen.

This blur type allows you to replicate the blurs visible on overlays and panes on iOS and macOS. Content underneath your shape will appear blurry, and you can adjust the blur radius in the Inspector. Applying a low-opacity fill will allow you to tint the blur.



Performance

Beware that applying many blurs to your document may cause Sketch to slow down, especially when applying Background Blurs on many, or large shapes. The bigger the layer—or the bigger the blur—the more memory and processing power is required to render them, so be sure to try and use them sparingly if possible.

Colors

In Sketch, the color picker is accessible from the Inspector once you have any layer selected. Simply click on the color button for any fill, border, or shadow to reveal the popover.

The large color picker is based on the HSB (Hue, Saturation, Brightness) color model. If you drag the point horizontally, you can make the color more, or less vibrant, whilst dragging vertically will adjust the brightness of the color.

To change the hue, or tone, click-and-drag the slider below the picker. You can always see a preview of the selected color to the right. You can adjust the alpha, or opacity for the color using the slider below.

If you’re working with a set of colors that have already been defined, then to allow more room in the popover you can hide this entire section so you can view more presets in the popover.

Eyedropper

You can use the eyedropper button , to the left of the hue and alpha sliders to sample any color on your display. This is a great way to quickly choose a color from your design or an image in or out of Sketch.

With any layer selected, you can change its solid fill color by pressing Control-C to summon the eyedropper tool, and clicking on any color.

Color Values

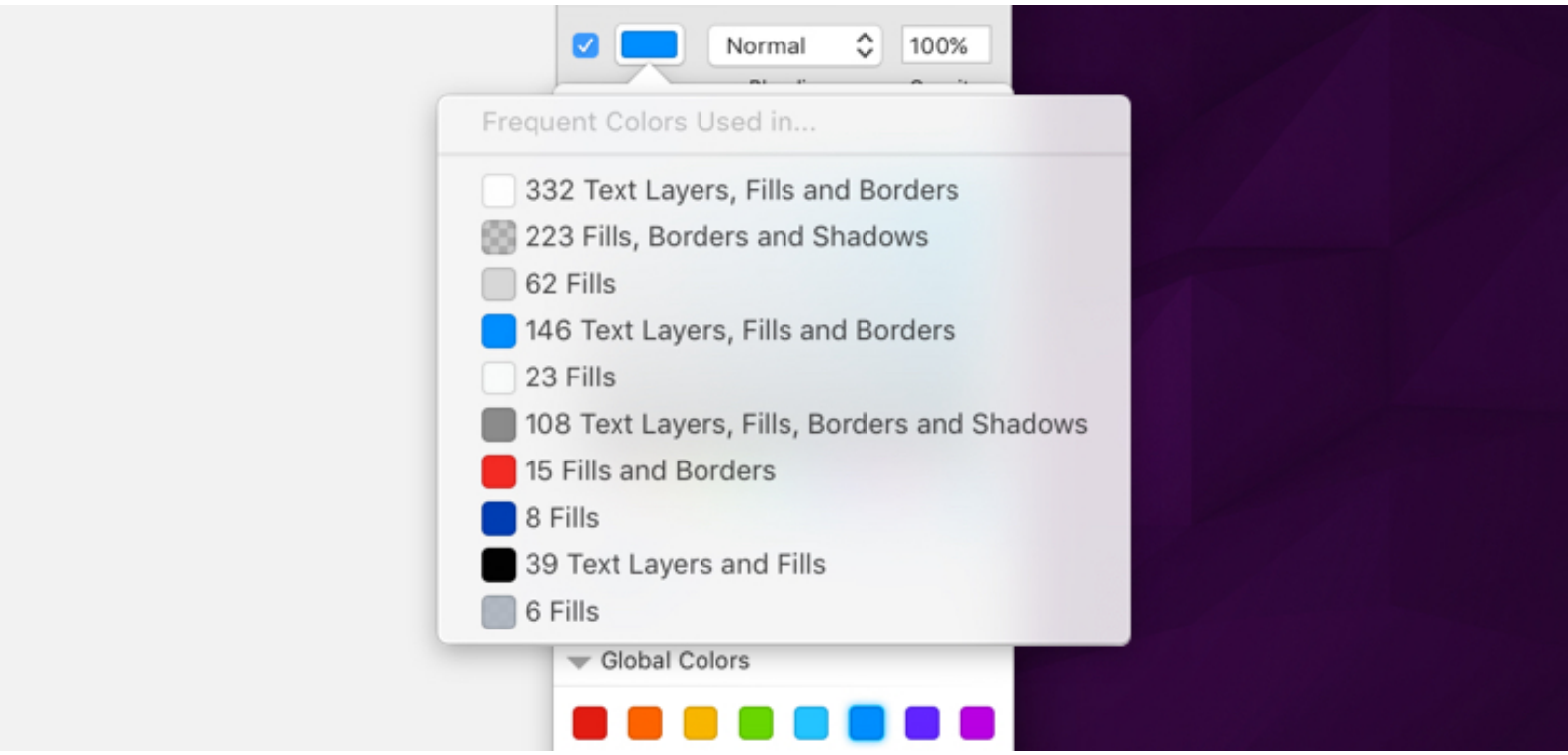
Underneath the controls to pick a color, you will see some text fields that contain the color in values that can be translated to code. The HEX value is its own field, along with RGB and A for alpha.

Note:
you can switch to HSBA color values by clicking on the RGB label.

Frequent Colors

By clicking the color preview well (on the right of the hue and opacity sliders), this will reveal a list of your frequently-used colors for the current document, as well as information about how often they've been used.

This makes it easy to reuse frequent colors without having to create presets from them manually.



Presets

Color, gradient, and image presets in Sketch come in two forms. Global, and Document presets. Global color, gradient, and image presets appear in every Sketch document, whilst Document color, gradient, and image presets only appear in the document they have been saved in.

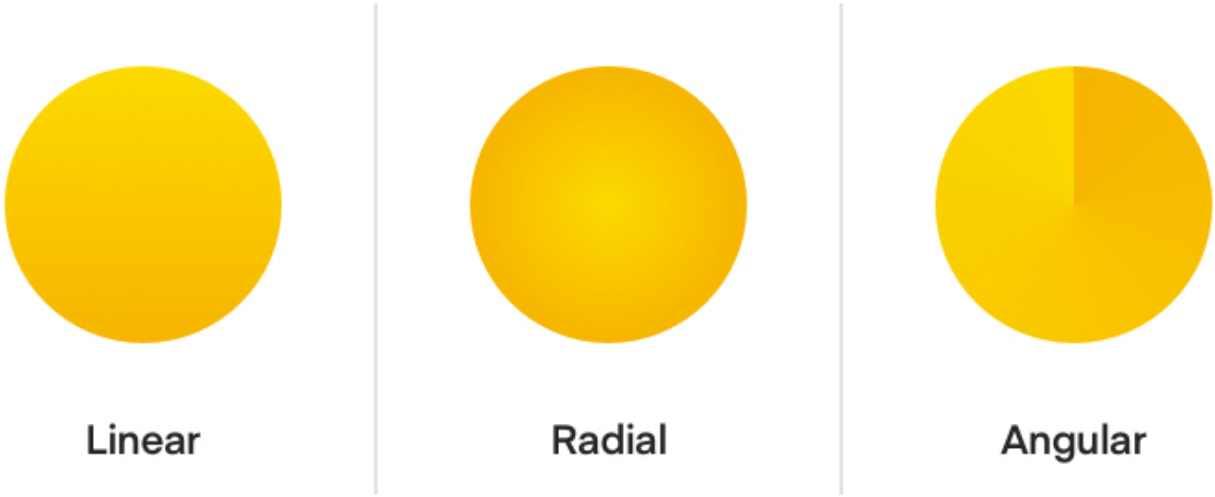
This separation works really well when you’re working on many different projects that may have their own color scheme, whilst you can store your favorite, and important presets so they can be accessed globally. Just click the add button in the respective destination to store the currently selected style. You can click-and-drag to re-order presets and move them between the two sections.

When adding a color preset, the color’s alpha value will be respected.

Gradients

To apply a gradient fill to a layer, click the color button under the Fills section of the Inspector, and choose one of the gradient buttons at the top of the popover.

The three gradient choices available to you are linear, radial, and angular but they work in much the same way.



Linear Gradients

Linear gradients tend to be the most common, where two colors will appear at opposite points of an object and will blend, or transition into each other.

Each of these colors are represented by a stop , any of which you can click on to adjust the color via the color picker. Updating one of these color stops will immediately update the gradient on the Canvas.

You can insert as many different colors to your gradient as you like. To do this, click on the line that appears between two existing stops on the Canvas to add another and adjust the color. You can click-and-drag any

of the stops to adjust their position, or to change the direction of the gradient.

To remove a color from a gradient, select it in the Canvas and press the Delete or Backspace key on the keyboard.

Radial Gradients

A radial gradient will create an effect where the transition between color stops will be in a circular pattern. By clicking-and-dragging the stop in the center of the effect, you can place where you want your gradient to begin, and by adjusting the opposite stop, you can change the distance where the effect will end.

The third point that appears on the circumference and isn't connected to the center will change the shape of the radial gradient into an oval.

Angular Gradients

This effect allows you to create gradients that sweep around the circumference (measured by the maximum width or height of a layer) in a clockwise direction.

Any color stop can be moved by dragging, and you can add and remove stops as you could with any other gradient.

Gradient Bar

You can also edit gradients in the color popover as well as editing in Canvas. Below the buttons for changing the fill type is a gradient bar, above the color picker.

You can click to select any of the points here, drag to move them, double-click to add a new point, and press the Backspace key to remove one when selected.

Shortcuts

With Sketch, you can finely adjust your gradients with a couple of handy keyboard shortcuts. You can press the 1-9 keys on when a stop (that isn't the start or end) is selected to position it on the relative percentage of the gradient. So pressing 4 on a third stop, will place it at 40% along the line.

If you want to position a stop exactly between two existing stops, press the = key on the keyboard.

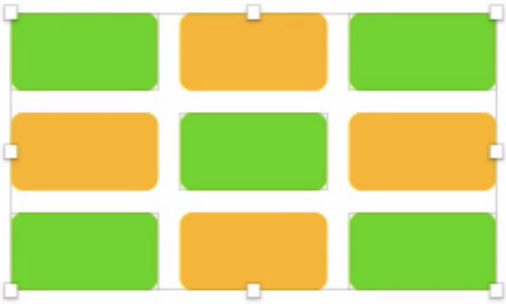
You can also use the Tab key to quickly switch between color stops, and you can use the arrow keys to adjust the position of a stop incrementally. Holding down the Shift key will amplify the movement.

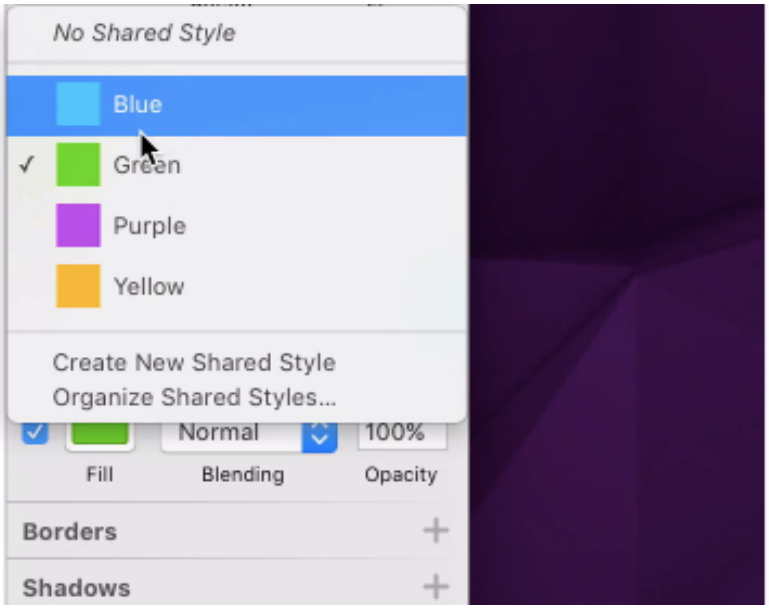
Shared Layer Styles

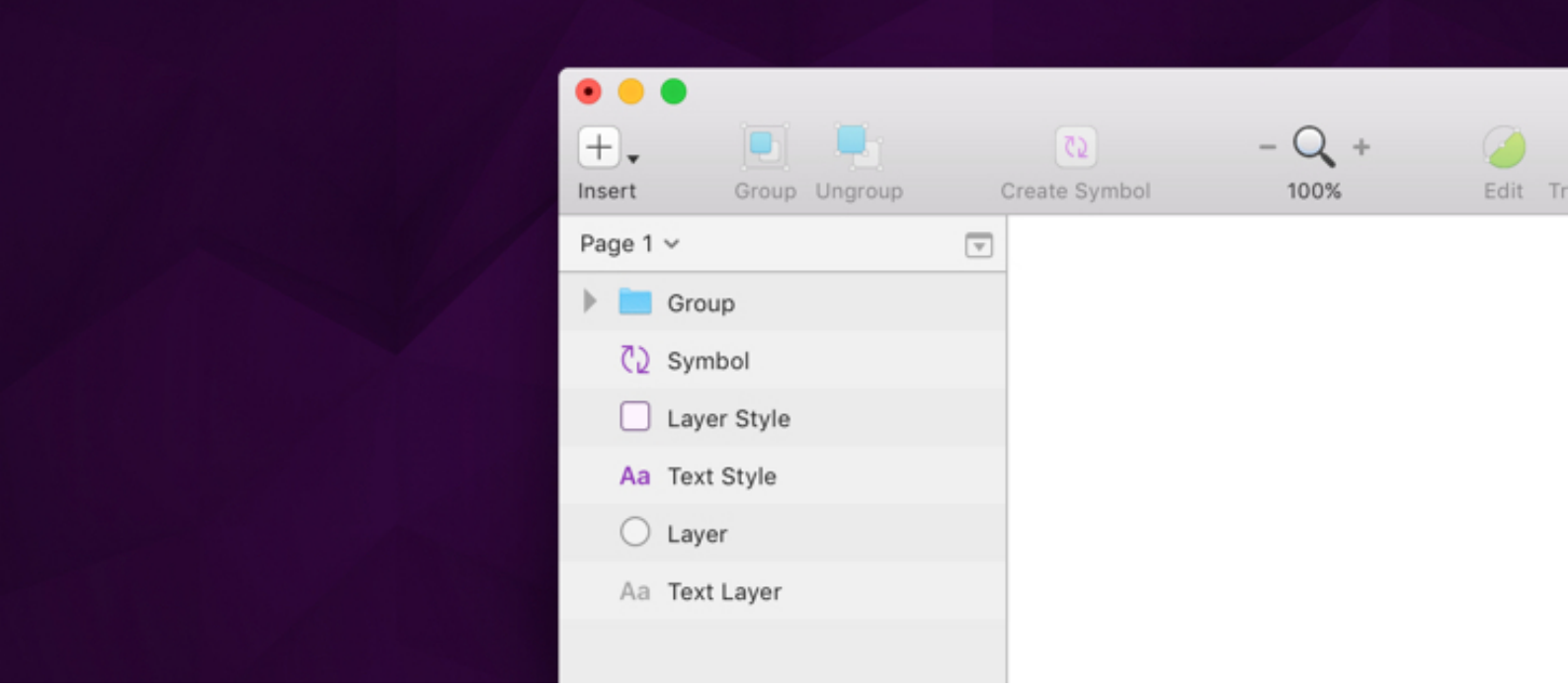
Shared Styles are located in the the white box between the general layer, and style properties in the Inspector.

You can create a new style by selecting a shape and clicking **Create New Shared Style** from the pop-up menu in this location. You can create as many styles as you want and you can switch between existing styles using this panel as well.

Shared Text and Layer Styles use a manual sync, which allows you to have more control over your document. There is also the ability to reset changes made to an unsynced style too by holding the Alt key and clicking the revert button.







Symbols

Symbols is a powerful feature in Sketch that allows you to reuse elements easily across your document's Artboards and Pages, or even multiple documents.

A Symbol is made up of two parts: a "master", which takes the appearance of an Artboard—and an "instance", which is a flattened representation of the master.

As you **create a Symbol**, you can automatically send the Symbol Artboard, or master to a separate page. When you make a change to a Symbol's master, the changes are applied to all Artboards and Pages in your document. In addition, each instance of a Symbol can be customized with **overrides**. In the video below, we've created a quick tutorial on how you can use Symbols to save time and improve your workflow.

A Symbol instance is a single layer that mirrors the content from its master. In the Layer List it is displayed with a purple icon with syncing arrows . A common example of a Symbol is an element that is re-used throughout your design such as buttons, or a cell in a table view.

Not only that, Symbol instances can be individually resized, and you can apply **resizing constraints** to layers inside the Symbol to determine how they should behave when resizing.

Symbols and Other Documents

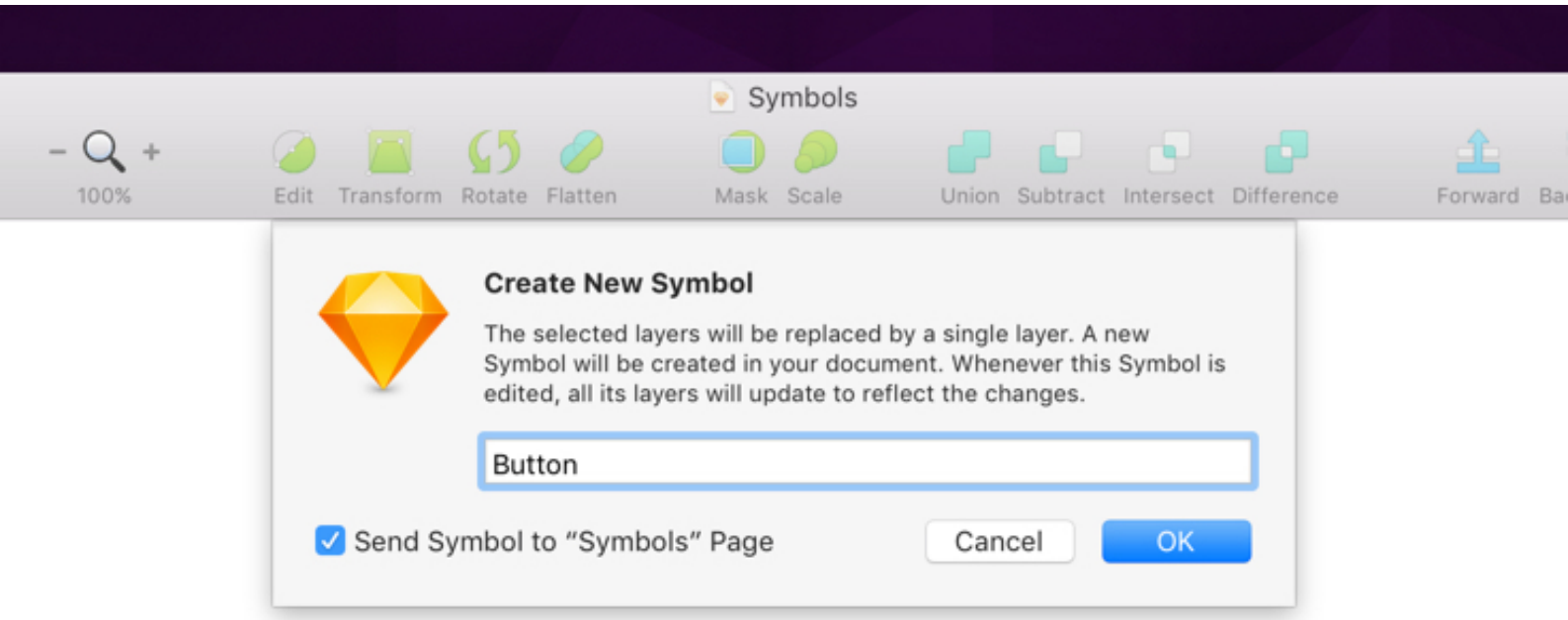
As mentioned, these Symbols can be used across multiple documents under the guise of our **Libraries** feature. However, take a couple of moments to get to grips with how Symbols work before skipping over to the next section.

Creating Symbols

To create a Symbol, select a group, Artboard, or a selection of layers and click the **Create Symbol** item in the toolbar, or choose **Layer › Create Symbol** in the menu.

A dialog will appear allowing you to name your Symbol, and give you the option to send the Symbol's "master" to a different page. After you've created the Symbol you'll see the contents have been flattened to a single layer, called an "instance" in the Layer List.

If you leave the checkbox unselected, then the Symbol's master will be placed on the page you're on, and an instance will take its place.



This dialog will appear when you create a Symbol, allowing you to send the master to a different page.

Now you can choose **Insert › Symbol** from the pop-up menu, and insert a new instance of your Symbol into the Canvas. Likewise, you can copy

and paste or duplicate an existing instance of a Symbol and Sketch will link them together as well.

To create a **nested Symbol**, just place a Symbol's instance inside another Symbol's master.

If you want to convert a Symbol master back into a regular Artboard, select the Symbol Artboard in the Layer List, and choose **Layer › Create Symbol** from the menu. This will change this Symbol's instances into groups, and any edits made to it will no longer update between copies.

Detaching Symbol instances can be done the same way, by choosing **Layer › Detach from Symbol** from the menu, or shortcut menu when Control-clicked.

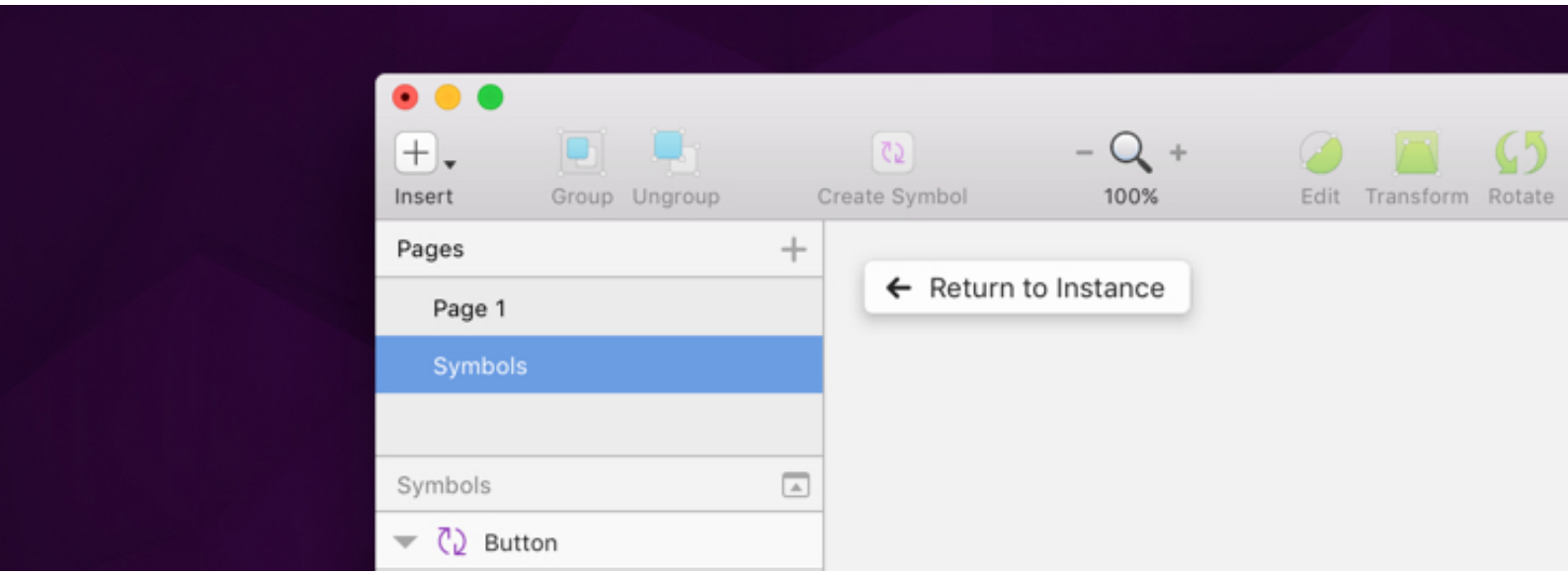
Editing Symbols

There are two ways you can edit a Symbol. You can edit the contents in the Symbol's master, or you can edit individual instances with overrides.

Editing the Master

To edit a Symbol's contents, you can double-click on an instance and it will take you to straight to the master no matter its page or location in your document. If you've placed your master on the Symbols page, you can navigate to it manually via the page picker in the Layer List and edit its contents inside the Artboard.

Any edits you make to the Symbol's master are immediately reflected throughout all the instances in your document. After you've made the desired changes, click on **Return to Instance** to view them.



When working with complex documents with repeating elements, Symbols can save you a lot of time. For example, when a Symbol contains a text layer, you can make changes to the text layer's

properties in the Symbol's master. Or you can only update individual instances through overrides in the Inspector. We'll review how you can do that in the section below.

Overrides

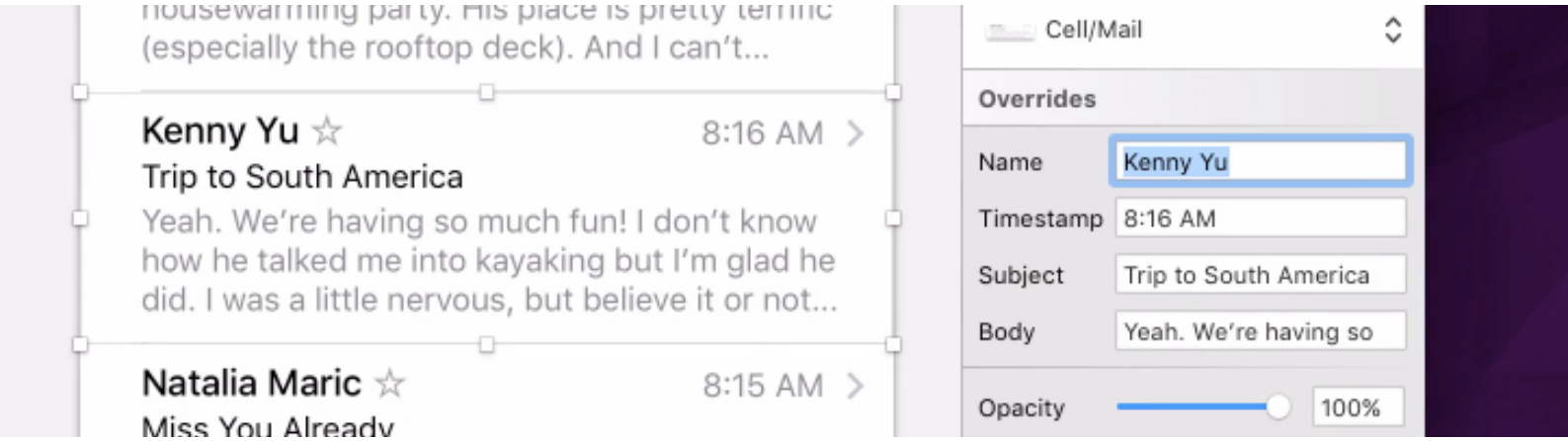
When you select a Symbol instance that contains text or image layers in the Canvas, you will notice the **Overrides** section in the Inspector. In the Overrides section you can override nested Symbols, the contents of any text layers, images and image fills, as well as the opacity and blend mode for that instance. Overrides allows you to update each instance independently with unique content. If there are no overrides present, you will see the default values from the Symbol's master.

See the video for a quick tutorial.

To apply image overrides, all you need to have is either a bitmap layer, or an object with an image fill in the master. With the instance selected, you can click the Choose Image button in the Inspector or drag an image from outside Sketch into the image preview. This is a great way to update instances that require the same design but may feature different content.

When you update a text override, its total length may change. As a result, Sketch will automatically move any trailing layers on left or right aligned text, and respect the distance between it and the end of the text layer so you can fully take advantages of Symbols and overrides, no matter your design.

To prevent a trailing layer's position to update when editing a text override, simply lock the layer by Control-clicking it, and choosing "Lock Layer" from the shortcut menu.



All three overridable layer types; nested Symbols, text, and images can be prevented from appearing in the override section of the Inspector by locking the respective layers.

Editing Library Symbols

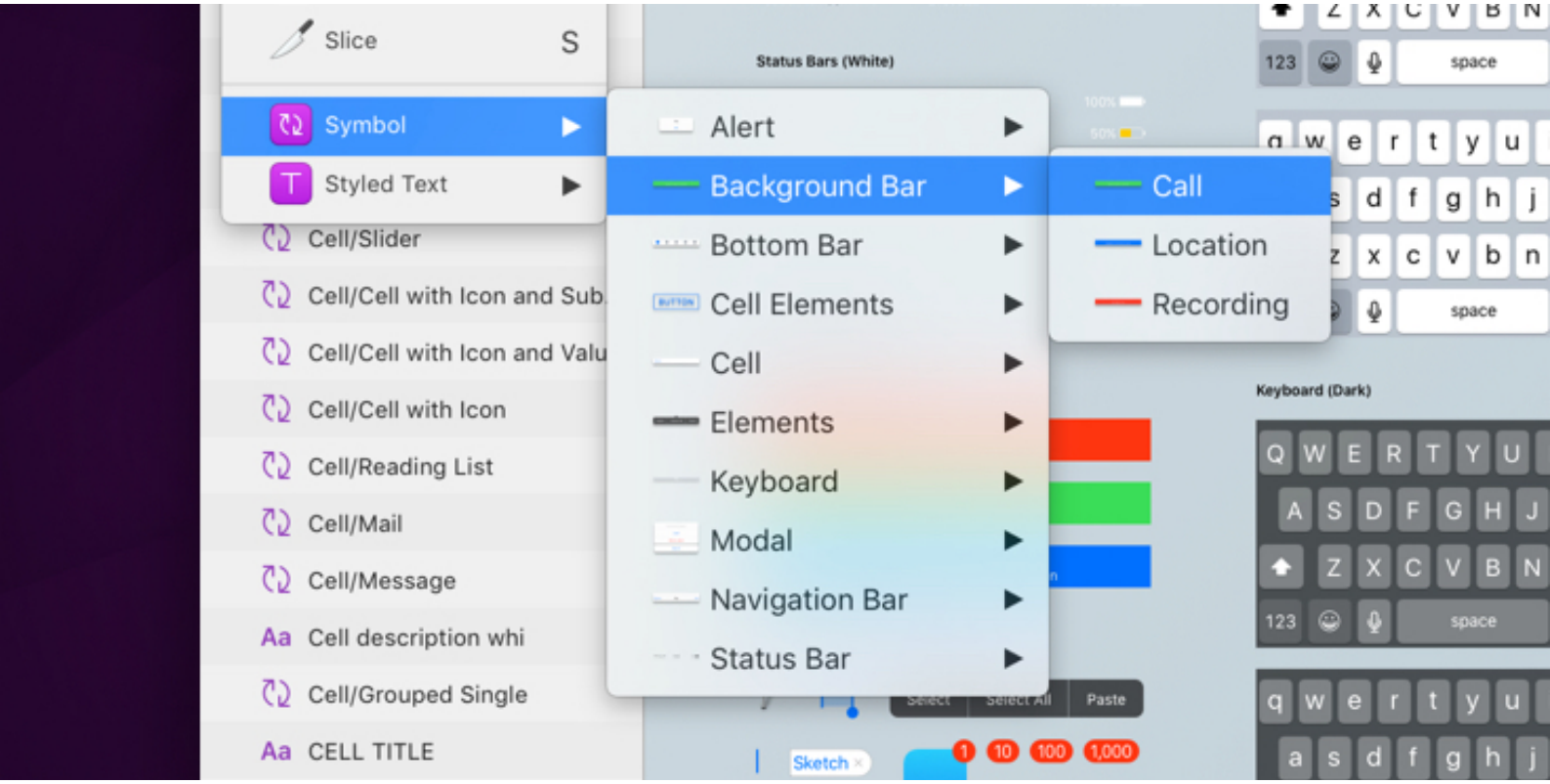
If you're wanting to learn more about how to edit a Symbol that belongs to a Library, then please refer to the **Library Symbols** chapter.

Organizing Symbols

When working with complex documents, sending Symbol masters to the **Symbols Page** provides you with an overview and helps you stay organized.

In addition, if you choose **Insert** › **Symbol**, you will see a pop-up menu containing the Symbols in your document in an alphabetical order.

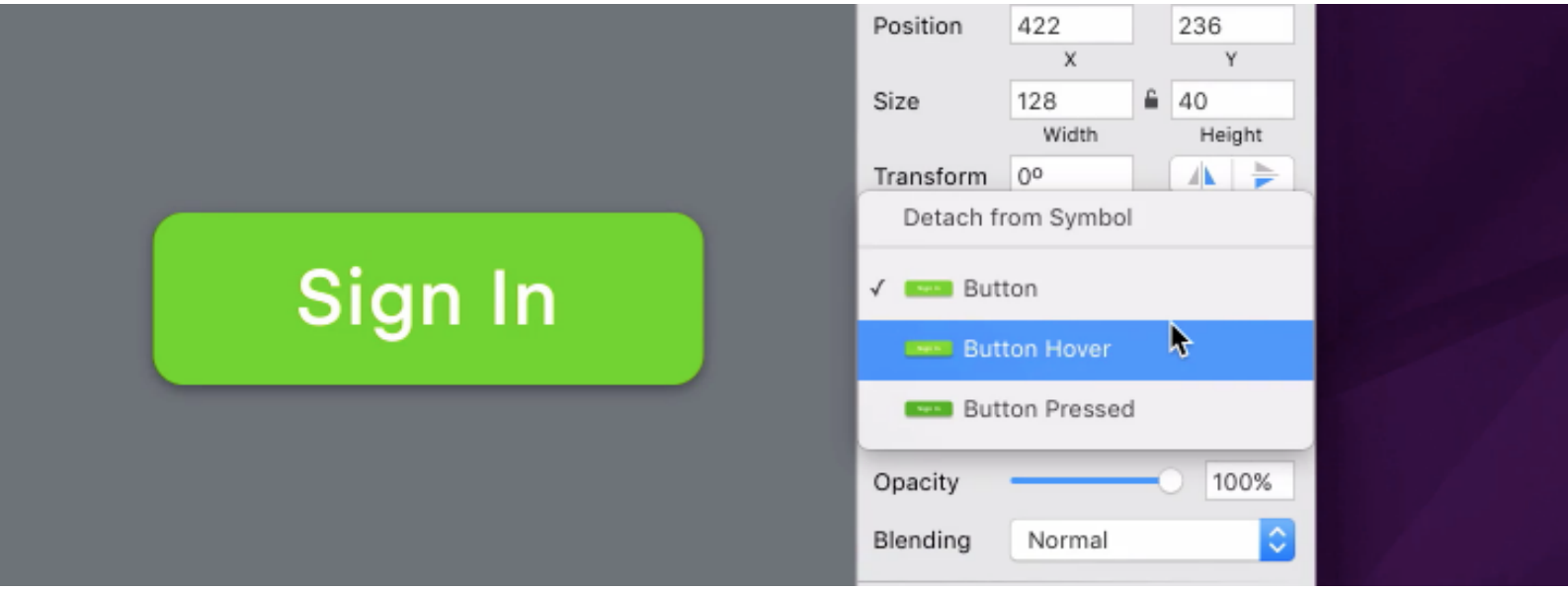
If you include a slash (/) in your Symbol's name, Sketch will treat these as group separators. For example, two Symbols named *Button/Normal* and *Button/Pressed* will be grouped together into a submenu called *Button*.



Symbols, as viewed when organized into groups.

Swapping Symbols

You can swap Symbols using the pop-up menu in the Inspector. In the example of a *pressed* button and a *normal* button, you can see you can swap between the two with an ease. You can then use **overrides** to customize each instance.



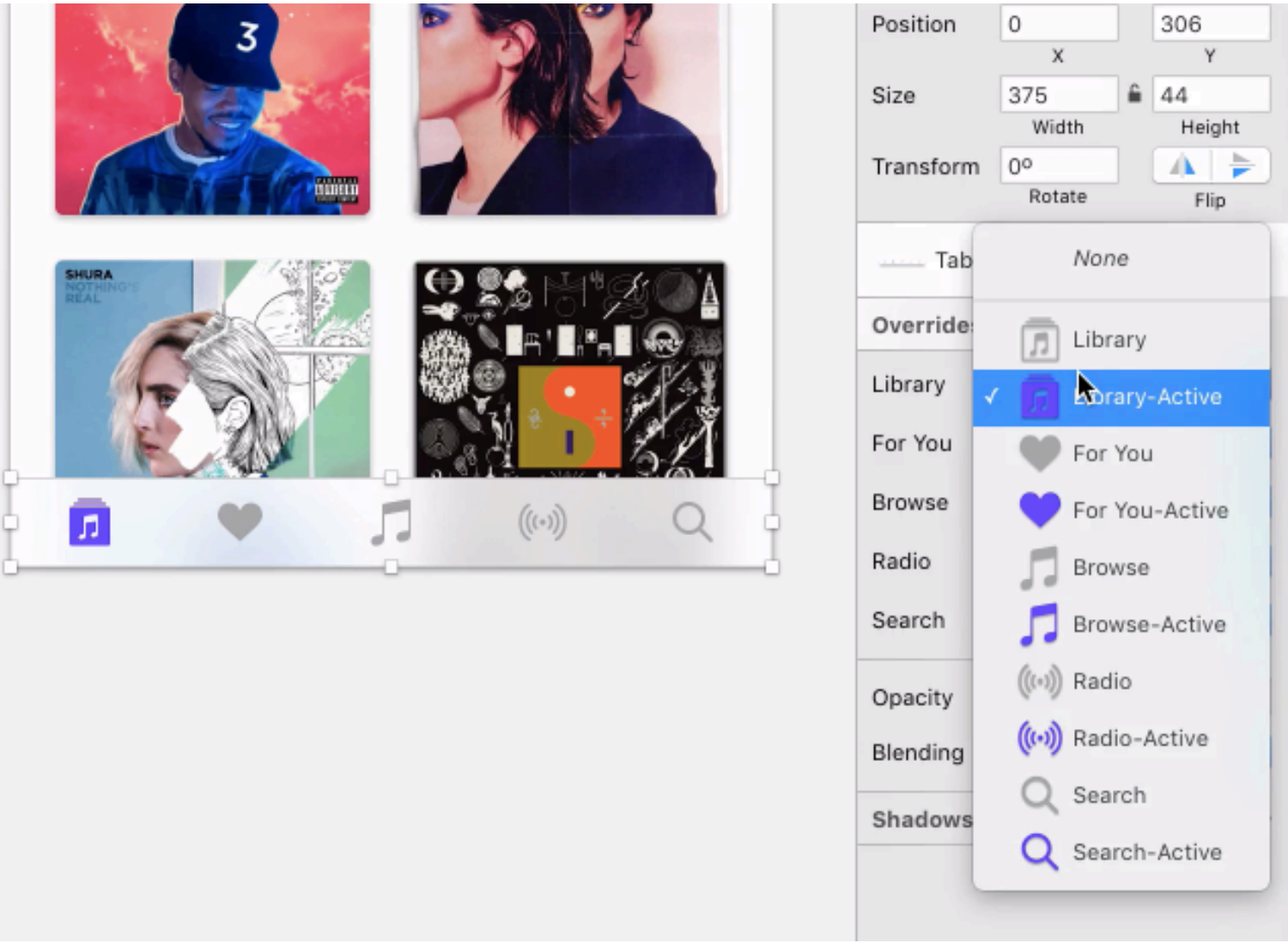
Aside from that, any layer can be swapped with a Symbol. Control-click the layer you want to replace, and choose your Symbol via the **Replace With** option in the contextual menu.

Nested Symbols

Harness the power of Symbols, by nesting them.

To create a nested Symbol, place an instance layer inside any other Symbol's master Artboard. Any updates you make to the Symbol's master will see the changes propagate throughout your design no matter if they're inside another Symbol or not. As well as placing an instance into a master, and inserting via the toolbar item, you can also select multiple instances of different Symbols and press **Create Symbol** in the toolbar.

There's no limit to how deep you can nest Symbols, but please note a Symbol cannot contain an instance of itself.



Nested Overrides

As mentioned in the **Editing Symbols** chapter, nested Symbols can also be overridden, along with images and text in a Symbol's instance. Overriding a nested Symbol will allow you to swap out any Symbols contained in an instance – with any other Symbol that is the same size. Say you had a Symbol of a toolbar that contains a Symbol of an icon. With the overrides, you could swap out the icon Symbol, with a Symbol of another icon – or nothing at all. These nested overrides mean that you can have fewer Symbols that are similar, and have more power and control over individual instances.

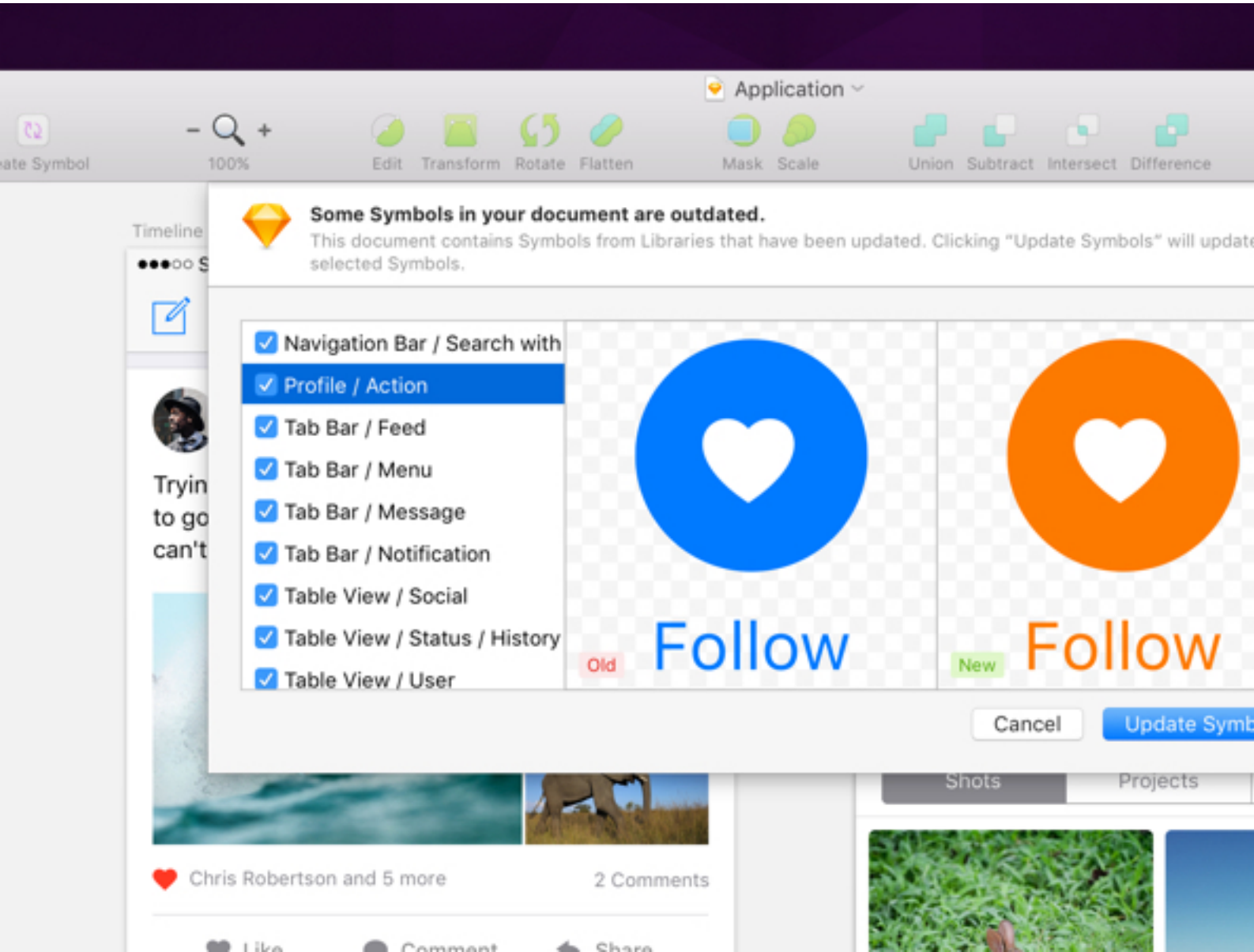
If you are using a nested Symbol in your document, and you don't want to allow it to be overridden, just lock that layer from the Layer List or shortcut menu.

Libraries

The best design happens when designers collaborate together. With Libraries, designers can now share Symbols across documents and have them update to be always kept in sync.

A Library is just an ordinary Sketch document that contains **Symbols** which you can then use in any other Sketch document.

If you **update any of those Symbols** in your Library file, documents containing instances of those Symbols will receive a notification telling you that they can be updated. Here you can preview, check, and confirm changes — and by doing so, you can always ensure your documents are using the up-to-date copies of those components.



If you're working as part of a team with other designers, Sketch's Libraries have got you covered. Simply place your document somewhere where your colleagues have read-access such as a Dropbox folder, or repository in GitHub, etc, have them add the document to their Libraries in Preferences, and they will have quick and easy access to those Symbols. All whilst still being able to receive any updates made to the file.

Are Libraries for Me?

Whether you design alone, or as part of a team — we've built Libraries with everybody in mind. Individual designers will see benefit by being able to quickly insert Symbols of their commonly used components straight from the Insert menu. We've already added our "iOS UI Design" template as a Library so you can start with these building blocks for your next design. Add an already-existing document as a Library, or create a new one so you can use its Symbols in all your new documents going forward. By doing so, you can effortlessly update them with any changes that you make.

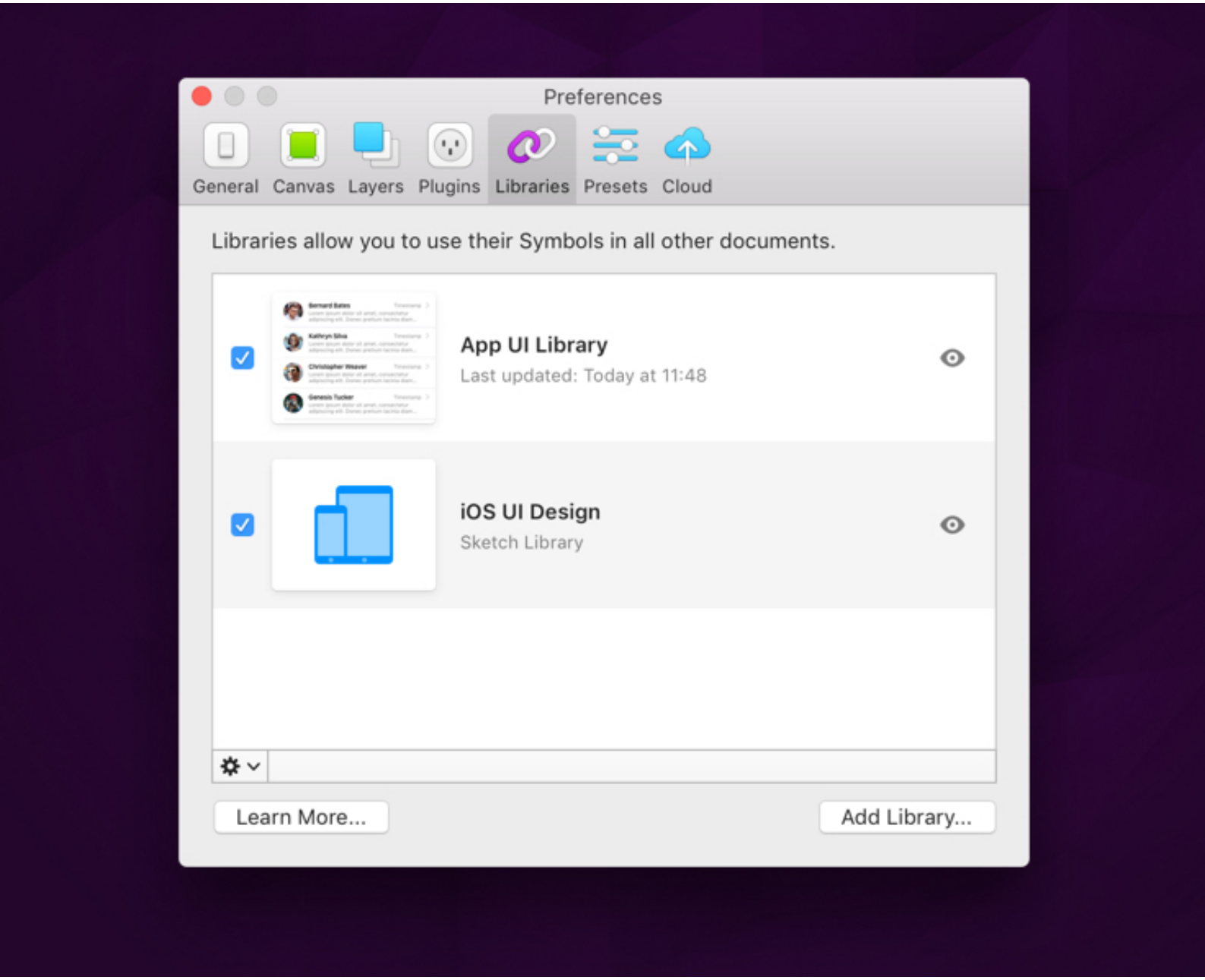
Designers in teams can take full advantage of a Library's ability to make sure they're using the most up-to-date versions of icons, or the latest branding from the company's style guide. With the Library document safely separated, updates to Symbols can only be made here so you don't inadvertently make any edits in your design that will embarrassingly appear across all your colleague's documents!

If another team member makes a change to the Library's Symbols, you'll get the opportunity to review the change and make sure all is as it should be before accepting the update to your own document.

Adding Libraries

To add a Library, all you need is a Sketch document that contains some **Symbols** — and that's it!

Once you have your document set up with the Symbols that you want to use throughout multiple documents, you need to tell Sketch that you would like to use that document as a Library. To do this, open Sketch's Preferences (Cmd + ,), and navigate to the Libraries tab.



Here you will see that there's already a document set up as a Library — Sketch's iOS UI Design template. You can click on the checkbox in the list to enable or disable its Symbols from appearing in the Insert menu. You can get a better look at a Library by previewing it, just click the Quick Look icon that appears on the right-side of the list.

To add your document as a Library, click on the "Add Library…" button that appears on the bottom right of the preference window, and choose your document from your files. You will now be able to insert its Symbols in any other document!

At the bottom of the Library list, click the cog icon to reveal a menu where you can choose to disable, open, or remove a Library. There's no limit to the number of Libraries you can have, and each Library's Symbols will be neatly separated in the Symbols menu.

External Libraries

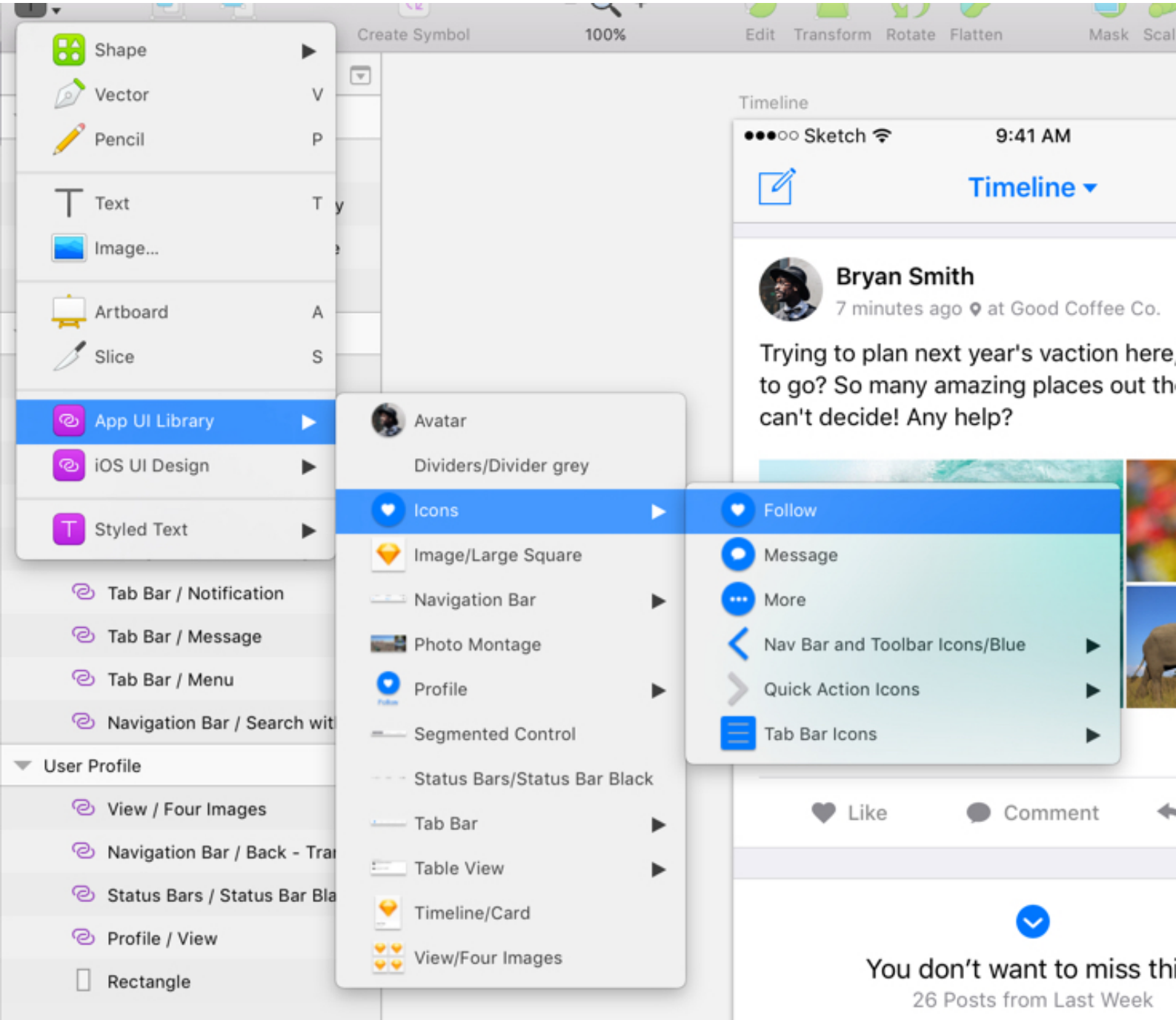
If you're wanting to share Symbols from your Sketch document with friends or colleagues via Libraries, then that's entirely possible. Instead of storing the document you would like to use as a Library on your computer — add it to either a local server, cloud service, or version control system where you know it can be accessed.

For example, if you're storing a document you would like to use as a Library on Dropbox, just navigate to that location when you're adding it to your Library list. If your friends and colleagues go to that same document on their Dropbox folder — they'll then have access to the same Library as you, meaning they will be able to receive changes when the document is updated.

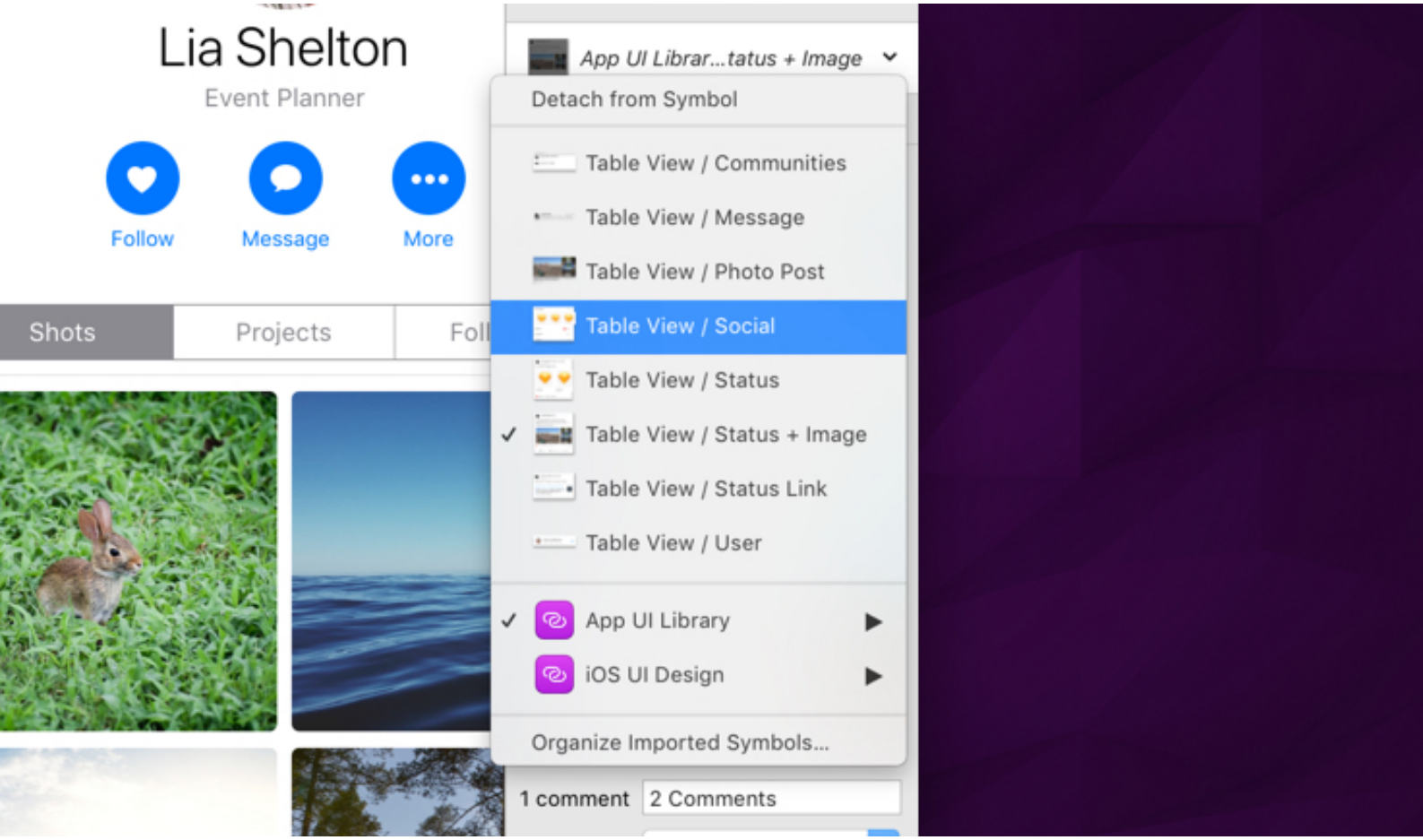
Library Symbols

With a Library added, you'll now want to start using its Symbols in your documents. A Library's Symbols can be inserted the exact same way as a regular (local) Symbol. Choose **Insert** › **Symbol** from the pop-up menu, and insert an instance of your Symbol from its Library into the Canvas.

A Symbol from a Library is still a Symbol, but with a few little differences. You can see in the Layer List that it has its own icon to make imported Library Symbols easily distinguishable from local Symbols.

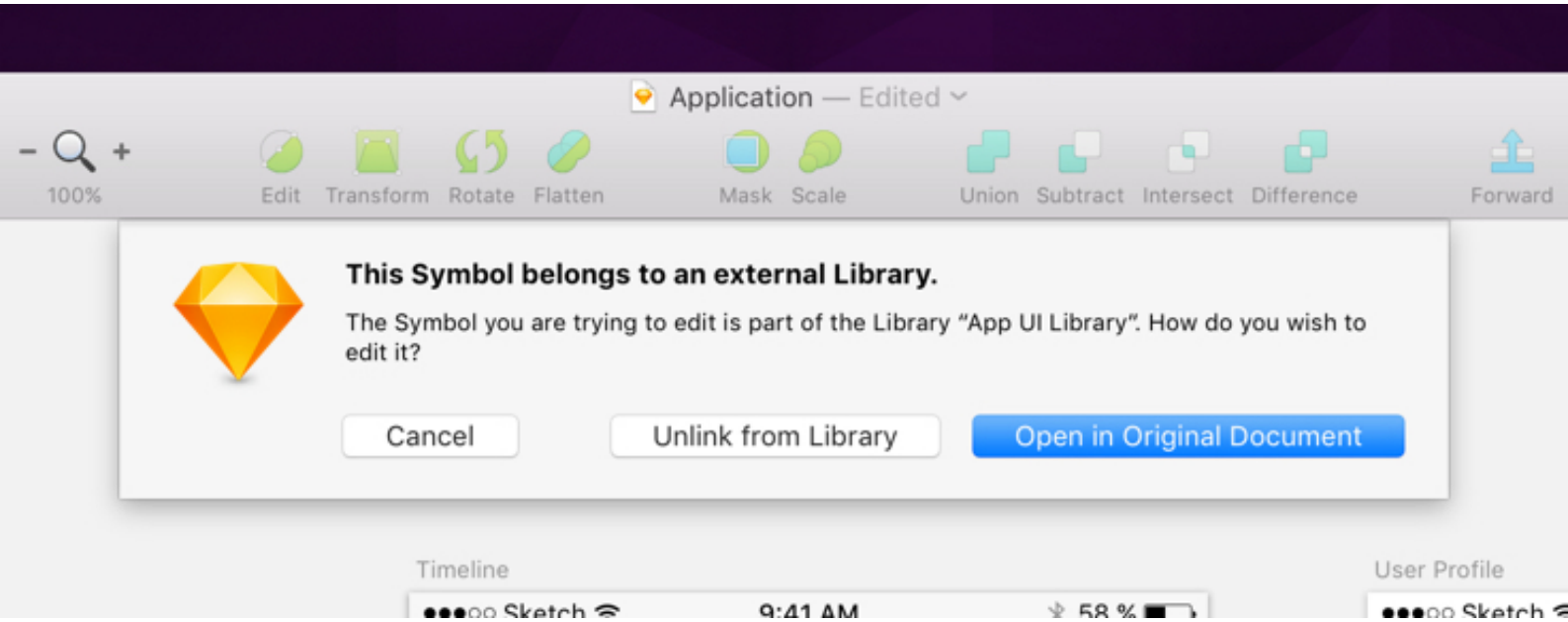


With a Library set up — along with inserting its Symbols into a document, you can also swap a Symbol with one from a Library via the Inspector. Just click the Symbol's name, and choose a Symbol from a Library in the pop-up menu.



Editing Library Symbols

If you try to edit a Library Symbol by double-clicking it, a dialog will appear telling you that the Symbol belongs to an external Library, and asks what you would like to do:



Opening the Symbol in its original document will allow you to edit it, as this is where the Symbol's master lives. Making changes here will mean all instances of the Symbol — across any documents it may be used will update if those changes are accepted.

Warning: If you're using a Library document as part of a team, take extra caution when choosing to edit a Symbol in its original document. Senior and/or production designers may want to restrict access for some users so that the file is *read-only* (please check the docs of your favorite syncing tool to see how to do this). Changes made to a Library Symbol can be received by all users of that Library once the document is saved. You can find out more about this in the Library Updates page.

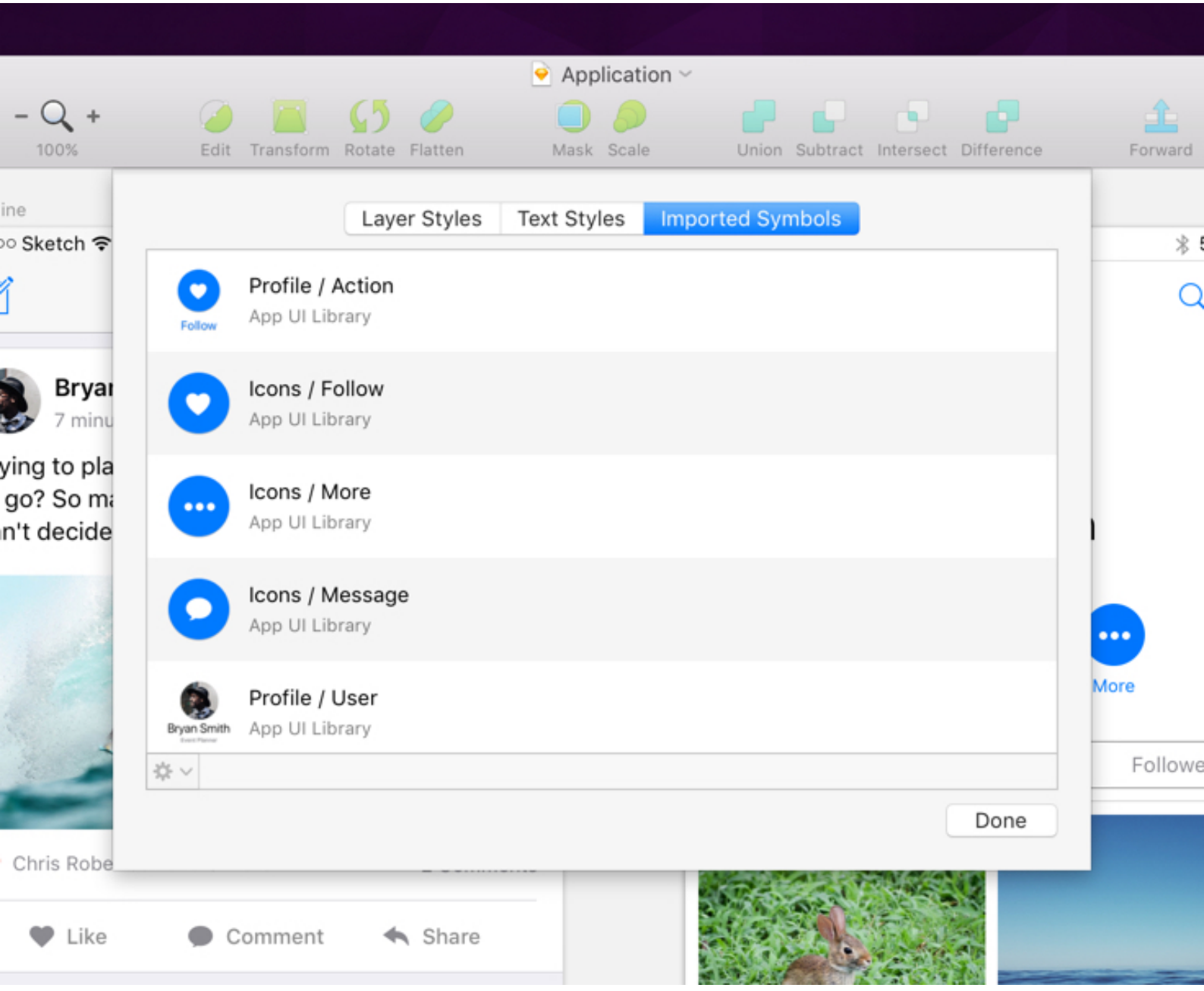
Detaching Symbols from Libraries

If you wish to edit a Symbol imported from a Library without that change being applied to other documents using the same Symbol, you may wish to unlink the Symbol. This converts the Symbol to a local Symbol, so it can be edited in your own document. Unlinking a Symbol from its Library will add the Symbol's master to the "Symbols" page in your document.

Note: If you unlink a Symbol from a Library, you will no longer be able to receive any changes made to the Symbol in the Library document. Other documents using the imported Library Symbol will continue to receive updates so long as the Symbol is not unlinked in those files too.

Organizing Imported Symbols

You can keep track of all the external Symbols you're using in your document, no matter what Library it came from. In the Inspector, click on the Symbol's name, and choose **Organize Imported Symbols…** from the pop-up menu.



A list of all the Library Symbols will appear in a dialog where they can be reviewed. With an item selected, you can choose to either edit a Symbol in its Library, or unlink it.

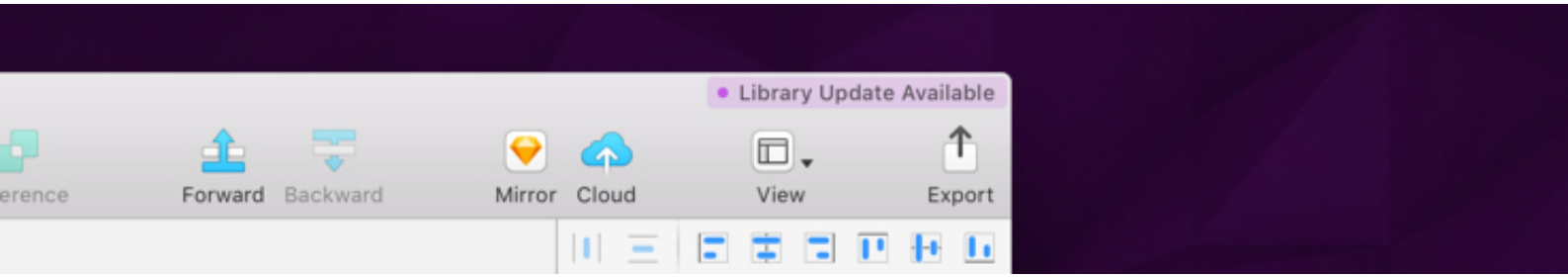
Library Updates

Not only do Libraries allow easy access to Symbols across documents, but those Symbols can be updated from the Library so your designs are always up-to-date.

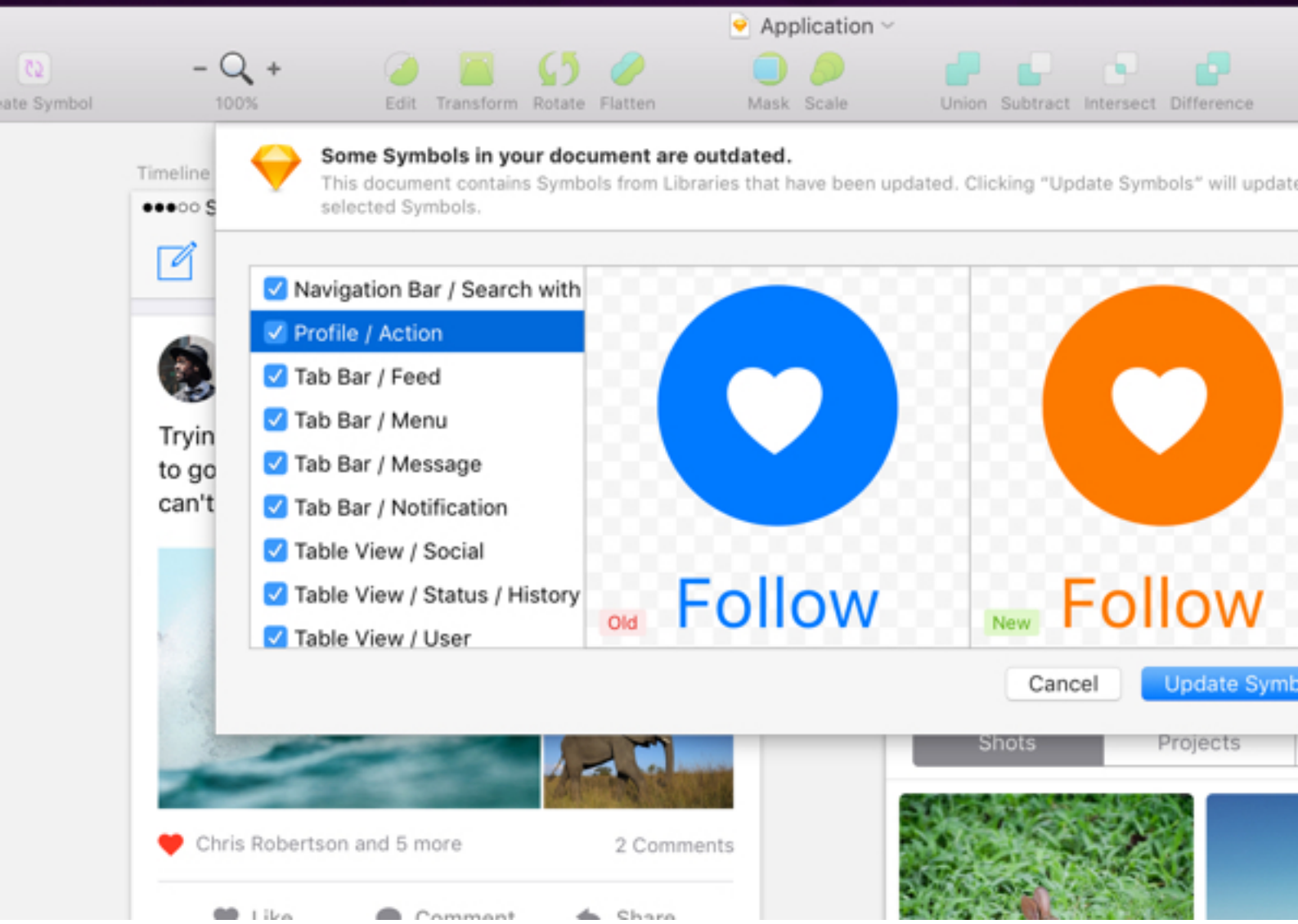
Accepting Changes

In the previous page we talked about editing Symbols that belong to a Library, but when you return to your document after making changes to your Symbols, you can choose to accept those changes onto your document — or not.

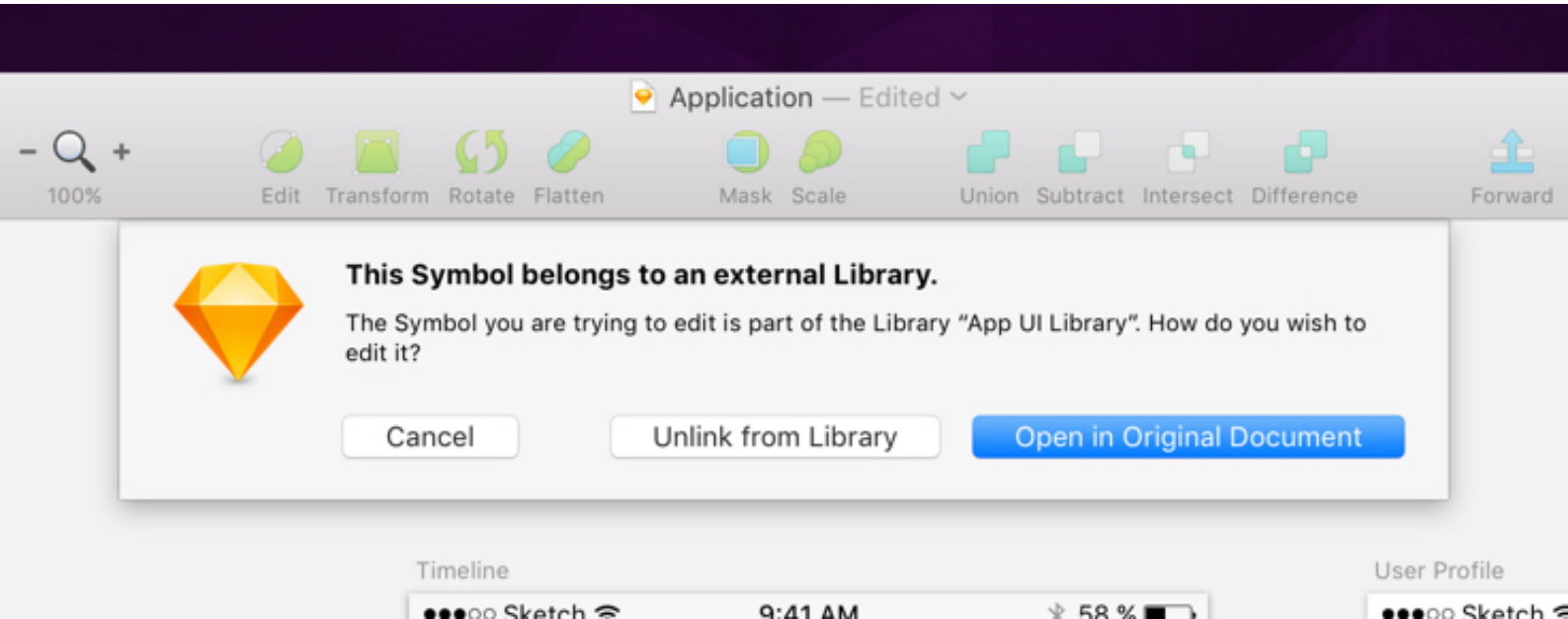
After editing a Library Symbol and returning to your document, you will now see a purple **Library Update Available** badge on the top-right corner of the application window. If you click this, a dialog will appear letting you know that some Symbols in your document are outdated.



Here you will see a list of Library Symbols that are waiting to be updated, along with a handy “Old” and “New” preview so you can view the changes that have been made. If there’s a change that you’re not sure about or want to come back to later, click the checkbox to deselect it.



Any Symbols who have a selected checkbox next to their name will update when you click “Update Symbols”. This will make changes to all instances of a Symbol across all Pages of your document.

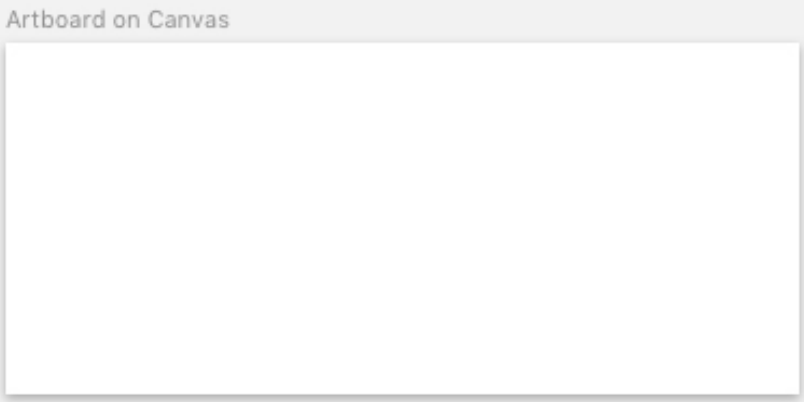


If you see a change in the dialog that you definitely do not want to make, then double-click an instance of it on the Canvas, and click “Unlink from Library”. This will turn the Library Symbol into a ‘local’ Symbol visible on your “Symbols” page.

Canvas

Sketch's canvas is infinite in size. You can view the canvas both in a resolution-independent view where you have infinite precision, or you can turn on **Pixel Preview** and you will know exactly how every pixel will look on export.

If you'd like to define a fixed frame inside the infinite canvas, simply create an Artboard using the Artboard tool.



Navigating

Navigating around the canvas is easy. You can use the scroll-wheel on your mouse or the trackpad on your MacBook to scroll in either direction. You can also hold down the spacebar and click and drag to pan around as well.

Lastly, if no object is selected you can use the arrow keys to pan the canvas as well.

Note that Page Up / Page Down switches between Pages.

Zooming

It's likely that you will want to zoom in to your document in order to see it in more detail. Or perhaps zoom out, to see the entire Canvas. This is something that is quite important, so there are many ways to zoom in Sketch.

You can simply zoom by pressing on the plus and minus buttons next to the Zoom item in the toolbar. The zoom level will multiply as you zoom in, and divide as you zoom out. The maximum zoom level is 256,000%, and minimum is 1%.

You can also click on the icon, or hold down the Z key on your keyboard to enable the tool. Click to zoom in, or hold the Alt key-and-click to zoom out. With the Zoom tool selected, you can also click-and-drag anywhere on the Canvas to zoom the viewport into that area.

Holding down the Command key and using the scroll wheel on your mouse is also another way to zoom in and out as well.

Below are some more handy **shortcuts** for the Zoom tool:

Cmd + **=** Zoom in

Cmd + - Zoom out

Cmd + 0 Zoom to 100%

Cmd + 1 Zoom to all elements on Canvas

Cmd + 2 Zoom to selected layer(s)

Cmd + 3 Center selected layer(s) in the Canvas

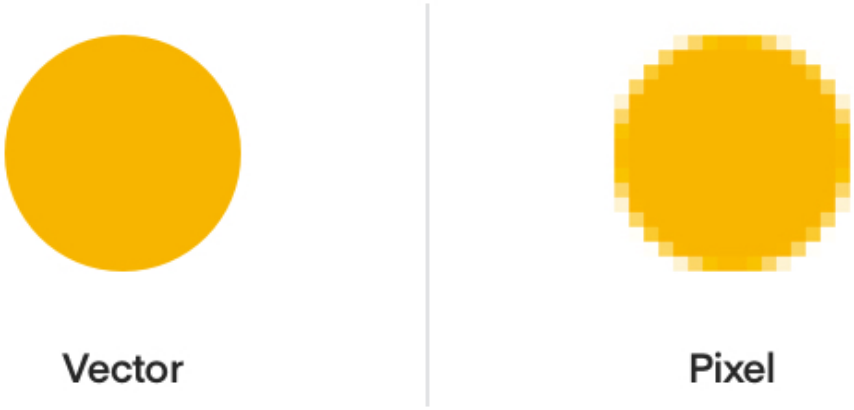
Pixel Zoom

You can view your design in Sketch in two modes: vector and pixel. Which way you prefer will depend on the kind of work you do.

These modes can be toggled anytime; choose **View** › **Canvas** › **Show Pixels on Zoom** in the menu, (or press Ctrl + P). You can also customize your **toolbar** to include Show Pixels as an item.

Note: When Show Pixels is enabled, you need to zoom in past 100% in order to see the effect.

Previewing designs with pixel zoom is a great way for previewing what you may want to export. Ideal for creating icons as you can make sure shape's bounds are sitting on full pixel values.



View Pixel Grid

The Pixel Grid allows you to differentiate individual, fuzzy pixels in low contrast that would otherwise go unseen. To enable the Pixel Grid, choose **View** › **Canvas** › **Show Pixel Grid on Zoom** (or press Control-X). When combined with Show Pixels, any edges that do not align with the pixel grid will be visible when you zoom in past 600%.

Learn more about producing pixel perfect designs in **Pixel Precision**.

Rulers, Guides, and Grids

These features in Sketch will help you position layers exactly where you want them, by measuring distances between other layers, and aligning to a particular grid or layout.

Note: Rulers, guides, and grids are not part of your design, and won't appear on exported images. They only appear as an overlay on your Canvas.

Rulers

Sketch enables you to display rulers that allow you to visualize coordinates on the Canvas. Rulers are hidden by default, but you can enable them via the menu. Choose **View › Canvas › Show Rulers** (or press Ctrl + R)

Because of Sketch's infinite Canvas, rulers are not fixed; you can click-and-drag a ruler around to define your own zero origin. If you need to reset the ruler origin, just double-click the ruler intersection area.

Guides

You can click anywhere on the ruler to add a guide, and they'll stay visible whenever the ruler is enabled. Once a guide has been added, any layer you move close to the guide in the Canvas will 'snap' to it.

Guides can be moved and repositioned by clicking-and-dragging the guide *inside the ruler*. To remove a single guide, move it to the Layer List or Inspector until you see the pointer changes to a Delete icon .

You can move all the Guides at once by clicking-and-dragging the ruler, and you can also remove all horizontal or vertical guides (depending on the ruler) by Control-clicking a ruler, and choosing from the shortcut menu.

Unless moved, these guides are otherwise static. However their cousin, the **smart guide** comes into effect when moving layers close to existing ones.

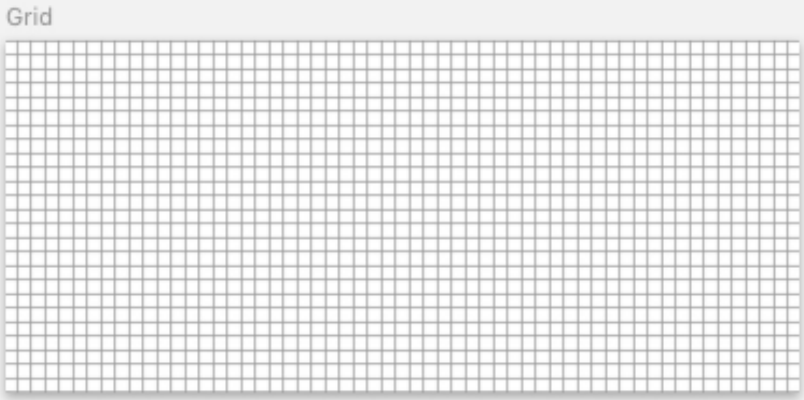
Grids

Grids allow you to design with precision, to make sure that you're using consistent sizes and positioning no matter if you're designing for the web, mobile applications, or icons.

Sketch has support for two kinds of grids; a regular (square) grid and a layout grid. Depending on the kind of work you need to do in Sketch, you may want to use one or the other, although it's possible to view both.

Regular Grid

The regular grid is a typical square grid, that has settings to adjust the size of the blocks, to determine how often thicker lines should appear, as well as the ability to change the color of both options.



Choose **View** › **Canvas** › **Show Grid** in the menu (or press Ctrl + G) to enable the grid.

To edit the grid, choose **View** › **Canvas** › **Grid Settings…**.

Layout Grid

The layout grid lets you define columns and rows, and is ideal when you're designing for the web.

With the layout grid, you can display columns, and rows along with appropriate settings for each. Choose **View › Canvas › Layout Settings…** in the menu to display the options.

Column options offers the ability to adjust the total width, with additional column and gutter widths, the number of columns, and whether there should be an offset.

Row options allow you to adjust the height of the gutter, and how tall rows should be in relation to the gutter height. Visual settings that affect both columns and rows allow you to change the color, as well as determining how they should be displayed.

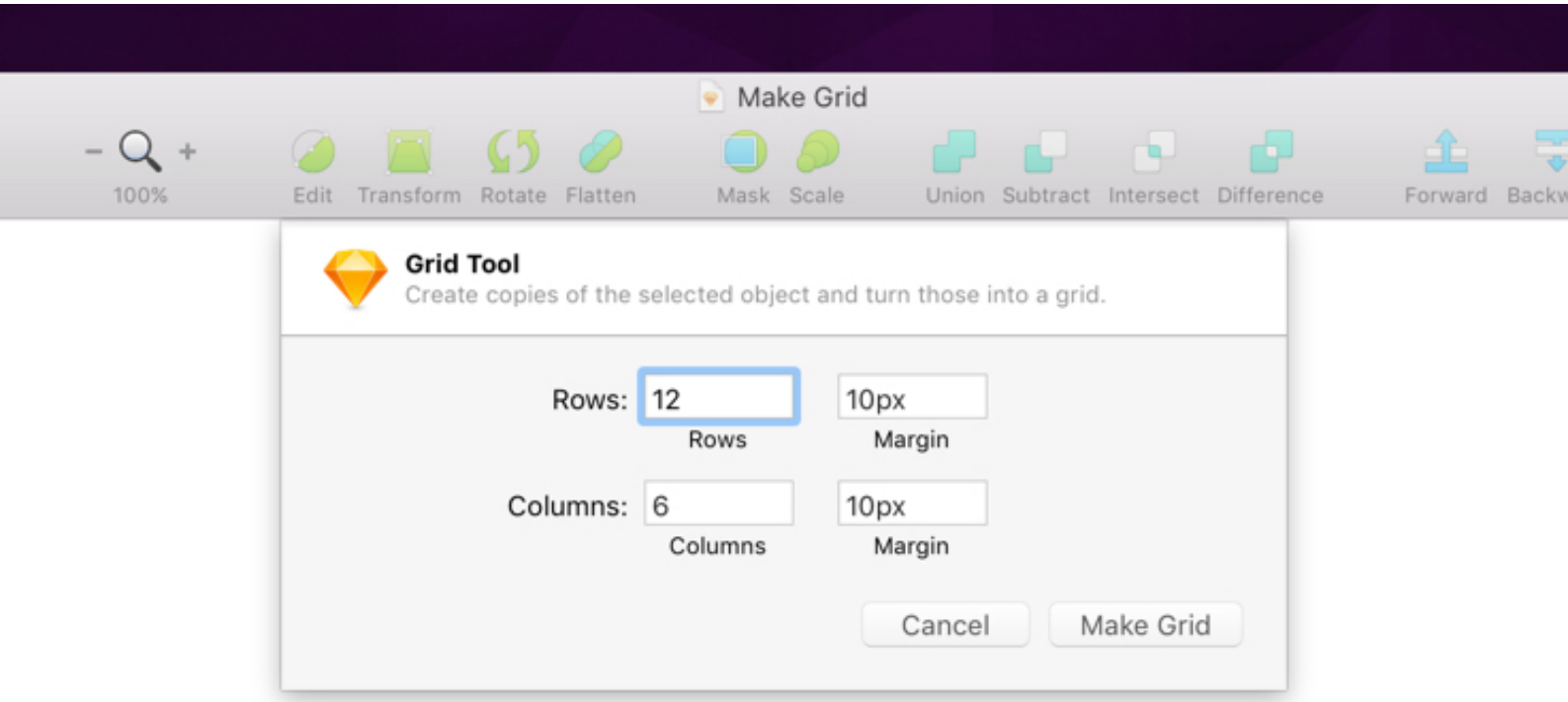
Grids can only be applied to Artboards, or a Page *if* no Artboards are set. You can edit the layout or grid for multiple Artboards at the same time.

Note: When grids are enabled, any objects will snap to the grid when moved, and will ignore snapping to smart guides if the option is enabled.

Make Grid

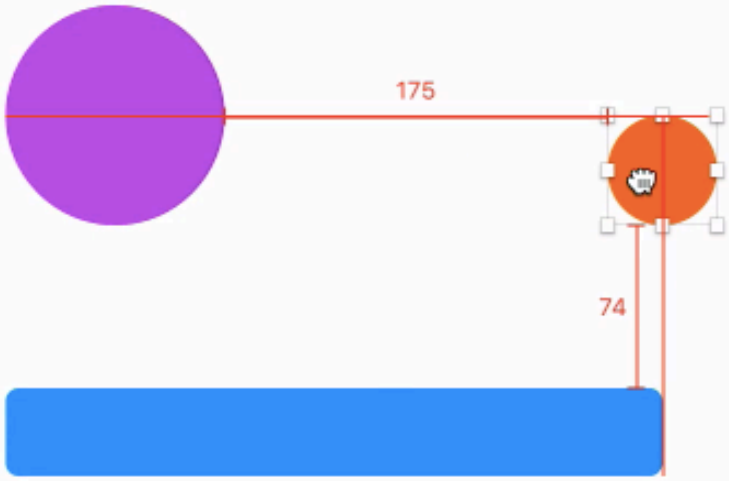
If you have layers selected that you would like to distribute evenly you can use the Make Grid tool. Choose **Arrange › Make Grid…** in the menu. You can specify the number of rows and columns for the grid to align your objects into, as well as the padding, or spacing between the layers.

If the `number of rows` × `number of columns` is greater than the number of layers you have selected, Sketch will automatically duplicate the last layer to fill the grid.



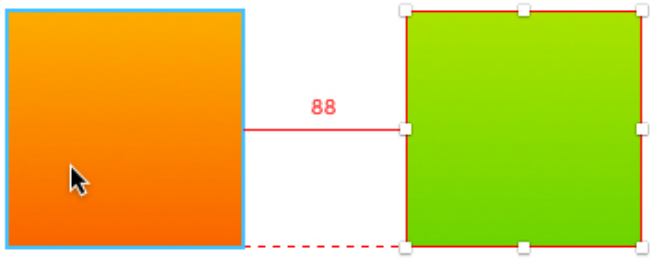
Measuring

Smart guides is one of the most popular features in Sketch, and this is ideal for making sure your content is lined up correctly. This feature can also be a real blessing for developers who have received Sketch documents from designers and need to get exact pixel measurements for implementation.



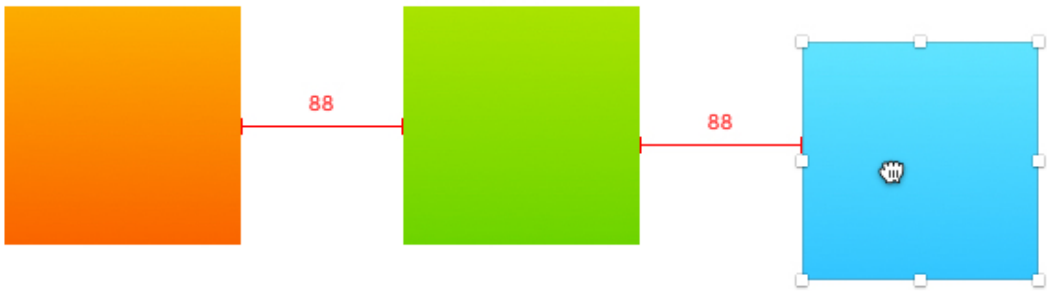
Distance

With a layer selected, hold the Alt key and hover over another layer. You will see that Sketch displays the distance between the two layers. When measuring against other layers, you can also hover over the Layer List.

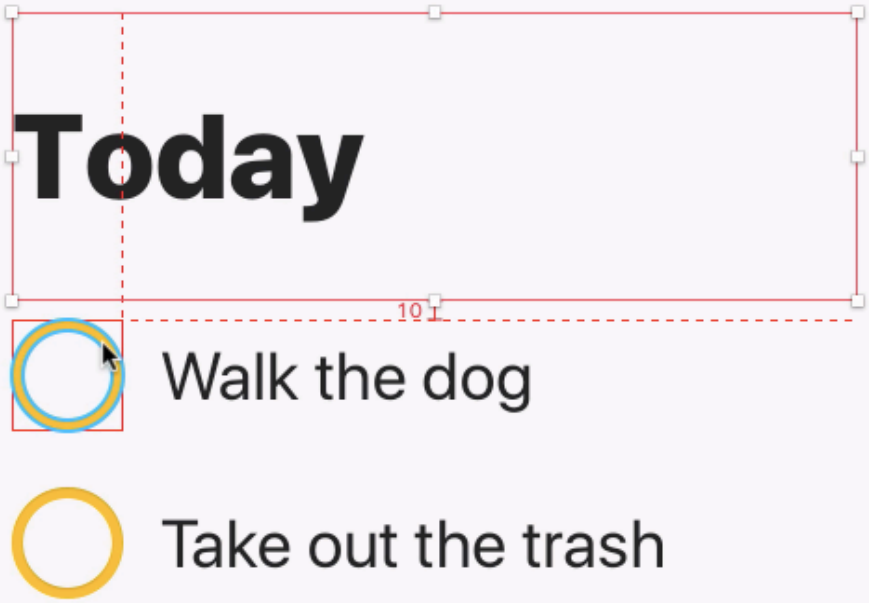


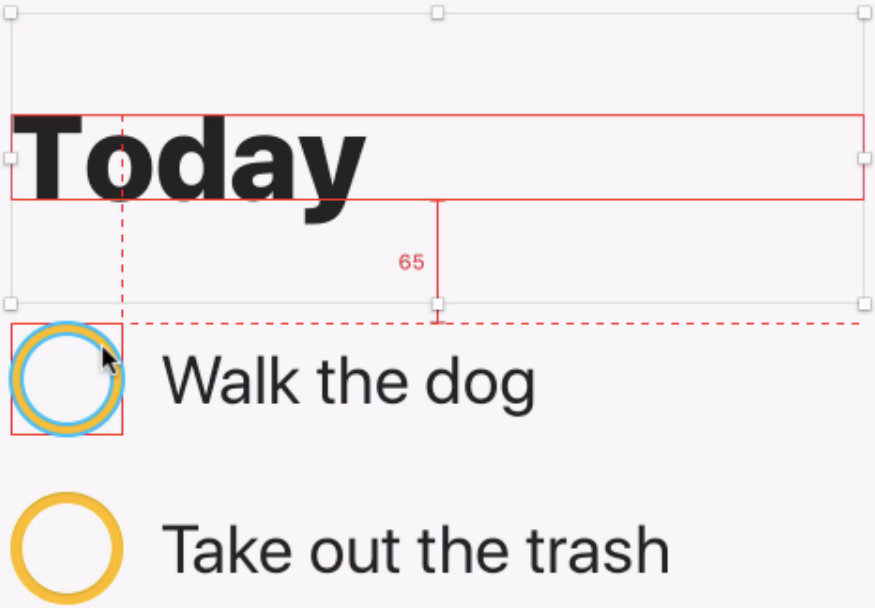
In addition, you can also hold the Command key at the same time, this will allow you to measure against layers inside groups in the Canvas.

Not only that, but when moving a layer, you will be able to see the distance between it, and nearby layers, along with guides that'll help you snap to any edge, or center of an object.



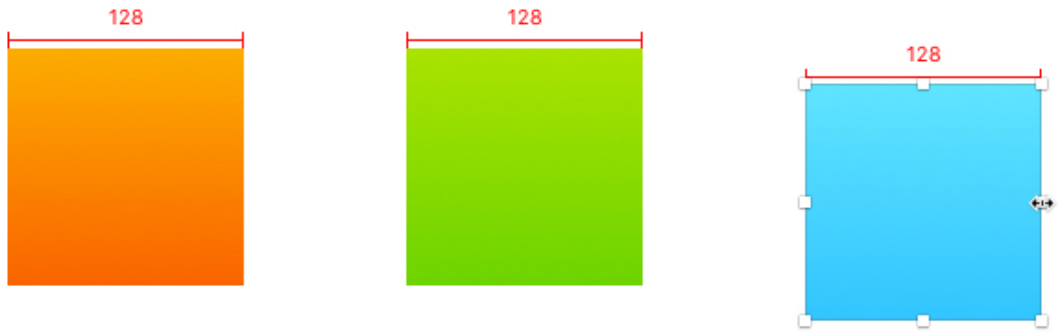
If you're measuring the distance against a text layer, the distance measured when holding Alt will be against the text's bounding box. However, if you hold down the Control key along with Alt, you can then measure against the text layer's baseline at the bottom, or cap height at the top for more accurate measurements.


Today
10
Walk the dog
Take out the trash


Today
65
Walk the dog
Take out the trash

Size

As well as measuring the distance, if you resize a layer, Sketch will help you by indicating other layers that have the same width or height.



By default, smart guides are enabled in Sketch. To turn them off, choose **View** › **Canvas** › **Show Smart Guides** in the menu, or hold down the Command key whilst dragging to ignore them.

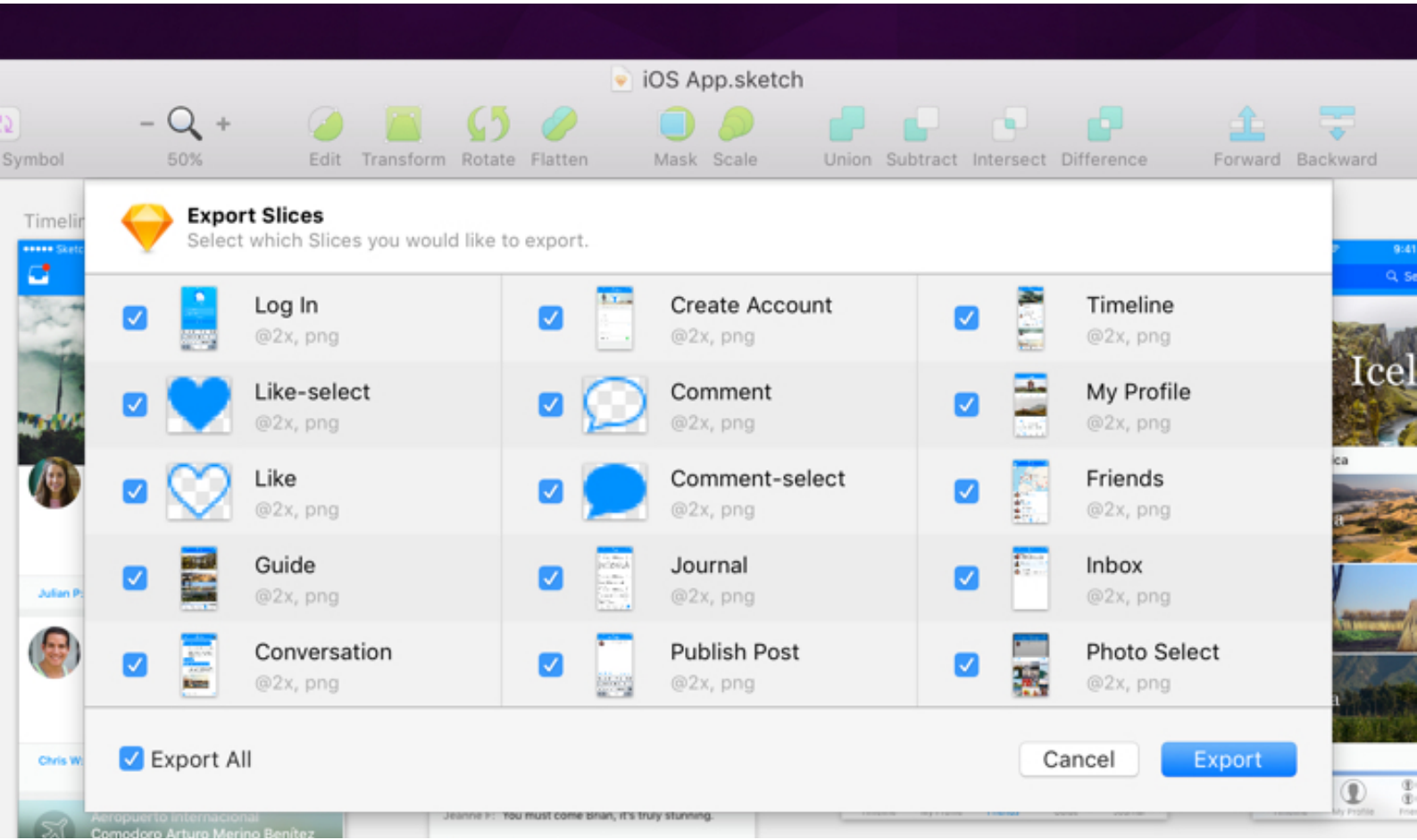
Exporting

When designing icons, mobile apps, websites, or anything else in Sketch, you'll likely want to export parts of your creation, or all of it! With Sketch, it's simple to mark what you want to export, and how you want it exported.

To share your designs, either choose **Share › Export…** from the menu (Shift + Cmd + E), or click the Export item in the toolbar. As Sketch's Canvas is infinite in size, when you want to export you will first have to tell Sketch which part(s) you want exported.

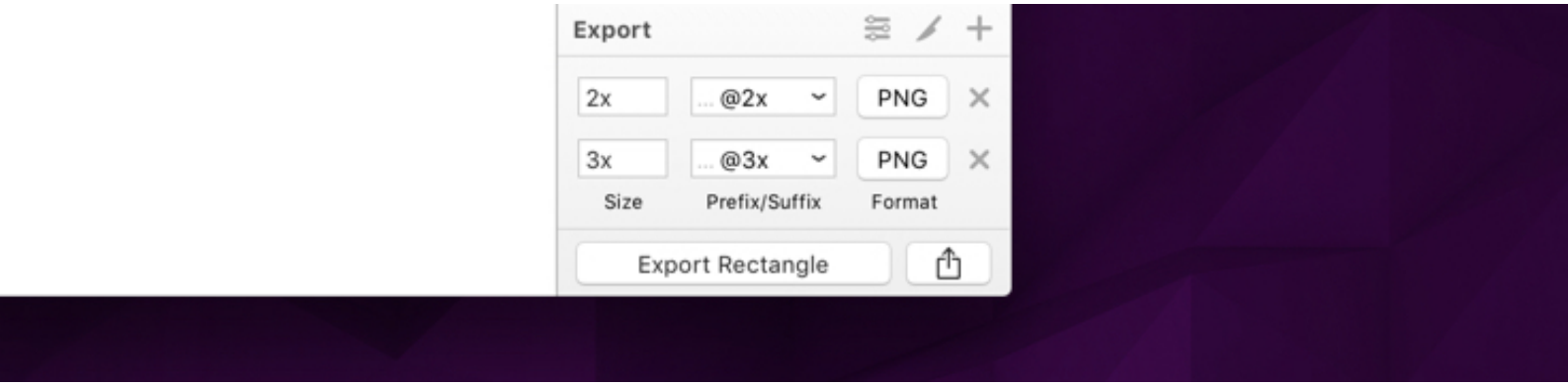
When you click Export, Sketch will reveal a dialog listing all exportable layers in the Canvas, whether they be Artboards, slices, or ordinary layers. You can choose which of these you want to export by selecting, or deselecting them from the list.

In the video, you can see the difference between slices, and exportable layers, as well as a general overview about exporting in Sketch.



Make Exportable

To mark any layer, group, or Artboard as an exportable layer in Sketch, make sure it is selected, and click the “Make Exportable” button at the bottom of the Inspector.



When a layer has been marked as ‘exportable’, a new view will appear in the place of the button. It‘s here where you can adjust and define the settings for export. Anything here will be applied when the layer is exported.

Clicking on the add button in the “Export” title will add another scale to your export. The default values will be automatically determined by the previous settings, but this means Sketch will export a different version of the image, as defined.

The presets button will allow you to switch between multiple pre-defined presets with ease. In the pop-up menu that appears, options to create, and edit existing presets can be found here too. To learn more about export presets, please check out the **Export Presets** chapter.

Export Settings

The export settings apply to any layer or **slice**, and it enables you to export to multiple sizes, or filetypes, without the need of individually defining them in the Canvas. Here, you will see three main controls. Size, prefix/suffix, and format.

Size

You can define the size, or scale in which an element will export, either by entering a value, or selecting one already defined in the pop-up menu.

The default size is ‘1x’, which will export your layer at the actual size it was created. If you’re designing for mobile, you may want to export something at double the size you created it, in this case ‘2x’. There’s no limit to how much you can multiply by, and you can even scale down in the case of ‘0.5x’. If designing for Android devices specifically, then you can export to a custom size.

Aside from just multiplying the scale, you can also export to a particular width, or height. For example, to export a layer from its original size to 128 pixels wide, simply type ‘128w’. ‘128h’ would be used to export to 128 px tall.

To learn everything there is to know about pixel densities, check out ***Pixel Density, Demystified*** from Peter Nowell.

Prefix/Suffix

This text field works in conjunction with the size control. If you have more than one export scale defined, then *at least* one prefix *or* suffix is required to append onto the start or end respectively, of the exported file's name to tell them apart.

You can choose between whether an export scale should have a prefix, or suffix applied by clicking the indicator in the text field and choosing your option via the pop-up menu. The ellipses (…) in the field is a representation of your layer's name. Anything that appears before that, is a prefix, whilst a suffix appears on the end, before the filetype.

Typically, objects exported at a '2x' scale will have the suffix of "@2x" as this meets the naming conventions required by Apple when designing for their operating systems. If you're designing for Android however, '2x' is represented by the "xhdpi/" prefix.

Format

The format button allows you to choose which file format you would like to export to via the pop-up menu. File formats are covered in greater detail in their own section.

Exportable Layers or Slices?

Exporting a layer by itself means that no other elements on the Canvas will be exported with it, and its size will be defined by the layer's bounds. If there's a layer on top or a background below it, neither of those will be included in the export.

Marking layers as exportable has its uses, but it doesn't cover all cases. This is where slices can come into effect.

It’s possible to create a slice straight from an exportable layer. Simply click the Slice button in the “Export” title and a new slice layer will be created around the object containing the defined settings.

No matter whether a layer is a slice or marked as exportable, it can be quickly exported via the Cmd + E shortcut.

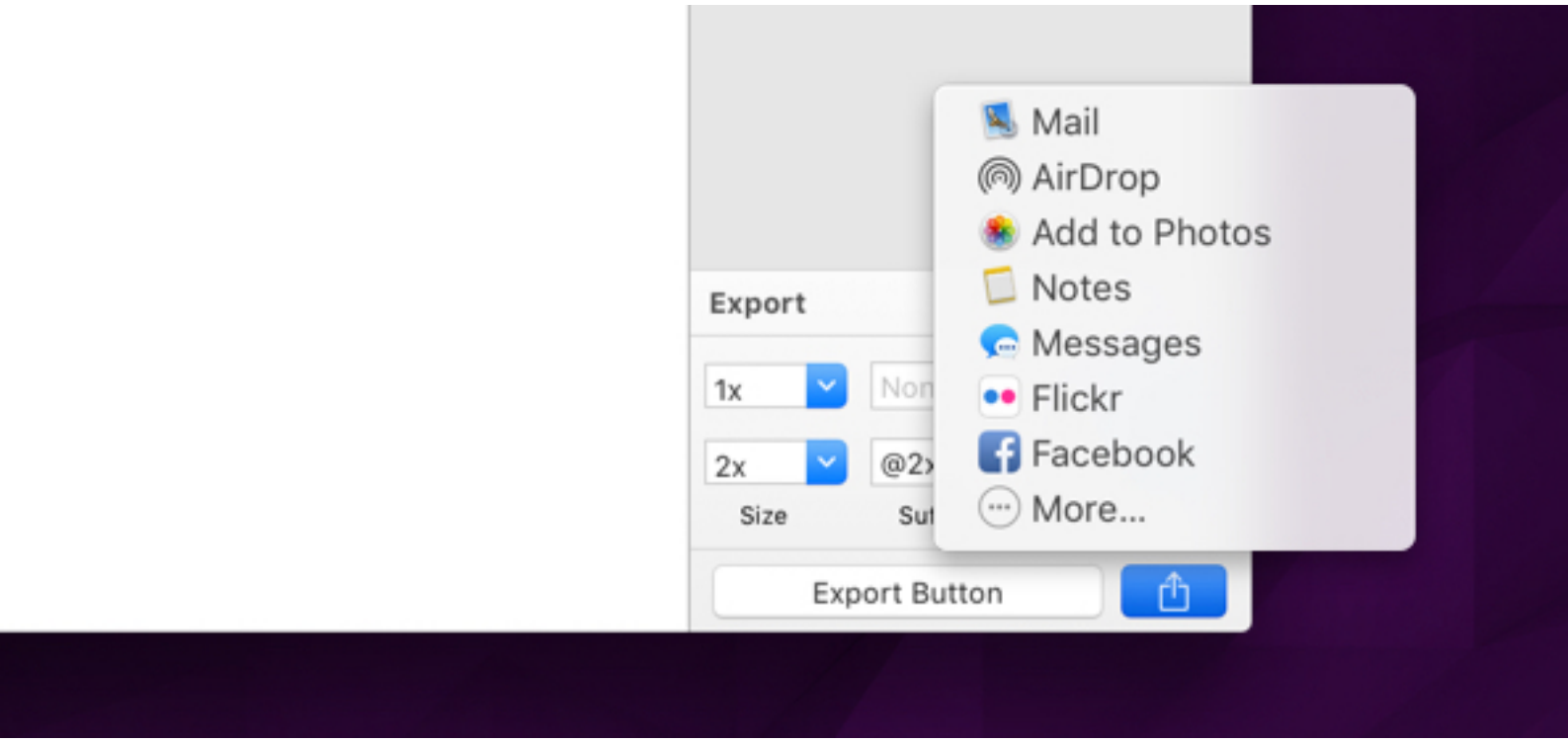
Layer List

Layers that have been made exportable will make themselves known in the Layer List, by displaying a small slice icon next to the layer preview.

However, you can directly export *any* layer, straight from the Layer List without having to make it exportable or defining slices. If you click-and-drag any layer from the Layer List out of the application, Sketch will quickly export it as a PNG. If you hold down the Alt key, it’ll export as a PDF instead.

Sharing

When you want to export your object, you can click the “Export…” button to quickly save it to a location on your computer, or click the Share button to attach to an email, share in a tweet, AirDrop it to a colleague, etc.



Slices

In Sketch, a slice is a type of layer that you can draw over an area in the Canvas that will export the content within as an image.

As slices are just another layer type in Sketch, they can be selected, resized, moved, and grouped along with other layers. As well as being able to individually hide slices, all slices can be hidden and shown within a document by toggling the Slice button at the bottom of the Layer List.

Adding Slices

To create a slice, choose **Insert** › **Slice** from the pop-up menu (or press `S`). With the tool selected, click-and-drag anywhere in the Canvas to define the area. In addition, when the Slice tool is enabled, you can also just click on a layer and a new slice will be placed around it.

Naming

Slices, along with any other layer can be named via the Layer List. Simply press Command-R with a layer selected. Giving your slice an appropriate name is important as this will also be the filename when the slice is exported.

A neat trick: if you include a slash (/) in the layer name, it will place that slice in a new folder. For example, if you named your Slice `foo/bar.png`, it would first create a folder named `foo` and then create a image named `bar.png` in there.

Multiple Sizes

When a slice is selected, you can change the export settings at the bottom of the Inspector. You can even export one slice into multiple images that can each be a different size or format. Just click on the add button to include a new scale.

Just like with the Make Exportable action, inserted slices will appear with all the scales and settings that have been defined in its default preset.

To learn more about this feature in greater detail, read the previous **Make Exportable** section.

Trim Transparent Pixels

This option in the Inspector is used to automatically remove any superfluous ‘empty’ pixels from an exported image. When you select the Trim Transparent Pixels checkbox, observe the export preview below…

Transparency is represented by a white and grey checkerboard, and when a slice is bigger than what you want to export, you will see this pattern appear around the edges on your preview. When Trim is selected, the height and width of the Export will change to fit your content. The export preview is an accurate representation of what your exported image will look like. You can even click-and-drag this outside of the Sketch window to export.

Export Group Contents Only

If your slice is in a group, the Export Group Contents Only checkbox will become active. If selected, it'll do what it says on the tin. The slice will only export content within that group—meaning any content above or below on the Canvas will be excluded. This is perfect for exporting an icon from a design, without having to first separate it from any background layer.

Background Color

Selecting the Background Color checkbox will remove any transparency from a slice, and replace it with a color of your choosing. This is ideally used when exporting to a filetype such a JPG that does not support transparency.

File Formats

You can export images from Sketch to a wide variety of file formats including bitmap, and vector filetypes. Each have their own benefits, depending on where they are used.

Sketch documents are saved as their own .sketch file format, and can only be opened in Sketch itself. But when you only want to share certain areas of a document—that can be viewed in virtually any application that can display images, then you must export from Sketch to one of the filetypes below.

Bitmap

Bitmaps, (or raster) images are made up of pixels on a grid and are the most common type of image due to their wide support. These are 'flattened' meaning when opening them up in an app like Sketch, they display as one layer.

PNG: Outputs a high-quality image and supports transparency.

JPG: A common file format associated with large images and photos. The quality can be adjusted on save, but does not support transparent pixels.

TIFF: Similar to PNG in many ways, but used by some operating systems. As these images are not compressed, they tend to have large file sizes.

WebP: A new image format created for images on the web that are smaller, and richer. Transparency is supported, and file sizes can be 3× smaller than PNGs.

Vector

Vector images have existed for a long time, but are becoming more common place in web, and mobile design due to the number of screen resolutions that are available today. Layers and paths are preserved, meaning they can be freely edited and scale to any size without losing quality.

SVG: Stands for “Scalable Vector Graphic”, a format most commonly found on the web as the image is generated in code. Code which can also be copied straight from Sketch.

PDF: The most common type of vector format typically associated with documents. Applications now tend to use PDF images for assets and simple icons.

EPS: Commonly used for print design with some additional features, but a filetype that has mostly been superseded by PDF.

Note: Some effects you can perform in Sketch are not supported by all vector file formats, including transparent gradients in PDFs, and inner and outer borders in SVGs.

Exporting Artboards

Artboards in Sketch can also be directly exported, forgoing the need to add extra slice layers to the document. Simply click “Make Exportable” and define your export settings. With this applied, they’ll appear in the Export dialog.

Exporting Artboards is particularly useful in the case of sharing your designs. Developers and colleagues will be able to see how a final product is intended to look for implementation.

In addition to exporting Artboards individually along with other layers, all Artboards can be exported to one PDF file, ideal for presenting designs. To do this, choose **Share › Export Artboards to PDF…** from the menu. You can define the order in which Artboards will appear by changing the Artboard Export preference.

Code Export

With Sketch, it is possible to export some of your design as code. CSS, and SVG. Ideal for web designers.

CSS Attributes

If you select any number of elements in the Canvas, Control-click and choose **Copy CSS Attributes** from the shortcut menu. This will copy code straight to your clipboard containing the style information a layer may have, such as fills (including gradients), borders, shadows, corner radii, and full text styles. Below is the output of a simple shape.

```
/* Rectangle: */
background: #6DD400;
border-radius: 5px;
```

SVG Code

Similarly, SVG code export works the same way. Control-click a layer, and choose **Copy SVG Code** from the shortcut menu. This will copy the output for the entire layer, and is a huge timesaver as opposed to exporting as SVG first, and opening the file in a text editor.

```
<svg width="128px" height="128px" viewBox="322 214 128
128" version="1.1"; xmlns="http://www.w3.org/2000/svg"
xmlns:xlink="http://www.w3.org/1999/xlink">
    <!-- Generator: Sketch - http://www.sketchapp.com -->
    <desc>Created with Sketch.</desc>
    <defs></defs>
    <rect id="Rectangle" stroke="none" fill="#6DD400"
fill-rule="evenodd" x="322" y="214" width="128"
height="128" rx="5"></rect>
</svg>
```

Printing

Artboards and slices in Sketch can even be printed. Choose **File › Print** in the menu, and you'll view a list of your Artboards. If you don't have any defined, then you will be able to print a slice instead.

Clicking on one of these will reveal the system's print dialog, where you can configure the print settings.

Note: We have Artboard presets for A4, A5, and A6 paper sizes.

Preferences

Preferences in Sketch are there so you can tailor certain features to your liking. To access the preferences, choose **Sketch › Preferences** from the menu or (press Cmd + ,).

There are also options you can change without a visible control in the Preferences panel:

svgExportSkipAssignIdToLayerName

When this is set to YES, Sketch will not use the name of the layer for the *id* field of the layer in SVG export:

```
defaults write ~/Library/Preferences/
com.bohemiancoding.sketch3.plist
svgExportSkipAssignIdToLayerName -bool yes
```

If you ever need to disable this feature, run:

```
defaults write ~/Library/Preferences/
com.bohemiancoding.sketch3.plist
svgExportSkipAssignIdToLayerName -bool no
```

Note: Due to the way macOS caches preferences, you'll need to log out of your user account and log back in again for the changes to apply.

General

The General preferences contain settings that affect the behaviour of various aspects of Sketch.

Auto Save

If enabled, the OS X feature Auto Save will automatically save your Sketch file regularly so it can be accessed, and reverted via Versions.

Pixel Fitting

The pixel fitting options will round layers and points to the nearest whole pixel. Subsequent preferences will enable you to have this behaviour when resizing or aligning layers to ensure objects don't sit on fractional pixels.

Vector Import

Should PDF and EPS files by imported as flat 'images', or should Sketch try to interpret the path data inside them and make the shapes editable?

Sketch Mirror

Should Sketch Mirror always update to show whatever Artboard you have selected on the Mac or should it operate independently?

Canvas

In the Canvas preferences, you can define behaviours relating to zoom as well as how things should appear on the Canvas.

Animate Zoom

The animated zoom will provide context from where you have zoomed from. If off, your document will update to the new zoom level with no transition.

Zoom In On Selection

When you tell Sketch to zoom via the **View › Zoom In / Zoom Out** commands, Sketch will by default zoom into the center of the Canvas. By selecting this checkbox it will instead focus in on the selected layers.

Zoom Back to Previous Canvas Position

Using this option, Sketch will zoom out to the position you had on the Canvas before you started zooming in. By default when you zoom out, Sketch zooms back straight from the center point currently on Canvas, but if you scroll around a lot while zoomed in and you expect to return to the previous position on zoom out, select this checkbox.

Nudge Distance

You can “nudge” any selected layer, or layers by using the Arrow keys, or nudge them at a greater distance using Shift-Arrow keys. The preference allows you to adjust the distance of a nudge.

Colors

The color selected in the preferences will be visible if the smart guides option is enabled, and appear when layers align, or when measuring whilst holding the Alt key.

Layers

The Layer preferences allow you to dictate the behaviour of layers and groups.

Pixel Fitting

The pixel fitting option will round layers to the nearest whole pixel, and ensures objects don’t sit on fractional pixels when drawing, moving, or resizing.

Enable Click-Through for New Groups

When selected, any new groups created will have their containing layers instantly accessible without the need to hold the Command key to select them. With any group selected, you can individually toggle this option per-group via the Inspector.

Close Path When Clicking Opposite End Point

This preference applies when you’re editing open paths in the vector editor. When you click on the first, or last end point, you can determine whether it should close the path, or simply just select the point, allowing you to easily edit the open shape.

Offset Duplicated Layers

By default, Sketch offsets duplicated objects by 10 px from the original. If you deselect this checkbox it will be pasted straight on top of the original.

Rename Duplicated Layers

If selected, Sketch will append “copy” to the layer’s name to ensure the layer name is unique. If unselected, layers will share the same name as the original.

Flatten Bitmaps

This option allows you to select what resolution you would like bitmaps images to be flattened to, with the **Layer › Flatten Selection to Bitmap** command. If you are using a Retina display, flattening to a 2x resolution is suggested.

Plugins

All plugins in Sketch can be managed via the preferences. Here you can filter, toggle, and uninstall any third-party plugins you have installed in Sketch without having to go via the Finder.

In this pane, you can view a plugin’s metadata, such as name, plugin author, description, and version number. The checkboxes that appear to the left of the details let you toggle a plugin’s visibility, allowing you to disable them without uninstalling.

Legacy Plugins

Whilst viewing your installed plugins, you may notice something called “Legacy Plugins” in the list. These are plugins that had been created pre-Sketch 3.4.

Get Plugins

At the bottom of the preference pane, is a button to “Get Plugins…”. Clicking this will lead you to our plugins page where you can see a selection of curated plugins to download and use in Sketch. Learn how to find plugins, download them and use them within your document by watching the video tutorial below.

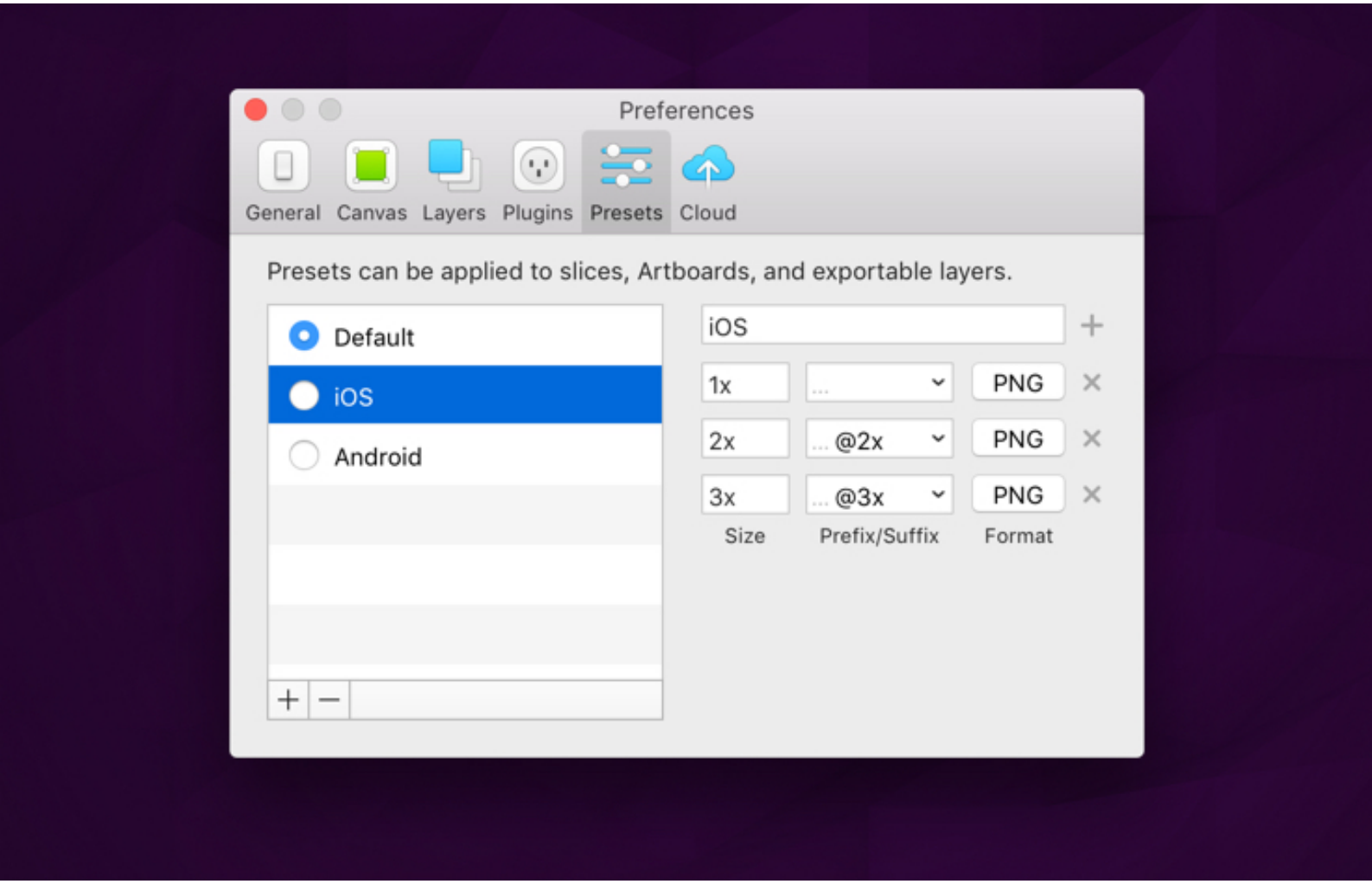
Video tutorial about plugins

Export Presets

Export presets are an incredibly useful feature, that can save you time when it comes to exporting assets from your designs. Presets can be managed and created in the Presets preference pane.

In the preferences, there is a list on the left-side of the view that contains all your presets, which can be accessed from the bottom of the Inspector when an exportable layer, slice, or Artboard is selected. The radio button that appears left to the preset’s name allows you to select which of these presets should be the default one that appears whenever a new slice has been inserted, or a layer has been marked as exportable.

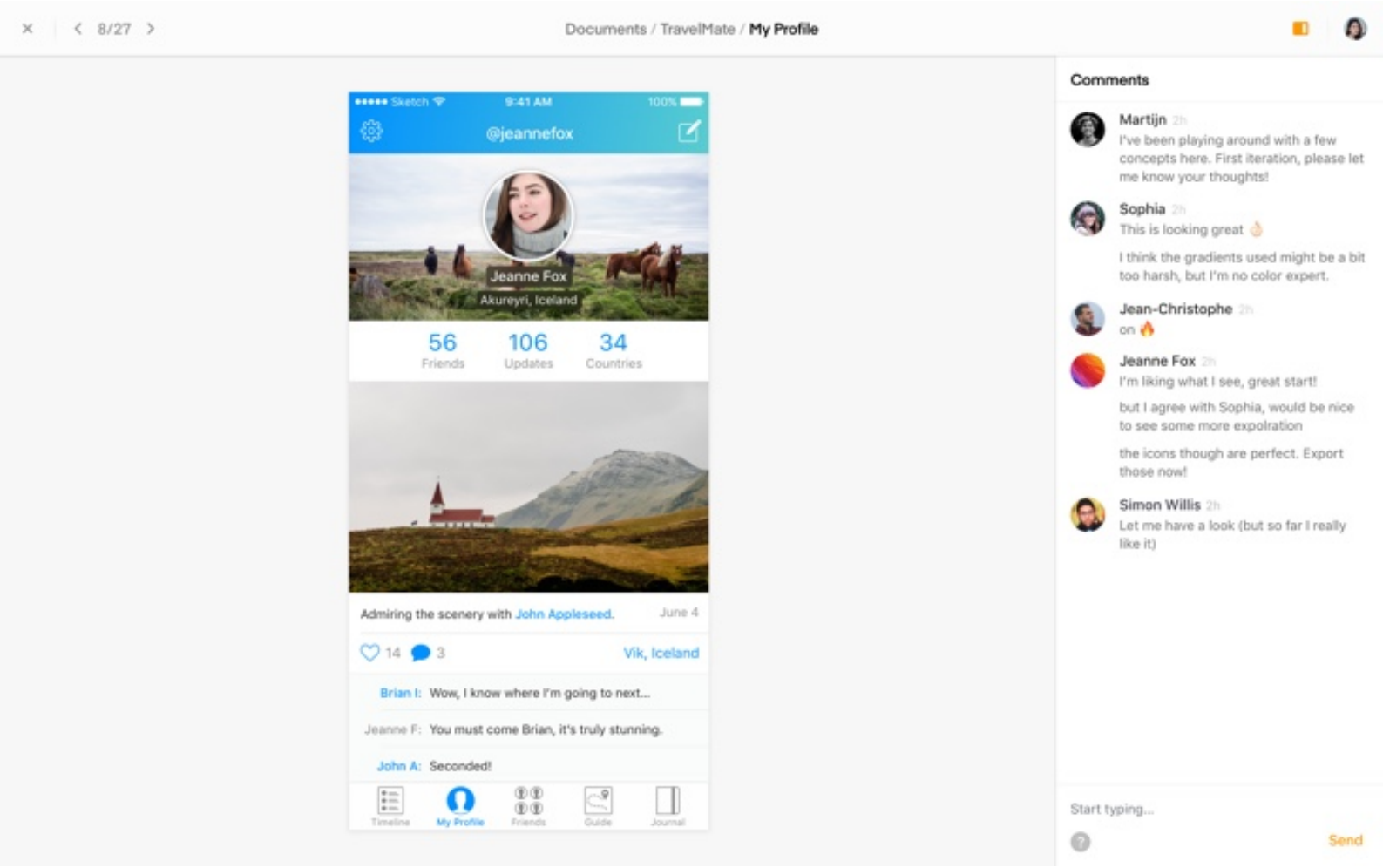
New presets can be added by clicking the add button at the bottom of the list, whilst the remove button will remove the selected preset.



To the right, is where all of the export scales that make up your preset live. Clicking the add button will add a new export scale, whose size, prefix/suffix, and filetype can be modified. There's no limit to how many scales can be added to a preset, and presets can contain both scales with prefixes and suffixes. You can learn more about these export settings individually on the **Make Exportable** chapter of the documentation.

Sketch Cloud

Sketch Cloud allows you to quickly upload your Sketch documents where you can share them publicly, or privately where you can leave comments and get feedback easily.



An Artboard from a document that has been uploaded to Sketch Cloud.

Note: Use of Sketch Cloud is completely free, but you *must* have an active Sketch license to be able to upload documents.

Creating an Account

A Sketch Cloud account is required before you can begin uploading your documents. You can either register or sign in directly on the sketch.cloud website, or go via Sketch by choosing **Preferences › Cloud** and clicking “Create Account”.

In order to sign up for a Sketch Cloud account, you must agree to our terms of service. We reserve the right to remove objectionable content uploaded to Sketch Cloud.

Uploading your Document

Once you’re signed in to Sketch Cloud, you can now share your work with anyone you like. Simply click on the Cloud toolbar icon, and then Upload.

Documents will be shared as *public* by default, which means that they can be viewed by anyone with the link.

After your document has been uploaded, you have the ability to refresh the upload with any changes you have made, or upload it as a new document. Doing this means you will not be able to view any previous comments on the new upload.

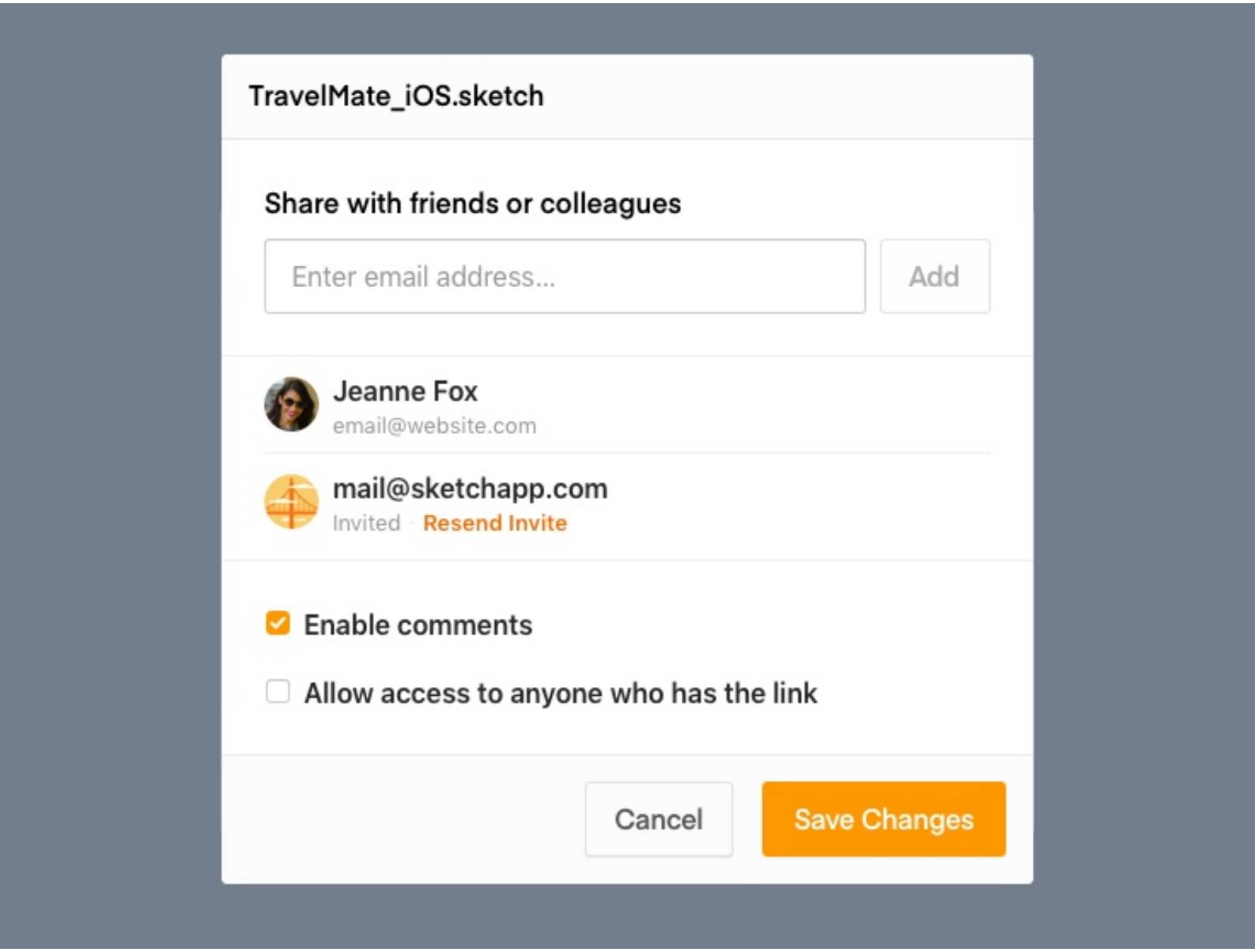
Managing your Uploads

When viewing your document overview, hover over any of your uploaded documents, and you will see a settings icon. If you click this, a popover will appear allowing you to either delete your document from Sketch Cloud, or edit the document’s settings.

These settings are also available when viewing a document, and the settings item appears in the toolbar.

Document Settings

With the settings dialog, you can choose who can view and access your uploaded document. You can choose to share an upload with friends or colleagues by entering their email address and inviting them to view your upload. Here, you can also enable or disable people from commenting on your designs, or switch between making the document



public or private – by deselecting the option to allow access to anyone with the link.

Documents whose invites you have accepted will appear alongside your own uploads in a separate tab.

Managing your Account

If you ever want to manage your Sketch Cloud account at any time, click the avatar in the top-right corner of the toolbar, and choose “Account Settings”. Here you will be able to update your name, avatar, email address, and password — along with the ability to delete your account if you so wish.

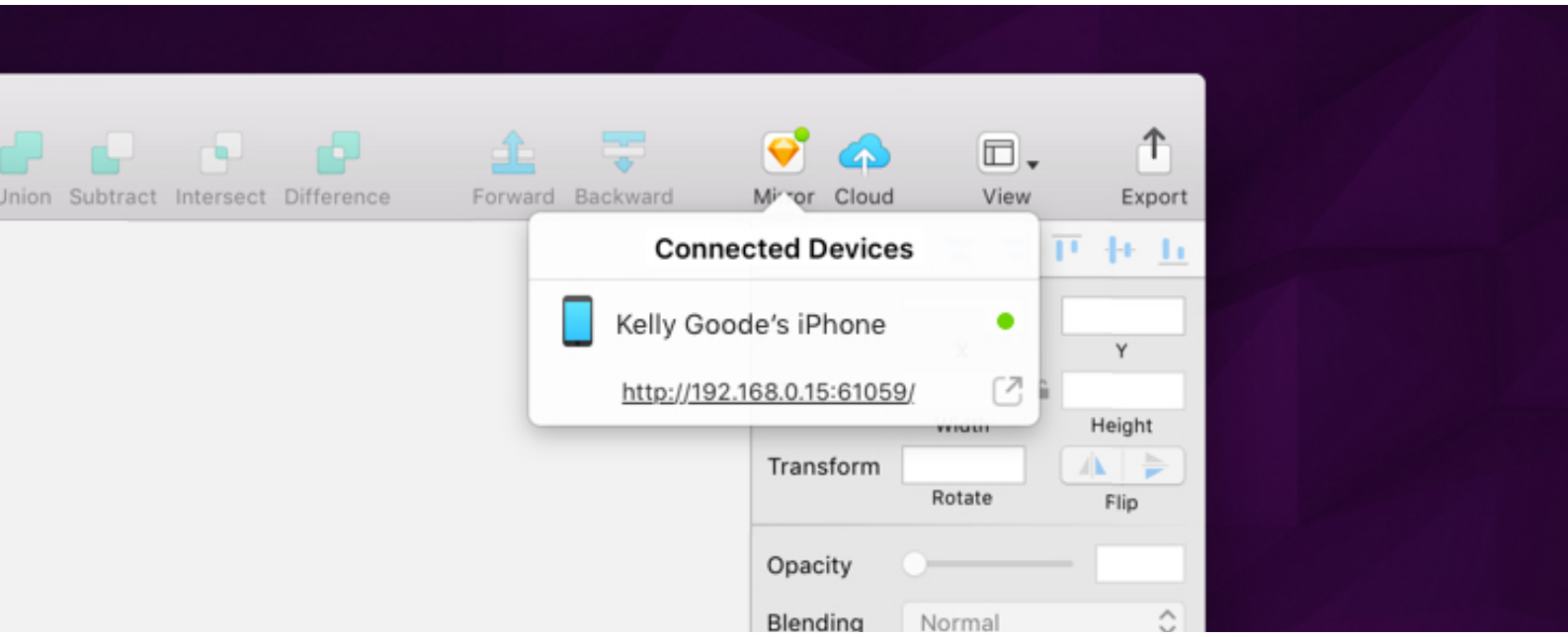
Sketch Mirror

Sketch Mirror, our iOS counterpart app, allows you to preview your designs on an iOS device connected via Wi-Fi or to your Mac with an USB Lightning cable.

Download Sketch Mirror from the **App Store** for free.

Combined with **local sharing** you can also preview your designs on any device that has a web browser.

Combined with **local sharing** you can also preview your designs on any device with a web browser. Browsers waiting for access to Mirror will show up in the Mirror popover on Sketch where you can securely control their access.



Sketch Mirror is fully optimized for the iPad Pro and has also been updated to support all iOS 9 features such as Split View and multitasking. Through the Sketch Mirror overview, you can quickly browse between Artboards on different pages. If you switch away from Mirror and switch back we will automatically restore the connection.

Requirements

- An iPhone or iPad running iOS 9 or above
- Sketch Mirror, which can be downloaded from the App Store for free
- A copy of Sketch 3.8 or above
- Connection to a Wi-Fi network or a USB Lightning cable

Connecting via Wi-Fi

Make sure that both your Mac and iOS devices are connected to the same Wi-Fi network. You can check your network preferences under Settings on iOS, and on the Network panel in System Preferences on the Mac. Once done, click the Mirror toolbar item in Sketch, and select your device's name from the list to connect.

Connecting via USB

Connecting to Sketch via a USB Lightning cable couldn't be simpler! Connect your iOS device to your Mac, and that's it—you're connected!

Troubleshooting

Sketch and Sketch Mirror find each other using an Apple service called Bonjour. Some corporate networks are setup to block this service. If you're connecting via Wi-Fi and are on the same network, you may have to ask your network admin to add a rule to allow `_sketchmirror._tcp.local` traffic in the network.

For more troubleshooting steps, please check our Support section related category.

If you still can't connect, please get in touch with our customer support, and we'll help you get Sketch Mirror up and running.

Local Sharing

With local sharing, you can preview your Sketch document on any device—be it a phone, a tablet, a Windows PC, a smart fridge, or anything else with a web browser. Browsers waiting for access to Mirror now appear in the popover, where you can securely control access.

Once you click on Mirror, a popover will appear providing you with a list of available devices you can connect to, along with an address you can use to share your documents for preview. Once you've shared the address, any browser viewing the link will be visible in the popover.

You can enable and disable access by clicking on the specific browser. When access is enabled the previewer will see a green status indicator in the top left corner of their preview browser window. When you disable the access, the indicator will turn red. While enabled, any changes you make to the Sketch document will be reflected real-time in all browsers.

Plugins

Harness the power of Sketch, with plugins. Plugins are an important part of Sketch's ecosystem and they can be installed to extend Sketch's functionality. All plugins have been created by third-party developers and can be downloaded for free, or purchased from the developer.

Installing Plugins

Our **Extensions** page contains an extensive, and up-to-date list of available plugins, that provide a wealth of functionality. Once you've found one you like, installing it couldn't be simpler! Simply double-click the plugin and that's it.

Once you plugin is installed, you can access it via the **Plugins** item in the menu bar. If you choose **Plugins › Manage Plugins…** then you'll be taken to the **Plugins** preference pane where you can view and manage your installed plugins.

Creating Plugins

It's also possible for you to create your own plugins for Sketch. To learn more, head over to our **developer site** which contains a host of examples and resources to help you on your way. Below is a quick introduction video to help get you started.

Intro to Writing Plugins video tutorial

Shortcuts

Sketch has quite a few handy shortcuts available which will be good to know when you spend a lot of time in it.

General Shortcuts

Cmd + C	Copy
Cmd + X	Cut
Cmd + V	Paste
Shift + Cmd + V	Paste Over Selection
Space + Drag	Pan Canvas
Shift + Cmd + N	New page
fn + ↑	Previous Page
fn + ↓	Next page
Cmd + =	Zoom in
Cmd + -	Zoom out
Ctrl + R	Show/hide rulers
Ctrl + P	Show/hide pixels
Ctrl + X	Show/hide pixel grid
Ctrl + G	Show/hide grid
Ctrl + L	Show/hide layout
Cmd + F	Filter in Layer List
Ctrl + Cmd + K	Run custom plugin
Cmd + Z	Undo
Shift + Cmd + Z	Redo
Cmd + N	New document

Cmd + O	Open document
Cmd + W	Close window
Cmd + S	Save document
Shift + Cmd + S	Duplicate document
Alt + Shift + Cmd + S	Save document as…
Shift + Cmd + P	Page setup
Cmd + ,	Open Preferences window
Cmd + H	Hide Sketch
Cmd + Q	Quit Sketch
Shift + Cmd + ?	Open the Help menu

Inserting Layers

R	Rectangle
O	Oval
L	Line
U	Rounded rectangle
V	Vector tool
P	Pencil tool
T	Text tool
A	Artboard tool
S	Slice tool
Alt + drag	When inserting a layer, draw shape from center
Shift + drag	When inserting a layer, lock ratio of shape
Space + drag	Place newly drawn layer before confirming it

Selecting Layers

Click	Select layer
Click-and-drag	Select multiple layers
Alt + drag	Selects layer within drag bounds
Double-click layer	Select grouped layer
Cmd + click layer	Select any layer
Alt + click layer	Select an obscured layer
Cmd + A	Select all
Shift + Cmd + A	Select all Artboards
Shift + click	Add layer to selection or deselect layer in Canvas
Shift + Cmd + click	Add layer from group to selection in Canvas
Cmd + click	Add layer to selection/deselect layer in Layer List
Shift + click	Select a range of layers in Layer List
fn →	Select next Artboard
fn ←	Select previous Artboard
Shift + Cmd + J	Reveal selection in Layer List

Moving and Resizing Layers

As you move or resize layers, smart guides and distance parameters are automatically visible.

Alt + hover	Display distance between other layers
Cmd + D	Duplicate
Alt + drag	Duplicate
Shift + drag	Move layer along X/Y axis
Cmd + drag	Move layer ignoring smart guides
Alt + Cmd + drag	Move an obscured layer
Arrow keys	Nudge layer any direction by 1 px*
Shift-Arrow keys	Nudge layer any direction by 10 px*
Shift + K	Scale layer
Alt and resize	Resize layer from center
Shift and resize	Preserve layer ratio
Cmd + → or ↓	Expand by 1 px
Cmd + ← or ↑	Contract by 1 px
Shift + Cmd → or ↓	Expand by 10 px
Shift + Cmd ← or ↑	Contract by 10 px
Ctrl + Alt + hover	Show distance to baseline/cap height on text layers

Editing Layers

When you've a layer selected you can use the following shortcuts:

Enter	Edit layer
Escape	Finish editing
Delete	Delete layer
Alt + Cmd + C	Copy style
Alt + Cmd + V	Paste style
Ctrl + S	Sync shared style
Alt + Ctrl + S	Reset shared style
F	Toggle fill
B	Toggle border
Ctrl + C	Pick color
0 to 9	Edit layer opacity
Shift + Cmd + T	Transform shape
Shift + Cmd + R	Rotate layer
Ctrl + Cmd + M	Use as mask
Cmd + Escape	Return to instance
Alt + Cmd + U	Union multiple layers
Alt + Cmd + S	Subtract multiple layers
Alt + Cmd + I	Intersect multiple layers
Ctrl + Cmd + X	Show Difference between multiple layers

Vector Editing

Alt + Cmd + O	Open/close path
Tab	Selects next point
Alt	Show all handle control points
1	Straight point type
2	Mirrored point type
3	Disconnected point type
4	Asymmetric point type
Double-click vector point	Toggle point between Straight and Mirrored
Shift-drag vector point	Move point along X/Y axis
Cmd-drag handle control point	Converts selected point to Disconnected
Shift-click (when inserting points)	Place new point at a 45º angle
Shift-click path segment	Place new point between existing points

Text Editing

Alt + Shift + Cmd + V	Paste as rich text
Cmd + T	Change typeface
Cmd + B	Bold
Cmd + I	Italic
Cmd + U	Underline
Alt + Cmd + =	Increase font size
Alt + Cmd + -	Decrease font size
Ctrl + Alt + L	Increase character spacing
Ctrl + Alt + T	Decrease character spacing
Shift + Cmd + {	Align left
Shift + Cmd + |	Align center
Shift + Cmd + }	Align right
Alt + Cmd + Space	Emoji & symbols
Shift + Cmd + O	Convert to outlines
Shift + Return	Insert a line break

Arranging Layers

These shortcuts and commands can be used to help you organize your document in the Layer List.

Cmd + G	Group
Shift + Cmd + G	Ungroup
Cmd + R	Rename layer
Tab	Select next layer in group
Shift + Tab	Select previous layer in group
Enter	Selects layer inside group
Escape	Selects parent group
Click-and-drag layer	Adjust layer hierarchy
Alt + Cmd + ↑	Bring forward
Ctrl + Alt + Cmd + ↑	Bring to front
Alt + Cmd + ↓	Send backward
Ctrl + Alt + Cmd + ↓	Send to back
Alt + Shift + Cmd + ↑	Move up (out of group/Artboard)
Ctrl + Cmd + H	Distribute horizontally
Ctrl + Cmd + V	Distribute vertically
Alt + click Align buttons	Align layer to Artboard
Shift + Cmd + H	Hide/show layer
Shift + Cmd + L	Lock/unlock layer

Exporting Layers

Shift + Cmd + E	Export
Cmd + E	Export selected layer(s)
Drag a layer/thumbnail to Desktop	Export asset
Drag a layer/thumbnail to Canvas	Insert flattened duplicate
/ in layer name	Includes folder in export

Text Fields

Some handy shortcuts you can perform when you're in a numerical field in the Inspector:

Alt Tab	Focus Inspector
Tab	Select next field
Shift Tab	Select previous field
Enter	Confirm change
Escape	Clear change
↑	Increase value by 1
↓	Decrease value by 1
Shift + ↑	Increase value by 10
Shift + ↓	Decrease value by 10
Alt + ↑	Increase value by 0.1
Alt + ↓	Decrease value by 0.1

Size Fields

When adjusting the height or width of a layer, enter the following character after your value to resize from that position. Press the Enter key to confirm:

L	Scale from the left (default)
R	Scale from the right
T	Scale from the top (default)
B	Scale from the bottom
C / M	Scale from the center / middle

Math Operations

You can perform math in all numerical inputs of the Inspector. Just apply an operator between two values and press the Enter key to confirm:

+	Add
-	Subtract
*	Multiply
/	Divide
%	Resize layer to a percentage of its parent group or Artboard

Multiple Radiuses

With a rectangle selected, in the radius input field you can specify a different value for each corner.

;	Value spacer. Eg, `40;0;40;0`

Export Flels

In the Scale field, enter the following character after a number to get different results.

X	Scale multiplier. Eg, `2x` will export at twice the size
H	Exports layer at the specified height. Eg, `512h`
W	Exports layer at the specified width. Eg, `512w`

Miscellaneous

Here are the remainder of shortcuts available in Sketch that don’t fit into any of the above sections. These shortcuts are dependant on which tool you’re in, or what action you’re doing.

Ctrl + Cmd + R	Run last-used plugin again
Cmd-drag selection handle	Rotate layer
Shift-drag when rotating	Snap rotation to 15º increments
0-9	With a gradient stop selected, position it between 0% and 100%
=	Position selected gradient stop directly between two existing stops
Double-click Rulers intersection	Reset Ruler co-ordinates

Custom Shortcuts

Custom shortcuts can be created via macOS System Preferences.

To add your own custom shortcut, open the System Preferences and navigate to **Keyboard** › **Shortcuts** › **App Shortcuts** and click the add button. In the pop-up menu, select **Sketch** under Application. You will now be able to define your custom shortcut.

Other

Here you will find a few more useful topics that don’t fit into any of the already-covered sections below…

Presentation Mode

If you are showing off your screen to someone else, or are connected to a projector, you can hide the application UI to focus on the one thing that really matters: your design. Choose **View › Hide Interface** in the menu (or press Command-Period). Here you can still pan and zoom around the document, and even interact with layers this way in an ultimate zen mode.

Importing

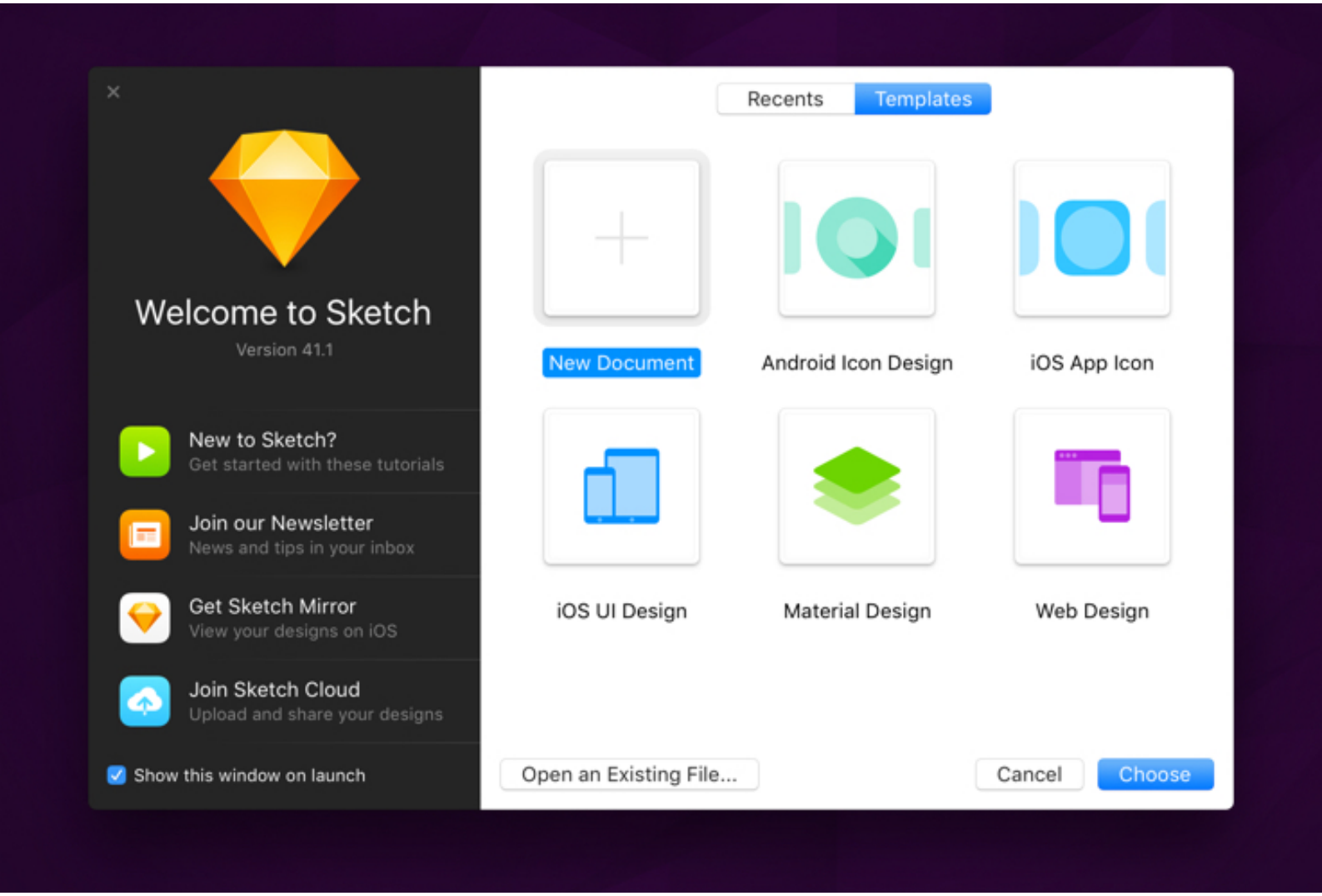
As well as exporting, Sketch can also import various file formats as well. You can simply drag-and-drop files onto the Sketch icon in the dock, or directly into an open document.

PNG, JPG, TIFF, and WebP bitmap image files are supported for import, whilst Sketch can also open the vector formats SVG, PDF, and EPS.

AI and PSD files have limited support, and can only be opened as a single flattened layer.

Templates

Templates are just ordinary Sketch files that can be opened as a new document, pre-populated with layers that enable you to begin working right away. Sketch already contains several useful sample templates that can be used to speed up your workflow, such as the **iOS UI Design**, and **Material Design** templates.



You can choose which template you would like to open in a couple of ways. A grid view of your templates appears in Sketch's welcome window, ready for selection after you launch the application. This window can be summoned at any time via **Help › Welcome to Sketch**.

Alternatively, a list of templates can be easily accessed by going to the menu, and choosing **File › New From Template…**.

Saving Templates

Alongside the templates we provide with Sketch, you can easily add your own. With the document you would like to save open, in the menu choose **File › Save as Template…**.

Templates can also be manually saved, and accessed in a location in the Finder. To access them, where they can be organized into sub-folders, or be given custom previews, go to this location: `~/Library/Application Support/com.bohemiancoding.sketch3/Templates`.

Custom Previews

If you want to give your templates a custom preview, just like our in-built templates have—then you're in luck. Simply add a `PNG` image with *the same filename* as your template to its location in the Finder (mentioned above). The image dimensions do not matter, however if you wish to have pixel-perfect previews, images should be 188 × 188 px if you're using a Retina display, or 94 × 94 px if not.

Performance

Sketch can easily deal complex drawings, but if you end up with a large document, you may want to know what may be impacting Sketch's performance.

Images

Adding many images to a Sketch document may slow down general navigation, but it can increase the filesize dramatically. Especially when larger images have been imported, and resized to smaller dimensions. A handy workaround to this, is to periodically use Reduce Image Size function on your document after you've added many images, which will help with improving its performance.

Blurs

Applying many blurs to layers may cause Sketch to slow down. The reason for this is because Sketch needs to render far more pixels than a non-blurred layer. The larger the blur radius, the many more pixels Sketch needs to try and process.

For a 1 px blur, Sketch needs to examine each pixel around each pixel; that makes for nine pixels to be examined per pixel to calculate the new average value. Increase the blur radius to two pixels or more and it'll begin to increase exponentially.

Shadows

Shadows, both inner and outer, are treated in much the same way as blurs. Sketch will try to improve the performance of large shadows when zooming in, buy only showing them when necessary: if viewing a document when zoomed in past 400%

Multiple Pages

Sketch can handle a good amount of Artboards in a document, but when you start to add many across the infinite Canvas, and if they nearly all contain large images, shadows, or blurs—then you may see a drop in performance. A simple remedy is to take advantage of the Pages feature by including some Artboards on different Pages.

Convert to Outlines

Perhaps the number one cause for slow performance is when vast quantities of text has been converted to outlines. This is a great and useful feature for vectorizing various words and characters, but it is not recommended to convert entire sentences and paragraphs to outlines.

Color Management

Before we can discuss how Sketch handles colors though, it is important to know a little bit about color management in general.

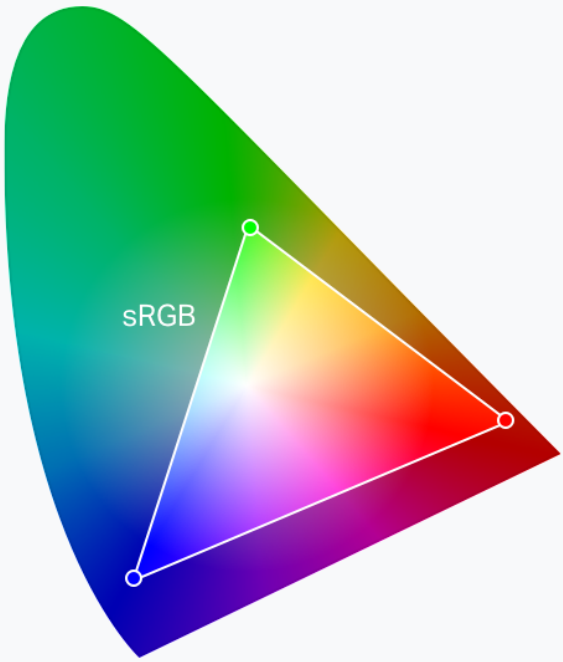
Colors in General

Colors are usually represented as RGB (Red, Green, and Blue) or HSB/L (Hue, Saturation, and Brightness/Luminosity) components. But that's only half the story. In order to draw an actual color, you need to know which color space those components belong to.

Here's an idea that might help visualize the problem. Think of all possible colors laid out on chart. Each color space is represented by a triangle upon that surface, with the maximum expressible red in one corner of the triangle, green in the other, etc. So any RGB value basically specifies an actual point inside that triangle. There are a few things to learn from this:

1. Not all possible colors can be represented by a color space; anything that falls outside the triangle can't be represented, even if your display could technically show it.

2. Since each color space is a different triangle upon this surface, you can't express the same colors in every color space.



If you convert a color to a different color space, you're in effect changing your triangle whilst trying to maintain the same position on the canvas. The RGB values of your color will change as the triangle determines the co-ordinate's space. There's also a real possibility that your original color was at the edge of its color space triangle and now falls outside the new triangle. The visible color will have to change slightly to fit back into the new triangle. In short: converting colors between color spaces is dangerous because your colors might look different afterwards.

When it comes to digital design, most designers only think in RGB colors, and not in color spaces. When you specify a color in HTML, you're only specifying the RGB. The implicit assumption is that the web browser will pick the color space. Safari follows the W3C standard here and picks the sRGB colorspace. The latest version of Chrome however uses your display's color space and so if you have a unusually calibrated monitor, the same RGB values could look completely different between the two browsers.

When you save an image to disk, you're in effect writing a big list of RGB values to a file. To make sense of those RGB values, an image will often also include the color space that those RGB values are

representing. To save on bandwidth though, many images online have their color profiles removed (that's what 'Save for Web' does) because browsers interpret all images as if they were saved with an sRGB color space – even if they have a completely different color profile embedded! An application like Preview respects the color space that the file was written with though and displays the colors in that color space. So now we have the problem that the same image can look different in Safari, Chrome and Preview. No wonder everybody is confused…

Colors in Sketch

We chose not to burden Sketch with complicated color management support since it would confuse most of the users. Instead, we recognize that the vast majority of our users are designing for the web or for mobile, and Sketch treats colors in a way that makes the most sense for those use cases. After all, everything is sRGB on the web by force, and iOS has no concept of color spaces either.

So what does Sketch do? When you pick a color in Sketch we only store the RGB values. When we render to the screen we interpet those values using the color space of your monitor. This way we can guarantee that if you pick a color from another part of the screen—maybe a window controlled by another application—the values that Sketch stores and displays will look exactly like that color.

When we export an image, we interpret our color values in the sRGB colorspace. We also save the color space in the metadata, unless you have 'Save for Web' checked in the export panel. Regardless of that setting though, the intent has been to save with sRGB, which works nicely with Safari as it interprets all images as being saved with sRGB in the first place. If you would also open the image in Preview, it would recognize the sRGB profile and render it as close to Safari as possible.

We believe this way we get the most consistent color representation possible.

There is a downside though; if you open your exported image in for example Preview, and put it next to your Sketch window, you might see that the colors are not completely identical. Remember, that's because when Sketch draws the image in its window, it's using the screen's profile, but when Preview draws the image, it may be treating the image as being sRGB, then converting it to the screen's profile.

Then again, Preview and Safari may not agree either, as one of them will ignore the color profile completely. Also keep in mind that your website may be viewed on an Android device that does not even use sRGB, or on an older iPhone with a slightly different profile.

The takeaway of all this is that getting consistent colors between different images and between images and HTML/CSS is not trivial, but that Sketch makes it relatively easy; if you use the same RGB values in your artwork in Sketch as you use in the CSS on your website, the colors will match (as long as your browser follows the W3C spec).

Sketch helps you by always saving as sRGB, and if you strip away the color space to save a bit of space, it wouldn't change the way your image is displayed in a web browser. As a web or mobile designer, this is what you would expect, and this is how Sketch works.

Just keep in mind that using the screen color picker to pick colors from various windows cannot possibly guarantee keeping the RGB values consistent.

Pixel Precision

Producing pixel-perfect designs is important especially when designing for mobile and when we want the final product to have that extra layer of polish we all admire. We've highlighted tips and tools you can use to achieve pixel precision in Sketch. Video.

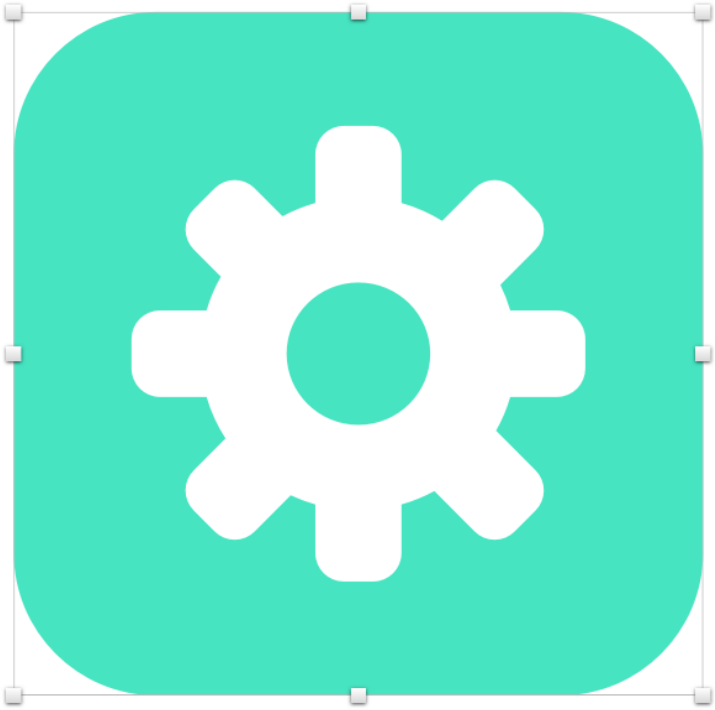
With Sketch you get best of both words; scalable vectors and precise pixel control for sharp edges and outlines. While Sketch can automatically align your shapes to pixel edges, it also provides you with the ability to preview and edit each pixel. This is especially important when you're preparing assets for different screen sizes and pixel densities. In the original iPhone there was only one screen size and only one resolution; one point equaled one pixel. Today, with Retina displays in iPhone and the various Android pixel densities, things are looking more complex. But with Sketch's preset Artboards, a bit of planning, and some simple mathematics, preparing assets for multiple screen sizes and pixel densities is a breeze.

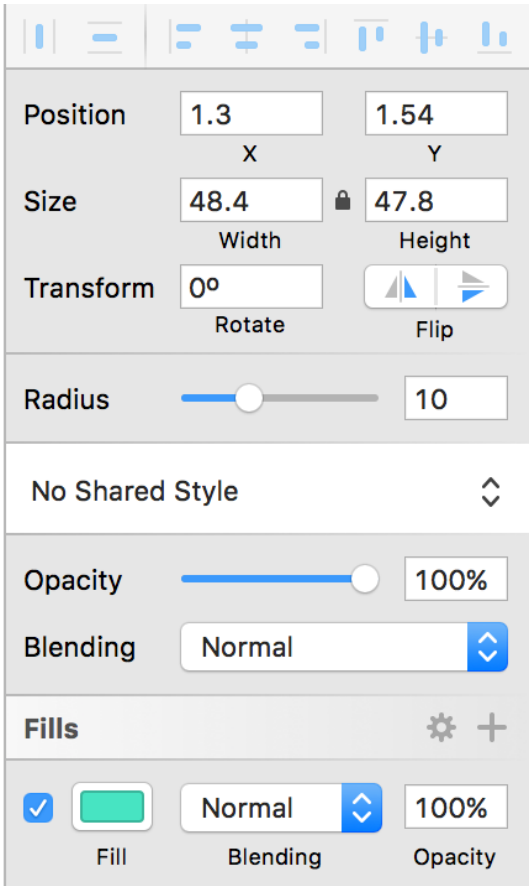
Designing in 1x as a base

When Apple introduced the first Retina iPhone, many designers started designing in 2x resolution immediately, scaling down to 1x for legacy phones as an afterthought. However, when Apple introduced the iPhone 6 Plus this became problematic. After all, if you design something pixel precise at 2x, chances are if you scale it up by 1.5x, it'll end up on a fractional position. Many designers have gone back to designing at 1x, because when vector dimensions are scaled by 2 or 3, you're guaranteed that they're not ending up on fractional digits.

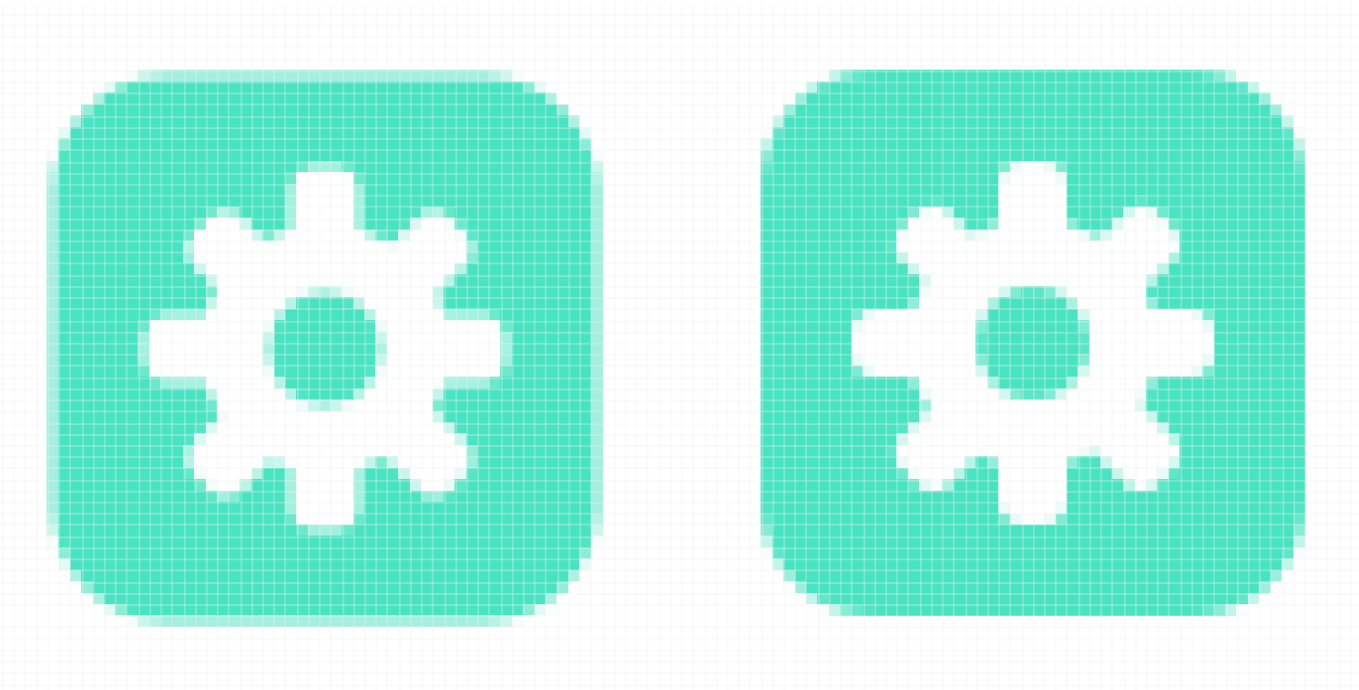
Inspector

The first way to detect whether your designs are pixel perfect is to be aware of their Position and Size values. The Inspector is the main command center of your Sketch document. It contains all properties and details for a selected shape or layer. This is your go-to place for spotting pixel imperfections. These irregularities manifest themselves in the form of fractional numbers.





Fractional numbers cause the rendering of sub-pixels — the main reason why your exported bitmap asset might have blurry edges. You can fix this manually; just edit the Position and Size values to full numbers. Working with shapes within groups can be tedious, but with Cmd+Click, you will be able to directly select any shape and edit its values.

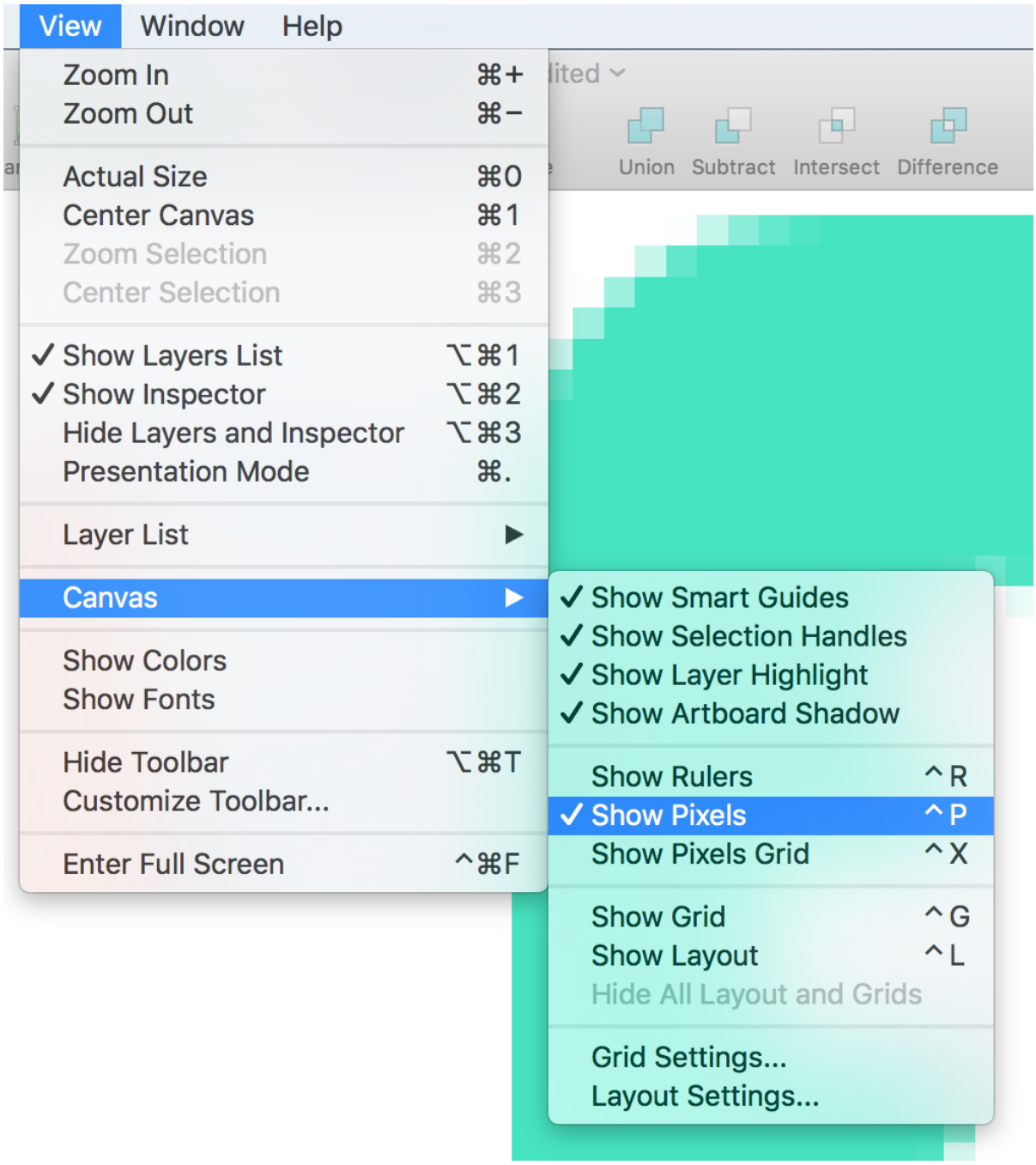


Exported PNG samples. Half-pixels asset on the left compared to pixel perfect asset on the right.

Show Pixels

Seemingly smooth vector curves and edges can be deceiving. By enabling Show Pixels, you will be able to see every individual pixel in your document. This setting can be enabled by going to View › Canvas › Show Pixels (CtrlP). Additionally, you could customize your toolbar to include “Show Pixels” icon.

What you see will be equivalent to exporting the image to PNG and then zooming in. Note that when you're at 100% zoom (actual size), there is no difference between either mode, but it will show itself when you zoom in.



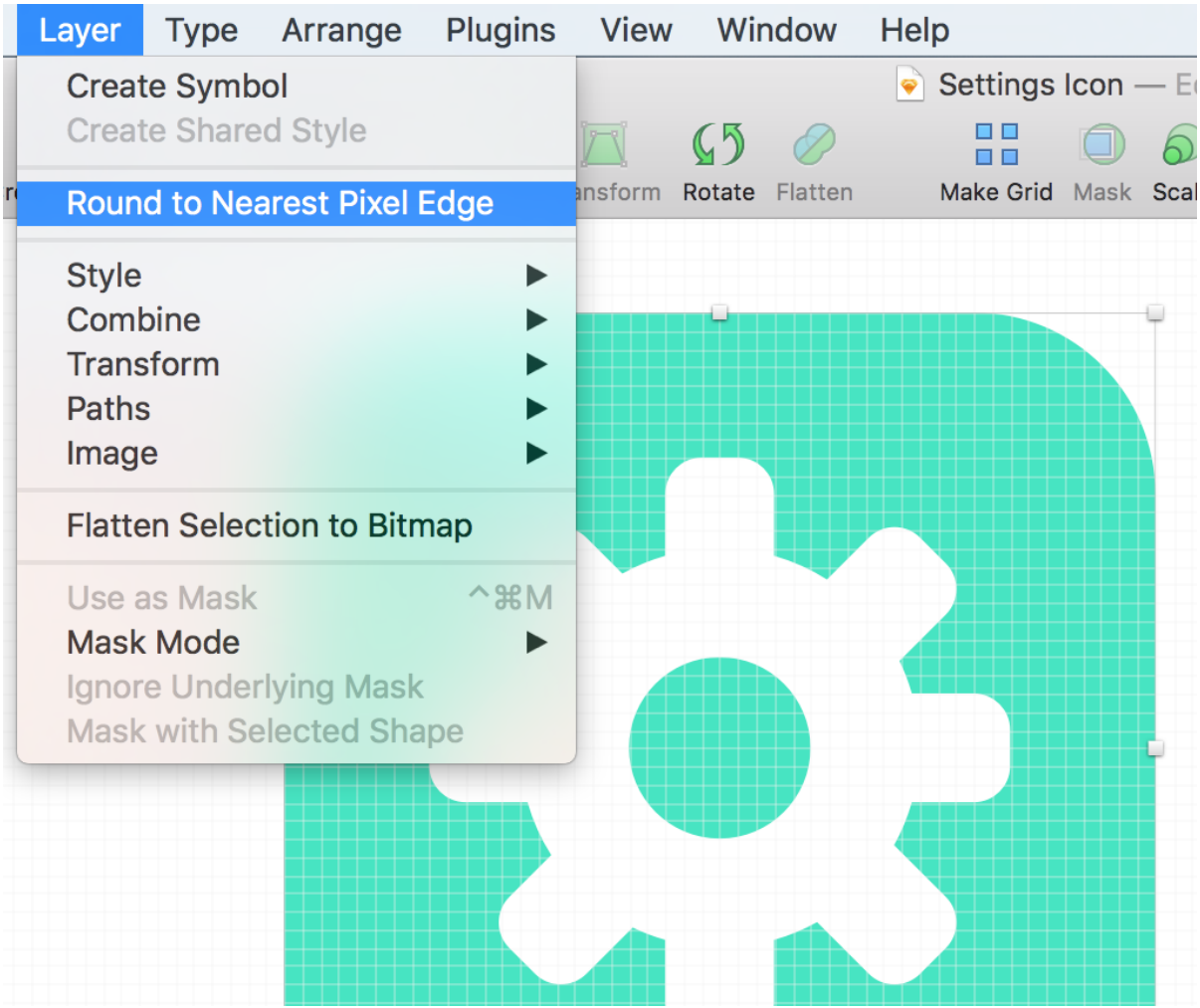
If you want a hint of what your design will look like upon export, but don’t want to look at big blurry pixels, then Pixel Zoom is your friend. Make sure Show Pixels Grid is enabled by going to:

View › Canvas › Show Pixels Grid (Ctrl + X).

Show Pixels Grid allows you to differentiate fuzzy pixels in low contrast that would otherwise go unseen. When combined with Show Pixels, any edges that do not align with the pixel grid will be visible.

Round to Nearest Pixel Edge

Referred to as the best hidden feature in Sketch, Round to Nearest Pixel Edge, solves many pixel alignment imperfections. Once you have spotted a vector shape with sub-pixel values, you can select the shape and then select Layer › Round to Nearest Pixel Edge. Additionally, you could customize your toolbar to include “Round to Pixel” icon.



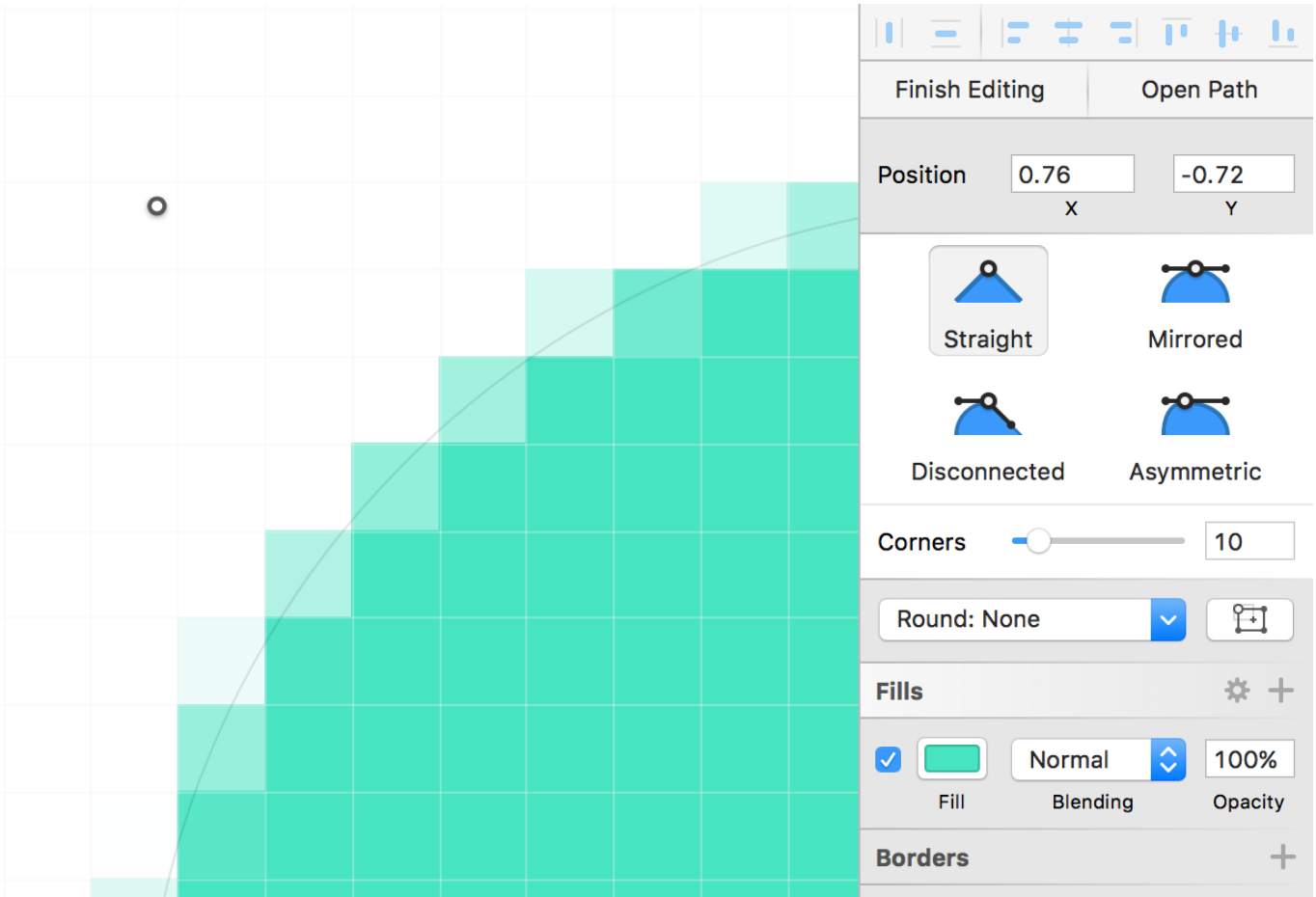
Sketch will automatically align the edges with the pixel grid. This works for both the Position and Size values. This feature provides a quick way to ensure your designs are consistent, especially when importing icons.

Shape Editing

Sometimes your shape may not be aligned as desired, but you can easily edit the individual vector points. To do this, just double-click or select the shape and click on Edit in the Toolbar. All vector editing options will appear in the Inspector. Here you can switch between four different point modes and select a pixel rounding preference.

Pixel rounding preferences in Edit mode.

Pixel precision is nice when needed, but you don't have to limit yourself. For example, when designing tiny icons, you can disable the pixel rounding preference for complete freedom of point movement. However, if you want to ensure that your shape's edges are consistent,

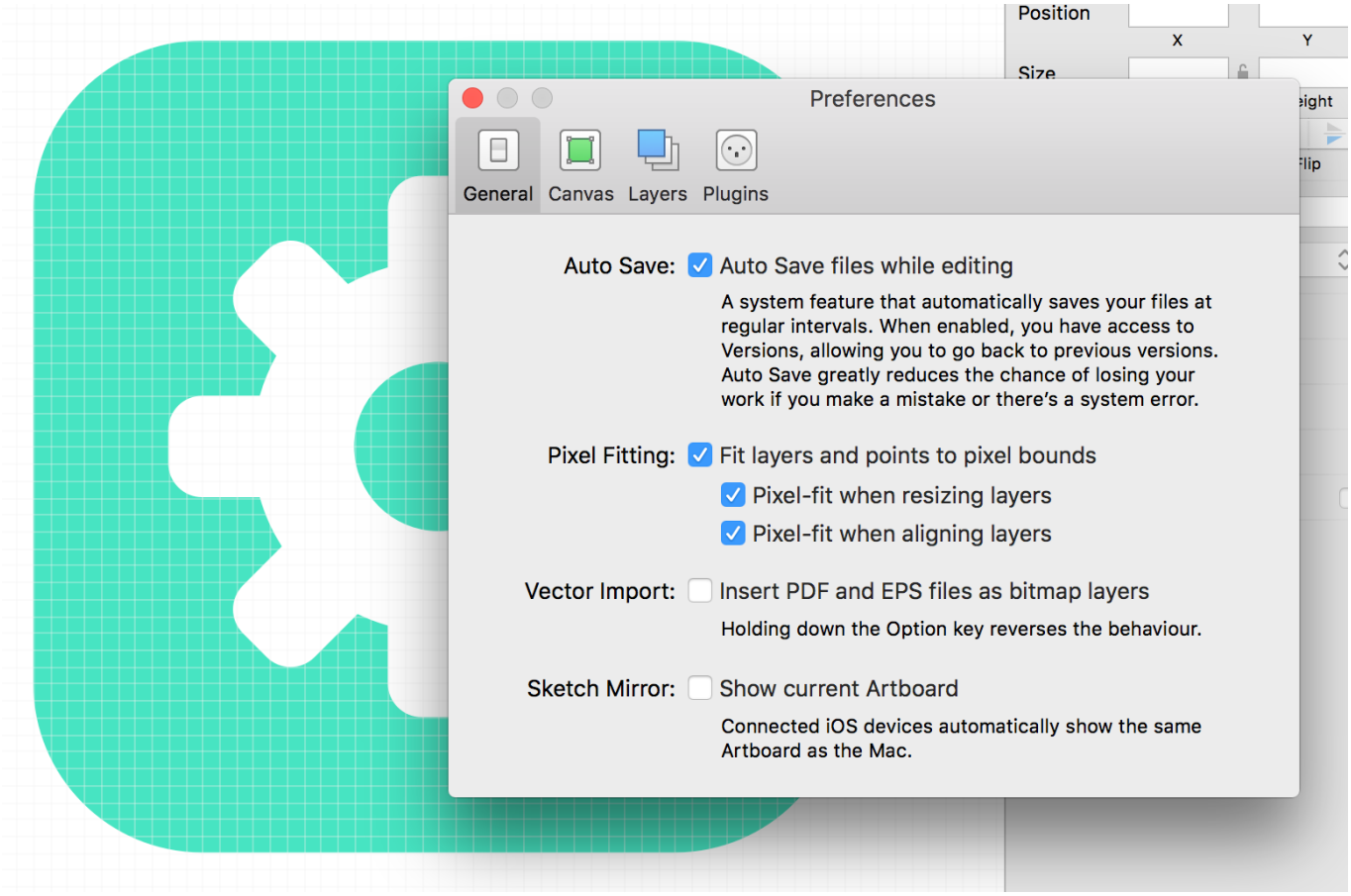


enabling “Round to half pixels” or “Round to full pixels edges” will snap your vector points to half or full pixels respectively.

Setting pixel rounding preferences in Edit mode to ”Round: None”

Pixel Fitting

A global setting that ensures pixel perfection from the start is the Pixel Fitting setting, found in Sketch › Preferences› General tab › Pixel Fitting. This preference makes sure any layer you insert or resize ends up on a full pixel edge, with the exception of rotation. If you’re frustrated by the lack of pixel grid freedom you have at times, you will want to disable Pixel Fitting.



Glossary

A

Adjust content on resize: An option found in the Inspector when an Artboard is selected. Allows you to determine whether the content within should be modified when the Artboard resizes.

Align tool: A tool found at the top of the Inspector (the six icons after the divider). Allows you to line up two or more layers against each other, or line up layers to the edges of an Artboard or group.

alpha mask: A type of mask that clips above layers to its shape as well as its opacity.

Angular Gradient: A type of fill made up of two or more colors that will sweep around a circumference determined by the layer's size.

Arrow tool: A tool that allows you to draw a line with an arrowhead on the Canvas.

Artboard tool: A tool that allows you to insert an Artboard onto the Canvas, either via drawing or selecting a preset from the Inspector. You can select the Artboard tool by pressing the A key.

Artboard: A type of layer that is used to contain other layers and displays a fixed frame on the Canvas.

Asymmetric: A type of vector point. Handle control points will appear parallel but be an independent distance from the vector point. Used to create Bézier curves.

auto (width): A setting applied to a text layer. Auto enables the text layer's width to keep on growing until you create a line break.

Auto Save: A macOS feature that will automatically save your Sketch document whenever you make a change.

B

background blur: A blur effect that will blur content underneath the layer. Used to replicate the effect seen in macOS and iOS.

backward: A command that will move the selected layer towards the bottom of the Layer List.

baseline: Refers to the imaginary line in which all characters in a text layer sit on.

Bézier curve: Created by handles that extend from a vector point when it is set as either Mirrored, Asymmetric, or Disconnected.

bitmap: A type of image that is made up of pixels.

blend mode: See *blending*.

blending: An option that allows you to adjust the layer, or style's blend mode. This will affect how it appears on the Canvas.

boolean operation: A rule that dictates how combined layers should be displayed.

border: Part of a shape's style that is applied to a path.

brightness: A measurement of the intensity of light. The difference between a darker and lighter color with the same hue.

C

Canvas: The main drawing area in Sketch. It is infinite in size and can be scrolled in any direction.

character spacing: An option that allows you to define the value between the characters of a text layer.

child: A term used to refer to a layer that is contained within a group or Artboard.

click-through: An option that can be applied to group layers to select the content within, rather than the group itself. Can also be enabled by holding the Command key.

closed path: A vector shape whose first and last vector points are the same as the path loops round.

Cloud: A free service that allows you to quickly upload your Sketch documents to share them with the world.

Color (blend mode): This effect will preserve the brightness of any layers beneath the one with the Color blend mode applied, but will use its hue and saturation.

Color (menu): Displays a panel provided by macOS that contains the System's color picker.

Color Adjust: A style attribute that allows you to determine the values of the hue, saturation, brightness, and contrast of a bitmap layer.

Color Burn (blend mode): Will burn the color of the layer with the blend mode applied over the layers beneath it. No part of the layer will become lighter.

Color Dodge (blend mode): The inverse of *Color Burn*. Will dodge the color of the layer with the blend mode applied over the layers beneath it. No part of the layer will become darker.

color model: A color model is a system for creating a full range of colours from a small set of primary colors. Examples of color models are HSB, and RGB.

Combine: A toolbar item that allows you to perform a boolean operation on selected shapes from a pop-up menu.

constraints: Rules that can be applied to a layer to determine how it should behave when its parent is resized.

contrast: The difference measured between the light and dark colors used. Increasing the contrast value will make light colors lighter, and dark colors darker.

Create Symbol: A command that allows you to turn any layer into a Symbol master allowing it to be reused and updated.

D

Darken (blend mode): Will blend the darkest colors between the layer that has the Darken blend mode applied, and the layers beneath it.

Difference (blend mode): An effect used to create negative, or inverse colors. Dark parts of a layer will have no effect if those beneath it are also dark, while a white, or light layer inverts the other layer's color.

difference: A type of boolean operation. The result is a vector that is exactly the part where they didn't overlap. It's the inverse of an intersect operation.

Disconnected: A type of vector point. Handle control points will be completely independent of each other. Used to create Bézier curves.

Distribute tool: A tool found at the top of the Inspector (first two icons). Allows you to place three or more layers an equal distance from each other horizontally or vertically.

document color: A defined preset of a solid color that can be used only in the current Sketch document.

document gradient: A defined preset of a type of gradient that can be used only in the current Sketch document.

E

Edit tool: A tool that is used to edit the selected layer. Individual options are available for vector shape, text, and bitmap layers.

Ends: A type of cap that you can apply to a border on an open path.

EPS: A vector file format commonly used in print design.

Even-Odd: A winding rule that determines how shapes with overlapping paths should fill. Even-Odd preserves the ‘holes’ created.

Exclusion (blend mode): Behaves much the same way as *Difference*, but there’ll be less contrast between the two layers.

export presets: An option that allows you to apply pre-defined export sizes to exportable layers.

Export tool: A tool used to share assets defined as exportable from Sketch.

exportable layer: A layer that can be exported from Sketch that appears in the Export dialog.

external Symbol: See *Library Symbol*.

Eyedropper tool: A tool found in the color popover used to sample a color from the display.

F

fill: An integral part of a shape's style

filter: An option available at the bottom of the Layer List to search for a layer by its name.

Fix Height: A type of *constraint*. Ensures that a layer's height does not change when its parent is resized.

Fix Width: A type of *constraint*. Ensures that a layer's width does not change when its parent is resized.

fixed (width): A setting applied to a text layer. Fixed width is defined by the width of a layer. Words that would exceed the width will automatically be placed onto a new line.

Flatten tool: A tool that is used to flatten all overlapping subpaths of a vector shape. Can also be used to confirm any transformations.

flip: A command that will let you flip, or mirror a selected layer horizontally or vertically.

font: A specific file from a typeface that is a certain weight.

Fonts (menu): Displays a panel provided by macOS that contains the System's font picker.

forward: A command that will move the selected layer towards the top of the Layer List.

fractional pixel: A sub-pixel value where a layer or vector point can be placed within two decimal places.

frequent color: A color that is recognized by Sketch as one that is frequently used. Stored within a pop-up menu accessed via the color popover.

G

Gaussian blur: A blur effect common in graphics software. Used to accurately blur a layer in all directions.

global color: A defined preset of a solid color that can be used throughout any Sketch document.

global gradient: A defined preset of a type of gradient that can be used throughout any Sketch document.

Grid: A Canvas overlay used to help align and lay out content.

group: A type of layer that is used to contain other layers for organizational purposes.

Guide: An overlaid marker that is drawn from the Ruler. Layers dragged towards a Guide will automatically snap to it.

H

handle control point: A point that appears at the end of a handle when editing vector shapes.

handle: The line that extends from a vector point to create a Bézier curve.

Hard Light (blend mode): Similar to *Overlay*. Combines both the Multiply and Screen blend modes, but the final color is the result of Multiply if the layers beneath it are lighter, or Screen if the layers beneath it are darker.

hidden layer: A type of layer status. If a layer is hidden, then it is no longer visible in the Canvas.

HSB: Acronym for Hue, Saturation, and Brightness. A type of color model that is broken into those three components.

Hue (blend mode): This effect will preserve the saturation and brightness of any layers beneath the one with the Hue blend mode applied, but will use its hue.

hue: An attribute of color perception. Red, green, and blue are all hues.

I

Image Fill: A type of fill applied to a shape that is an image or pattern.

Image tool: A tool that allows you to insert an image on the Canvas from a location on your computer.

imported Symbol: See *Library Symbol*.

Insert: A toolbar item that allows you to select a tool to insert a layer onto the Canvas.

Inspector: Displays the current settings and properties for the selected layer and is located on the right side of the Sketch window. Options can change depending on the tool or layer selected.

instance: A flattened representation of a layer. These will update whenever a change has been made to a Symbol master. Can independently contain overrides.

intersect: A type of boolean operation. The result is a vector consisting of the parts where the original shapes overlapped.

J

Join tool: A tool that will allow you to connect open paths together.

Joins: Options that allow you to determine how borders should appear on a path's corner.

JPG: A common file format associated with large bitmap images and photos. The amount of compression used can be varied. Less compression results in a higher-quality image.

justify: A type of text alignment. Will attempt to render multiple lines of text (excluding the last) with automatic character spacing so all the lines are roughly the exact length.

K

kern: An option that allows you to define the value between individual characters in a text layer.

L

Layer List: Contains a list of all layers that have been added to the Canvas. Located on the left side of the Sketch window.

layer: A building block for creating designs in Sketch. There are different layer types but they will all appear in the Layer List.

layout grid: A type of grid that is made up of a series of vertical or horizontal bars. Commonly used for web design.

Library: A Sketch document whose Symbols can be used and updated in any other document once added in the Libraries preference pane.

Library Symbol: A Symbol that lives externally and can be edited in a document that is linked as a Library.

ligature: A text effect that combines to or more letters (such as ‘a’ and ‘e’) into a single character (æ). Certain letter combinations are defined by the typeface.

Lighten (blend mode): The inverse of *Darken*. Will blend the lightest colors between the layer that has the Lighten blend mode applied, and the layers beneath it.

line break: Refers to formatting text. A line break can be created by pressing the Enter key when typing to set text onto a new line.

line spacing: Also referred to as **line height**. An option that allows you to define the value between the lines of a text layer.

Line tool: A tool that allows you to draw lines on the Canvas. You can select the Line tool by pressing the L key.

Linear Gradient: A type of fill that is made from two or more colors that will blend, or transition into each other.

list: An option that can be applied to a text layer that will automatically apply a bullet (•) or number to every new line.

local Symbol: A Symbol that lives and can be edited in a single document only.

locked layer: A type of layer status. If a layer is locked, then it remains visible in the Canvas, but it cannot be clicked on, or selected.

lowercase: A type of text transform. Will convert a range of text into small letters.

Luminosity (blend mode): This effect will preserve the hue and saturation of any layers beneath the one with the Luminosity blend mode applied, but will use its brightness.

M

Make Exportable: An option in the Inspector to mark a layer with export settings.

Make Grid tool: A tool used to evenly distribute one or more selected layers into a grid.

Mask tool: A tool that is used to apply a mask to a layer that will clip the contents above it to the shape's outline.

mask: A layer that will clip above contents to fit the shape.

master: An Artboard that contains layers used to make up a Symbol. Contents can be edited and changes will be reflected throughout Symbol instances.

Mirror: A toolbar item that allows you to control the connectivity to browsers and iOS devices via a popover.

Mirrored: A type of vector point. Handle control points will mirror each other to create a Bézier curve.

Missing Fonts: A warning that appears when you open a document that contains fonts that cannot be found on your system.

motion blur: A blur effect that will blur a layer in a defined direction to give the illusion of motion.

Move Up: An action found under the Arrange menu that allows you to move the selection out of a group or Artboard.

Multiply (blend mode): Will leave only the black, and darker colors of the layer if the Multiply blend mode has been applied. Anything that's white (or light) will become less opaque.

N

nested Symbol: A name given to a Symbol that is contained within another Symbol.

Noise Fill: A type of fill that is an image with a grain pattern. Used to apply a fake texture to other fills.

Non-Zero: A winding rule that determines how shapes with overlapping paths should fill. Non-Zero will fill the entire shape.

Normal (blend mode): The standard blend mode that displays the layer alone, without mixing its colors with any layers beneath it.

O

opacity: The level of a layer's transparency.

open path: A vector path whose points are not fully connected. This will create an open shape.

orientation: A option that allows you to define whether an Artboard is portrait or landscape.

outline mask: A type of mask that clips above layers to its shape only.

outlines: A text layer, or border style property that is its own vector shape.

Oval tool: A tool that allows you to draw an oval shape on the Canvas. You can select the Oval tool by pressing the O key.

Overlay (blend mode): Will combine both the *Multiply* and *Screen* blend modes. The final color is the result of Multiply if the layers beneath it are darker, or Screen if the layers beneath it are lighter.

override: An option that allows you to replace images or text content for an individual Symbol instance.

P

Page: A feature in Sketch which will create a new Canvas to be used in the document.

paragraph spacing: An option that allows you to define the value between the paragraphs of a text layer.

parent: A term used to relate to a group or Artboard that contains child layers.

path: The outline of a vector shape between two vector points.

PDF: A common vector file format that can be widely read.

Pencil tool: A tool used to create freehand paths. You can select the Pencil tool by pressing the P key.

pixel: One dot in an image. The more pixels in an image, the higher the resolution. Also the unit in which everything in Sketch is measured in. Values are represented as “px”.

plugin: An external file that can be imported into Sketch to expand its functionality. Can be accessed via the Plugins menu.

PNG: A common file format that supports high-quality bitmap images, and transparency.

Polygon tool: A tool that allows you to draw a polygon shape on the Canvas. Number of sides can be adjusted.

px: See *pixel*.

R

Radial Gradient: A type of fill made up of two or more colors in a circular pattern.

Radius: An option on Rectangle layers that allows you to round the corners of the shape.

range: Refers to the entire selection within a text layer. Also see *subrange*.

Rectangle tool: A tool that allows you to draw a rectangle shape on the Canvas. You can select the Rectangle tool by pressing the R key.

Reduce Image Size: An option that allows you to shrink the file size of images used in your document.

render: Refers to the way items on the Canvas are displayed.

resizing constraints: See *constraints*.

resolution: Image resolution refers to the number of pixels in an image. Resolution is expressed in terms of the width and height of the image in pixels (for example, 375 × 667 pixels). Higher-resolution images contain more detail but also create larger files that take longer to download. Digital devices also have screen resolution.

Reverse Order: An option found when editing a vector shape to reverse the order the points are set up. If used on an open path, you will then be able to place your next point from the other unconnected point.

revert style: An option that will allow you to clear un-synced changes made to a layer with a Shared Style, or Shared Text Style.

RGB: Acronym for Red, Green, and Blue. A type of color model. This model represents how your computer sees colors.

Rotate Copies tool: A tool used to duplicate a shape and to place its copies around a certain point.

Rotate tool: A tool used for pivoting a selected layer around a certain point in the Canvas.

Rounded tool: A tool that allows you to draw a rounded rectangle shape on the Canvas. You can select the Rounded tool by pressing the U key.

Ruler: A tool used to visualize coordinates on the Canvas.

S

Saturation (blend mode): This effect will preserve the hue and brightness of any layers beneath the one with the Saturation blend mode applied, but will use its level of saturation.

saturation: A measurement of the intensity of color. A color with less saturation will be less vibrant.

Scale tool: A tool that is used to scale a layer to a certain pixel value or percentage. This will also relatively scale any effects to the layer such as corner radius, border thickness, and shadow size.

Scissors tool: A tool that is enabled when editing vector shapes. Can be used to cut away the path between two vector points

Screen (blend mode): The inverse of *Multiply*. Will leave only the white, and lighter colors of the layer if Screen has been applied. Anything that's black (or dark) will become less opaque.

shadow: An effect that creates an artificial shadow behind a layer.

Shared Style: A feature that allows you to store a layer's style that can be re-used and updated remotely.

Shared Text Style: A feature that allows you to store a text layer's style and attributes that can be re-used and updated remotely.

shortcut menu: A menu you access by holding down the Control key and clicking and item on the screen, or by pressing the right mouse button. Sometimes called a *contextual menu*.

Show Pixels: A view that will magnify the pixels used to create a layer as a bitmap representation when you zoom in.

size (export): Something that can be applied to an exportable layer. This will determine the scale (as a multiplier or a pixel value) on export.

Sketch Cloud: See *Cloud*.

Sketch Mirror: An iOS counterpart application used for viewing Artboard previews from Sketch.

Slice tool: A tool that allows you to draw slice layers on the Canvas. Used to define an area to be exported. You can select the Slice tool by pressing the S key.

slice: A type of layer that draws a dashed overlay on the Canvas. Content within the rectangle is marked for export.

Smart Guide: An overlaid marker that appears from a selected layer when the Option key is held, or a layer is moved towards the edges or center of an existing layer.

Smooth Corners: A feature that adjusts the curve of a rectangle's corner radius to achieve iOS-like corners.

snap: An action that automatically occurs when a layer is dragged towards a Guide or a Grid. This helps line up objects and can be turned on or off.

Soft Light (blend mode): Behaves the same way as *Hard Light*, however the effect is softer. Applying pure black or white does not result in pure black or white.

Solid Fill: A type of fill that is made up of a single color.

Split tool: A tool that is used for automatically turning subpaths into their own individual layers.

spread: An effect that can be applied to increase the size of the object casting a shadow.

square grid: A type of grid that is made up of repeating blocks.

Star tool: A tool that allows you to draw a star shape on the Canvas. Number of points and radius can be adjusted.

Straight: A type of vector point. Does not contain handles and will give shapes a straight angle.

Styled Text tool: A tool used for inserting defined Text Styles directly onto the Canvas.

subpath: The name given to a layer that has a boolean operation applied to it that is used to make a more complex shape.

subrange: Refers to a selection within a text layer. Can be a single character, or all the words in a sentence.

subtract: A type of boolean operation. The result is a vector where the area of the top shape is removed from the one under it.

suffix: Something that can be applied to an exportable layer. This will append whatever has been entered onto the end of a file name to make it unique.

SVG: A vector file format that is commonly found on the web. Images are made up from XML markup.

Symbol instance: A flattened representation of a layer. These will update whenever a change has been made to a Symbol master. Can independently contain overrides.

Symbol master: An Artboard that contains layers used to make up a Symbol. Contents can be edited and changes will be reflected throughout Symbol instances.

Symbol tool: A tool used for inserting defined Symbols directly onto the Canvas.

Symbol: A special type of layer that contains content that can be re-used and updated. A Symbol will have both a master, and instances.

sync style: An option that will allow you to propagate changes made to a Shared Style, or Shared Text Style that will apply to other layers with the same style.

T

template: A predefined Sketch file that can be opened as a new, unsaved document.

text alignment: Allows you to define what edge text should be aligned and typed from. Examples being left, center, right, and *justify*.

text decoration: An effect that can be applied to a subrange of text. Effects include underline, and strikethrough.

Text tool: A tool that allows you insert a text layer on the Canvas. You can select the Text tool by pressing the T key.

text transform: An effect that can be applied to a range of text that dictates how it should appear. Can be *uppercase*, *lowercase*, or none.

TIFF: A bitmap file format common with some operating systems that supports transparency. Files are uncompressed and can contain multiple resolutions.

toolbar: The toolbar is a collection of tools and menus located along the top of the Sketch window.

Tools: A toolbar item that allows you to choose a range of editing tools from a pop-up menu.

Touch Bar: A Multi-Touch control strip found on MacBook Pro devices.

Transform tool: A tool used for contorting the appearance of a vector shape.

Triangle tool: A tool that allows you to draw a triangle shape on the Canvas. Can choose between equilateral and isosceles.

typeface: A name given to a font family.

U

undo: A command that will let you revert your most-recent action.

union: A type of boolean operation. The result is a vector that is the sum of both vectors' areas.

unlink: Used to convert a *Library Symbol* to a *local Symbol* by detaching it from a Library document.

uppercase: A type of text transform. Will convert a range of text into capital letters.

V

value slider: A value slider is a type of numerical slider control that appears as a number, often to the right of a basic slider. There are two ways to adjust a value slider: by dragging over the number to decrease or increase the parameter value, or by double-clicking the number and entering a new value.

vector point: A point that can connect up to two paths on a vector shape.

Vector tool: A tool used for creating custom shape layers. Allows you to place vector points and adjust paths.

vector: A type of image or layer that is made up of points connected by paths. Can scale to any size without losing quality.

vertical alignment Allows you to define whether text sits at the top, middle, or bottom of a text field.

View: A toolbar item that allows you to toggle the visibility of Canvas overlays, such as Rulers, pixels, and grids.

W

weight: Refers to a certain font from a typeface. Can be regular, bold, italic, etc…

Welcome Window: The name given to the window that can appear when you launch Sketch.

X, Y, Z

X: Refers to an object's x-axis. Measured horizontally.

Y: Refers to an object's y-axis. Measured vertically.

zoom blur: A blur effect that will blur a layer from a defined point out.

Zoom tool: A tool that allows you to zoom in or out of the Canvas. You can select the Zoom tool by pressing the Z key.

0-9

9-slice: A method that allows you to resize bitmap layers by dividing them up into nine sections. Three along each edge, and one in the middle. The corner intersections will maintain a fixed size, whilst the edges and center will be flexible. The option can be found via **Layer › Image › Convert to 9-Slice Image**.

The end.

This file was created for Russian Telegram channel @sketchdesigner by Sasha Okunev.