

## ImageReady: The Basics

### Lesson 1: Introduction to ImageReady

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#### What is ImageReady?

Welcome to the ImageReady tutorial! If you aren't already familiar with Adobe Photoshop, we strongly suggest that you take the Photoshop tutorial before continuing, because this tutorial assumes a general knowledge of Photoshop. (But don't worry—you don't have to be an expert!)

ImageReady, which comes with Photoshop, has many of the same image-editing capabilities as Photoshop, but in addition it has advanced features to help you develop graphical web sites. ImageReady lets you create links, rollovers and animations, and it optimizes your graphics for the web. The software actually creates HTML pages for you, and includes all of the necessary code, such as table definitions, image maps, links, and JavaScripts, to implement your site.

Once you have designed your graphical interface in ImageReady, you can then open your HTML pages in a web-editing application such as Dreamweaver or GoLive to add content and fine-tune your pages.

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#### Photoshop vs. ImageReady

When deciding which application to use, Photoshop or ImageReady, remember what each was designed to do:

- Photoshop is an advanced tool for creating and editing graphics. It was originally intended for designing print-based graphics. Photoshop has some web-oriented features, but for the most part they are more limited than ImageReady's.
- ImageReady was created with the web in mind. It has more, and better designed, web features than Photoshop. With ImageReady you can add links, rollovers and animations to your graphics. But ImageReady lacks some of the advanced image-editing capabilities of Photoshop. (And it's slower!)

There is a very large overlap between features in the two applications. As a matter of fact, the two have such similar interfaces that it can sometimes be hard to tell which one you're in! Many people speculate that in a future version, Photoshop and ImageReady will be combined into one software package.

## Lesson 2: Jumping

### What is jumping?

Because Photoshop and ImageReady each have something valuable to contribute to the web-development process, Adobe has made it easy to have the best of both worlds. ImageReady and Photoshop read the same file format, and have the same file extension: .psd. And if your computer has at least 90-100MB of memory, you can have both applications open at the same time and jump between them.

### How does it work?

In both applications, the bottom button on the toolbox is the **Jump To** button. In Photoshop, the button launches ImageReady; in ImageReady, the button launches Photoshop. See the pictures at left for a close-up of each.



To ImageReady



To Photoshop

This process works because the two applications share a temporary file, so that changes made in one application are reflected automatically in the other. Whenever you jump from one application to the other, the original application stores the current state of your graphic file into the temporary file, and then the destination application comes to the front, loads the temp file and updates the display. While that is happening, the new window is shaded dark gray. As soon as the updates from the other application have loaded, the gray shading disappears and you can continue to work in the new application. (This process is often so fast you can miss seeing it.)

When you are done working on your file, you can save it from either application.

## Lesson 3: File Formats

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### What are the file formats for web graphics?

ImageReady and Photoshop work with the Photoshop file format (.psd). However, web browsers cannot recognize that format, and so you must save your files in a format that can be used on the web. You have a choice of four: GIF, JPEG, PNG-8, or PNG-24. Each of these file formats uses compression to make graphics files smaller and therefore quicker to download. Below is a detailed description of each.

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#### **GIF**

GIF stands for Graphics Interchange Format. Some people pronounce it "jiff", others "giff". The file extension is .gif.

GIF is an 8-bit color format, which means that it can save up to 256 different colors. The GIF format compresses large areas of solid color while preserving detailed areas. This fact, plus the 256-color limit, make GIF a good format for line art, logos, or type. It is not so useful for photographs, which have many more than 256 colors and which have smooth color transitions rather than sharp edges.

GIF uses a "lossless" compression method patented by CompuServe. This means that no information about the graphic is discarded in the compression process. However, if you begin with a graphic that has more than 256 colors, you will lose color information if you save it as a GIF. (ImageReady lets you add lossy compression to a GIF file, in order to reduce the file size even more.)

GIF supports animated images, background transparency, and background matting (blending edges with a web page background). The GIF format is supported by all graphical web browsers.

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#### **JPEG**

JPEG (or JPG) stands for Joint Photographic Experts Group. It's pronounced "jay-peg". The file extension is .jpg.

The JPEG format supports 24-bit color, so JPEG graphics can have up to 16 million colors. This allows JPEG graphics to preserve subtle variations in color and smooth gradients. For this reason, JPEG is good for photos and other gradient-like images. On the other hand, the JPEG compression method can degrade sharp detail in images containing type, line art, logos, or vector art.

JPEG is a "lossy" compression technique, which means that it compresses by selectively discarding data. It can reduce files sizes to about 5% of their normal size, but

some detail is lost in the compression. When saving a file as a JPEG, you can choose how much compression you want to use. At higher quality you get a bigger file but a better image, and vice versa. You can control the trade-off. Another benefit of JPEGs is that you can create a "progressive" JPEG, where a low resolution image is displayed on the web while the higher-resolution one is downloading.

JPEGs, however, do not support transparency. Transparent pixels are filled with the Matte color in the Optimize palette. So if you have a graphic with a transparent background, set the matte color to the background of your web page. If you don't know the background color, or if it's a pattern, don't use JPEG.

The JPEG format is supported by all graphical browsers.

**Tip:** Because JPEG is a lossy compression technique, you will lose too much image quality if you save a file as JPEG, then open it again, make changes, and save it as a JPEG again. Always open the original .psd graphic, make the changes, and then re-create the JPEG version.

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## **PNG**

PNG stands for Portable Network Graphic. It's pronounced "ping". The file extension is .png.

The PNG file format was designed to replace GIF, because GIF compression is patented by CompuServe and software developers that use it (such as Adobe) have to pay a royalty. PNG, on the other hand, is free for everyone.

There are two types of PNG formats: PNG-8 and PNG-24. (The number refers to 8-bit or 24-bit color.) Here is a description of each:

### ***PNG-8***

The PNG-8 format supports up to 256 colors. Since it works very similarly to GIF, it makes a good replacement for it. It is useful for line art, logos, and type; it is not such a good format for photos or smooth color transitions.

PNG-8, like GIF, uses a lossless compression method. In general, a graphic compressed with PNG-8 will be 10-30% smaller than the same graphic saved as a GIF. However, GIFs *can* be smaller with very simple images.

PNG-8 supports background transparency and background matting.

**PNG-24**

The PNG-24 format supports up to 16 million colors. Like the JPG format, PNG-24 is able to preserve subtle variations in color and smooth gradients, so it is excellent for photographs. In addition, like GIF and PNG-8, it saves sharp detail, and so it also lends itself to line art, logos, and illustrations with type.

PNG-24 uses same lossless compression as PNG-8. Unfortunately, PNG-24 files are usually significantly bigger than their JPG equivalents.

Like PNG-8, PNG-24 supports background transparency and matting. The format also has the ability to do multi-level transparency, saving up to 256 levels of transparency to blend the edges of an image smoothly with any background color.

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Only the most recent versions of Netscape Navigator and Microsoft Internet Explorer now support both flavors of PNG and their advanced features, like multi-level transparency. Unfortunately, older browsers do not support these file types and won't be able to display graphics in PNG format.

## Lesson 4: Optimization

### What is optimization?

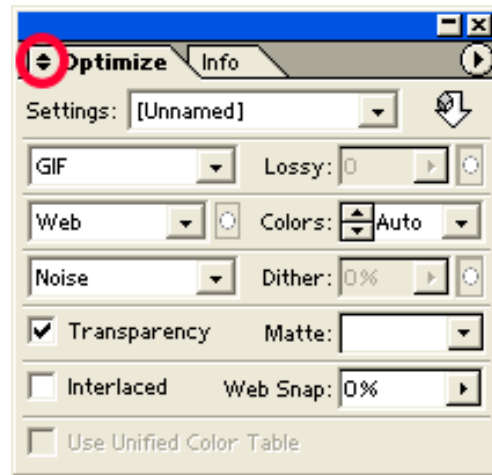
Optimization is the act of balancing the display quality of a graphic with its file size. Since large graphic files can make a web page very slow to load, achieving the smallest file size possible without compromising picture quality too much is critical when developing for the web.

ImageReady helps you optimize your graphics by letting you preview and compare the results (both size and image quality) of different file compression formats and settings. You can view up to four versions of your image side by side, and select the best combination of settings for your circumstances.

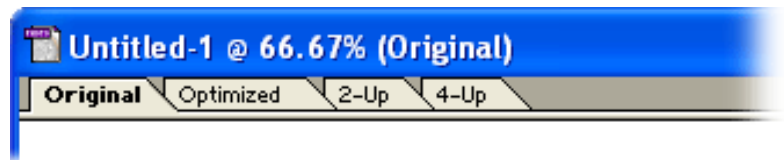
### How do I optimize my graphic?

To optimize your graphic, follow these steps:

1) **Show the Optimize palette.** Pull down the **Window** menu and select **Show Optimize**. When the palette appears, make sure that all of the Optimize options are showing by clicking on the palette's expand icon:



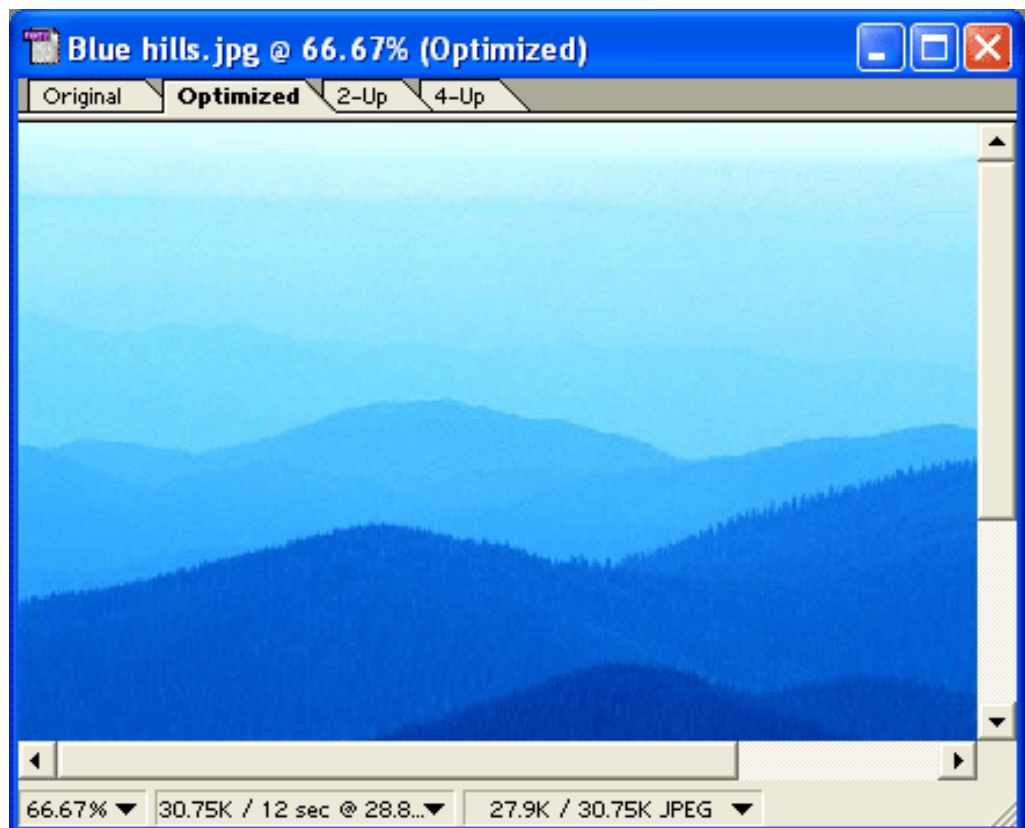
2) **Pick which view you want** from the tabs at the top of the window (Original, Optimized, 2-Up or 4-Up):



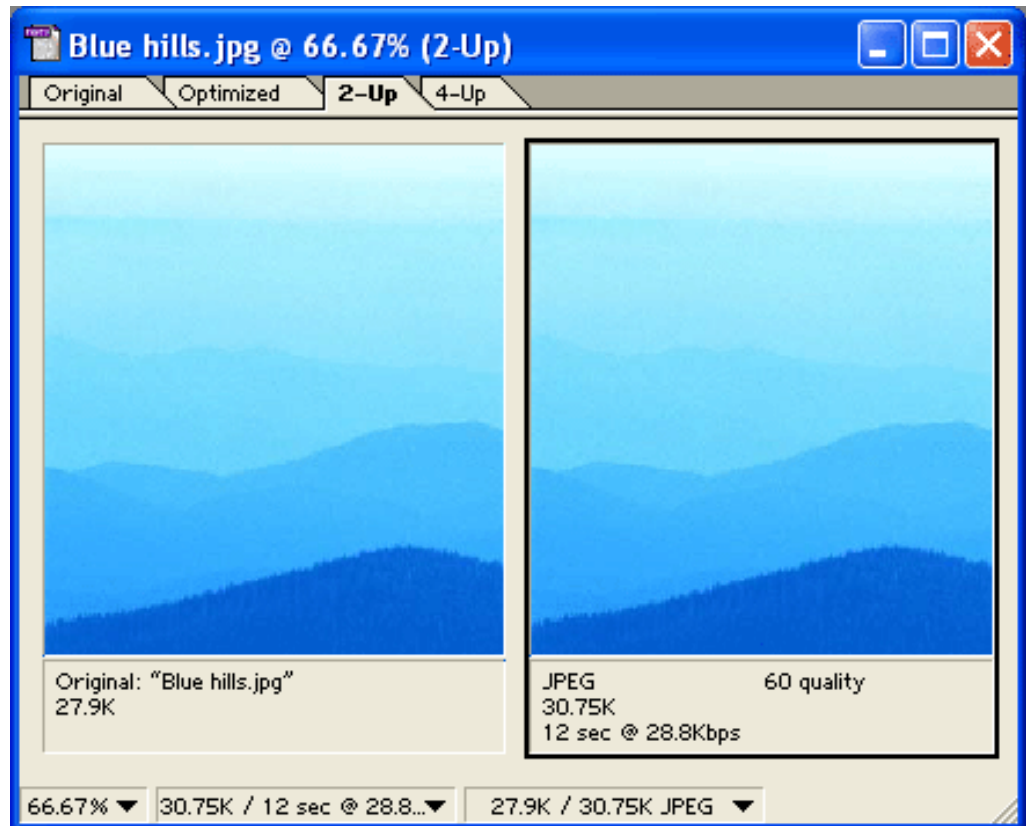
**Original**—displays the original, un-optimized graphic:



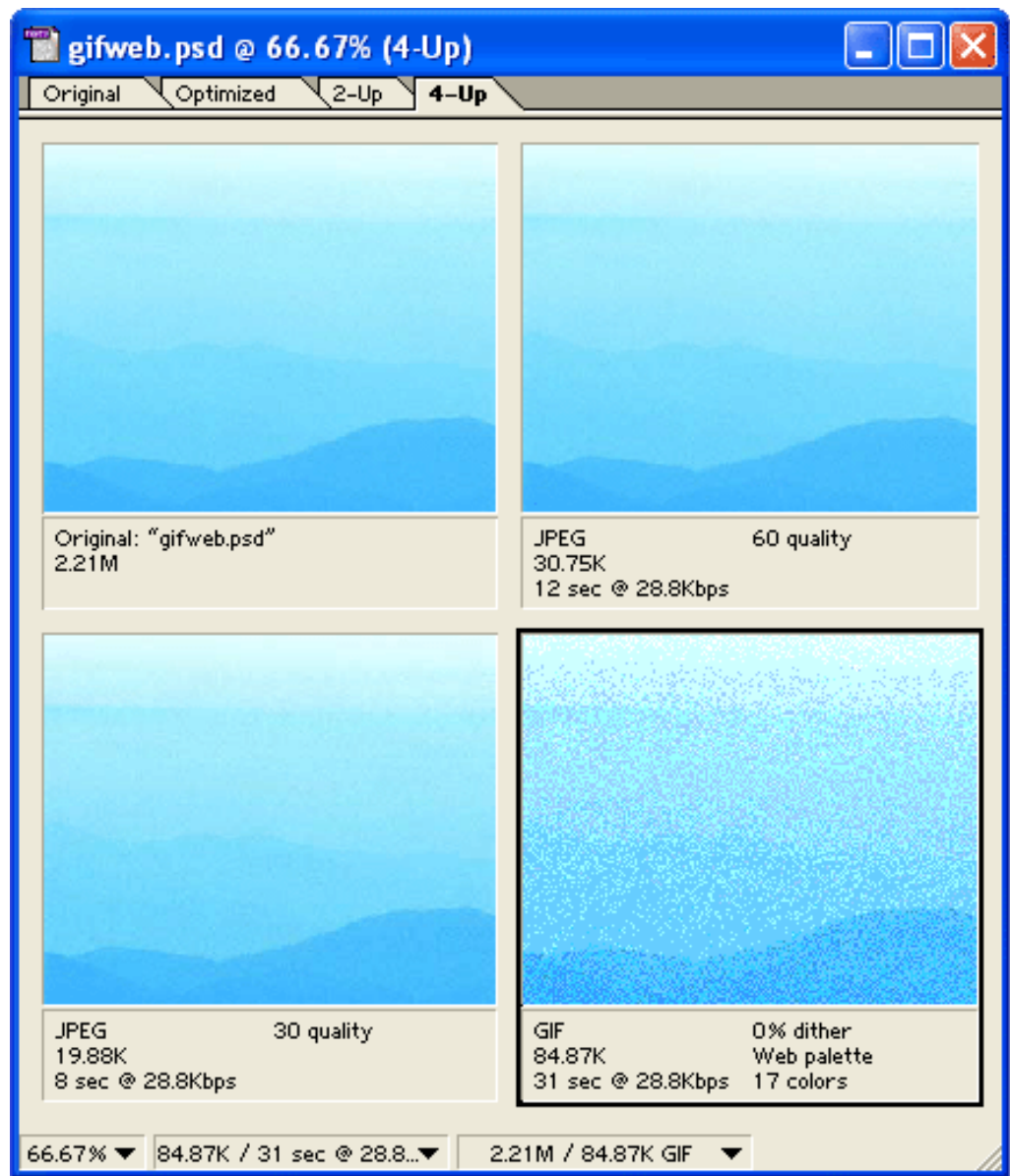
**Optimized**—displays the graphic using the optimization settings in the Optimize palette:



**2-Up**—Shows two window panes, both the original and optimized versions, side-by-side so that you can compare quality and sizes:



**4-Up**—In four panes shows four views of the graphic, the original and three different optimized versions, so that you can compare quality and sizes:



2-Up or 4-Up is recommended while optimizing files, because you can do side-by-side comparisons of different optimization methods.

Note that each pane has information at the bottom of each graphic telling you about that optimization (file format, size, time to download, etc.)

3) **Decide on some likely file formats to compare.** Each file format has its pros and cons; ask yourself the following questions to help you choose an appropriate format depending upon circumstances:

- Is my graphic a line drawing, some text, a logo, or some other sort of graphic with no color gradients? Does it have flat colors and sharp edges? (If so, think about GIF, PNG-8 or PNG-24.) Or is it a realistic piece of artwork or a photograph with continuous tones?

(Consider JPEG or PNG-24.)

- How many colors are in my graphic? (If you need to preserve more than 256 colors - like a photograph - think about JPEG or PNG-24.)
- Is having the smallest possible file size important? (The answer is usually yes unless you are putting the files on CD and they don't have to be downloaded over the Internet. If yes, try PNG-8 or JPEG, and definitely avoid PNG-24.)
- What kind of browsers are the potential users of the web site likely to have? (If you can't count on them to have the latest browsers, then you should avoid PNG.)
- What kind of special features do I need? Do I need transparency? (JPEG can't do it.) Progressive graphics? (Try JPEG.) Animation? (Try GIF.) Multi-level transparency? (PNG-24.)

Combining the answers to these questions should help you decide on one or two graphic file formats to try.

4) **Compare your choices.** For each of the optimizations you want to try, click on a pane in your window to select it (a black frame will appear around the pane), and then set the desired optimization settings in the Optimization palette. (Be sure to leave the Original in the first pane, so that you can see what effect the optimization has on it.)

Now that you have a few file formats side by side, compare them, adjusting their settings in the Optimize palette. (As you change settings, the image will automatically update on the fly.) See which one does the best job of reducing the size of the graphic while preserving image quality. Click on that pane to select it, then click the Optimized tab at the top of the window so that you are viewing only the version you selected.

See the next lesson, *Saving*, to learn how to save this optimized version of your graphic.

## How do I save?

Although "How do I save?" seems like a very basic question, in ImageReady it's a little more complicated than in your average application. Instead of two Save options (Save and Save As...) under the **File** menu, you have four:

- Save
- Save As...
- Save Optimized
- Save Optimized As...

**Save** and **Save As...** work just the same as they do in any other application:

- **Save** will save the current un-optimized file (the one you see under the "Original" tab in the window). It will be saved in .psd format, to be opened and edited at some future time by either ImageReady or Photoshop.
- **Save As...** will save the current un-optimized file in .psd format, but with a *new* name and location that you assign it.

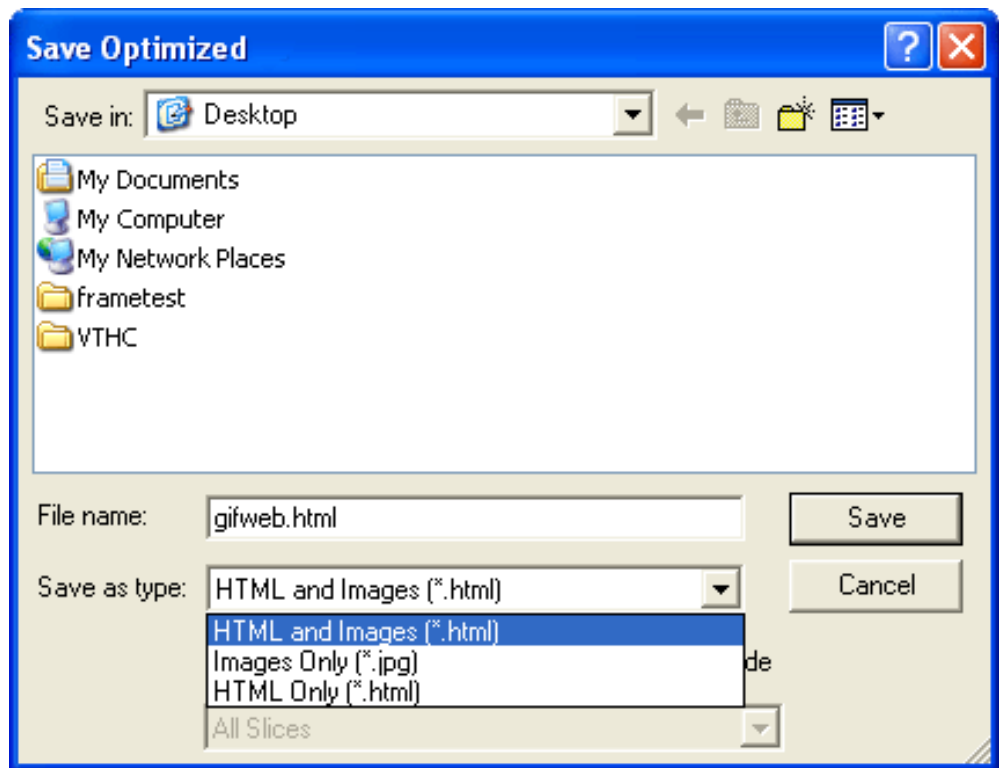
**Save Optimized** and **Save Optimized As...** let you save the optimized version of the graphic in web format:

- **Save Optimized** will save the image in the optimized file format you specified (choose **Images Only** in the dialog box). It does nothing to the original .psd file; if you want to save that, you must use the **Save** command (above).

If you like, ImageReady will also create an HTML document to display your graphic (choose the **HTML and Images** option in the dialog box).

If you have added advanced features to the graphic (slices, image maps, rollovers, or animations), you *must* create the HTML code in order to display these properly (choose the **HTML and Images** option).

You can even create just the HTML file and not the graphic (choose **HTML Only**).



- **Save Optimized As...** does the same thing as **Save Optimized**, but lets you give the file a new name.

## End of Lesson

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Contact Dr. Mary Nicholson at [mjnich@bloomu.edu](mailto:mjnich@bloomu.edu)