



Understanding Graphics

By Kimm Antell

JPG or GIF?

- JPG – use for photos or complex graphics
 - Most gradients
- GIF – use for graphics that have straight lines and solid colors
 - Patterns are acceptable as long as they are not complex

Examples

- Here is a photo that is saved as a JPG and then as a GIF



JPG Close-Up

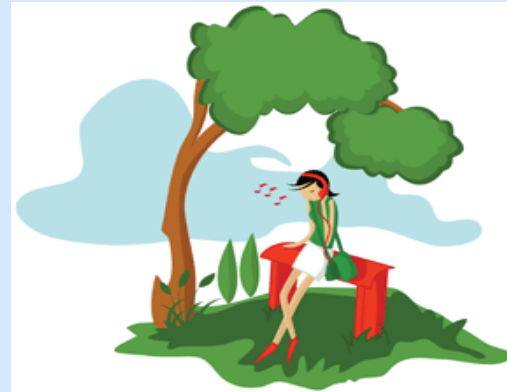
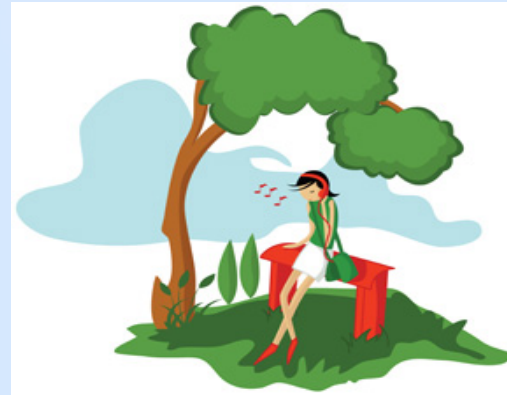


GIF Close-Up

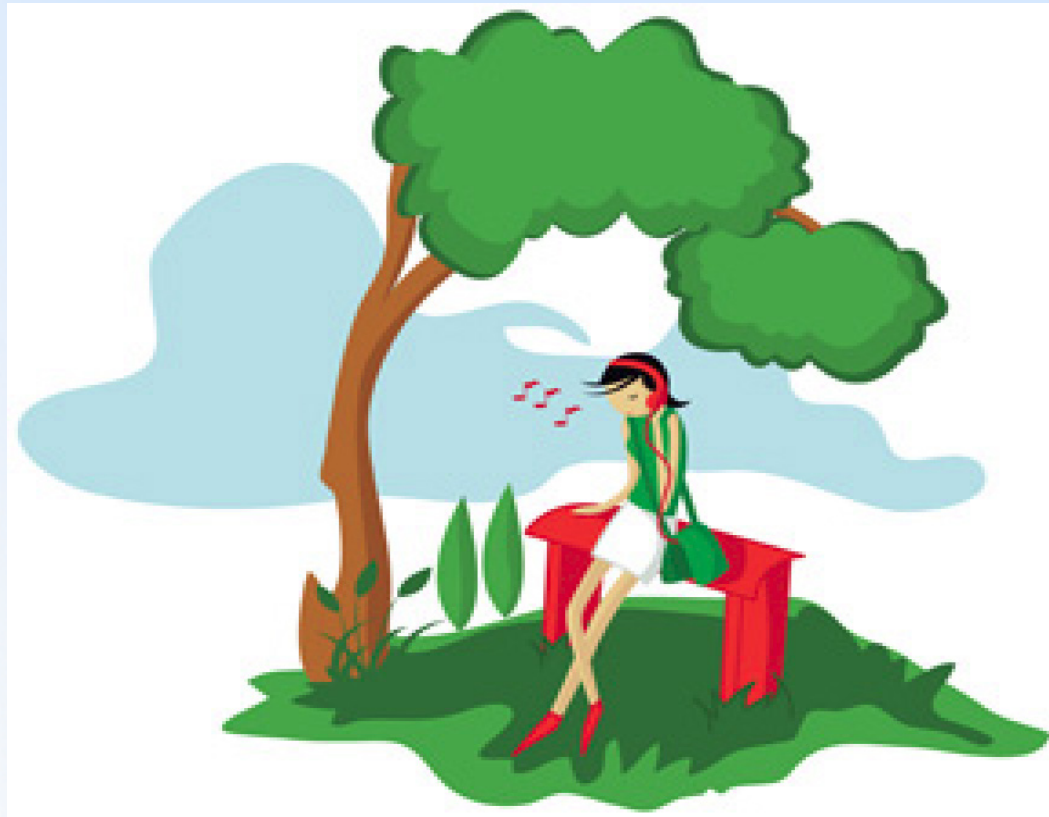


Examples

- Here is a photo that is saved as a JPG and then as a GIF



JPG Close-Up



GIF Close-Up

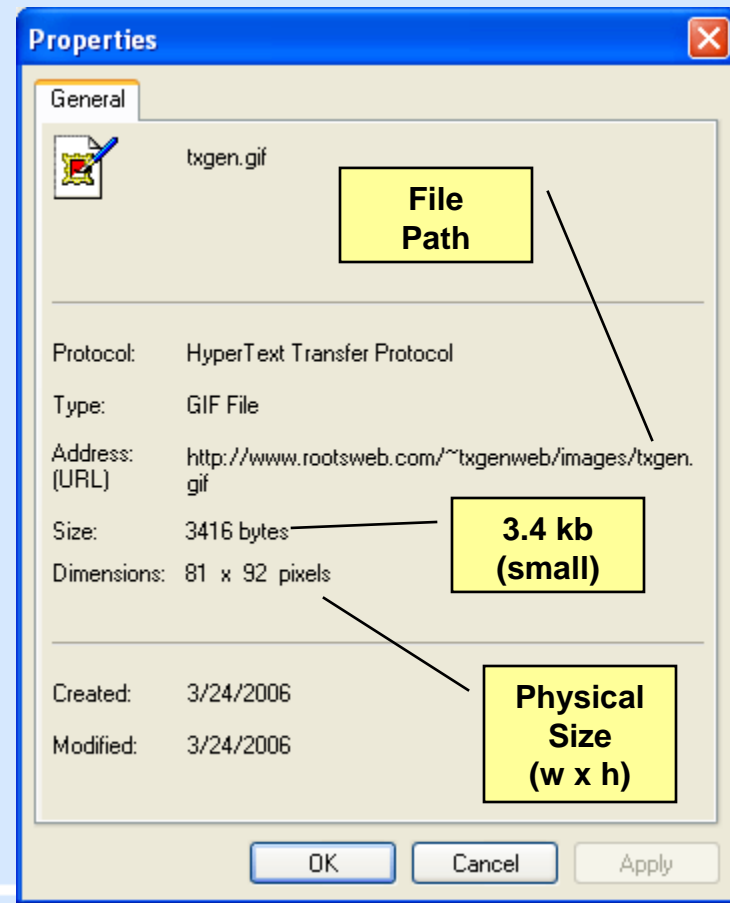
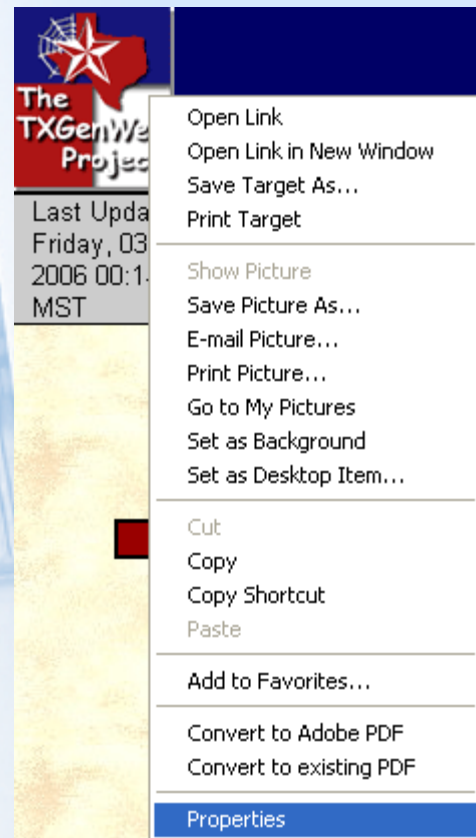


Image Size

- Image size refers to 2 things:
 - Space the file takes on your computer (kilobytes or megabytes)
 - The physical size of the image (width x height)
- If you have an image that is in the megabyte range, it is too large!

How do I know the size?

- Right click on the image on the web and go to properties



JPG & GIF vs. Size

- Saving a file as JPG or GIF will change the size of the file



JPG
137 kb



GIF
45.9 kb

- However, sometimes choosing a smaller size means the quality will be terrible

Example

Jevan.com

Hatching droves of laughter from egg sacs of jollity.

This graphic should have been saved as a GIF, but it was saved as a low resolution JPG. You can see how bad it looks.

Example



This graphic should have been saved as a JPG.
Notice the pixilation.

Physical Size

- If you have an image that is large, do not insert it on your web page and then resize it in html
 - Even though it looks smaller, it still takes the full amount of time to load
 - It will look distorted

Examples

- These top 2 photos have been resized in html



Physical Size:
2400 x 1596
File Size:
11 Megabytes



Physical Size:
1000 x 665
File Size:
1.9 Megabytes



Physical Size: 300 x 200
File Size: 175 Kilobytes

Solution

- If you want your users to have access to the larger photo, make a thumbnail of the smaller image and then link it to the larger image
 - In genealogy, having access to the larger photo can be very beneficial
 - Census records
 - Tombstone photos
 - Old letters

Example

- [View example](#)
- Tombstone thumbnail – 19.6 Kilobytes
- Tombstone photo – 1.91 Megabytes
- Census thumbnail – 19.6 Kilobytes
- Census photo – 16.2 Megabytes
- Note that both of the thumbnails are the same physical size, even though the originals are different sizes
 - This helps to coordinate your site and make it easier for your users to follow your content

The background of the slide features a light blue gradient with a faint, semi-transparent image of classical architectural columns on the left side. The columns are white and have detailed capitals. The entire slide is framed by a dark brown border.

Making Graphics in Photoshop

- You can make graphics in Photoshop that are complex or simple
 - Layers
 - Warping text
 - Anti-aliasing
 - Save for web

Layers

- Gives you the ability to “lay” objects on top of each other and to easily make changes later
 - Be sure to save the original file in PSD format
 - Don’t rasterize the text or shapes; you will not be able to adjust them later
- [View an example](#)

The background of the slide features a light blue gradient with a faint, semi-transparent image of classical architectural columns on the left side. The columns are white with detailed capitals and are set against a darker blue background. The entire slide is framed by a thin brown border.

Warping Text

- Warping text is very easy
 - Use with caution
 - Be careful not to lose readability
 - Writing text on a path is very complex and needs a program like Illustrator

Example

- [View an example](#)

The background of the slide features a light blue gradient with a faint, semi-transparent image of classical architectural columns on the left side. The columns are white with detailed capitals and fluted shafts. The entire slide is framed by a dark brown border.

Anti-aliasing

- All computer displays show images in bitmap mode. What this means is that every image is really a bunch of tiny little squares that make up the image
- Anti-aliasing is the name for techniques designed to reduce or eliminate this effect, by shading the pixels along the borders of graphical elements



Anti-aliasing Pros and Cons

- **Pros**

- Makes fonts look smoother
- Rounded edges look round
- Type is easier to read (for some) because it looks more like printed type
- It's just plain prettier (some would argue)

- **Cons**

- Small fonts become too fuzzy to read
- Sharp edges may be fuzzy and not precise
- You can't print anti-aliased text as it comes out blurred
- Images are generally larger
- Type is easier to read (for some) because the blurring is reduced and the fonts are clear

Examples

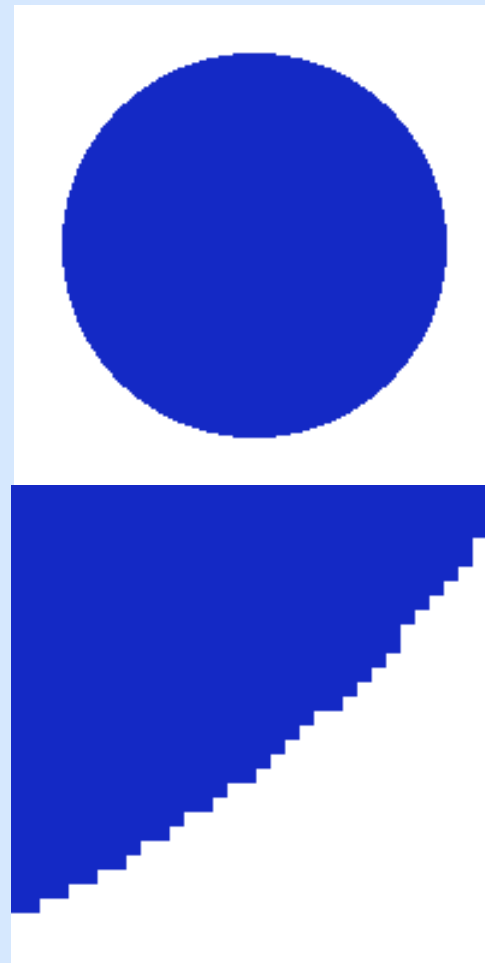
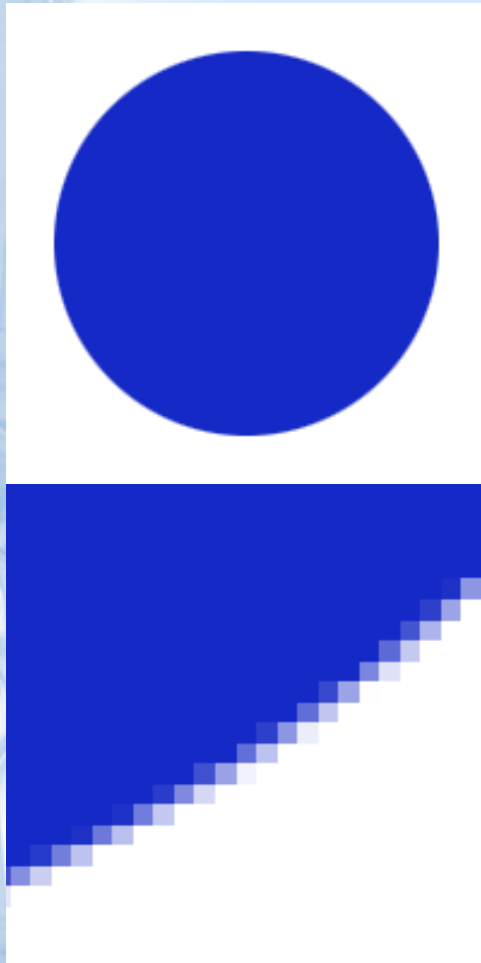
**Henry
Wax
Karnes**

W X

**Henry
Wax
Karnes**

W X

Examples



Why Not Anti-Alias All the Time?

- It is hard to read small text if it is anti-aliased

genealogy

genealogy

- Aliased text is good if you want to mimic html
 - [View an example](#)

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Save for Web

- To save on load time, Photoshop has a great feature called “Save for web...”
 - This feature compresses images at various settings to help your images load quickly
 - You can save GIFs or JPGs

How to Save for Web

- When you have finished creating your image, go to File > Save for Web
- Choose the setting more appropriate for your image: GIF or JPG
- Change the settings to see how long it would take to load

Screenshots

Adobe Photoshop - [genweb.psd @]

File Edit Image Layer Select Filter

- New... Ctrl+N
- Open... Ctrl+O
- Browse... Shift+Ctrl+O
- Open As... Alt+Ctrl+O
- Open Recent ▶

- Edit in ImageReady Shift+Ctrl+M

- Close Ctrl+W
- Close All Alt+Ctrl+W
- Save Ctrl+S
- Save As... Shift+Ctrl+S
- Save a Version...
- Save for Web... Alt+Shift+Ctrl+S**
- Revert F12

The screenshot shows the 'Save for Web' dialog box in Adobe Photoshop. It is divided into two main sections: GIF and JPEG. The GIF section is currently selected and shows the following settings: Preset: [Unnamed], GIF format, Lossy: 0, Colors: 256, Diffusion, Dither: 100%, Transparency checked, Matte, Amount: 100%, and Web Snap: 0%. The JPEG section shows: Preset: [Unnamed], JPEG format, Optimized checked, Quality: 100, Progressive unchecked, Blur: 0, and ICC Profile unchecked. Both sections have 'Save', 'Cancel', and 'Done' buttons. A summary box on the right indicates the selected GIF format with a file size of 1,222K and a duration of 1 sec @ 56.6 Kbps.

Save

Cancel

Done

Preset: [Unnamed]

GIF Lossy: 0 Colors: 256

Diffusion Dither: 100%

Transparency Matte: Amount: 100%

Interlaced Web Snap: 0%

Save

Cancel

Done

Preset: [Unnamed]

JPEG Optimized

Maximum Quality: 100

Progressive Blur: 0

ICC Profile Matte:

GIF
1,222K
1 sec @ 56.6 Kbps

Examples: GIF



256 Colors
3 seconds



128 Colors



64 Colors



32 Colors



16 Colors



8 Colors



4 Colors

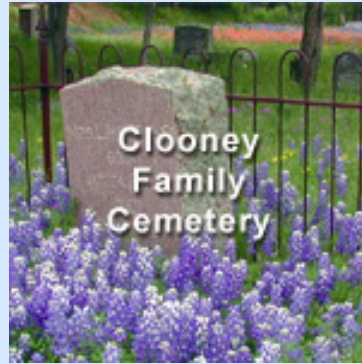


2 Colors
1 second

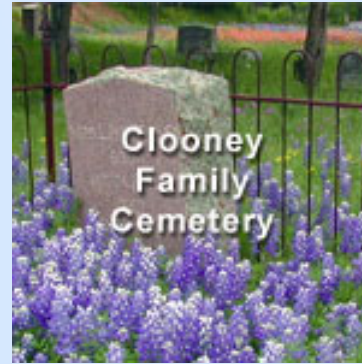
Examples: JPG



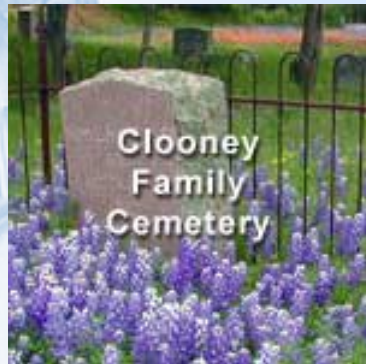
**Maximum
8 seconds**



Very High



High



Medium



**Low
2 seconds**

Final Thoughts

- Remember: your users are at your website to find content, not a lot of graphics
 - When adding graphics, load time should definitely be considered
 - Readability is a must
 - Ask yourself: “Is this graphic a benefit to my users or just eye candy?”
 - Animations can take a long time to load and are usually eye candy

Questions

