



Email this Request to:  
Gilbert Arredondo  
WAQTC Copyright Officer  
[garrendo@utah.gov](mailto:garrendo@utah.gov)

## General Information

Name

Email

Company or Organization

Mailing Address

Telephone #

## Content you are requesting

File/content description

Graphic or Logo (See file formats)

- 72dpi.gif    300dpi.gif    72dpi.jpg    300dpi.jpg  
 72dpi.png    300dpi.png    Color EPS    B&W EPS

Accompanying text

Module/Section/page number  
(example: Aggregate/T2/9-2)

Other

## Where is content going to be used?

## Format of use

Will content be distributed?

- Yes    No  
 Electronic    Hard Copy

To whom?

Posted on website?

- Yes    No

Website address

Is site password protected?

- Yes    No

How long will the materials be posted?

From \_\_\_\_\_ To \_\_\_\_\_

# Image file formats



## Raster images

Pixel-based graphics  
Resolution dependent  
Photos & web graphics

### JPG

Web & print  
photos and  
quick previews

### GIF

Web & print  
photos and  
quick previews

### PNG

Web & print  
photos and  
quick previews



## Vector images

Curve-based graphics  
Resolution independent  
Logos, icons & type

### PDF

Web & print  
photos and  
quick previews

### EPS

Web & print  
photos and  
quick previews

These vector image  
formats can also  
incorporate raster  
elements.

## DPI

The biggest thing to note when determining what DPI or PPI you require is if you are using an image for print or web. Websites display images at 72dpi, which is low resolution; however images at this resolution look really crisp on the web. This is not the case for print. Best practices for printing an image will require it to be no less than 300dpi.

## Vector vs. Raster

Raster images are constructed by a series of pixels, or individual blocks, to form an image. JPEGs, GIFs and PNGs are all raster images. Every photo you find online or in print is a raster image. Pixels have a defined proportion based on their resolution (high or low), and when the pixels are stretched to fill space they were not originally intended to fit, they distort resulting in blurry or unclear images. In order to retain pixel quality, you cannot resize raster images without compromising their resolution. As a result, it is important to remember to save raster files at the exact dimensions needed for the application.

Vector images are far more flexible. They are constructed using proportional formulas rather than pixels. EPS, AI and PDF are perfect for creating graphics that require frequent resizing. Your logo and brand graphics should have been created as a vector, and you should always have a master file on hand. The real beauty of vectors lies in their ability to be sized as small as a postage stamp, or large enough to fit on an 18-wheeler!

## You should use a JPEG when...

You're dealing with online photos and/or artwork. JPEGs offer you the most flexibility with raster editing and compression making them ideal for web images that need to be downloaded quickly.

You want to print photos and/or artwork. At high resolution files with low compression, JPEGs are perfect for editing and then printing.

You need to send a quick preview image to a client. JPEG images can be reduced to very small sizes making them great for emailing.

## Don't use a JPEG when...

You need a web graphic with transparency. JPEGs do not have a transparency channel and must have a solid color background. GIF and PNG are your best options for transparency.

You need a layered, editable image. JPEGs are a flat image format meaning that all edits are saved into one image layer and cannot be undone. Consider a PSD (Photoshop) file for a fully editable image.

## You should use a GIF when...

You want to create web animation. GIF images hold all of the animation frames and timing information in one single file. Image editors like Photoshop make it easy to create a short animation and export it as a GIF.

You need transparency. GIF images have an "alpha channel" that can be transparent, so you can place your image on any colored background.

You need a small file. The compression techniques in the GIF format allow image files to shrink tremendously. For very simple icons and web graphics, GIF is the best image file format.

## Don't use a GIF when...

You need a photographic-quality image. Though GIFs can be high resolution, they have a limit of 256 colors. Photos typically have thousands of colors and will look flat and less vibrant (and sometimes weird due to color banding) when converted to GIF.

You need to print an image. Because of the color limit, most printed photos will lack depth. If you need to print photos, look at TIFF, PSD and JPG.

You need a layered, editable image. GIFs are a flat image format meaning that all edits are saved into one image layer and cannot be undone. Consider a PSD (Photoshop) file for a fully editable image.

## You should use a PNG when...

You need high-quality transparent web graphics. PNG images have a variable "alpha channel" that can have any degree of transparency (in contrast with GIFs that only have on/off transparency). Plus, with greater color depths, you'll have a more vibrant image than you would with a GIF.

You have illustrations with limited colors. Though any image will work, PNG files are best with a small color palette.

You need a small file. PNG files can shrink to incredibly tiny sizes—especially images that are simple colors, shapes or text. This makes it the ideal image file type for web graphics.

## Don't use a PNG when...

You're working with photos or artwork. Thanks to PNGs' high color depth, the format can easily handle high resolution photos. However, because it is a lossless web format, file sizes tend to get very large. If you're working with photos on the web, go with JPEG.

You're dealing with a print project. PNG graphics are optimized for the screen. You can definitely print a PNG, but you'd be better off with a JPEG (lossy) or TIFF file.

## You should use a PDF when...

You're ready to print. As we mentioned, many printers prefer PDF as their primary delivery format because it is so ubiquitous. Check with your printer to see how they'd like you to prepare your file.

You want to display documents on the web. You wouldn't use a PDF for a single icon or logo, but it's great for posters, flyers, magazines and booklets. PDFs will keep your entire design in one package, making it easy to view, download or print.

## Don't use a PDF when...

You need to edit your design. PDFs are great containers, but use other applications for the contents. You can edit raster images with Photoshop and vector graphics with Illustrator. When you're done, you can combine those into a PDF for easy viewing.

## You should use an EPS when...

You need to send a vector logo to a client, designer or a printer. With an EPS file, you don't have to worry about where the logo will be placed or printed. No matter the size, it will always appear at the correct resolution.

## Don't use an EPS when...

You're dealing with photographs or artwork. EPS can handle raster images, but this type of image file is primarily for vectors. Work with a PSD, TIF or JPEG when you have a photo project.

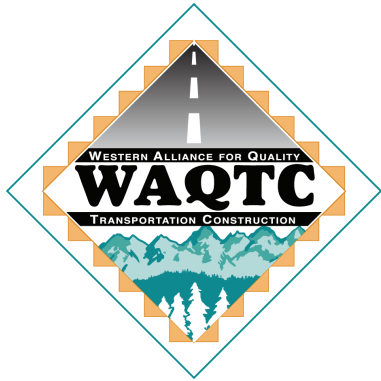
You need to display an image online. Export to JPEG, PNG or GIF first.



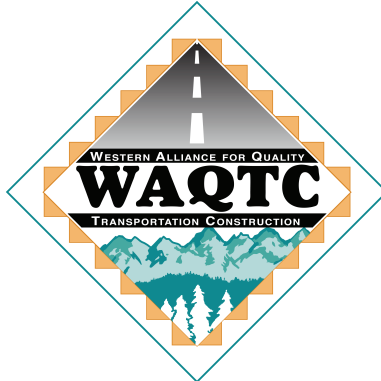
72dpi  
JPEG



300dpi  
JPEG



72dpi  
GIF



300dpi  
GIF



72dpi  
PNG



300dpi  
PNG



Color  
EPS



B & W  
EPS