Some Miscellaneous Things to Know about Resizing Photos

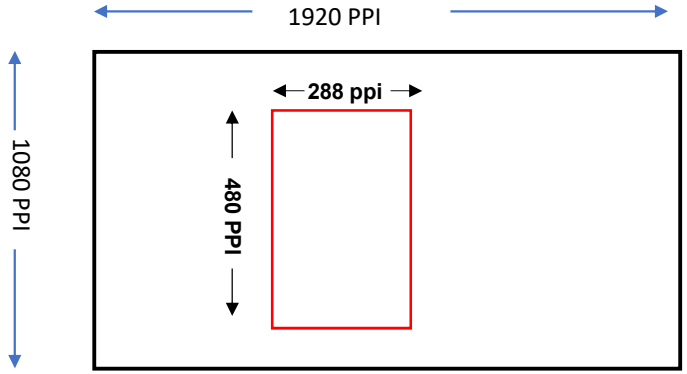
Photos are measured in either Pixels or Inches (or Centimeters)

Horizontal and Vertical Size is related to resolution

Resolution describes how many pixels a monitor can display or how fine the printer can print

Examples

A 4 inch by 6 inch photo at a resolution of 72 pixels per inch will display on a computer as 288 pixels (4 X 72) by 432 pixels (6 X 72). On a small monitor of 1920 pixels X 1080 Pixels With “zoom” set to 100 %, the photo would be approximately 10% of the horizontal screen (1920/288) and 40% of the vertical screen (1080/480).



Examples

A 4 inch by 6 inch photo at a resolution of 72 pixels per inch would print on a printer capable of 300 pixels or dots per inch as 4 inches by 6 inches but 1200 pixels are required for the horizontal and 1800 pixels are required for vertical. The photo would be very, very poor quality since the printer would have guess to make up the approximately 1000 missing pixels for horizontal and 1400 pixels for vertical.

Consider the Use when Resizing

- When resizing, always consider the target, screen or paper.
- Rule of Thumb:
  - For screen or digital use resolution of 70 to 100 pixels per inch (PPI). Anything more works but the screen is incapable of displaying the pixels and the image will be enlarged to use all the pixels and the file size is unnecessarily large.
  - For paper or printing use resolution of 200 to 300 pixels per inch. Anything smaller will produce low quality images.

For Photo Club

- For show & tell, always resize to 1000 ppi on long side at (72-100 ppi resolution).
- Why:
  - We are showing it on the screen and we want it to occupy most of the screen without zooming
  - We don’t need the extra pixels and the file size for transmitting is greatly reduced.
- Hint: If using Apple mail to send images, always select “Actual Size” after attaching image. If you select any other option, Apple mail will reduce the image size in order to reduce email and attachment size.

Printing for Exhibits

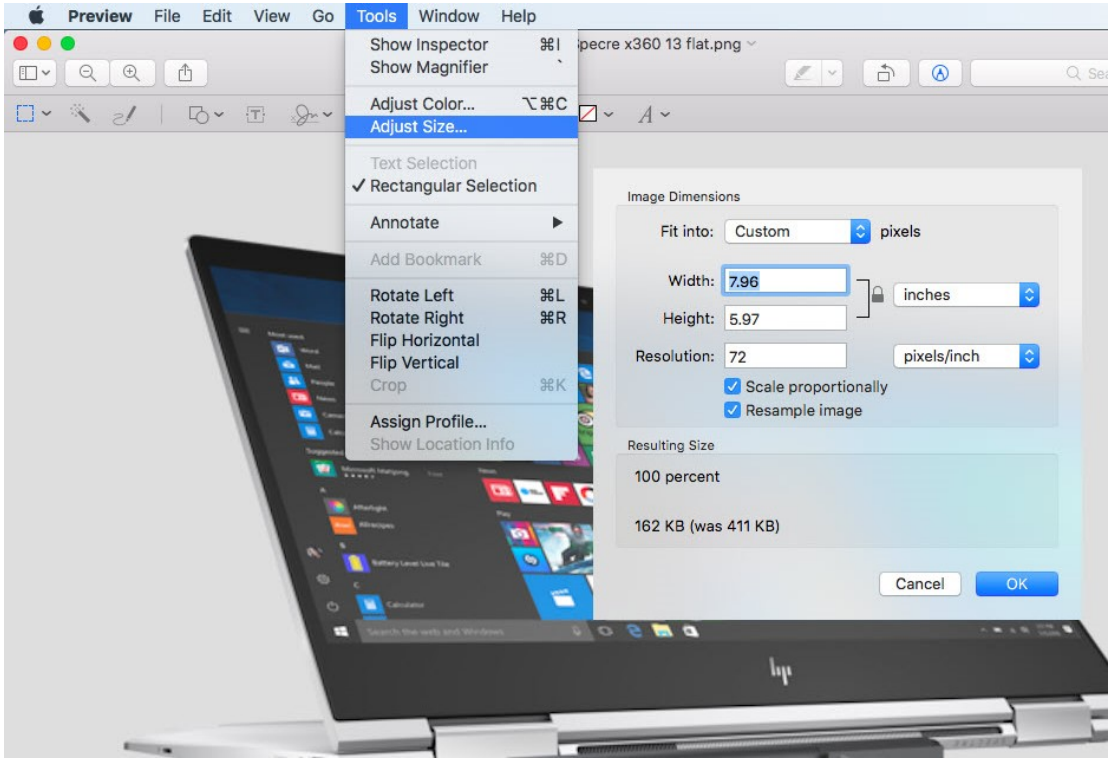
- Resize to 11 X 14 inches, at 300 dpi

- Why:
  - Printing on a press always uses the highest resolution available in the file.
  - Anything less could be really poor quality.

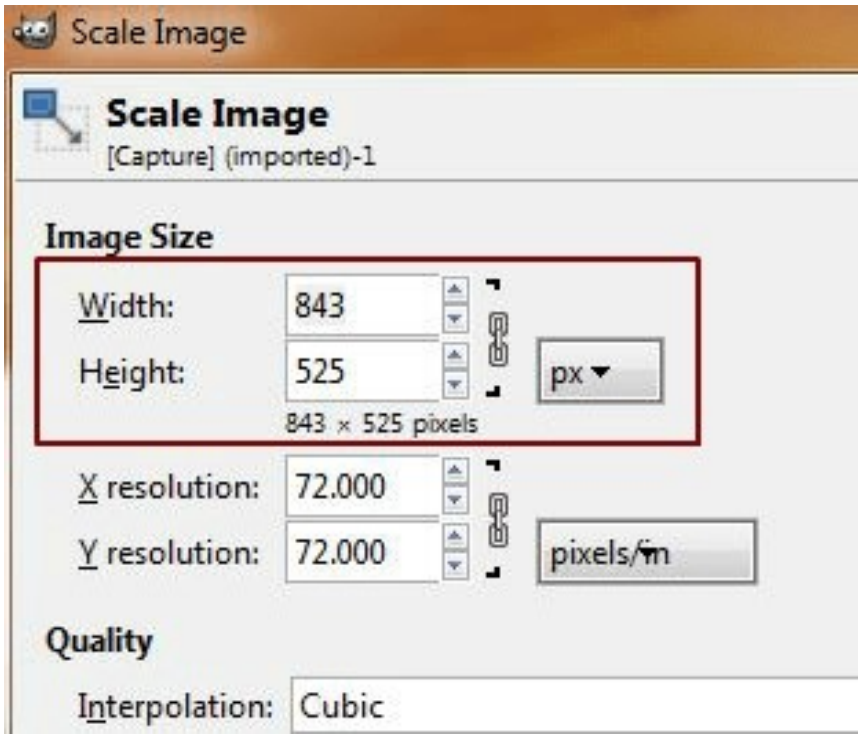
Resizing Tools and How to accomplish

- **Recommended methods because they allow for setting resolution**
  - Lightroom. Demonstrated by Gene
  - Photoshop: Demonstrated by Karen

Preview (on Mac)

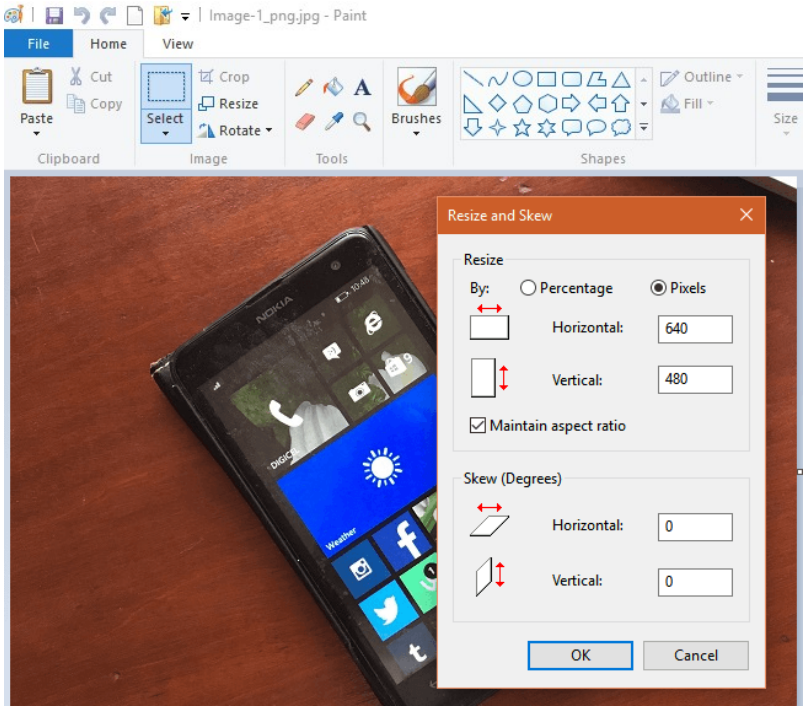


GIMP – Free available for Windows or Mac

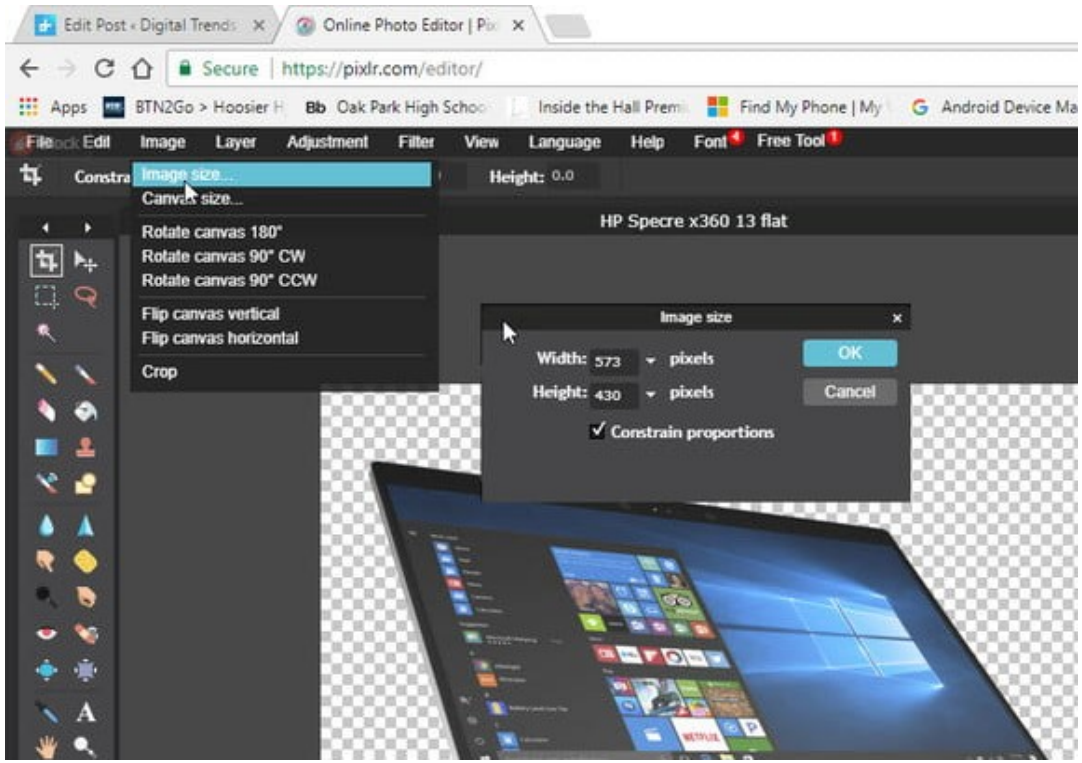


Methods to Resize but does not allow for Scale or Change in Resolution

Paint (Windows)



Pixir – Free (Cloud based via browser i.e. Chrome, Safari, Explorer)



Simple and Quick Image Resizer – Free Web site

Go to Http://www.Simpleimageresizer.com

How to Resize an Image in Lightroom Using "Export"

- Most websites won't accept large images.
- Making images smaller will actually make them look better, if done correctly.
- Some websites (Facebook) will down-size images for you, automatically lowering the resolution and quality of those images

Figure 1: Export for Library Module

The image Resizing Process using "Export"

1. Select the images you want to export out of Lightroom then click on the Export Button bottom of the screen.

How to Resize an Image in Lightroom Using “Export”

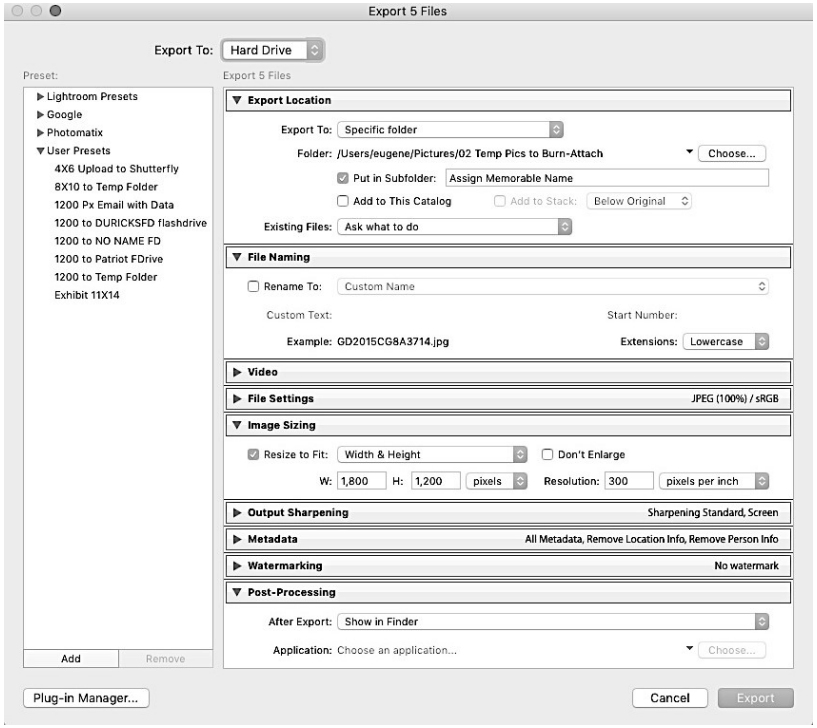


Figure 2: Export Window

2. The Export Window will come up that looks like Figure 2

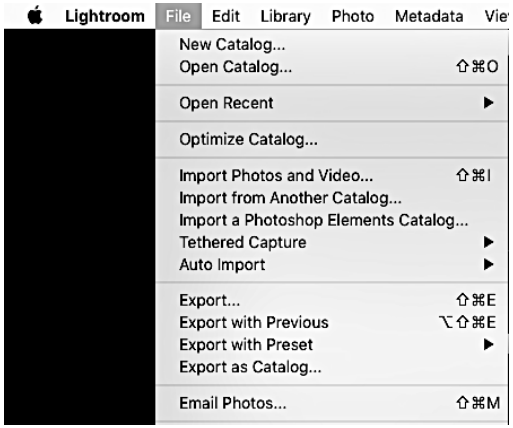
How to Resize an Image in Lightroom Using "Export"

- **Export Location - Destination:**
  - **Export To:** Select "Specific Folder" from dropdown ("Desktop" works well too)
  - **Choose…** the Destination folder for the exported photos using **Export To pop-up menu (**Dropdown arrow displays previous folders used for Exporting)
  - A Flash-drive can also be selected in this step (must be attached to PC).
  - **Note:** Consider setting up a temporary folder ("Temp Exports") indicating these are files to be deleted after use.
  - **Optiona**l: Select **Put in Subfolder** to have photos sent to a subfolder within destination folder. Type the name for the sub folder (will display last sub-folder used).
  - **Existing Files**: Choose **Ask What to Do** if a file with the same name already exists.

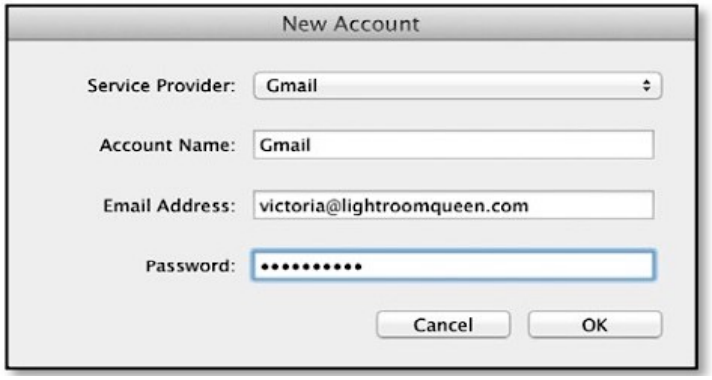
How to Resize an Image in Lightroom Using "Export"

- **Image Sizing** — refers to the pixel dimensions of the photo.
  - **Resize to Fit**: Sets a max size for the width or height of photos which determines how many pixels the photos have & specifies the fineness of detail.
  - Can be set in inches, centimeters or pixels
    - **Width & Height** – Resized to fit within retaining original aspect ratio.
    - **Dimensions** - Applies the higher value to the longer edge of the photo and the lower value to the shorter edge regardless of the photo's original aspect ratio.
    - **Long Edge & Short Edge**: Applies the value to the long or short edge of the photo and uses the original aspect ratio of the photo to calculate the other edge.
    - **Megapixels** – Sets the number of megapixels & resolution (in dots/inch) of the exported photo.
    - **Percentage** – Sets from zero to 100% of image
  - **Don't Enlarge**: disregards settings that would enlarge the photo.
  - See some sample sizes below:
    - **4X6 Print** – Dimension 4"x6" at 300ppi, format JPEG, **1200 x 1800 pixels**
    - **8X10 Print** – Dimension 8"x10" at 300ppi, format JPEG, **2400 x 3000 pixels**
    - **11X14 Print** – Dimension 11" x 14" at 300ppi, format JPEG, **3300 x 4200 pixels**
    - **Full Resolution Master** – uncheck Resize to Fit, format TIFF/PSD or JPEG quality 100
- **Export Button –** Click on when done filling out fields

LR: Image Resizing Using “Email Photos”



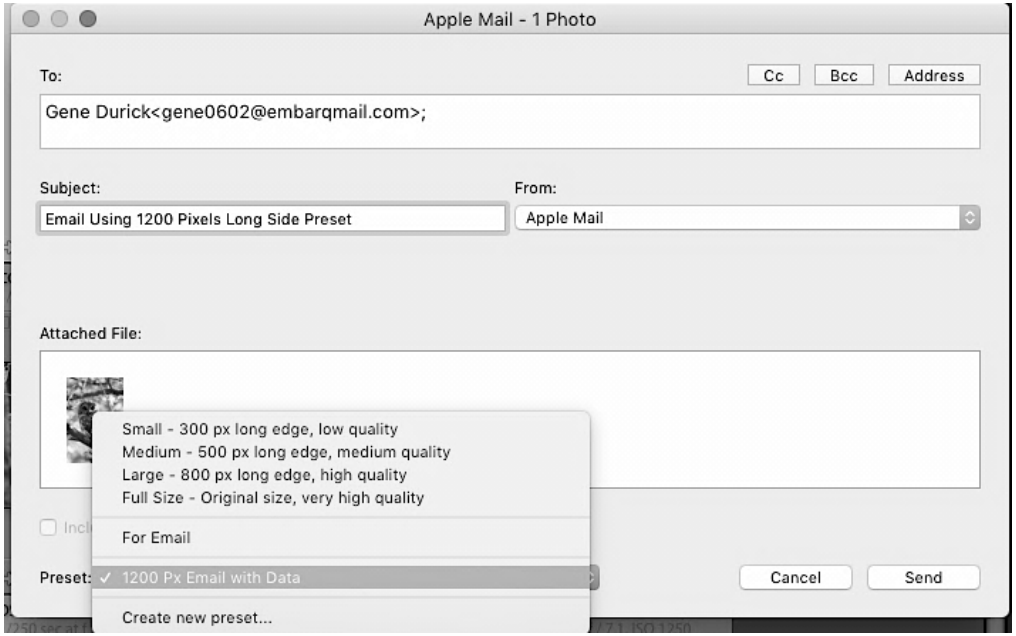
File>Email Photos



If you use webmail or an unsuppported email client, LR first asks for your email account setting (see above)

LR: Image Resizing Using “Email Photos”

The following email Dialog window appears

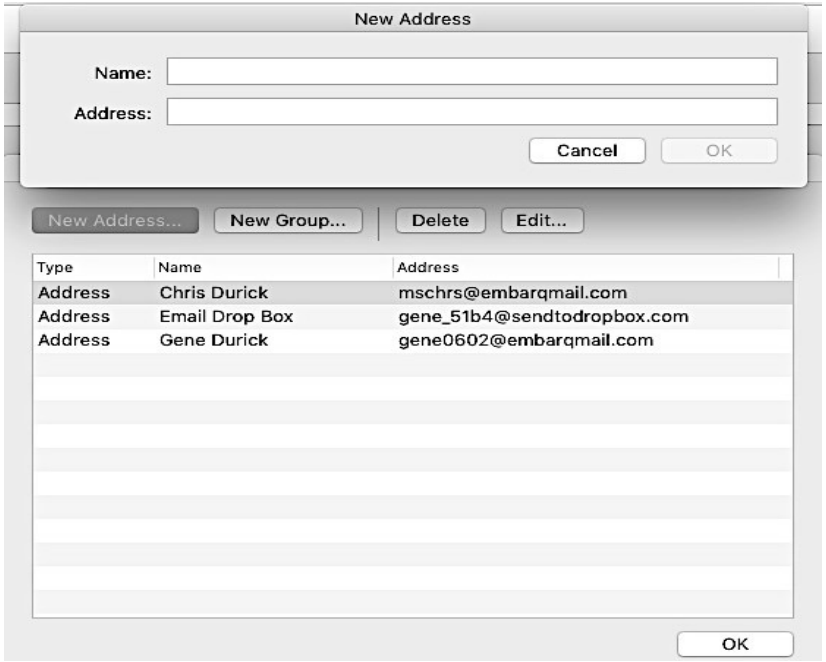


This email dialog allows you to create an email with the photos automatically attached. Set the image size using pop-up

- If you leave the **address and the rest of the email blank** and press **“Send”,** it will open the email message into your email software so you can access your address book.
- Alternatively, you can type your email into the email dialog and send it directly.

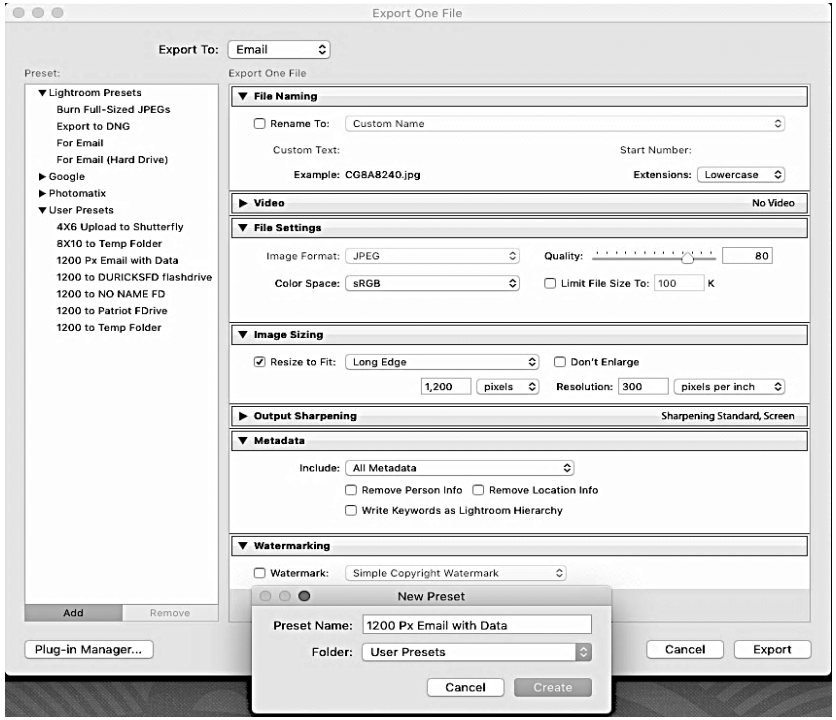
LR: Image Resizing Using “Email Photos”

- Click on “Address” then “New Address” to add someone’s email address. For CIPC purposes, in “New Address” window, enter “Gene Durick” and his email address: “gene0602@embarqmail.com” then click on OK (need to do once to add)



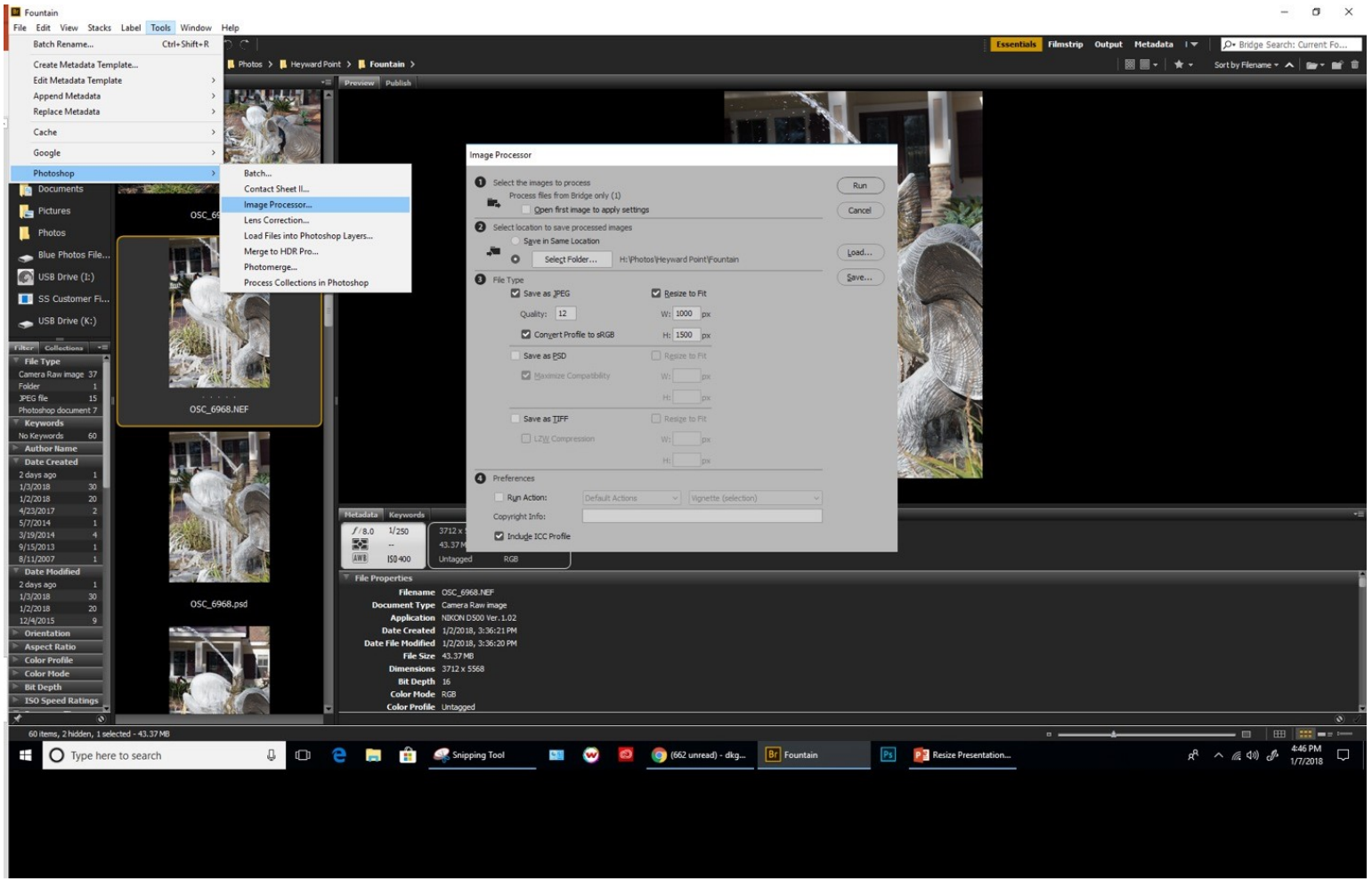
LR: Image Resizing Using “Email Photos”

- Lightroom presets exist for “Small”, “Medium”, & “Large” (see Email Dialog above) but **they do not include Metadata** so you have to create a new preset.
- In Preset dropdown, click on “Create new preset…” and the following screen appears. Revise the screen to look like the screen below.

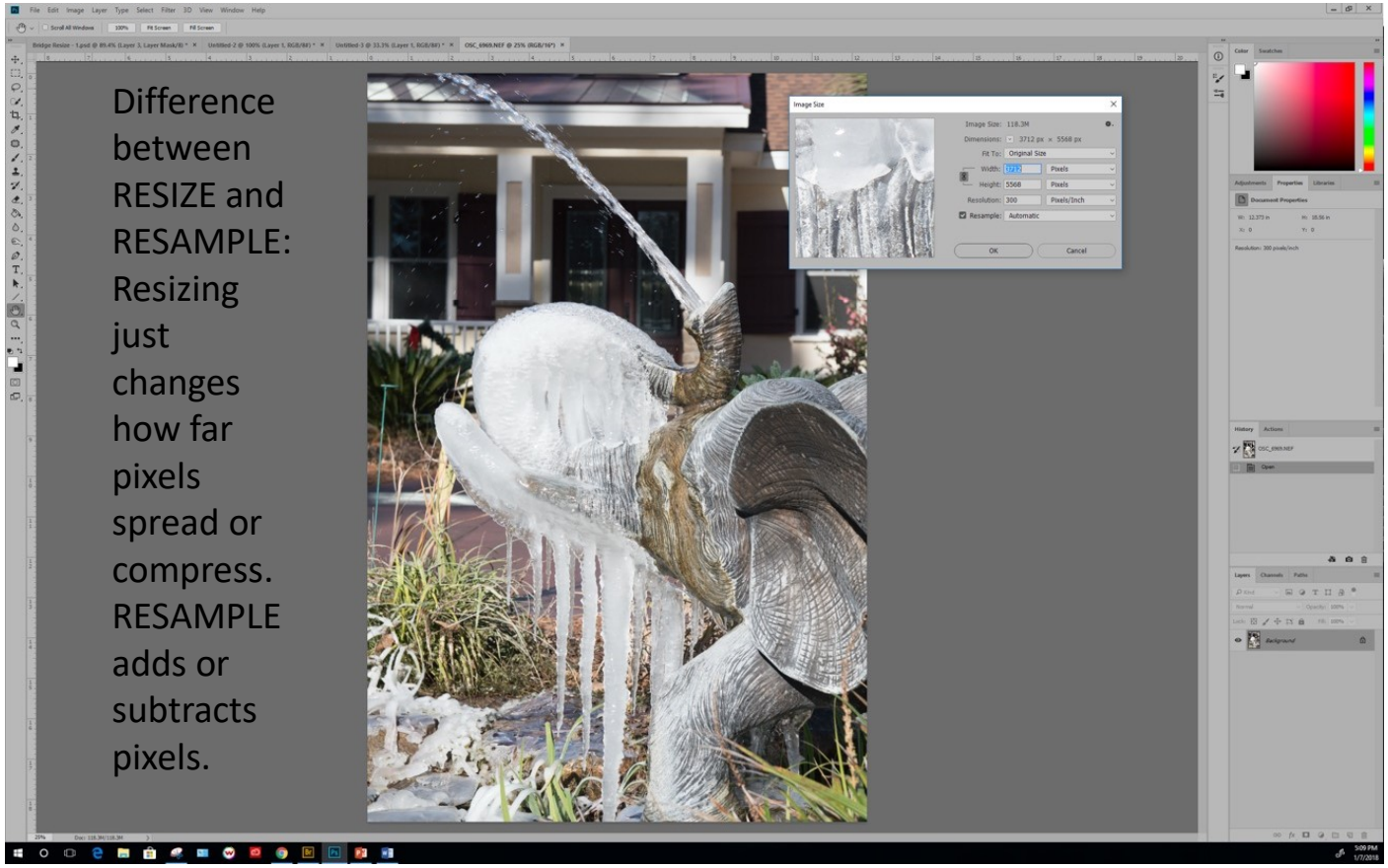


- After the screen has been modified, click on “Add”, enter a memorable preset name, then click on “Create”.
- The new preset will appear in the “User Presets” section of the Export to Email window.
- Click on “Send” to send Email.

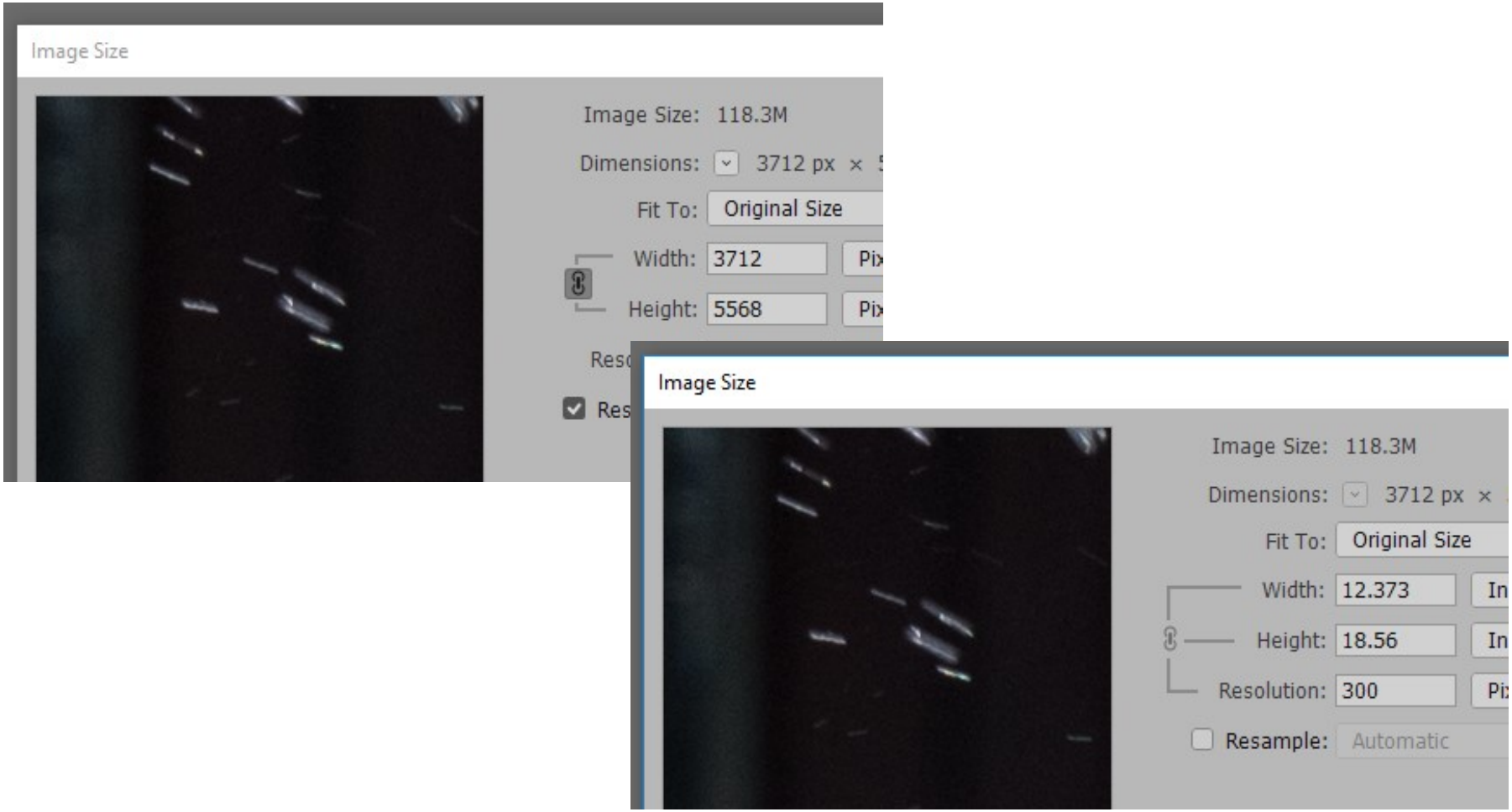
Resize Using Bridge



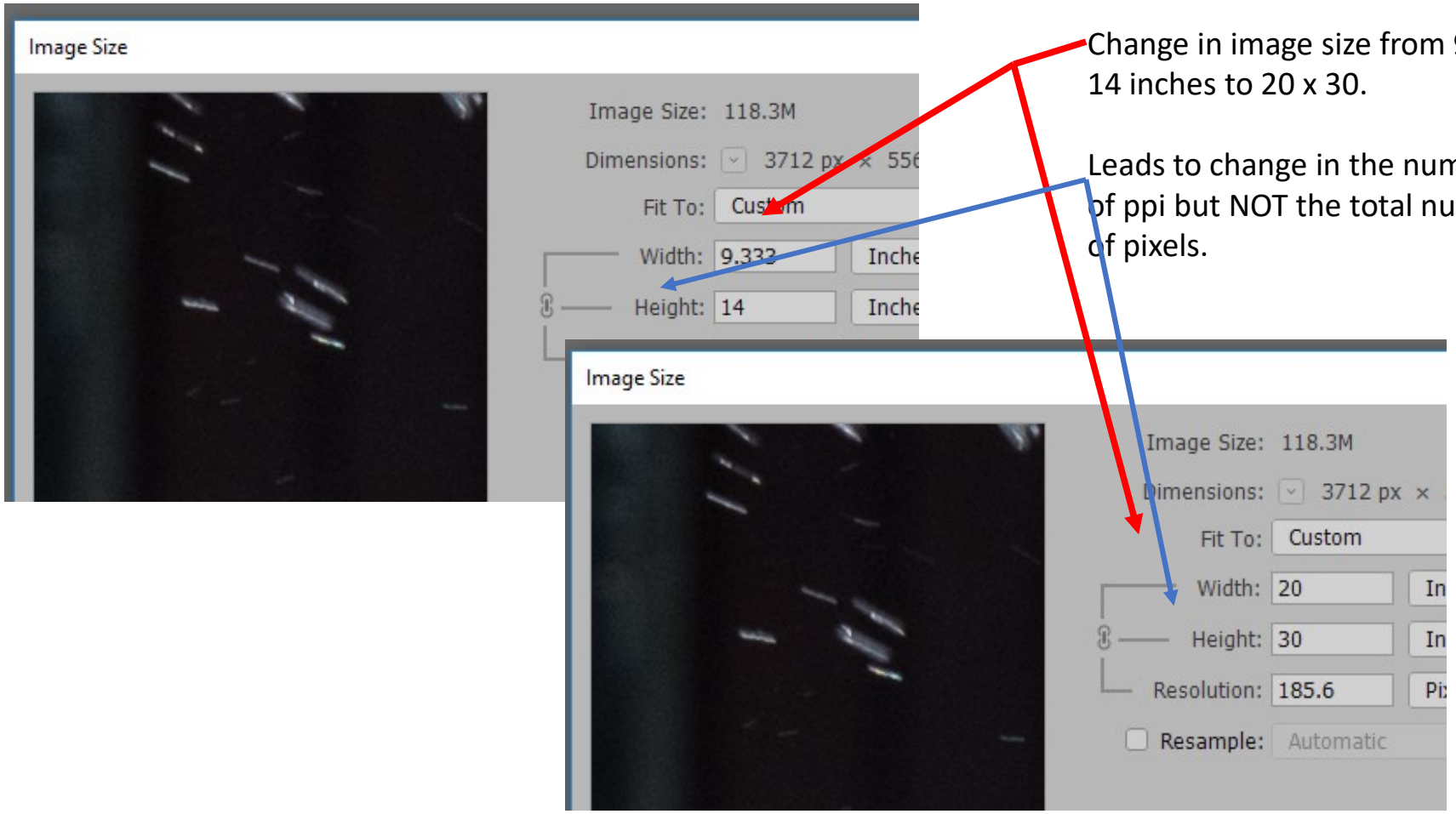
Resize in PS Using Top Menu Bar: Image>Image Size



Original Image Size in Pixels and Inches



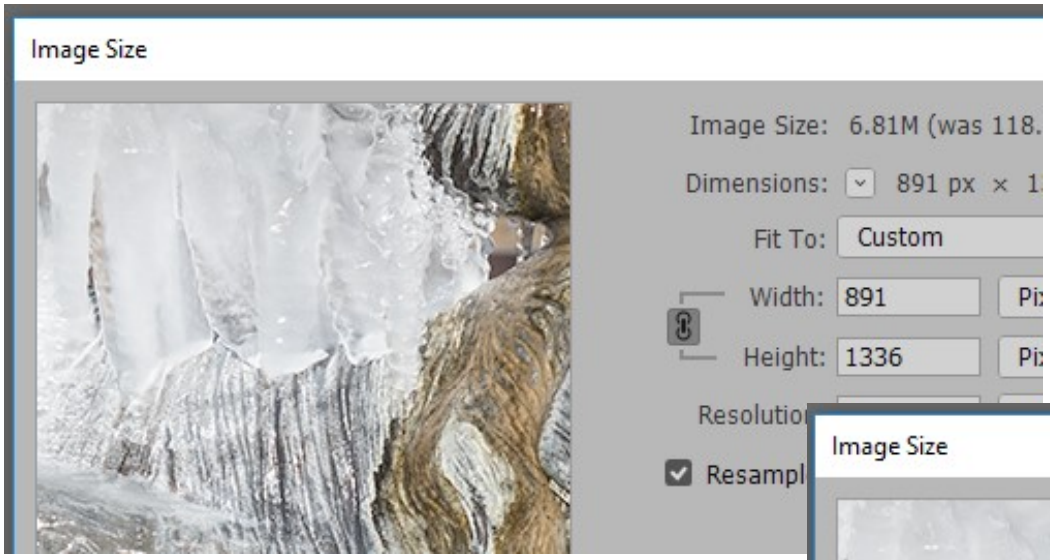
Resizing Without Resampling (Changing size but not the total pixels)



Change in image size from 9.33 x 14 inches to 20 x 30.

Leads to change in the number of ppi but NOT the total number of pixels.

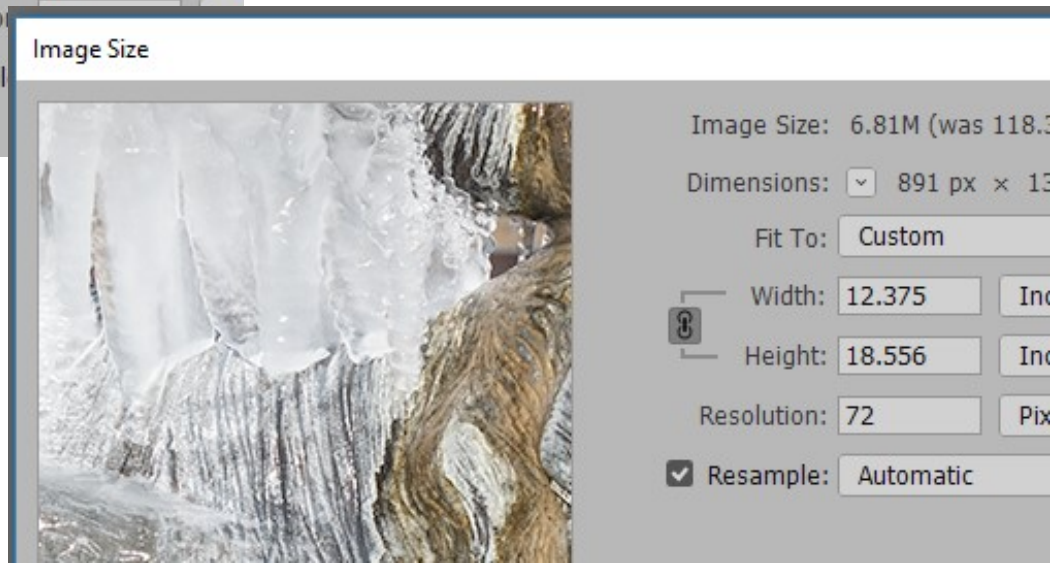
Resample Without Resizing



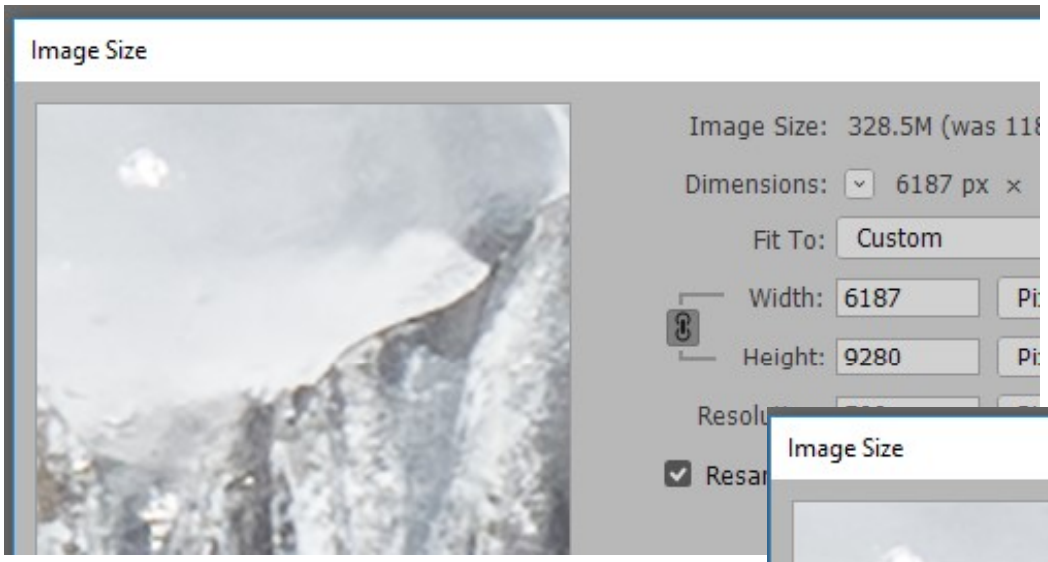
Number of Pixels has been reduced because the resolution was decreased from 300 ppi to 72 ppi. (From 3712 x 5568 to 891 x 1336).

Size of image was not changed. (It is still 12.37 x 18.56 inches)

Quality will be reduced because pixels have been removed.



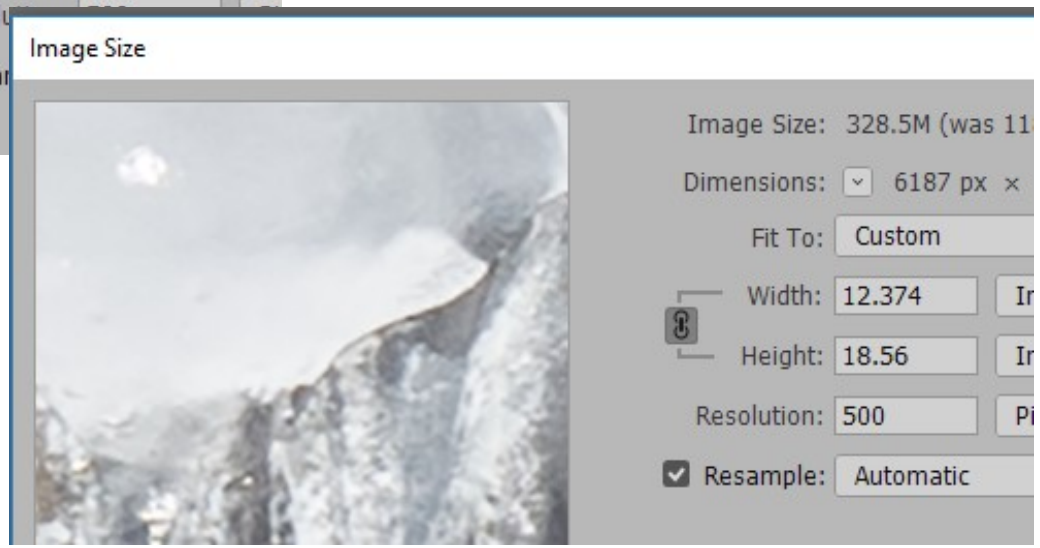
Resample Without Resizing



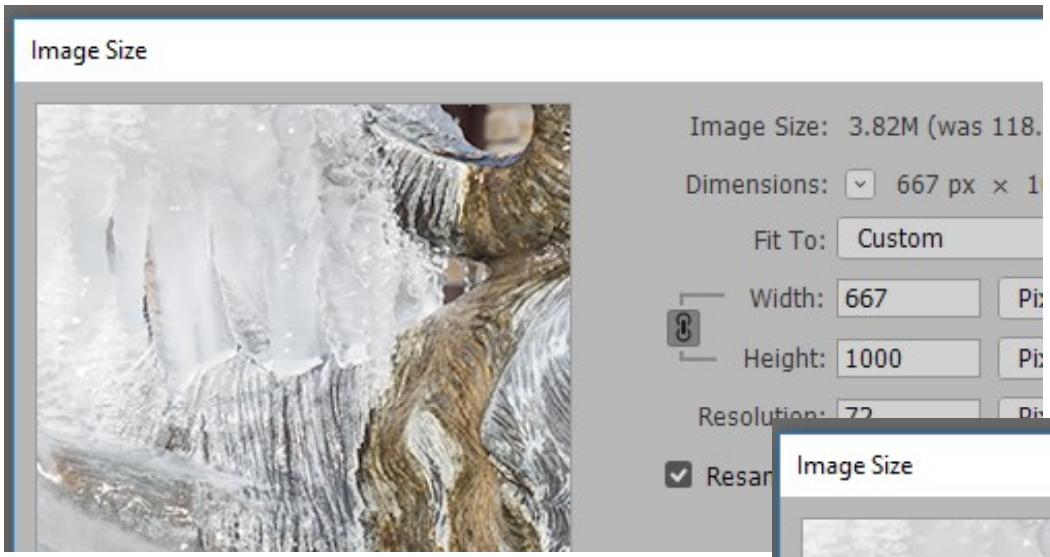
Number of Pixels has been increased because the resolution was <u>increased</u> from 300 ppi to 500 ppi. (From 3712 x 5568 to 6187 x 9280).

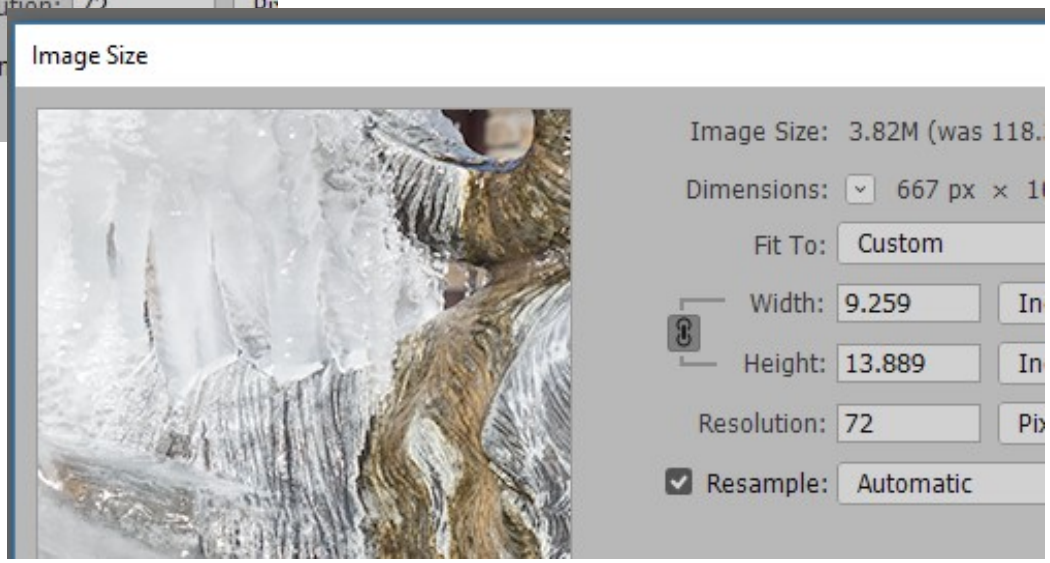
Size of image was not changed. (It is still 12.37 x 18.56 inches)

Photoshop has interpolated pixels to fill in.



Resample and Resize

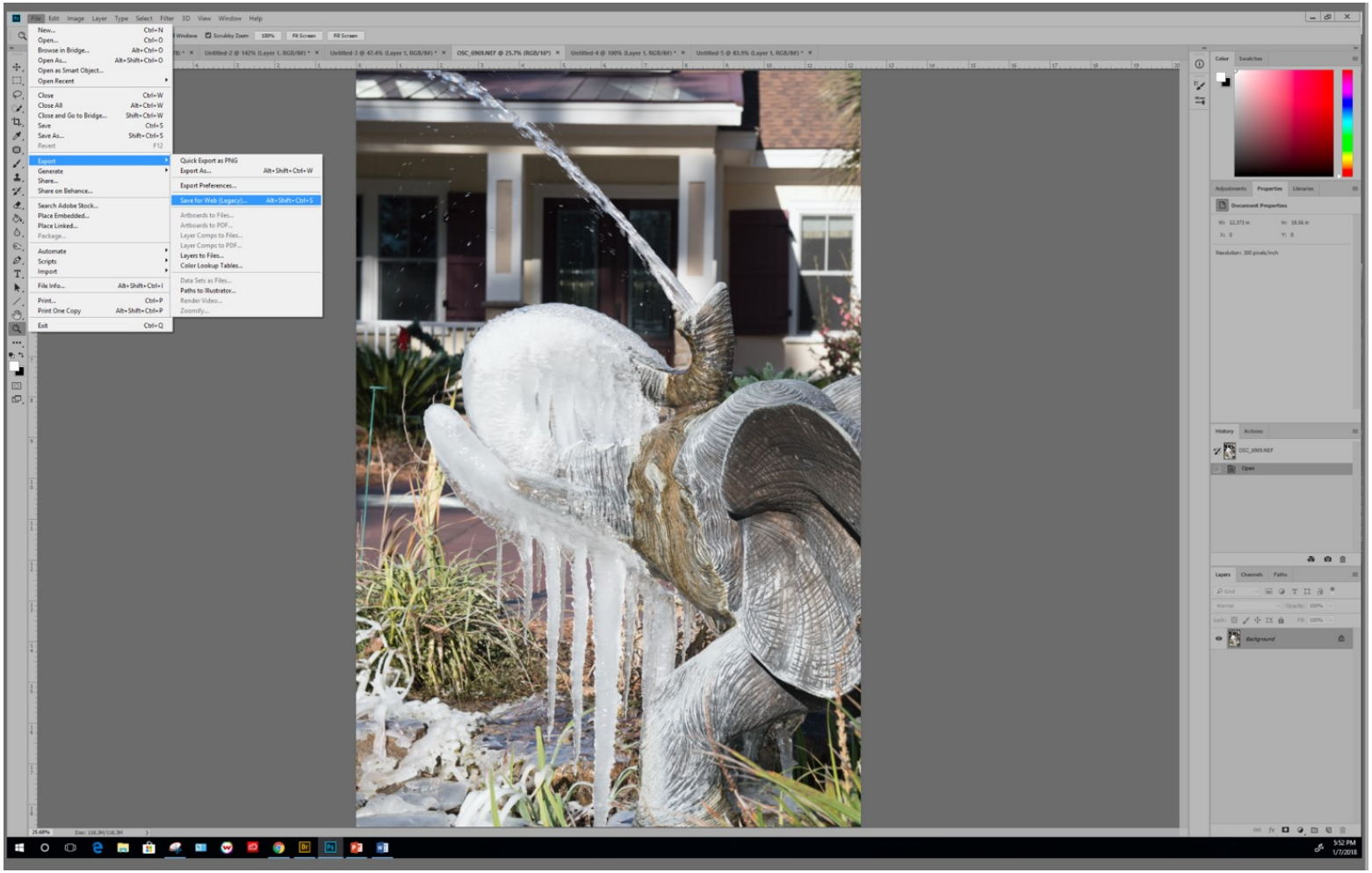




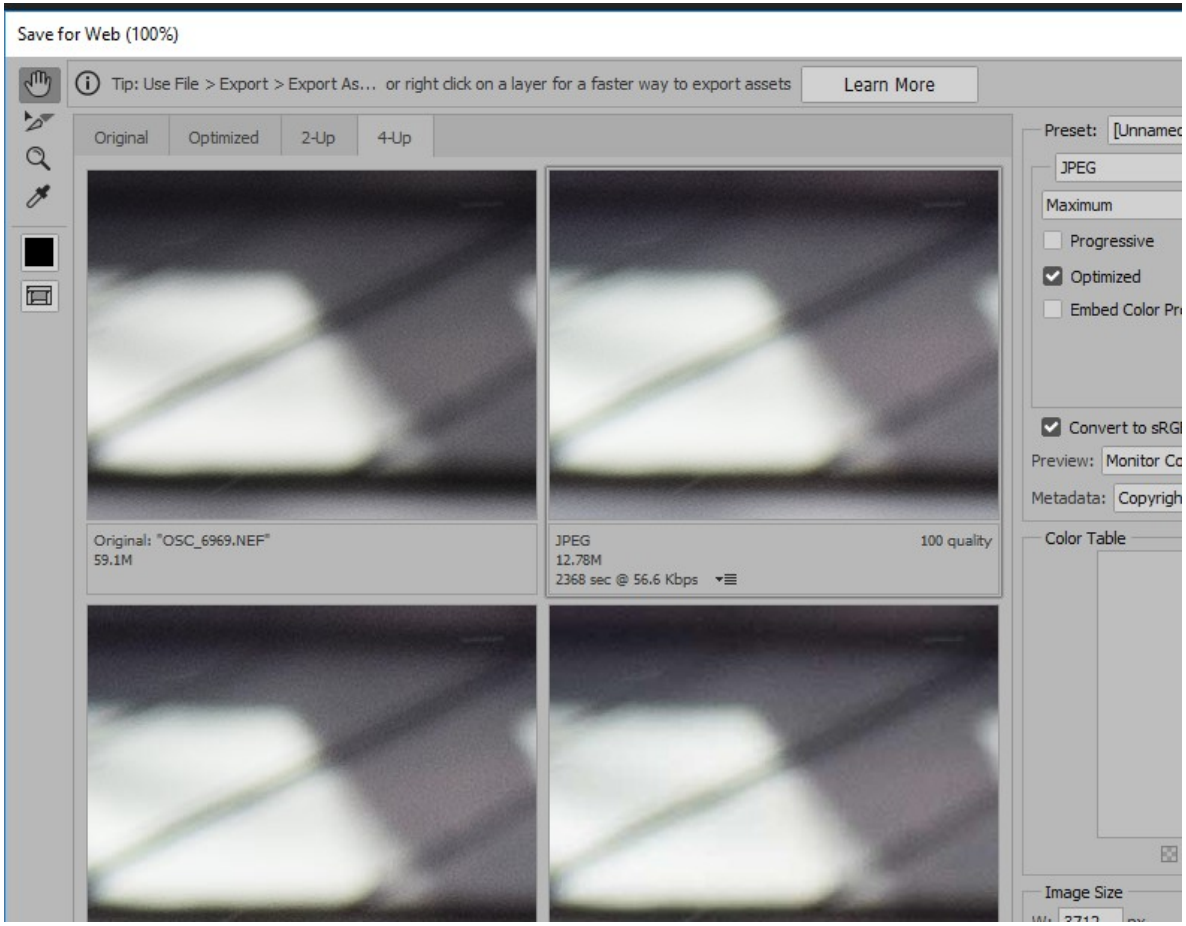
The number of pixels has been reduced from 3712 x 5568 to 667 x 1000 because resolution was changed from 300 to 72. Photoshop has removed pixels.

The SIZE of the image has also changed from 12.37 x 18.56 inches to 9.26 x 13.9 inches.

Resize and Resample Using File>Export>Save for Web



File>Export>Save for Web

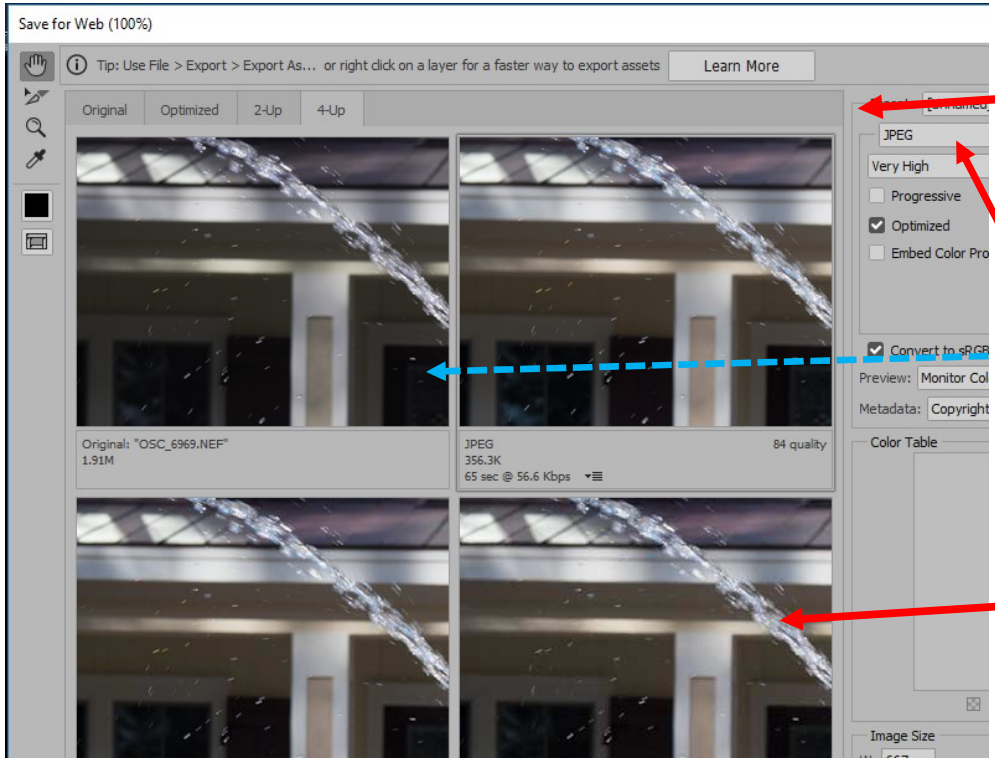


Original image size plus optional size changes.

You can just change quality, which will not change image size, you can change the Image Size (Up or Down) which changes the number of pixels included in the image.

You can change both quality (resample) and and image size (resize)

Resize and Resample



Tell PS to save file as JPEG. (Other options available from drop down menu.)

Set quality of image. Lower quality means the image file will be compressed to smaller size.

Change image size from 3712 x 5568 pixels to 667 x 1000 pixels.