ThemePark Tutorial

Introduction

So you want to make a theme. You've heard the rumors - it will be long, difficult, and probably dangerous. You're told that many who enter the dark cave of ThemePark are never seen again, and those that do are never quite the same again.

Well, the rumors are wrong. Making a theme is not hard. A complete theme is time consuming, and designing a cohesive and usable interface requires some forethought, but using the tools is actually rather simple. This being a tutorial on ThemePark, and not the theme creation process as a whole, I'm going to assume that you already have a design. These pages will tell you how to get that design into ThemePark, how to test to make sure things are showing up as they should, and in general how to use your tools in a fast, efficient manner.

Speaking of fast, let's get past this introduction business and dive into the meat of the subject.

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Chapter 1 - The Preparation

Part 1 - useful applications

First things first. Download ThemePark. It can be used for free indefinitely, but to get rid of the registration nag it costs $20.

ThemePark is designed for tight integration with Photoshop. You don't need the latest professional version to take advantage of this, Photoshop Elements or Photoshop 7 with the Scripting Plug-In will do. Of course you don't need any version of Photoshop at all, but you'll find the process more time consuming without it.

There are a few other free programs you might want to have around. guiKitty can export elements of a guiKit, and Manifest Destiny let's you quickly browse through a guiKit to see what elements have been modified.

Part 2 - creating a mockup

I said earlier that I assume you already have a design. Well, just in case you don't, feel free to use the mockup templates found at the end of this section. They're just screenshots of major interface elements, but I find that creating your own mockup in Photoshop layers, and keeping these screenshots untouched for reference, works very well.

Most of Apple's interface does not get along very well with resized elements, so try to keep your design to roughly the same dimensions. The more you experiment the more you'll discover that some boundaries can be pushed, but I'm not going to get into that right now.

Last tip - while creating a mockup in Photoshop, it's a good idea to keep different layers separate within a button. You're going to be making hundreds of graphics to be used in your theme, and having some defined layer styles and graphics to work with will help speed things along.

download the mockup templates from MacThemes

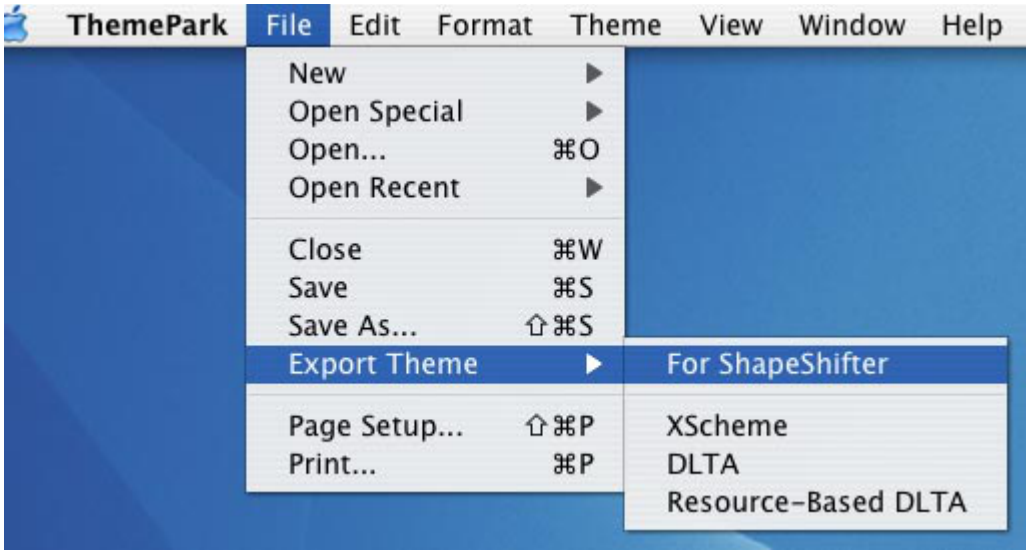
download Max's mockup templates

Chapter 2 - Where to Begin

Part 1 - formats

ThemePark allows you to create themes in one of 4 different formats: guiKit, DLTA, XScheme, or Resource-Based DLTA. The vast majority of you will want to create guiKits, but here's the breakdown.

guiKit aka "For ShapeShifter"
This format was created by Unsanity to be used by ShapeShifter (by far the best theme changing program currently available). guiKit has a number of advantages over the other formats, and is the standard format for themes. It has excellent compression, it lets you to change text colors, it can automatically install "app skins" which apply custom theme graphics to applications (such as iTunes) that have a number of exclusive graphics that are not modified by global system changes. In fact, the guiKit format let's you change all kinds of things that no other format can, and all without actually modifying system elements through the magic of ShapeShifter. The major disadvantage of the guiKit format is that ShapeShifter costs $20. While guiKit elements can be extracted through Unsanity's free guiKitty, there is no way to apply all of them without ShapeShifter.



DLTA
DLTA is the only real alternative to guiKit. It can be applied with a number of applications, including ThemeChanger. This free and open source application was once the standard in theming, but was unseated almost immediately once ShapeShifter was released. Nevertheless, a fair number of people do not use ShapeShifter (for reasons ranging from cost to debatable stability), so releasing themes in DLTA format as an alternative to guiKit can only help more people enjoy your theme. It should be noted that a guiKit in ThemePark can be exported as a

DLTA, not requiring any extra work on your part, but a number of the special features only available in guiKit will not function quite as expected (how much so depending on how much you rely on guiKit-exclusive features).

Resource-Based DLTA
Newer than the DLTA format and outputs a smaller file. While a traditional DLTA includes all resources, a Resource-Based DLTA exports only the resources you've modified. In other words, if you modify the Finder back button but not the forward button, a Resource-Based DLTA will only export the back button. A traditional DLTA would export both buttons.

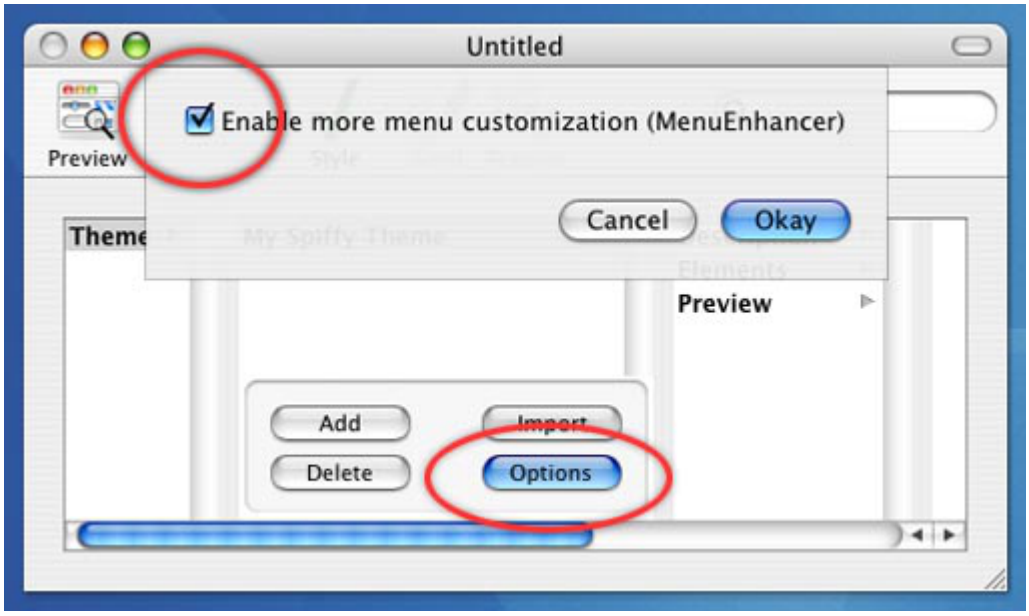
Generally speaking, you'll have better luck applying a Resource-Based DLTA to an unintended OS version than you would with a traditional DLTA because it isn't trying to replace every resource, many of which might have been changed from one version of the OS to the next. I still don't recommend either DLTA format, but if you're really against the guiKit, ShapeShifter, and APE triumverate it's the way to go.

XScheme
XScheme is Carpe Stellarem's format, designed for their theme changer Duality. ThemePark does not support the newer versions of XScheme, so this format can safely be ignored.

Part 2 - the first steps

Now that you know the difference between the formats, you can forget everything I just told you. This tutorial will assume that you are creating a theme for ShapeShifter using guiKit, and most of the people who download your theme will too.

So let's get started. Open up ThemePark, **File menu > New > New guiKit Package**. This opens a new theme template divided into vertical panes. In the second pane from the left, click the Add button. This creates a new variant. Congratulations! Name it whatever you'd like by double-clicking it. You can have as many variants as you like, but it's a good idea to wait until you're mostly (or entirely) done with one before starting another. More on that later.



With the variant selected, click the Options button, and then select the checkbox to enable MenuEnhancer. This will give you a lot more customizability down the road when you want to work on menubars and menus, and if you decide you don't want that you can always turn it off later.

Chapter 3 - Getting Acquainted

Part 1 - terminology

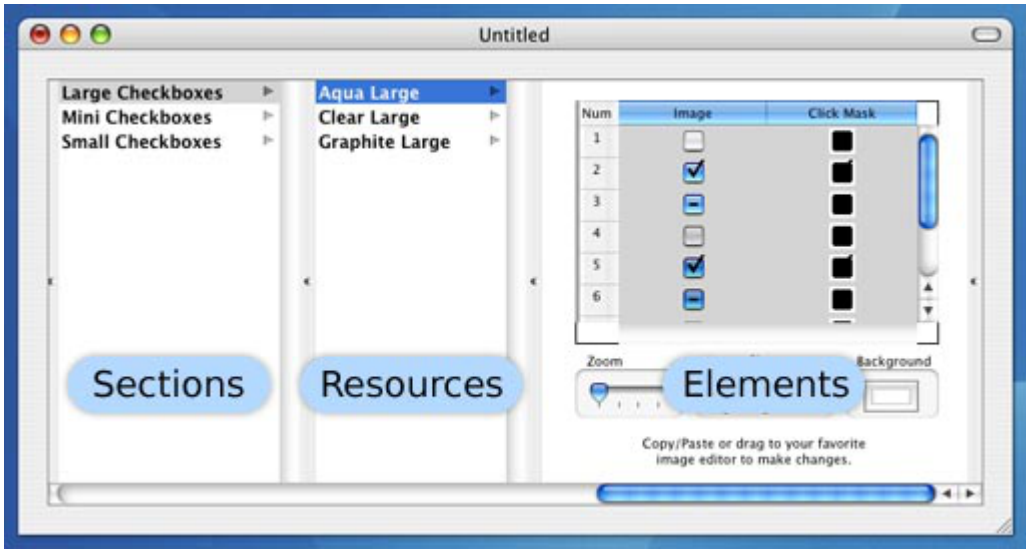
To prevent confusion, I'm going to be using specific names to describe different types of objects.

element:
: the graphics, or text, or whatever is actually changed by you. The below screenshot has a total of six elements - the graphics themselves and their click masks.

resource:
: contains one or more elements

section:
: divided into categories, and can contain nested sections or resources

variant:
: every theme has one or more variants. Variants are essentially independent themes packaged together, and each variant in a theme contains all the sections, resources, and elements of a full theme. Variants are selected in the second pane from the left.



There are also a few terms that ThemePark uses to describe specific types of elements. They are:

caps:
: the end parts on horizontal objects, such as the rounded ends of a button

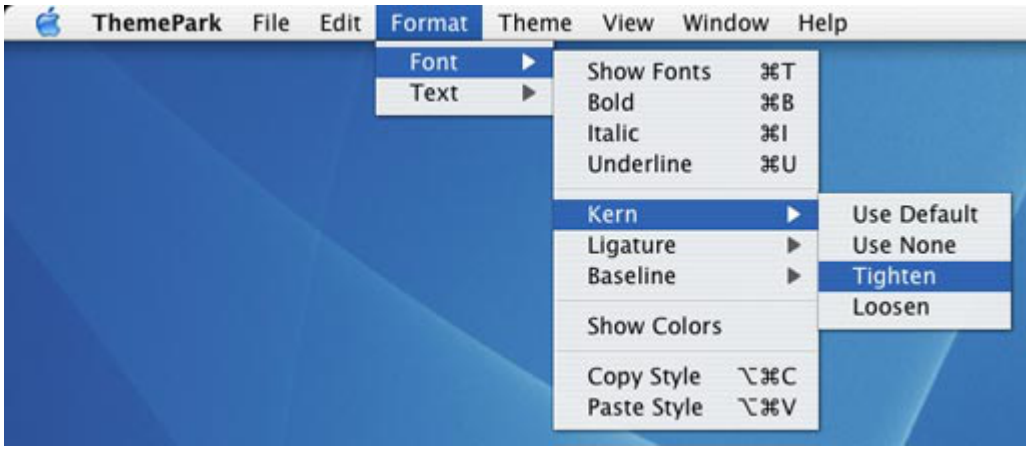
fill:
: goes between the caps

top/bottom:
: vertical equivalent of a cap, usually for Carbon resources

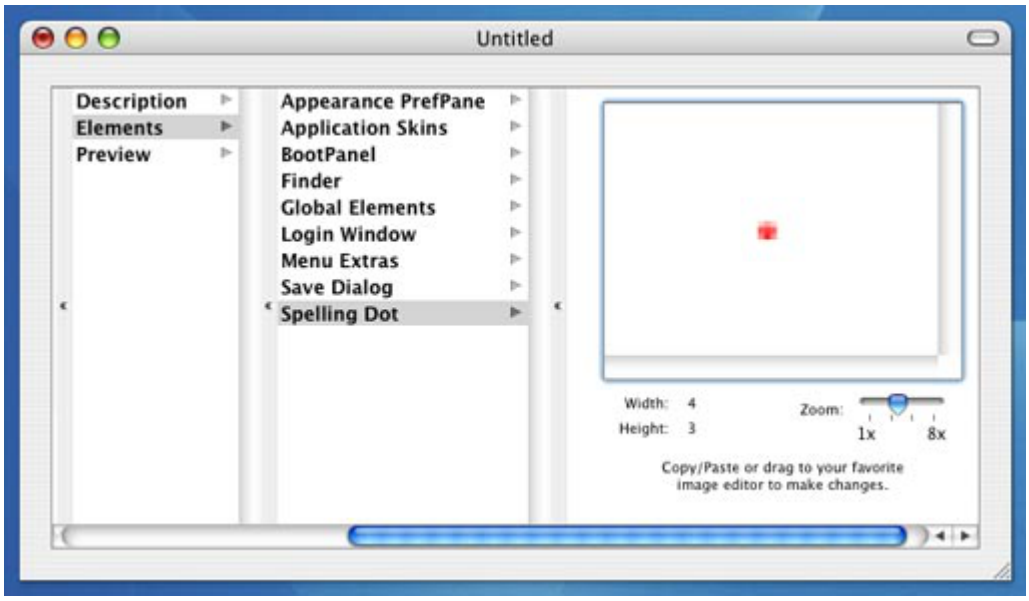
stretch:

roughly the vertical equivalent of a fill, usually only used for Carbon resources.

Certain actions, such as navigating menus, will be described as simply as possible. Instead of saying, "Select the Format menu, move the mouse to Font, then Kern, and then select Tighten", I will say, "**Format menu > Font > Kern > Tighten.**"



Describing a specific section or resources to select in ThemePark's vertical pane interface will use a similar method. For example, to change the Spelling Dot, I would say "**Theme > Variant > Elements > Spelling Dot.**"



Part 2 - resources 101

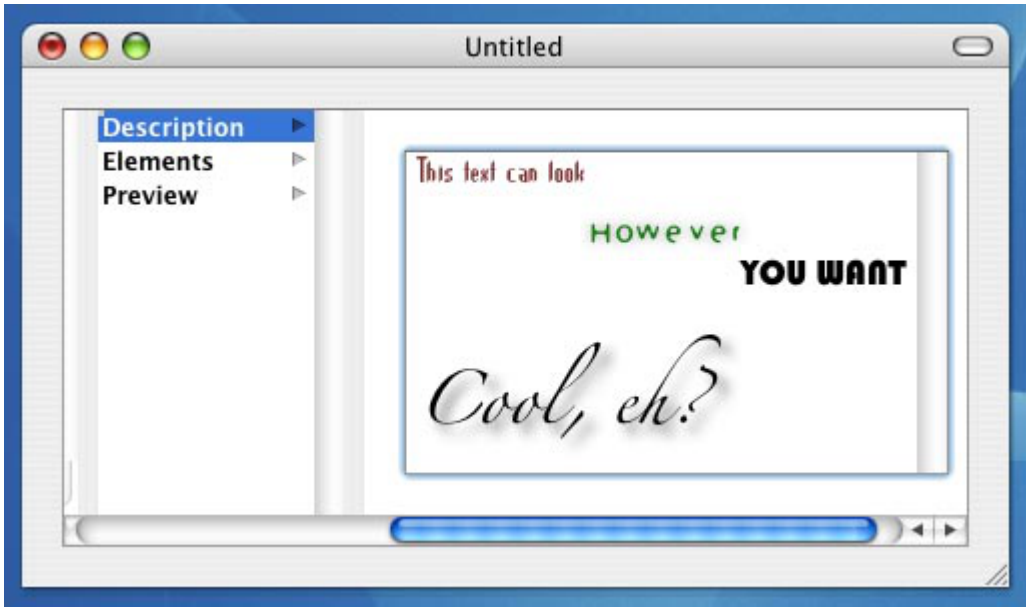
Here's a quick summary in case you don't want to get into all of the dirty details.

Modified resources use light grey text. Unmodified use bold text. Changes can be saved automatically when you switch away from a resource after modifying it, or saved manually.

Using the Style button in the toolbar, you can change a resource or section's status from modified to unmodified or vice versa. This can be helpful if you've only modified one element out of many in a resource and don't want to forget to do the rest. On the other hand, you might not want to change a resource at all (for example the Obsolete resources), and you don't want its bold text distracting you. Just change its status to modified and problem solved.

Now you have a theme, and it has the name you gave it, but that's all you've really done so far. In the 3rd panel from the left there are three sections: Description, Elements, and Preview. While the interface of ThemePark might seem a bit disorienting at first, it's something that you quickly grow comfortable with as you get used to it.

The description is a little bit of text you can use to, well, describe your theme. For an example of what this looks like in a completed theme, open up ShapeShifter and select a theme. The text in the lower right of the area is the variant description. You have complete formatting control over this text, such as justification, text color, fonts, colors, and font size. Select the text you want to stylize and use the Format window to modify it as you please.



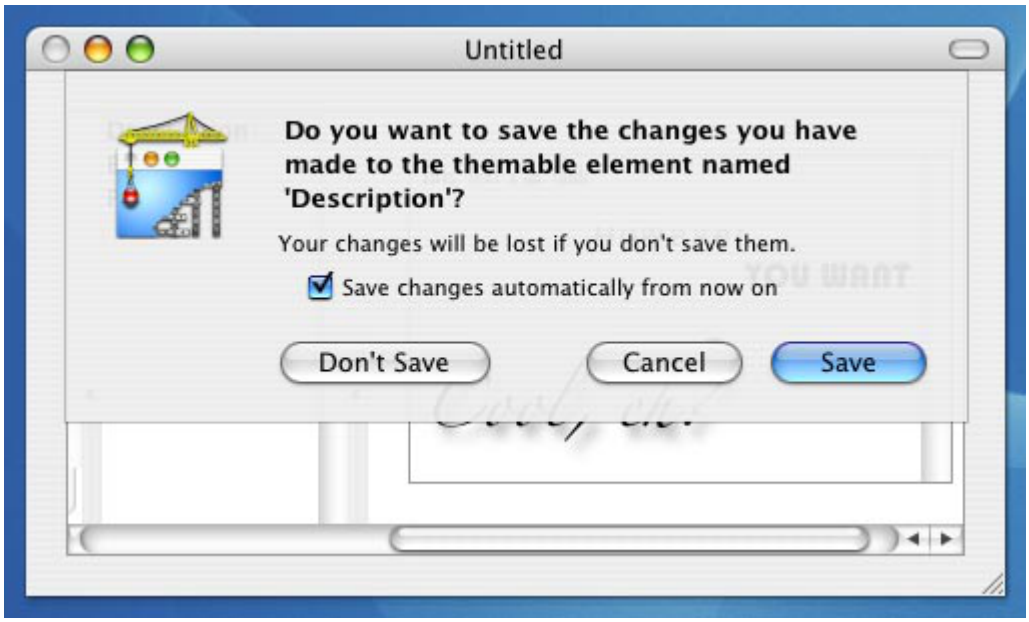
Now select Preview... wait a second! It wants to know if it should save the changes. Here's what's going on. If you do *not* want changes automatically saved, it's going to ask if you want to save every single time you change something and then switch away from that resource. That gets

pretty annoying, and I don't know of anyone who uses ThemePark frequently that hasn't enabled automatic saving.

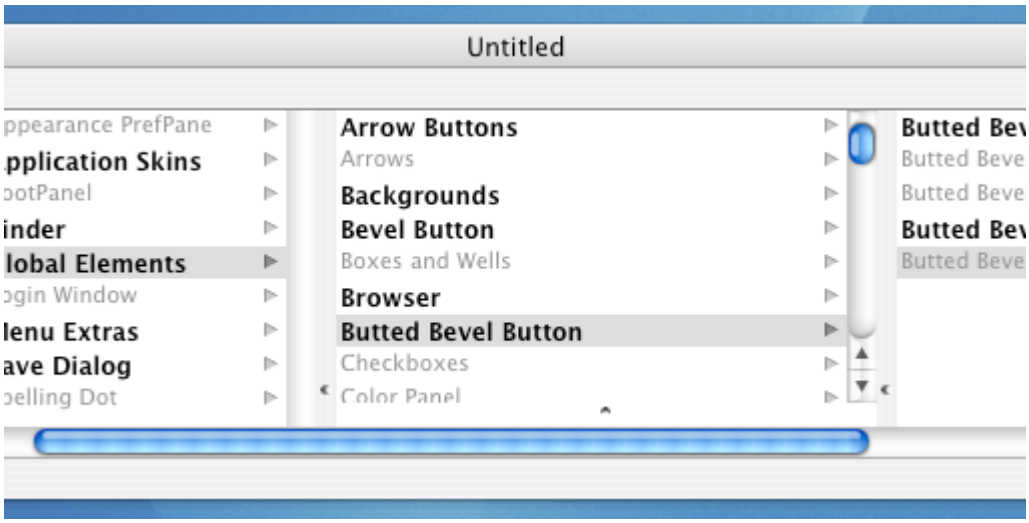
However, there is an advantage to manual saving of elements. If you modify a resource but then want to undo your changes, that only works if you haven't switched the selected resource. If switching resources was a misclick, automatic saving can actually lose earlier work.

Confused? Try this: in the Description, modify the text somehow. Then **Edit menu > Undo**. Just like most other applications, ThemePark gives you an unlimited number of undos and redos. But the instant you unselect the Description resource, that undo/redo cache gets wiped clean. If you try to go back to it and undo your last changes, your only answer will be a little beep informing you that it just can't do it. So pay attention, and don't delete things without a backup somewhere outside of ThemePark if you might want them later.

For future reference, I'm assuming that you have set ThemePark to automatically save every time you switch away from a resource.



Once you select the Preview resource, "Description" changes from black, bold text to a significantly less-bold grey. This is how ThemePark let's you know what's been modified. It doesn't necessarily mean that everything within that resource has been modified, just that something there has been changed. The text field was the only element within the Description resource that could be modified, but other resources might have a number of graphics in them, and just changing one of them will mark the entire resource as modified.



But what if you made a change, but didn't want that resource's status to change? What if it still needed a lot of work, and you wanted it to stay big, black, and bold? Just select the resource title, and then press the Style button in the toolbar. The Style button has two different appearances, and two functions that match. If you have a modified resource selected, with light grey text, the Style button has a big red X and pressing it will change the status of the resource to unmodified, restoring the boldness. It won't delete any of your changes to the element, it only affects the status. But let's say that it really is an unmodified element, with bold text and everything, but you don't plan on changing it. Select the unmodified resource, and the Style button will be a big green check mark. Click it, and it changes the status of the resource to modified, complete with light grey text.

Resources can be switched back and forth as much you like using the Style button, and the actual contents of the resource are never modified by it, so press the button with impunity. It should also be noted that you can mark an entire section as modified (or unmodified), and that will change the status of every resource or section within that section as well as the status of the section itself.

Part 3 - putting your graphics into ThemePark

If you don't have Photoshop, ***Part 4*** of this chapter will give you specific directions that you can use without Send and Receive, but you should still read this. If you do have a supported version of Photoshop, you can completely ignore Part 4 unless you just feel like educating yourself. Supported versions are listed in ***Chapter 1, Part 1***.

Here's a quick summary of this section. It gets pretty dense while trying to explain how things work, but you really don't need to know much to actually import and export images.

To import an image with transparency from Photoshop, select the resource you want to replace and then press the Receive button in ThemePark. This will import whatever window is topmost within Photoshop (so if you have multiple images open, make sure the one you want is the active window before switching to ThemePark).

To import a solid image with no transparency at all, you can simply drag the image into ThemePark from Photoshop, the Finder, or wherever you might happen to have it. The Receive button will also work.

To export an image from ThemePark to Photoshop, select the element you want and then press Send in ThemePark. This will open it in Photoshop, complete with any transparency it might have. If the element in ThemePark is completely solid with no transparency, you can copy and paste it into Photoshop.

Now that we've covered saved resources, let's get back to what we were doing. You had just edited the Description, and had selected the Preview resource. This presents you with a pane stating "No Preview", and near the bottom of the window there are some dimensions and a slider. The "No Preview" text is in fact an image, and the slider changes how much that image is zoomed. It's pretty self explanatory, but run the slider back and forth right now just to get the hang of it. The slider is generally fairly useless, as you'll probably be doing most of your zooming in and out on a graphic in Photoshop, but it can be helpful if you're trying to see if any glitches in the graphic were introduced when you put it into ThemePark. The dimensions are also fairly self explanatory, and I won't insult you by describing what "width" is.

Let's put your first graphic into the ThemePark Preview resource. It doesn't matter if you'll actually use it later, in fact most preview images are small screenshots of the theme in use (and obviously you don't have one of those yet). Preview images are generally about 250x150 pixels. They can be both wider and taller than that, but 250x150 is a nice round number that won't make the preview image space in ShapeShifter feel cramped. Let's create a quick preview image together.

In Photoshop, create a new RGB graphic with a transparent background, 250x150 pixels. Draw something in the image, it can be just a squiggle if you want. The important thing for this tutorial is that the edges of the image are all completely transparent. If some parts of the image have

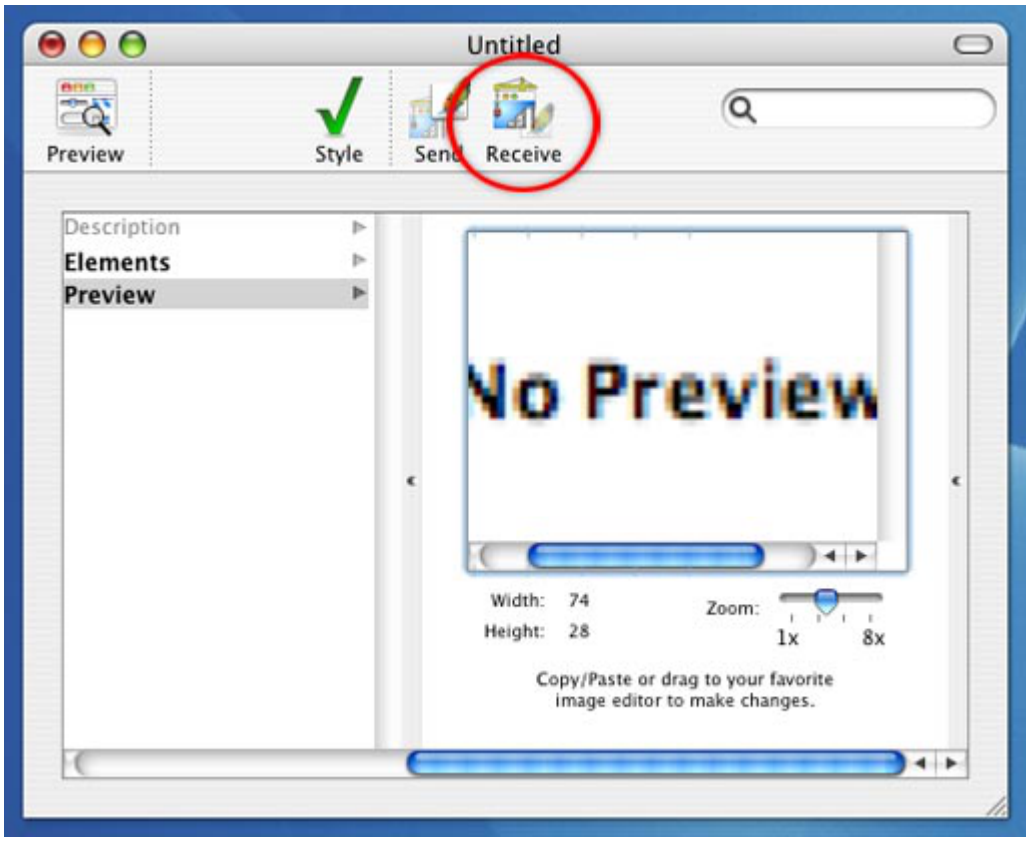
varying levels of opacity, even better. When you're done, use the Move tool to drag your image to where the "No Preview" graphic is in the Preview resource.

ThemePark will then tell you that the new image is the wrong size, and you can Resize, Cancel, or Scale the new image. Scaling it will just shrink your new image to the size of the No Preview graphic, and that's not what we want. Hit "Resize Element".

Unfortunately, this will not give you what you expect. The transparency will look odd, and if you check the dimensions they won't be the same as the image you created in Photoshop. What happened?

ThemePark works great with solid images that have no transparency. You can drag those in from anywhere - GraphicConverter, the Finder, Photoshop, anywhere. But when transparency comes into play, it needs some help. When you dragged your image from Photoshop, all that ThemePark received were the edited parts, and essentially cropped the graphic to omit the transparent edges. That's no good at all.

In ThemePark, select the graphic you just dragged in and then press the Send button in the toolbar. This will open it in Photoshop, where you can see that what you had wanted to be transparent was replaced with white, and it probably went through some other weirdness as well. But don't worry, the solution is easy.



Select the image you want as your preview, then go into ThemePark and select the preview image element, and press the Receive button in the toolbar. It will again tell you that the new image is a different size and ask what to do, so press Resize Element. And there you have it, your partially transparent image should be in ThemePark now, exactly as you'd expect, even with the correct dimensions. It might appear to have a white background, but to test the transparency you can always just select the element and press the Send button in the toolbar. This will open it in Photoshop, and it will be an exact copy of the original image you made.

Send and Receive are your two best friends. Working with transparency masks prior to their introduction in ThemePark was a time consuming chore, but those masks are created instantly by ThemePark now (and have even been removed from the interface entirely). Unless the image you want to import has absolutely no transparency and completely fills its dimensions, you should always use Receive to import an image from Photoshop.

Part 4 - putting your graphics into ThemePark without Photoshop

If you have Photoshop, you can skip this part (but be sure to read ***3.3***). If you do not, you should read this part in addition to ***Part 3*** of this chapter, as this just describes a way to import transparent graphics without the Send and Receive Photoshop integration in ThemePark.

This really isn't very complicated, but can be more time consuming than using Send and Receive in tandem with Photoshop. Graphic elements in ThemePark are all TIFF images, complete with transparency support. Simply saving a transparent TIFF in your graphics editor of choice and then dragging it from the Finder to the element you wish to change in ThemePark will do the job with no other steps.

This is much easier than the old way of doing things, even with Photoshop, so don't run out and get a copy if you don't need it for anything else. You don't have 1-click support, but you also don't have to worry about transparency masks (which aren't even a part of the ThemePark interface anymore, thankfully).

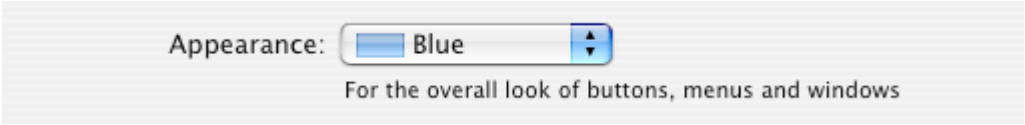
Chapter 4 - The Good Stuff

Part 1 - manipulating multiple elements

First, let's talk about Apple's themes. In the Appearance System Preference, you can change your system from Blue to Graphite. Instead of bubbly aqua with traffic light window close/minimize/zoom widgets, everything is changed to a more subtle Graphite hue.

"This is great," you might think. "Now I can have two styles within one theme by taking advantage of Blue and Graphite!"

In a perfect world, it would mean that. But the fact is that very few people ever go into the Appearance preference pane with any regularity, and even among those very few switch from one appearance to another. People simply don't think to look. It's not their fault, they're not failing to use their computer in some way, it's just the way things are.



This means Blue and Graphite should actually look the same to prevent an entire style of your theme going unused for no other reason than people didn't think to look in an obscure system preference. Sure, a small number of people will find it and think it's a pleasant surprise, but the majority just won't know it exists. All variations of your theme should use their own variant, which can be added in the 2nd pane from the left in ThemePark.

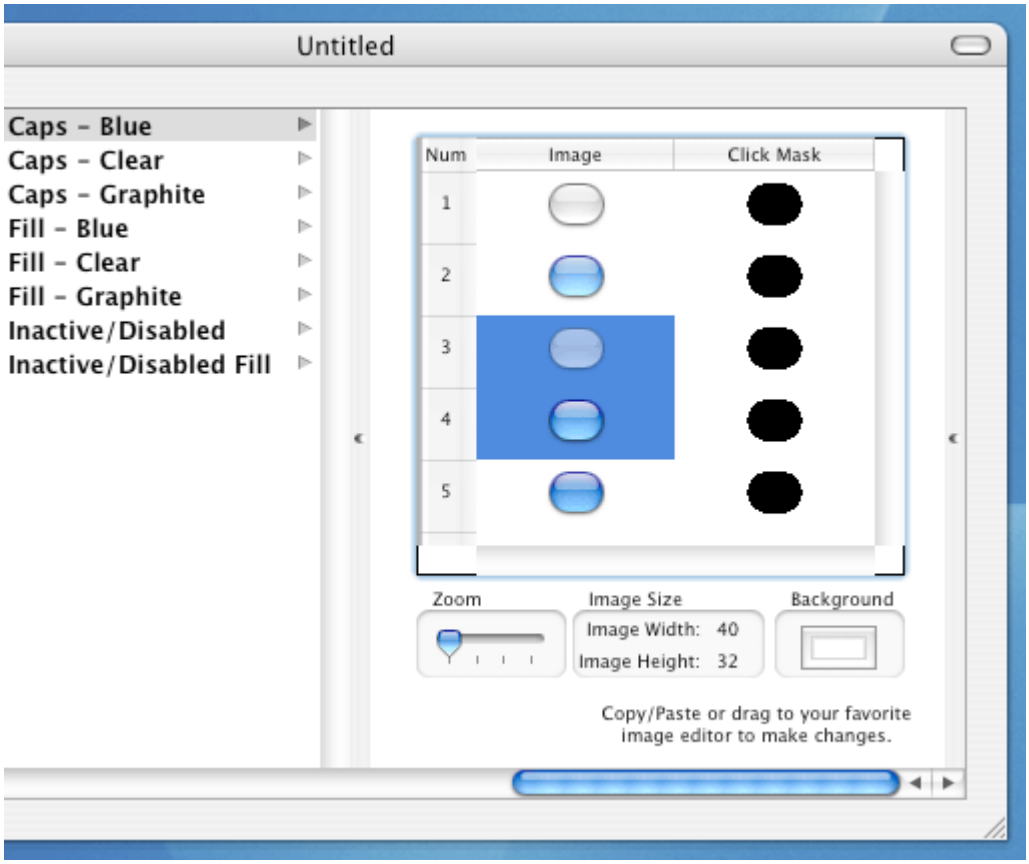
So now we have a problem. We can't just ignore Graphite, because someone might be using that appearance without even thinking about it. There are hundreds of independent Blue and Graphite elements. How can we quickly copy your changes to Blue over to Graphite? The key is copying and pasting entire resources in one action.

Let's go to **Theme > Variant > Elements > Global Elements > Push Buttons > Large Push Buttons.** There are 8 resources to be edited here, broken up between Blue, Clear, Graphite, and Inactive. Let's ignore the inactive ones for now, and treat Clear like Graphite. We'll get to the meaning behind Clear in ***Part 2*** of this chapter.

In the *Caps - Blue* resource, there are a total of 10 elements - 5 graphics and 5 click masks.

The click mask defines where you can click and something will happen as a result of that click, with the black defining clickable regions while white defines where clicks are ignored. The clickable region is generally slightly larger than the graphic so users don't have to be absolutely perfect with clicks on the button itself. The close, minimize, and zoom widgets in window titlebars are a good example of where it's smart to have a large click mask even if the widget

graphic is small - who wants to futz around clicking on an exact pixel just to minimize a window?



Within *Caps - Blue*, select the 3rd and 4th elements in the Image column using the shift key, and then **Edit menu > Copy** them. Now select the 1st and 2nd elements in the Image column and **Edit menu > Paste**. The two elements you copied should now replace the two you pasted over.

You can copy and paste as many elements as you'd like, in rows or columns or both. The only thing to keep in mind is that the actual number of elements selected is important when pasting. For example, if you copied 3 elements in one column, you would only be able to paste those over 3 elements in another column, not 1 or 5 or 12. If you copied 4 elements in a square, you would only be able to paste them over 4 elements in a square. The only exception to this is if you only copy 1 element, because that 1 element will be automatically multiply to paste over however many elements you select. Just remember that all elements within a resource must be the same size, and if you try to resize one it will ask if you want to resize them all or scale the one to fit.

Quick tip: To select an entire row or column, simply click on its header. For example, in the screenshot above you would click where it says "Click Mask" to select the entire column of black and white click masks. Using the shift key you can add more columns or rows to your selection.

Play around with the *Caps - Blue* resource and get some of the elements out of order. Assuming you haven't unselected it, you can Undo to your heart's content - but let's keep it all messed up for now. **Edit menu > Select All** of the elements in *Caps - Blue*, copy them, and then select all of the elements in *Caps - Clear* and paste. All of the elements in *Caps - Clear* should now look exactly like the ones in *Caps - Blue*, and you can of course have the same result in *Caps - Graphite*.

By copying and pasting multiple elements, you can quickly and easily sync Graphite, Clear, and Blue resources.

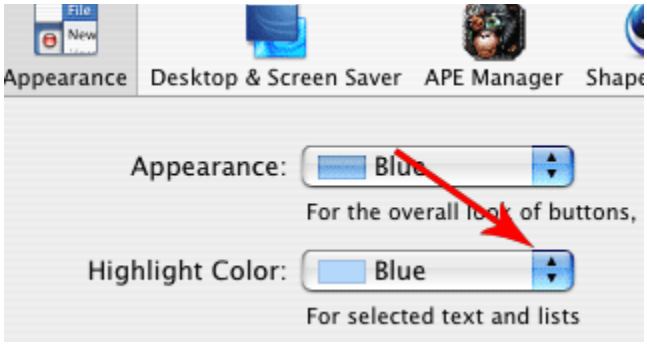
One more tip. Not only can you copy and paste multiple elements in ThemePark, you can also select multiple elements, Send them to Photoshop, edit them as all part of one big image, and then Receive them back in ThemePark. If there's any one way to speed up the theme creation process, it's by doing a as much of the work at one time as possible.

Part 2 - inactive and clear states explained

In ***4.1*** I told you to skip over the *Caps - Clear* resource within the Large Push Buttons section. The reason for that is that Clear states are not another appearance, like Blue or Graphite, but rather a method of feedback based on functionality. Here's how Jason Harris, the creator of ThemePark, describes the Clear state:

"If you're running Aqua and Blue is set as the color variant in **System Prefs - > Appearance** and the System Prefs window is frontmost, the Blue popup menu will have a blue arrow on the right side. If you bring a Safari window frontmost, but can still see the System Prefs window, the popup menu's arrow will change to the Clear variant, indicating that if you click on it, it will pop open immediately, instead of requiring one click to bring the System Prefs window forward and then a second click to popup the menu.

"If, on the other hand, that popup menu was designed so that you did need to click on it once to make the System Prefs window frontmost and then a second time to pop open the menu, the menu would have shown the Aqua disabled state instead of the clear state. Or, depending on how it had been coded, it might have just shown the standard blue state instead when it wasn't the front-most window."



To make matters worse, the inactive state is generally only used in Carbon applications, while the Clear state is exclusive to Cocoa apps. To be safe most themers make the Blue and Clear elements look the same, while the thorough test each element's clear state to see how well it works. The best advice I can give you regarding clear states is to wait until you're comfortable in ThemePark before trying to figure them out and use them to their full potential, which is a tricky business regardless of theming experience.

Part 3 - previewing your theme

So now you know how to work with graphics in ThemePark quickly and easily. When you get right down to it, that's the whole point, so there isn't much left for me to teach. There's only one thing that still needs to be mentioned - viewing your changes.

Hit the Preview button in the ThemePark toolbar, or **Theme menu > Theme Preview > Display and Update Preview Windows**. This opens two applications, Theme Preview (Carbon) and Theme Preview (Cocoa). Remember inactive and clear states? That's just one example of how Carbon and Cocoa applications use different elements and resources in different ways, which is why they get their own previes.

The differences aren't huge, but it's a good idea to look for things like resources that might be stretched in one preview app while tiled in the other. Some resources, such as the scrollbar ghost appearance, are only used in Carbon. Others might only be used in Cocoa. This tutorial is only an overview of ThemePark, so I'm not going to get into explaining the various quirks of each resource. Just keep an eye open and you'll be fine.

That said, there is one major failing of Theme Preview to keep in mind. Theme Preview does not take advantage of any of ShapeShifter's special features. This means the preview will not show custom text colors, the background and texture in the metal window preview might look completely wrong, assorted transparencies can have odd effects, and in general things might just be a bit off. This isn't to say that Theme Preview isn't worth using - it's great for quickly checking out some changes to a button or something like that. But you should *always* do extensive testing with the theme actually applied to your system before releasing it to the public. Remember, to export your theme for use with ShapeShifter, **File Menu > Export Theme > For ShapeShifter**.

And that's about it! There's a lot left to know about ThemePark, but this tutorial will get you digging around and importing your own resources in no time. I might write a longer tutorial detailing individual resources some time in the future, but really there isn't anything you can't learn just by experimenting. Resize an element, play with its transparency, and see what happens!