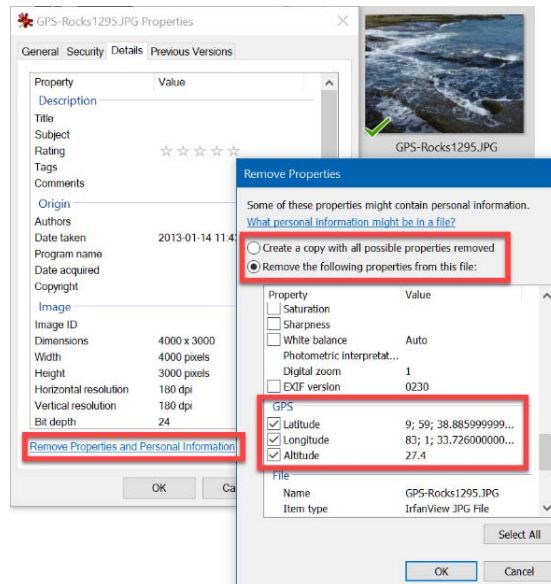## ARTICLE

Removing metadata from photos

by Chris Taylor

At the April 10th Q&A Session, someone asked how to remove sensitive information from JPG photos before posting them online. The EXIF information embedded in image files contain a wealth of information including the make & model of the camera and camera settings such as the lens focal length & aperture, shutter speed, and ISO. It can also contain more sensitive information like the GPS coordinates where the photo was taken. It is always a good idea to consider if you want such information left in when you post the photos on-line or otherwise share the files.

Windows 10 has a built-in ability to "Remove Properties and Personal Information" from files. In the case of JPG files, this is the EXIF info in the file.

In Windows 10's File Explorer

- Right-click a JPG file and choose *Properties*.

- On the *Details* tab, click on *Remove Properties and Personal Information*.

- By default, it will *Create a copy with all possible properties removed*.

- Oddly, File Explorer can't remove all properties. If you select the radio button *Remove the following properties from this file:* you can scroll through the list of properties and check the boxes for any you want removed. Not all properties have check boxes.

Removing just the GPS location

If you want to remove **all** EXIF information, there are other free options.

IrfanView

IrfanView (http://www.irfanview.com) is an excellent image viewer that can also do useful things like resizing, format conversions and even rudimentary image editing. It also has the ability to strip EXIF information.

When saving an image in IrfanView, there is an option to remove EXIF information and I often use this when doing other things like resizing and format conversions. However, a *save* in JPG format can affect image quality. IrfanView can remove EXIF info without modifying the image.

- Install IrfanView **and** the optional plug-ins from http://www.irfanview.com.

- NOTE: the following will cause the file to be over-written! You may want to only do this on a copy of the JPG file.

Inside this issue:

Next Meeting: WEDNESDAY, October 9th, 2019

October Raffle

The October raffle prize is an **X-Dragon Solar Power Bank with Cigarette Lighter**.

This nifty gadget is a USB power pack that you can charge up with any USB charger or leave in the sun (e.g. on a picnic table) and the sun will charge it. It will power any USB toy including smart phones, tablets, notebooks, etc. for hours. While NOT being waterproof (i.e. submersible) it can be left out in the rain.

It has a flashlight with three modes: steady light, SOS and strobe. There is a cigarette lighter that can ignite paper, leaves or grass.

Tickets are $1 for one, $2 for three, or $5 for ten.

September Prize Winners

Our raffle prize of a Samsung T5 500GB Portable SSD was won by **Jacques Cadieux**.

Meanwhile **Etienne Gibeault** took home our door prize - a "Grab Bag" of small IT items including an SD Card Wallet, Portable Surge Protector and a Bluetooth Remote Shutter.

Coming Up…

Wednesday October 9th, 2019

Members' Favourites

A number of members will share their experiences with a variety of computer hardware and software systems. The specific topics that have been promised are as follows:

Wacom Tablet (Chris Taylor)

A drawing tablet can be used in most cases instead of a mouse and has some distinct advantages (and a few disadvantages). Chris will show how he uses Wacom Intuous drawing tablets to help make his photo editing smoother and more productive.

Video Editing (Lawrence Patterson)

Lawrence will discuss the in and outs in creating a very rudimentary "Stop Motion Cartoon" / PowerPoint / YouTube video that was intended as a post-eulogy to his spouse's uncle who, in many ways, provided the materials and vision that allowed a 50-year-old kid to enjoy arts and crafts once again.

Virtualization (Alan German)

If you have moved on to Windows 10, you may find that you can no longer run older software on the new platform. This is especially the case for 16-bit DOS programs which are no longer supported directly. However, it may also be the case for some software that ran under Windows 7 but fails under Windows 10. A possible solution to such issues is to run the older operating system in a virtual machine (VM) using your Windows 10 platform as a host. This presentation will show you how!

Bluetooth Hearing Aids (Bob Walker)

Bob will be taking a look at some current hearing aid technology, including Bluetooth-enabled hearing aids that can be paired with a smartphone and customized to match an individual's hearing loss.

Bonus Presentation - E-Commerce (Bob Walker)

Time permitting, Bob will take a brief look at on-line shopping, especially shopping on-line in the USA from Canada.

For meeting updates and additional details, visit https://opcug.ca/regmtg.htm .

2019 CALENDAR

Meetings	Date	Time and Venue
OPCUG General Meeting	Wednesday, October 9th	7:30 p.m. at the Riverside United Church, 3191 Riverside Drive, Ottawa. Parking is free. OC Transpo bus #87 stops nearby. Visit https://opcug.ca/regmtg.htm for directions.
Q&A Session	Wednesday, October 9th	Immediately following the OPCUG General Meeting.
Beer BOF (Wing SIG East)	Wednesday, October 9th	10:00 p.m. (after the Q&A) at the Riverside Pub, 3673 Riverside Drive. Turn left onto Riverside Dr. from the Church.

FALL WORKSHOP

Troubleshooting Workshop

Our troubleshooting workshop is now open to registrations from non-members of the club. **The workshop is still free for OPCUG members.** Non-members will need to pay a registration fee of $20.00 which will include a one-year membership in the club (a $20.00 value!) So, if you have a relative, friend or colleague who might benefit from our workshop, please let them know that space is currently available.

Our workshop will try to offer assistance with any computer-related problems. For example, is booting slow because there are too many bundled applications (bloatware) trying to load at start-up? Do you need help to manage all the files and folders on the hard disk? Is assistance required to make sure that everything is adequately backed up? Or, would a system of E-mail folders and/or message filtering be useful? Our expert members can help with these issues - and probably many others that you find difficult.

Anyone wishing to participate in the workshop should send an E-mail message to workshop2019@opcug.ca, providing details of the issue that is to be addressed. If our experts think that they can help then you will be registered for the workshop. Non-members will be provided with a mechanism to pay the registration fee. (We won't take your money unless we believe that we can help!)

Registration is now open to non-members

The workshop will be held on Saturday, October 26, 2019 from 10:00 am until 1:00 pm at CompuCorps' Support Centre, 1040 Somerset Street West, Ottawa, ON K1Y 4L3.

Workshop registrants will be able to bring their own computer to the workshop for hands-on troubleshooting, or use one of the machines in CompuCorp's computer laboratory to research more generic issues. If you need to replace a broken part, want to upgrade to a larger hard drive, or add memory to your computer, you may just find a refurbished bargain in the Techstore. OPCUG members can obtain a 20% discount on any purchases at the on-site store.

To date, we have registrants who have requested assistance with tuning Windows 10, removing potential malware, eliminating duplicate photographs, cleaning up the Windows desktop, dual-booting Windows and Linux, backing up the hard disk to an external drive, and cleaning up disk partitions. If you have any similar issues - or perhaps some different ones – send us a note indicating how we may be able to help!

Hog's Back Bridge closed for repairs

This is a reminder to our members west of the Rideau River that the Hog's Back Bridge is closed for repairs until May 2020. There are other bridges that cross the Rideau River such as the **Heron** and **Hunt Club** bridges north and south of the church and the **Vimy Memorial Bridge** further south.

Click image to view map

PRODUCT REVIEW

gps4cam   *by Chris Taylor*

When in unfamiliar areas, I like to geotag photos I take so I can later see where they were taken. I use Irfanview as my image viewer. If there is location information in the EXIF info, it adds a button *Show in Google Earth*. With a click, I can see, within about 10 metres, where I took the photo.

My point-and-shoot Canon SX260 has a built-in GPS; my main camera (Nikon D750) doesn't. Sometimes I take a photo with the SX260 just to have a record of the location and then switch to my D750. But the photos taken with the D750 remained untagged.

In order to record location information directly on the D750, I bought an add-on GPS receiver. Unfortunately, I have to plug it into the data port on the camera, precluding use by my remote shutter release. Also, the cable sticks out to the side, where it bumps against my hip when I use my sling strap. I damaged one cable this way.

In my quest to find a simpler way to geotag photos, I went looking for an Android app that would automatically transfer GPS data from my phone to my D750 when photos are taken. I couldn't find one, but I found one that comes close: gps4cam.

You tell gps4cam to start a "trip" and the app starts recording location information at a user-defined interval. You can also force it to record a location immediately by shaking the phone.

When you tell gps4cam to stop the trip, it displays a QR code on screen which contains location information recorded since the trip start. You take a photo of that code with the camera you used to take the photos during your trip. If there are too many location captures to record in a single QR code, gps4cam will automatically generate multiple codes. Be sure to take a photo of all of them for any given trip.

You can record multiple trips and you can name trips in the app to more easily keep track of them. They use minimal space on the phone and can be deleted as soon as you complete the following step.

When you get to a computer, transfer the images – including those of QR codes - to a location on the computer. With the free desktop version of gps4cam, scan the directory containing the images. It automagically embeds the location information into the EXIF info of photos taken during the trip.

Because the GPS signal is time-coded, gps4cam can detect if your camera clock was set wrong and correct the time stamp in the photos. The only rule you have to follow is to not change the time on the camera between the start and end of a trip. Let gps4cam correct the times later.

gps4cam can geotag JPeg, TIFF, and RAW images.

I used gps4cam on a recent trip to Norway, Iceland and Scotland. I had a few instances where gps4cam inexplicably didn't add correct GPS info to batches of photos. It usually came down to all photos that were taken at a single location. But, by and large, it did an admirable job of ensuring most of the photos I took with my Nikon D750 were geotagged correctly.

Bottom line:

gps4cam: $4 for Android or iOS
Desktop software: free for Windows and MacOS
http://www.gps4cam.com/

Excel Tables, Why Do it? (Part 1 of 3)

By Lawrence Patterson *lawrence@opcug.ca*

During my many years in supporting users, I've found that one of the least used aspects of Excel is utilizing Tables. And though I've seen many who have taken advantage of the "Format as Table" (which literally turns your data into a fully functional "Table") they somehow miss the useful parts, never mind that once you have a Table, you can "Pivot" (stay tuned for Part 3).

A Table simply takes a range of data and gives you the functionality of a mini-database tool. Take, for example, your typical budget, showing a before and after look:

NOTE; It is highly recommended that a Table be on its own sheet; although you can have multiple tables on one sheet, you shouldn't

In the above example, which was done by selecting cells A1:E11, then clicking on the INSERT tab, and then TABLE, and clicking OK after confirming the "My table has headers" check box, you have a database consisting of one table.

A couple of pointers before we move on:

1. Each column is a specific function (i.e. don't mix up your Who, What and Why);
2. The 1st Row of a Table is your Header and is meant as a descriptor for the data underneath;
3. The remaining rows (and there can be thousands) is your data, with each row becoming a Record;
4. To allow for further analysis, simple consistency is your friend (if you find that there's something else you want to report on, create another Table).
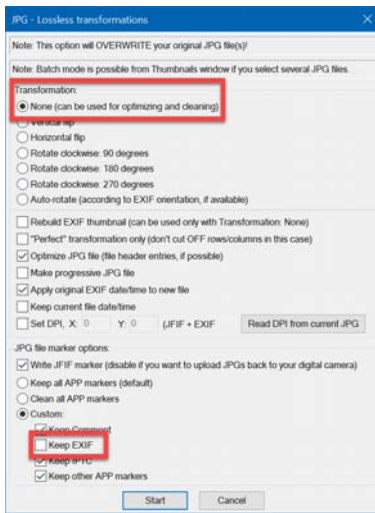
At this stage we can do many fantastic things:

- Sort / Filter on Who we spent our money at (click on the button to the right of Who, and un-check / check the store);
- Note at the bottom of the screen the Average, Count and Sum based on the current filter;
- Easy to see every other record / row with a highlight to easily identify one record from another;
- Select the top of the Column (watch how your arrow changes) to quickly format a column (which will take automatically when you add new records);
- Your columns become name ranges allowing you to create formula(s) on a separate column that'll automatically replicate for the entire table;
- And it naturally has you itemizing your data into consistent setup for further analysis (mine has nearly a decade of transactions).

Next month, Part 2 will review formulas, setup and preparation to allow for a quick multi-month comparative of our spending.

Take care.

Metadata *(Continued from page 1)*

- Open your JPG file in IrfanView and choose *Options | JPG lossless rotation*.

- Leave *Transformation* set to *None*.

- In the *JPG file marker options:* section, choose *Custom:* and deselect *Keep EXIF*.

- Click *OK*. Your original file will be immediately overwritten without the EXIF information.

You can use IrfanView's thumbnail viewer to remove EXIF info from multiple files in a single operation.
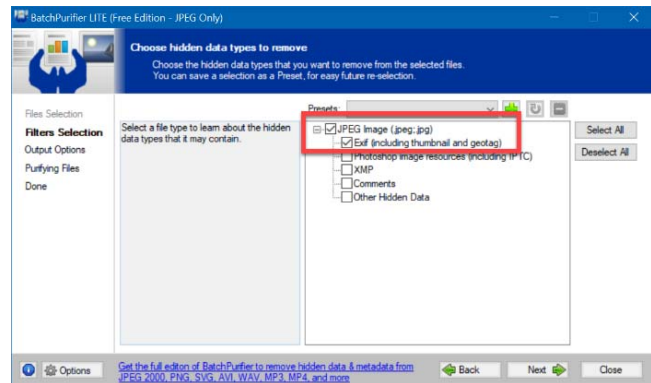
- From within IrfanView press *T* to view thumbnails of your images.

- Select the files where you want EXIF info removed.

- Choose *File | JPG Lossless Operations | Lossless rotation with selected files*.

- Leave *Transformation* set to *None*.

- In the *JPG file marker options:* section, choose *Custom:* and deselect *Keep EXIF*.

- Click *OK*. Your original files will be immediately overwritten without the EXIF information.

BatchPurifier LITE

The sole purpose for the free program BatchPurifier LITE is removal of metadata from JPG files. It can not only remove EXIF info, but also IPCT, XMP, JPEG comments, and more.

- Download the free BatchPurifier LITE from http://www.digitalconfidence.com/downloads.html

- Run the program and in the *Files Selection* area, choose the files where you want metadata removed and click *Next*.

- Choose the data types you want removed and click *Next*.

- Choose where you want the output files created or the option to *Overwrite original files* and click *Finish*

♦♦♦

Nominations for OPCUG Board for 2020

Once a year, the OPCUG holds elections for the 9-member Board of Directors.

We are once again coming up to this annual event.

We encourage all members to consider running for a board position or getting involved in some other manner in the operations of the OPCUG.

If you want more information about what is involved, please talk to me or any current or past Board member. Names are listed in the Newsletter and on the web site.

Nominations can be submitted to Bob Herres, Election Chair, in person at the October, November and December club meetings or by sending an email to nominations@opcug.ca.

Nominations must be received by midnight, December 31, 2019.

Please get involved. Please help the OPCUG continue in its role of Users Helping Users!

Bob Herres
Election Chair 2020

OPCUG Free Software Guide—Part 91 *Compiled by Alan German*

This guide features an annotated list of free computer programs. The software mentioned has not been reviewed (except where noted) nor have any tests necessarily been conducted. Consequently, no guarantees are provided that the individual programs will perform as described. Rather the list of available software is provided for the information of our members who may find one or more of the programs useful.

Comodo Internet Security Premium 2019
The developers assert that this is "the only software that protects against all new viruses using containment technology." Their system is based on prevention rather detection, runs unknown files in an isolated environment where they cannot harm your computer, and offers cloud-based protection against all types of viruses and malware.
Web Site: https://tinyurl.com/5wtdq59

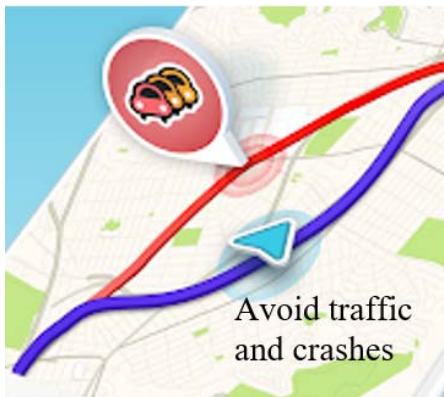**Waze - GPS, Maps, Traffic Alerts & Live Navigation**
Need a better GPS app for your Android phone? Use Waze and always know what's happening on the road. Even if you know the way, Waze will tell you about the state of traffic, construction, police presence, crashes, and more – and all in real-time. And, if traffic is bad, Waze will change your route – automatically!
Current Release: Version 4.52.2.2
Web Site: https://tinyurl.com/y8wde25h

Avoid traffic and crashes

7 Sticky Notes
Use this utility to create "sticky notes" directly on the desktop of your computer to help in organizing your everyday tasks and to-do lists. Use categories, set alarms, use custom colours and fonts, embed URL's, and attach images. The truly paranoid can even set passwords!
Current Release: Version 1.9
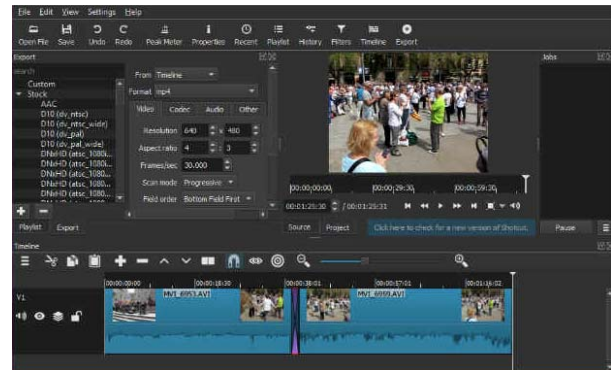Web Site: http://www.7stickynotes.com

Shotcut
Edit your videos, combine clips, add special effects, and create your very-own movie file. Shotcut is open-source and cross-platform, and supports all the latest A-V file formats. It features simple timeline editing, with precise frame selection, to make video editing a breeze!
Previously reviewed: Shortcuts with Shotcut; Alan German; http://opcug.ca/Reviews/Shotcut.htm
Current Release: Version 19.06
Web Site: https://shotcut.org

Anti-Twin
This small program searches for duplicate or similar files on your hard disk drive which may then be sent to the recycle bin or directly deleted. Searches can be made by file name or by content. Anti-Twin will find duplicate files in a folder, over the complete hard drive, or even across an entire network!
Current Release: Version 1.8d
Web Site: http://www.joerg-rosenthal.com/en/antitwin/

Freeciv
In this open-source, turn-based, multiplayer, strategy game, each player becomes the leader of a civilization, fighting to obtain the ultimate goal: "To become the greatest civilization." Players of Sid Meier's Civilization series should feel at home, since one aim of this system is to have compatible rules. Freeciv is one of the most fun and addictive computer video games out there!
Current Release: Version 2.6.0
Web Site: https://www.freecivweb.org

OTTAWA PC NEWS

Ottawa PC News is the newsletter of the Ottawa PC Users' Group (OPCUG), and is published monthly except in July and August. The opinions expressed in this newsletter may not necessarily represent the views of the club or its members.

Member participation is encouraged. If you would like to contribute an article to Ottawa PC News, please submit it to the newsletter editor (contact info below). Deadline for submissions is three Sundays before the next General Meeting.

Group Meetings

OPCUG meets on the second Wednesday in the month, except July and August, at the Riverside United Church, 3191 Riverside Drive, Ottawa. Parking is free at the church. OC Transpo bus #87 stops nearby. Details at https://opcug.ca/regmtg.htm.

Meetings are 7:30–9:00 p.m. followed by a Q&A Session until 10 p.m.

OPCUG Membership Fees:	$20 per year
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OPCUG
Users helping users

Reduce, Reuse, Recycle

Bring your old computer books, software, hardware, and paraphernalia you want to GIVE AWAY to the General Meetings, and leave them at the table near the auditorium's entrance. Please limit magazines to publication dates under two years.

You may TAKE AWAY any items of use to you.

Any items left over at the end of the meeting have to be taken back home by those who brought them in.