

Resizing Your Images

In Lightroom Classic & Photoshop

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Club Competition Requirements

- Format: JPEG
- File Size: 1000 KB (max).
- Recommended dimensions: ~ **1920** wide x **1440** high pixels
(to match projector's native resolution)

Lightroom Classic

Lightroom Classic Image Export

- 
- OR
- Quality Slider (for JPEG):
 - **100**: Maximum quality, minimal compression (largest file).
 - **70-90**: Generally excellent for web/screen viewing; quality loss is often imperceptible, and file size drops significantly.
 - **Below 70**: Visible artifacts can appear.
 - Limit File Size (KB):
 - Found in File >Export>Settings, this forces Lightroom to adjust the quality slider automatically to hit a target file size. For projected competitions this will be 1000 KB.
 - Image Sizing & Resolution:
 - Reducing pixel dimensions (e.g., set Long Edge) dramatically reduces file size, regardless of quality settings. For projected images in competitions the dimensions should be ~1920 x 1440 pixels.

JPEG Compression

- What it does:

- Reduces number of colors represented
- Throws out fine detail
- Converts what's left with an efficient encoding scheme

- Resulting Image:

- Data Loss: Information is permanently removed and can't be recovered.
- File Size: Greatly reduces file size, perfect for photos.
- Quality vs. Size: Users can choose a quality level, affecting how much data is lost.
- Artifacts: High compression leads to visible blockiness, especially at sharp edges, or banding across slowly changing large single color areas.
- Not Ideal For: Images with text, sharp lines, or few colors (like logos/icons).

Original: RAW, 58.2 MB, 8192 x 5464 pixels



How to Export in Lightroom Classic

The screenshot displays the Adobe Lightroom Classic interface. The 'File' menu is open, and the 'Export...' option is highlighted. The main workspace shows a photograph of a graffiti-covered wall. The right-hand panel contains a histogram and a metadata table. The bottom of the interface shows the grid view with a filmstrip of photos.

File Menu Options:

- New Catalog...
- Open Catalog... ⌘ O
- Open Recent >
- Optimize Catalog...
- Rename Catalog...
- Import Photos and Video... ⌘ I
- Import from Another Catalog...
- Import a Photoshop Elements Catalog...
- Tethered Capture >
- Auto Import >
- Import Develop Profiles and Presets...
- Export... ⌘ E**
- Export with Previous ⌘ ⌥ E
- Export with Preset >
- Export as Catalog...
- Email Photo... ⌘ M
- Plug-in Manager... ⌘ ⌥ ,
- Plug-in Extras >
- Show Quick Collection ⌘ B
- Save Quick Collection... ⌘ ⌥ B
- Clear Quick Collection ⌘ ⌥ B
- Set Quick Collection as Target ⌘ ⌥ B
- Library Filters >
- Page Setup... ⌘ P
- Printer... ⌘ P

Metadata Table:

Target Photo	Selected Photos
File Name	JQ2A0598.CR3+JPEG
Folder	2024-11-16
Title	
Caption	
Copyright	COPYRIGHT DENNIS D FREEMAN
Creator	Dennis D Freeman
Rating	
Capture Date	Nov 16, 2024
Dimensions	8192 x 5464
Capture Time	10:52:51.060 AM
Shutter Speed	1/80 sec
Aperture	f / 3.2
Focal Length	24 mm
Lens	EF24-70mm...8L II USM
ISO Speed Rating	ISO 160
Model	Canon EOS R5m2
File Size	58.20 MB

Export Options:

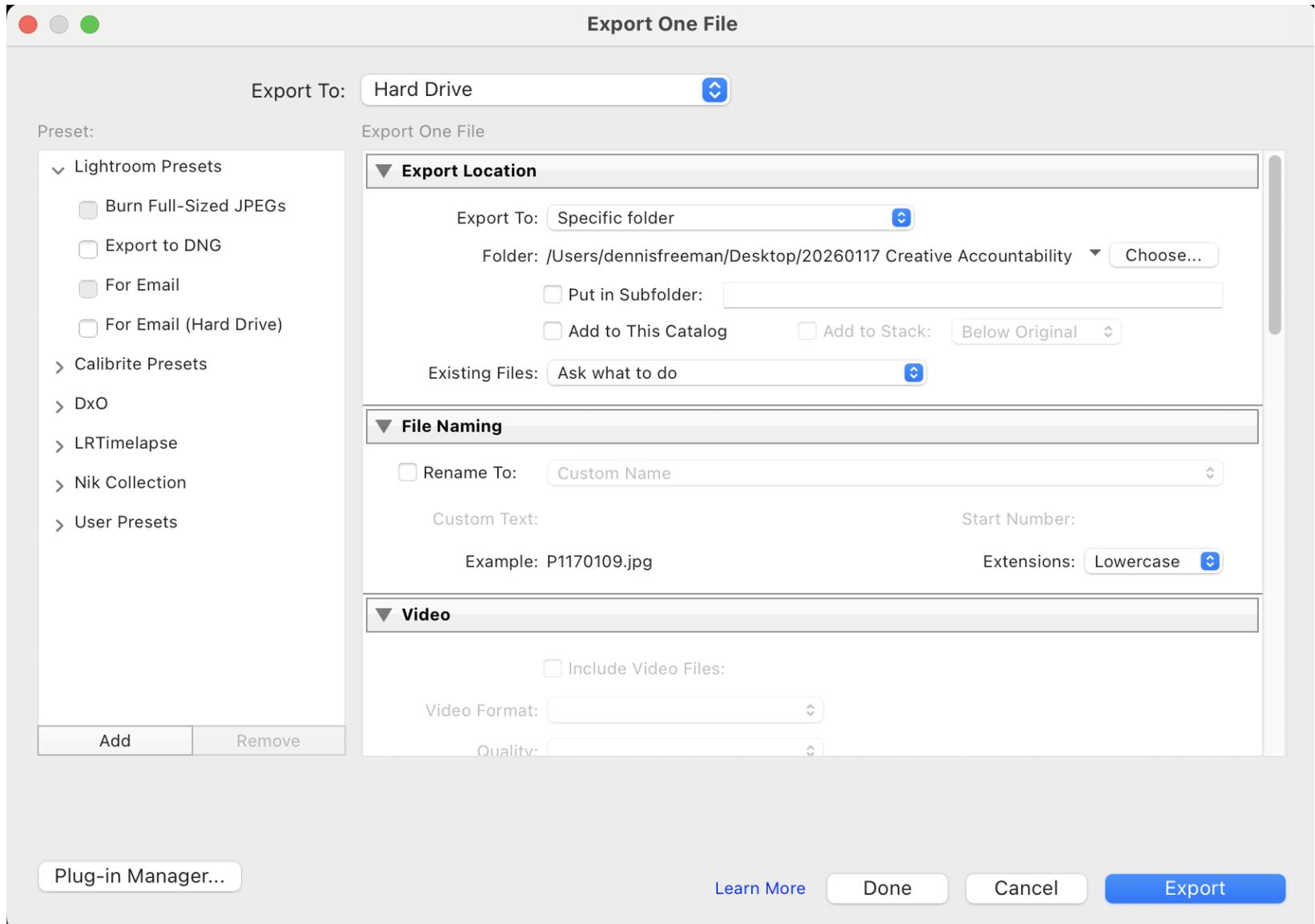
- Import...
- Export...

Grid View:

Folder: 2024 714 of 717 photos / 1 selected // JQ2A0598.CR3

Filter: 00 LRT Full Sequence

Find a Folder & Create a New Name



Lightroom Export Interface – JPEG Settings

The screenshot shows the 'Export One File' dialog box in Adobe Lightroom. The 'Export To' dropdown is set to 'Hard Drive'. On the left, there is a 'Preset' list with options like 'Burn Full-Sized JPEGs', 'Export to DNG', 'For Email', and 'For Email (Hard Drive)'. The main area is titled 'Export One File' and contains several sections:

- Video Settings:** Includes an unchecked checkbox for 'Include Video Files', a 'Video Format' dropdown, and a 'Quality' dropdown.
- File Settings:** This section is highlighted with a red box. It contains:
 - Image Format:** Set to 'JPEG'.
 - Quality:** A slider set to 60.
 - Limit File Size To:** A checkbox that is unchecked, with a value of 1,000 K.
 - Color Space:** Set to 'sRGB IEC61966-2.1'.
 - Bit Depth:** Set to '8 bits/component'.
 - Unchecked checkboxes for 'HDR Output' and 'Maximize Compatibility'.
- Content Credentials (Early Access):** A section below 'File Settings' with a sub-header and a paragraph of text.

Annotations on the image include a red arrow pointing to the text 'Scroll down' in red, and a blue arrow pointing to the text 'OR' in white, indicating alternative ways to access the settings.

Lightroom Export Interface – Pixel Sizing

Scroll down



Lightroom Presets

- Burn Full-Sized JPEGs
- Export to DNG
- For Email
- For Email (Hard Drive)

Calibrite Presets

DxO

LRTimelapse

Nik Collection

User Presets

Add Remove

When attaching Content Credentials, include the

- Producer (Dennis Freeman)
- Connected accounts: None
- Edits and activity

Manage Refresh

Image Sizing

Resize to Fit: Width & Height Don't Enlarge

W: 1,920 H: 1,440 pixels Resolution: 300 pixels per inch

Output Sharpening

Sharpen For: Screen Amount: Low

Metadata

Include: Copyright Only

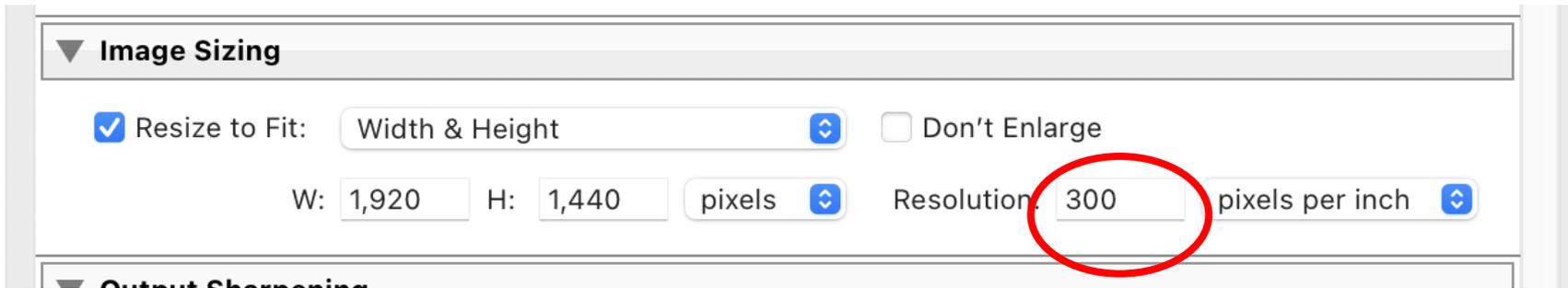
- Remove Person Info
- Remove Location Info
- Write Keywords as Lightroom Hierarchy

Watermarking

Plug-in Manager...

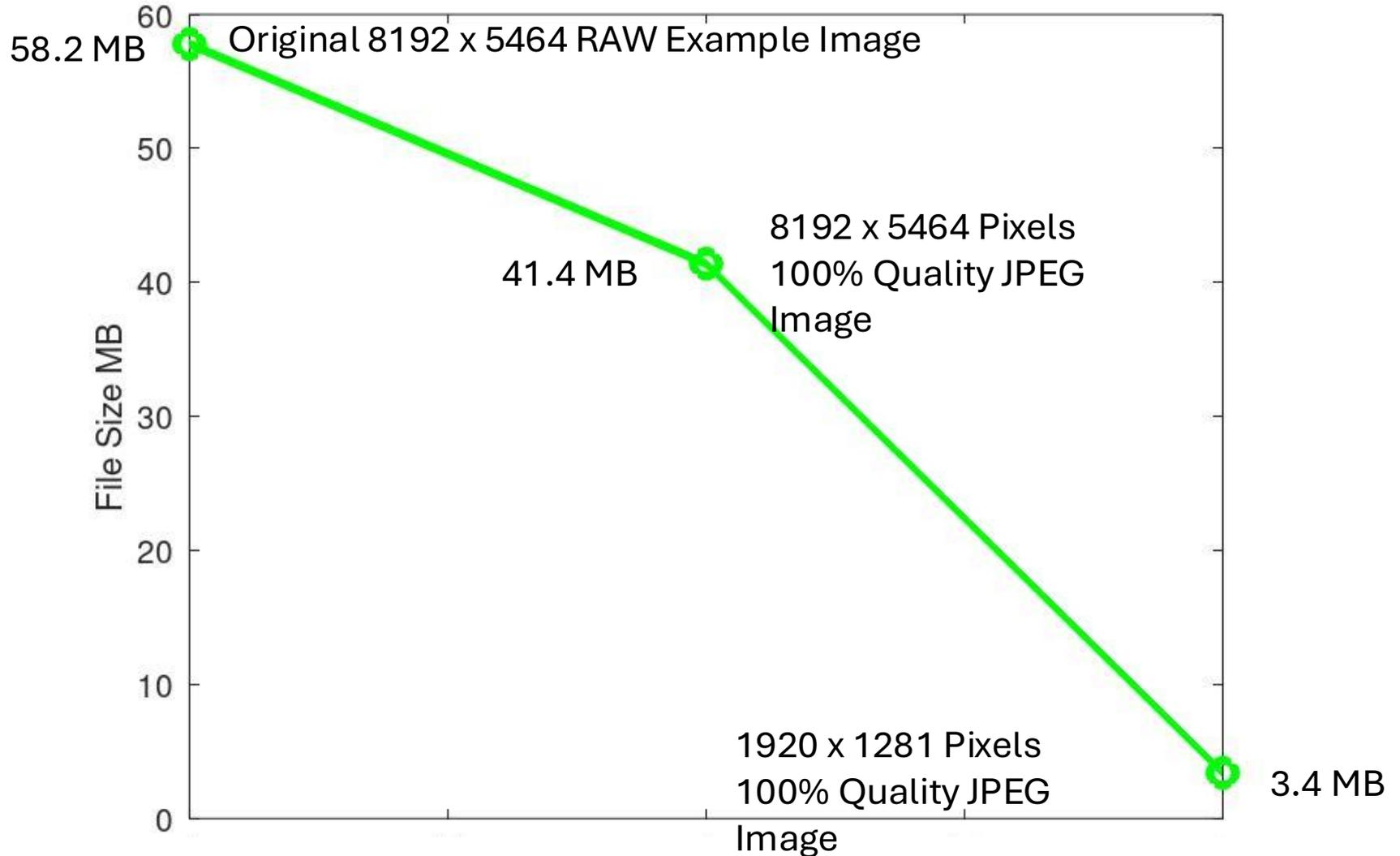
Learn More Done Cancel Export

Pixels per Inch Setting



- Digital File: Pixel dimensions (e.g., 1920x1440 pixels) are the resolution values used when displaying digital images. PPI is just stored in the metadata for printing. Any value works.
- Printing: Higher PPI (e.g. 300 ppi) = smaller print, more detail; lower PPI = larger print, potentially blurry.
- Projection: Image metadata PPI is generally irrelevant and not used by projectors for displaying images. Projectors operate based on absolute pixel dimensions (e.g., 1920x1080) rather than the physical print size instructions stored in metadata.

File Size Reduction with JPEG Conversion and Pixel Grid Reduction



JPEG Quality Slider

Lightroom's Quality slider (0-100%) isn't linear; it jumps between 13 specific compression settings.

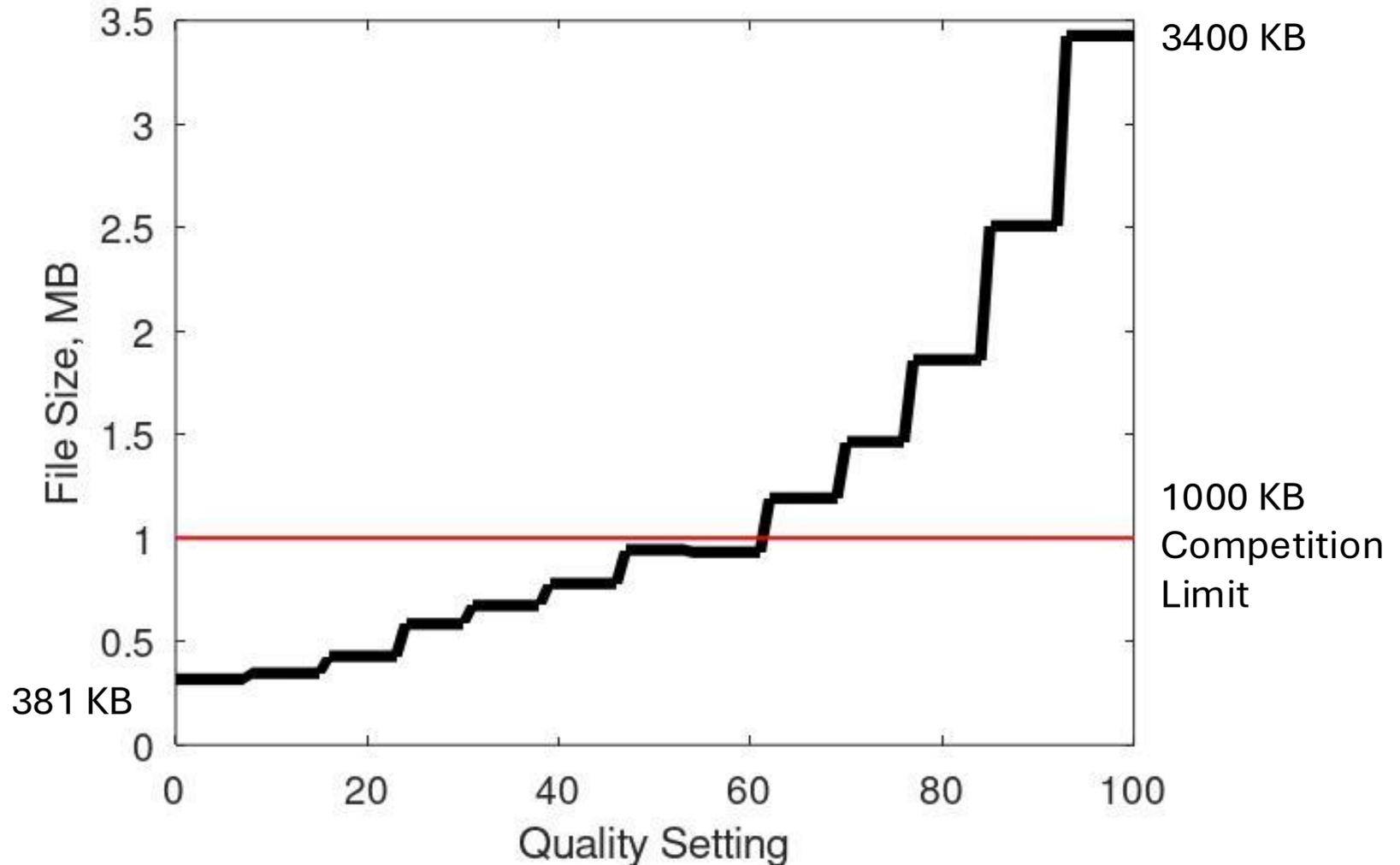
- Level 0 (Lowest): 0-7%
- Level 1 (Low): 8-15%
- Level 2 (Low): 16-23%
- Level 3 (Low): 24-30%
- Level 4 (Low): 31-38%
- Level 5 (Medium): 39-46%
- Level 6 (Medium): 47-53%
- Level 7 (Medium): 54-61%
- Level 8 (High): 62-69%
- Level 9 (High): 70-76%
- Level 10 (Very High): 77-84%
- Level 11 (Very High): 85-92%
- Level 12 (Max): 93-100%



Any quality value within a particular quality range produces an identical result

File Size vs Quality Setting

(example 1920 x 1281 image)



Setting a File Size Limit

(example 1920 x 1281 image)

- Instead of using the Quality Slider, Set Max File Size to 1000 KB:
- Result: 932 KB (same as Level 7: Q = 54-61%)
This is the highest quality and biggest image size I can get with my image and stay under the limit.*

* With the possible exception of applying optional “Output Sharpening”

Option: Try Output Sharpening:

Low, Standard, High Settings. Mitigates JPEG edges softening. Increases image size a little. Check output file size to make sure you don't go over 1000 KB.

The screenshot shows the Adobe Lightroom export settings panel. On the left, a list of presets is visible, with a blue arrow pointing to the 'Nik Collection' section. The main panel is divided into several sections: 'When attaching Content Credentials, include the following:' (with checkboxes for Producer, Connected accounts, and Edits and activity), 'Image Sizing' (with 'Resize to Fit' checked and 'Width & Height' selected), 'Output Sharpening' (with 'Sharpen For' set to 'Screen' and 'Amount' set to 'Low'), 'Metadata' (with 'Include' set to 'Copyright Only' and checkboxes for 'Remove Person Info' and 'Remove Location Info'), and 'Watermarking'. A red arrow points down from the top right towards the 'Output Sharpening' section, with the text 'Scroll down' written in red. At the bottom right, the 'Export' button is circled in red. Other buttons at the bottom include 'Plug-in Manager...', 'Learn More', 'Done', and 'Cancel'.

Note: when trying to get to a small (<1000 KB) jpeg image, metadata can be a significant part of this. Choose minimum metadata amount, i.e. Copyright Only.

The screenshot shows the Adobe Lightroom export settings dialog. On the left is a sidebar with various preset categories: Lightroom Presets (Burn Full-Sized JPEGs, Export to DNG, For Email, For Email (Hard Drive)), Calibrite Presets, DxO, LRTimelapse, Nik Collection, and User Presets. The main area is divided into sections: 'When attaching Content Credentials, include the following:' (with checkboxes for Producer, Connected accounts, and Edits and activity), 'Image Sizing' (with 'Resize to Fit' checked and 'Width & Height' selected), 'Output Sharpening' (with 'Sharpen For' set to 'Screen' and 'Amount' set to 'Low'), 'Metadata' (with 'Include' set to 'Copyright Only' and 'Remove Person Info' and 'Remove Location Info' checked), and 'Watermarking'. A large blue arrow points to the 'Copyright Only' dropdown in the Metadata section. At the bottom, there are buttons for 'Add', 'Remove', 'Plug-in Manager...', 'Learn More', 'Done', 'Cancel', and 'Export'. The 'Export' button is circled in red.

Lightroom Presets

- Burn Full-Sized JPEGs
- Export to DNG
- For Email
- For Email (Hard Drive)

Calibrite Presets

DxO

LRTimelapse

Nik Collection

User Presets

When attaching Content Credentials, include the following:

- Producer (Dennis Freeman)
- Connected accounts: None
- Edits and activity

Manage Refresh

Image Sizing

Resize to Fit: Width & Height Don't Enlarge

W: 1,920 H: 1,440 pixels Resolution: 300 pixels per inch

Output Sharpening

Sharpen For: Screen Amount: Low

Metadata

Include: Copyright Only

- Remove Person Info
- Remove Location Info
- Write Keywords as Lightroom Hierarchy

Watermarking

Add Remove

Plug-in Manager...

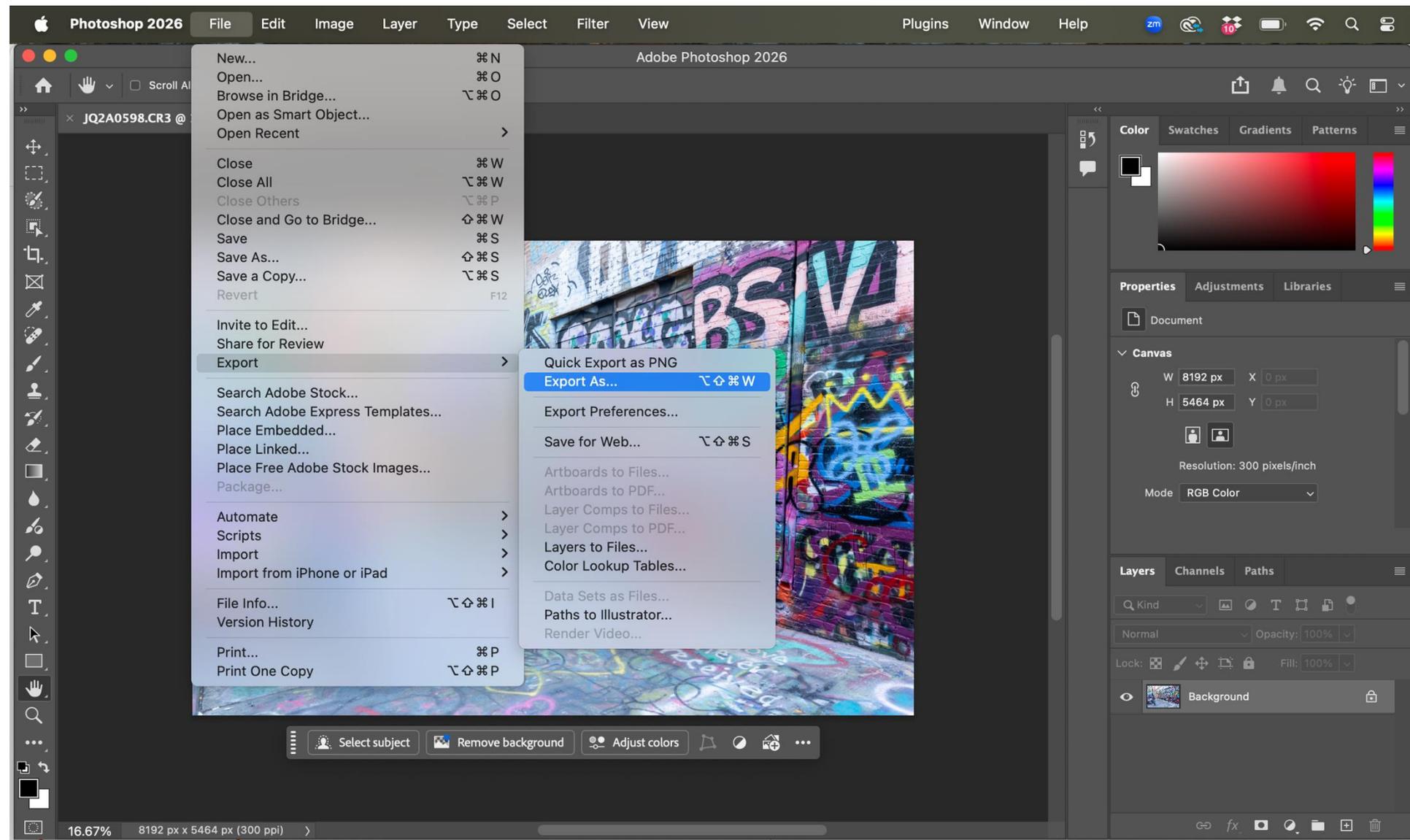
Learn More Done Cancel Export

Summary Lightroom Classic Recipe:

- >File > Export
- Select an Export Location
- Optionally select a new image name
- Scroll down to “File Settings”
 - Ensure Image Format is “JPEG”
 - Click Box next to “Limit File Size To: ____ KB”
 - Enter “1,000” for value
- Scroll down to “Image Sizing”
 - Click Box next to “Resize to Fit: _____”
 - Click options selector and pick “Width & Height”
 - On the line that follows make it: W: 1,920 H: 1,440 pixels, and 300 pixels per inch (300 is OK for both print & digital)
- Option: Scroll down to “Output Sharpening”
 - Click Box next to “Sharpen For:”
 - Click “Screen” for value, then
 - Amount: Low
 - Metadata: Include Copyright Only
 - If Exported JPEG exceeds 1000 KB, return and turn off Output Sharpening.

Photoshop

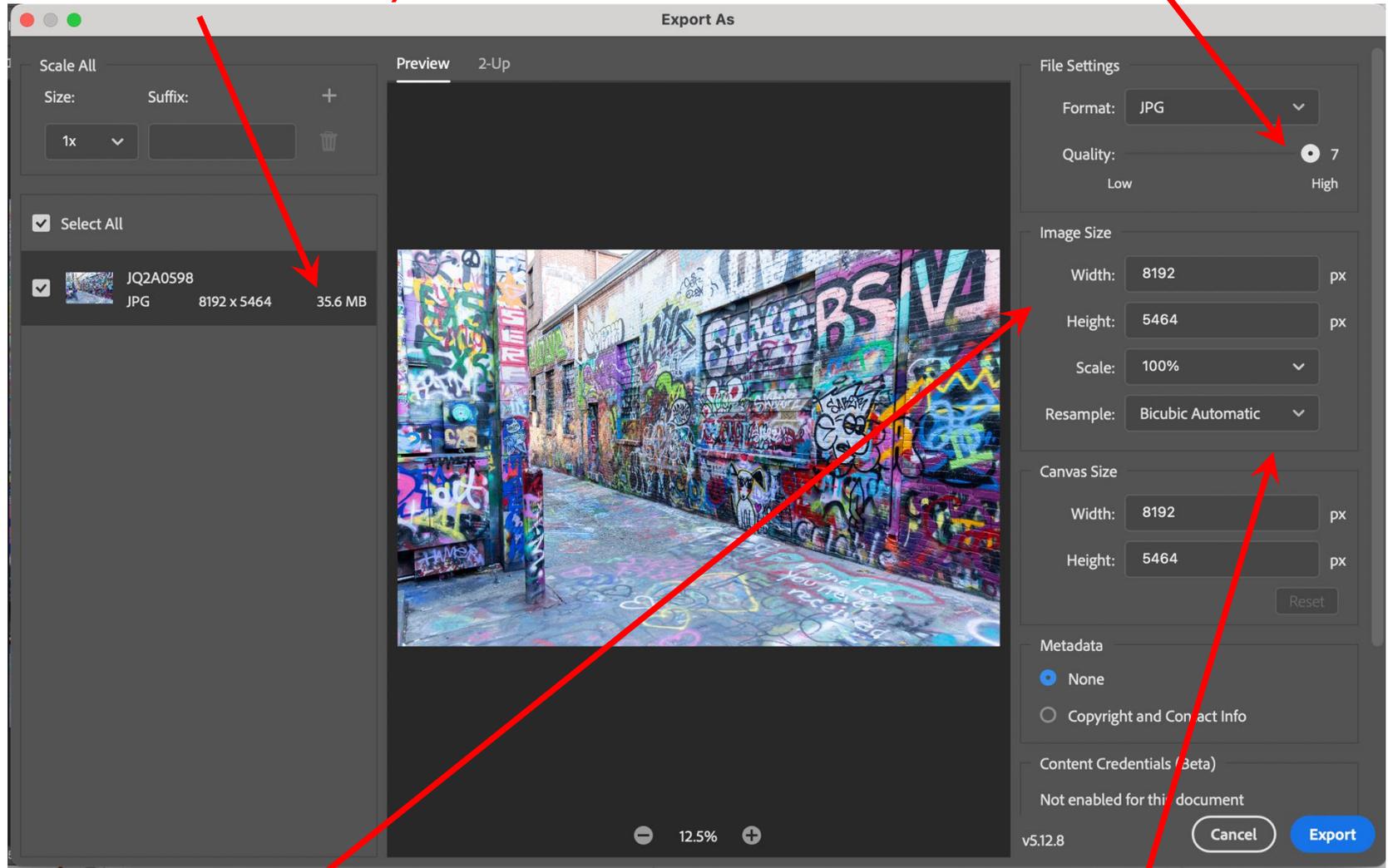
Step 1: File > Export > Export As...



Resulting File Size

(we want < 1 MB)

Quality Selections: 1-7

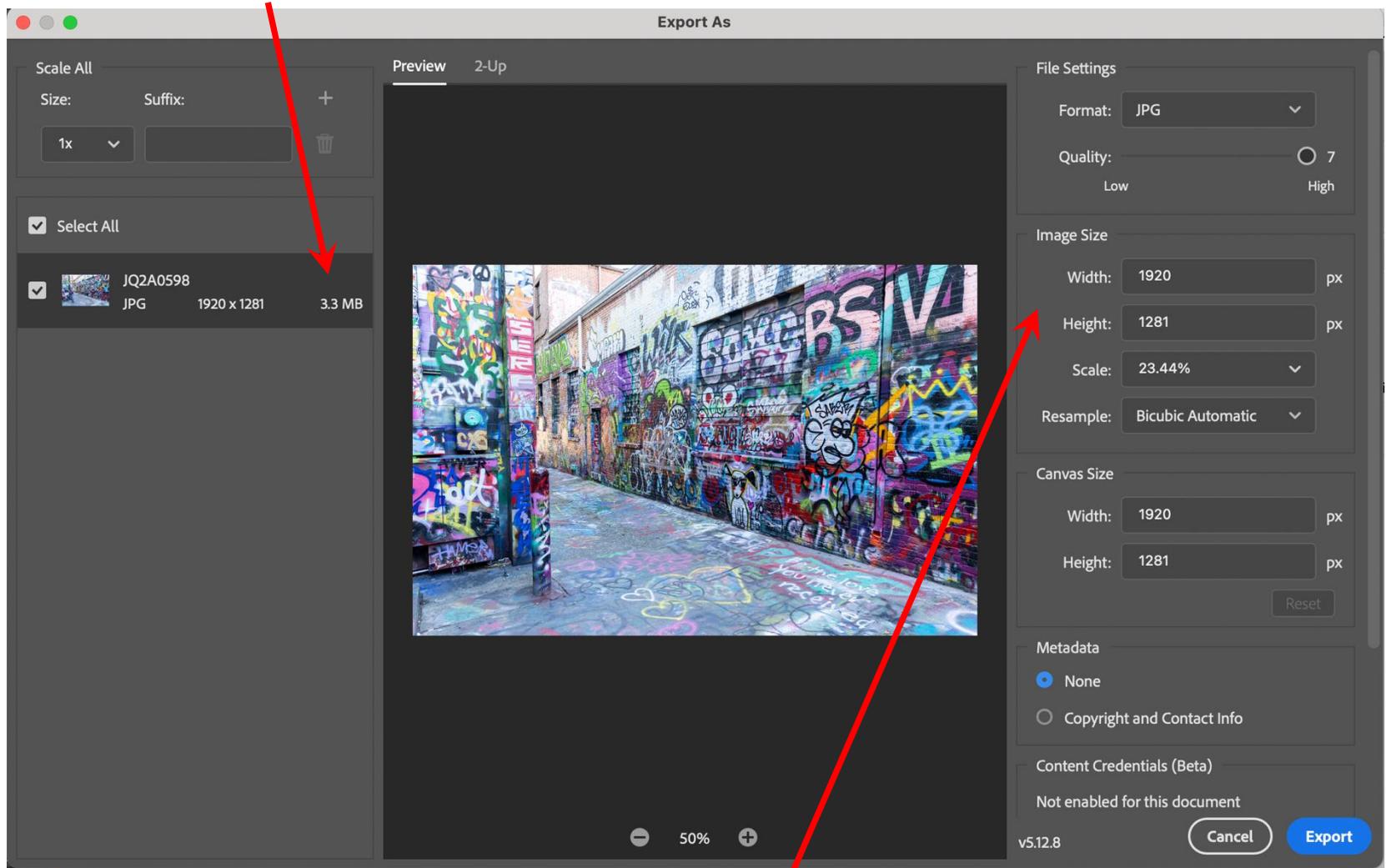


Pixel Grid Size Selection

(we want 1920 Width for Landscape or 1440 Height for Portrait orientation)

Algorithm
(bicubic is best)

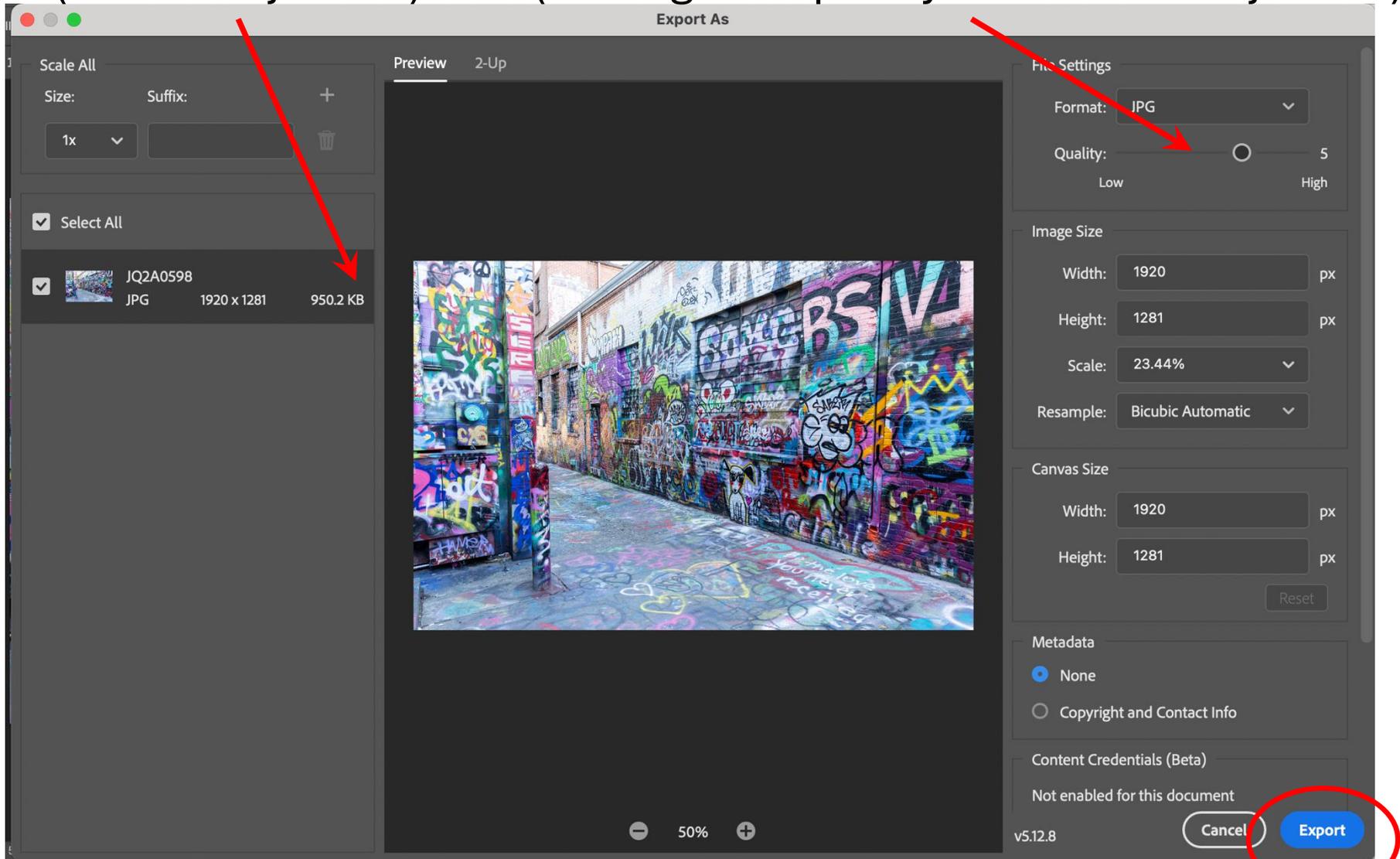
Resulting File Size (10 times smaller now)



Change Pixel Grid Size Values

Resulting File Size
(meets objective)

Change Quality Value
(5 is highest quality that meets objective)



Ready to export

Summary Photoshop Recipe:

- File > Export > Export As...
- File Settings:
 - Format: JPG
 - Ignore “Quality” setting for now
- Image Size for a Landscape orientation:
 - Width: 1920 px (1920 then hit “enter” on keyboard)
 - Height: (automatically selected) px
 - Scale (automatically selected) %
- Image Size for a Portrait orientation:
 - Width: (automatically selected) px
 - Height: 1440 px (1440 then hit “enter” on keyboard)
 - Scale (automatically selected) %
- Canvas Size: (irrelevant if not printing)
 - Width: (automatically selected) px
 - Height: (automatically selected) px
- Back up to File Settings:
 - Quality Slider: examine left panel for current predicted image size.
Adjust Quality slider to maximize size while remaining below 1000 KB.
- Click Export on bottom right. Select location and Image name.

Don't Have Adobe?

(this is in the Handbook, via our site's menu)

- Changing the File Size and File Name for SSCC Competitions – PC
Version <http://www.scccphotography.org/changing-the-file-size-and-file-name-for-sccc-competitions-by-david-terao/>
- Changing the File Size and File Name for SSCC Competitions – Mac
Version <https://www.scccphotography.org/resize-and-rename-images-on-a-mac-without-lightroom/>

END