

Guidelines on Flattening Rendered images on Photoshop-

In order for your rendered images to remain of good quality, while being optimized for digital/print publishing, you need to follow these guidelines.

Not optimizing images properly results in extremely slow loading time. When you intend to publish your images online, you have to compromise the quality.

These guidelines will explain how to use Photoshop's **Save for web** option to get the best possible quality in the smallest file possible.

• Rasterize layers

You cannot use the painting tools or filters on layers that contain vector data (such as type layers, shape layers, vector masks, or Smart Objects) and generated data (such as fill layers). However, you can rasterize these layers to convert their contents into a flat, raster image.

For more information on how to do this-

https://helpx.adobe.com/photoshop/using/layers.html#merging layers

Flatten all layers

Flattening reduces file size by merging all visible layers into the background and discarding hidden layers. Any transparent areas that remain are filled with white. When you save a flattened image, you cannot revert back to the unflattened state; the layers are permanently merged.

 Note: Converting an image between some color modes flattens the file. Save a copy of your file with all layers intact if you want to edit the original image after the conversion.

For Acrobat 8 Professional or later:

- Make a backup copy of your PDF file by choosing File > Save As and giving the copy a new name.
- Open the copy and choose Advanced > PDF Optimizer. If asked whether you want to save and continue, click Yes.
- Select Discard User Data.
- Select Discard Hidden Layer Content And Flatten Visible Layers, and then click OK.
- When prompted, save the Optimized PDF with another new name.
- Open the Layers panel (if the Layers panel is not visible, choose View > Navigation Panels > Layers). Click the Options pop-up menu, and then select either Merge Layers or Flatten Layers. Merged layers acquire the properties of the layer into which they are merged.
 Flattening layers discards any layer content that isn't visible onscreen.
- Save the PDF file.

For Acrobat 7 Professional:

- Make a backup copy of your PDF file.
- Open the copy and choose Advanced > PDF Optimizer.
- Click the Clean Up tab.
- Select Remove Hidden Layers Content and Flatten Layers, and then click OK.
- When prompted, save the Optimized PDF with another new name.
- In the Layers panel, choose Options, and then select either Merge Layers or Flatten Layers. Merged layers acquire the properties of the layer into which they are merged. Flattening layers discards any layer content that isn't visible onscreen.
- Save the PDF file.

SOURCE- https://helpx.adobe.com/photoshop/using/layers.html#merging-layers

There are two kinds of image compression, lossy and lossless.

Lossy compression means once you decompress the compressed data, you will not get the exact same image as the original. However, this will only be visible at a closer look. Lossy compression is good for web, because images use small amount of memory, but can be sufficiently like the original image.

When you decompress a lossless image, you will get exactly the same image as the original. This compression uses greater amount of memory, so sometimes it may not be good for web.

To make sure your image is not blurry, it is important that they get saved in the right format.

- For instance, photographs or similar should be ideally saved as JPEGs.
- The GIF format uses 8-bit color and efficiently compresses solid areas of color while preserving sharp details like those in line art, logos, or type. You also use the GIF format to create an animated image and preserve transparency in an image. GIF is supported by most browsers.

Saving images with many colours-

- 1. Choose File > Save for web...
- 2. If it's a photograph or an image with many colours, choose JPEG.
- 3. You can check the option **Progressive** if you like, it's the only difference is how the loading will look like. Progressive images first appear blurry, and then become clearer as the image loads. Non-progressive images load line-by-line.
- 4. First choose quality level, **High** if the image will be visible, **Medium** or **Low** if it's meant as a background.
- 5. To have more control over the quality, use the slider or enter number in the field Quality
- 6. Look at the file size and estimated loading time displayed in the lower-left corner while adjusting settings. At the same time, look at the image to decide on what quality looks good enough.
 - o If it's a background, make sure the file size is under 5KB, up to 2KB would be better.
 - If the image is a layout header, up to 40KB is acceptable.
 - o If it's an image to be displayed on the page, up to 70KB is reasonable, depending on the dimensions.
 - Artworks and photographs for your portfolio may be saved in better quality, since people
 who will look at them already expect to see large images. In this case it's normal to have
 file sizes from 100 to 200KB, but not more than that.
- 7. Once you have found the perfect balance between quality and compression, click the button **Save**

Saving flat colour images and charts-

- 1. Choose File > Save for web...
- 2. Since it has fewer colors, choose GIF.
- 3. If the image contains empty (transparent) pixels, make sure Transparency is checked.
- 4. Select the number of colors try to make the number the smallest you can, while at the same time the image looks decent.
- 5. If the image is not in the main focus (ie. background) try adding some Lossiness by dragging the slider to the right. This will reduce the file size.
- 6. Once you have found the perfect balance between quality and size, click the button Save.

SOURCE-http://inobscuro.com/tutorials/optimizing-images-for-web-35/

NOTE- Please make sure that your 3D renderings and Auto-Cad drawings are also converted into images in a same/similar manner!!!

HOPE THIS HELPS!!!!