Introducing JpegWasher

Executive Summary

This program makes it easy to remove metadata from the digital images you create.

What is "Metadata" and Why Would I Want to Remove It?

You may not realize it, but image files can (and typically do!) contain more than just image data. These data can include your camera make, model, and serial number; the location where you took the photo; the software you used to edit the photo (and what editing steps you did); etc.

One of the most powerful uses of photography is to graphically document things that the wealthy and powerful might wish to remain concealed. The evils of slavery, child labor, poverty, war, and imperialism have all been documented photographically, and such photographs have often proved instrumental in helping to motivate social change.

Because of the metadata they contain, digital photographs contain data which has been used to determine who took them, and in some cases to exact retribution against those photographers. JpegWasher makes it easy to see and remove the privacy-compromising metadata in your images.

Even if your images are not of such a sensitive nature, that extra data takes up space. It is not uncommon for a 100 KiB image to contain 20 KiB of metadata in it; if that image is on a web page, that makes for 20 KiB of wasted network usage each time the image is sent.

What Makes JpegWasher Different from Other Metadata Editors?

Simply put, it is designed to *safely* remove *unimportant* metadata from JPEG files.

There are plenty of general-purpose image metadata editors out there, and these tools can be employed to remove unimportant metadata. The trouble is, they are not user-friendly: it is up to you, the user, to know which metadata are unimportant, and to delete it.

There can be literally *hundreds* of bits of metadata in an image, and *not all are safe to remove*. In particular, if you accidentally remove color-management metadata, computers that don't handle images without color-management metadata properly (I'm talking about *you*, Apple Computer, Inc.) will display colors that often look all "washed-out" or otherwise incorrect.

Likewise, there are already plenty of simple-to-use, user-friendly tools out there for cleaning the metadata out of image files, but they inevitably delete *all* metadata, resulting in files that often display improperly. Also of concern, many of these "tools" are actually online services. If you're concerned about your privacy, why would you trust the images you're processing to some unknown third party, who may be linked somehow to those who might want to retaliate against you?

I wrote this program because I wanted there to be a quick, easy way to scrub images before they even left a photographer's computer and made their way onto the Internet, and for that program to leave vital metadata alone, so that the resulting images continue to display properly.

JpegWasher Washes More than Just Exif Metadata

Jpeg is the most common type of metadata, but image files commonly contain compromising XMP or IPTC data, particularly if they have been edited with a tool like Photoshop. JpegWasher will seamlessly deal with these kinds of metadata, too. It tries to do as thorough a job as possible of scrubbing possibly compromising metadata from your images.

Using JpegWasher

Just double-click on the JpegWasher icon and a main window should open up. Either choose the File... Wash from the menu bar, or just drag image files onto the main JpegWasher image.

When JpegWasher opens an image, it displays all the metadata it finds. That metadata will be run through an internal whitelist, and any data whose "key" is not found on the whitelist will be automatically selected for deletion.

If you disagree with JpegWasher's decisions, you can check or uncheck the boxes next to the metadata in question. When you are satisfied with the choice of metadata to be scrubbed, click "Wash" and all offending metadata will be removed. A dialog will pop up showing the metadata remaining in the new, washed file.

Important: Run JpegWasher Last!

Most image-editing tools insert telltale bits of metadata into the output they create. Thus, only way you can create a file with the minimum amount of metadata in it is to run JpegWasher as the final step in your image preparation.

Washing Non-JPEG Images

In short: it's possible, but it is not recommended unless you *really* know what you're doing.

JpegWasher is called JpegWasher for a reason: it is geared to cleaning metadata in *JPEG* files. Different types of images use metadata differently; metadata that would be extraneous deadwood in a JPEG can be critical to interpreting other image file formats correctly. JpegWasher's built-in whitelist is geared to what must be retained when washing JPEG images, so *careless use of JpegWasher is likely to damage non-JPEG files.* It is for this reason that JpegWasher will warn you if you attempt to open and wash a non-JPEG file with it.

Output Files

JpegWasher never modifies an existing image file. Instead, it creates a new file of the same type but with "_washed" appended to its name. For example, processing `foo.jpg` will create `foo_washed.jpg`. By default, the new file will be created in the same directory as the file being washed.

JpegWasher is Configurable

Both the whitelist and the destination directory for the washed files are user-configurable in the Preferences menu.

Configuring the Whitelist

There are two kinds of whitelist entries: those that match an entire metadata key, and those that match a key prefix. The latter end in an asterisk. The whitelist is case-sensitive; i.e. the entry `exif.image.colormap` *will not* match the `Exif.Image.ColorMap` key.

That's about It

JpegWasher does not, and probably never will, do anything but remove extraneous metadata from JPEG files.

First, I have no desire to re-invent the wheel. There are already excellent open-source tools like Gimp for image editing, and ExifTool and Exiv2 for general-purpose metadata editing (in fact, JpegWasher is built on top of Exiv2). If you need the functionality of some other tool, download and use it!

Second (and more importantly), I want JpegWasher to be simple, and therefore easy to learn and easy to use. The more challenging an information-security tool is to use, the less likely it is to be used frequently, and the more likely it is that compromising information gets

disclosed.