



ARTICLE

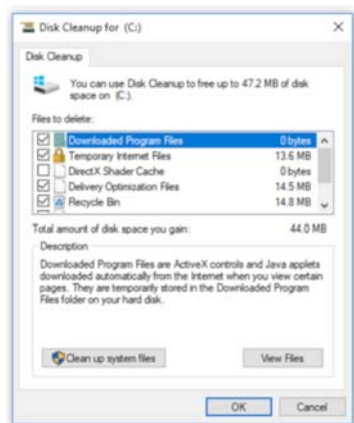
Freeing Up (lots of) Disk Space!

by Alan German and Chris Taylor

Temporary files, especially those used by Windows Update or resulting from upgrading to a new “feature update” in Windows 10, can take up gigabytes of disk space but, did you know that Windows has some built-in tools that will allow you to reclaim this disk storage? One option is to use a utility program located in the administrative toolbox, while Windows 10 users can access a similar feature through the Settings menu.

Disk Cleanup

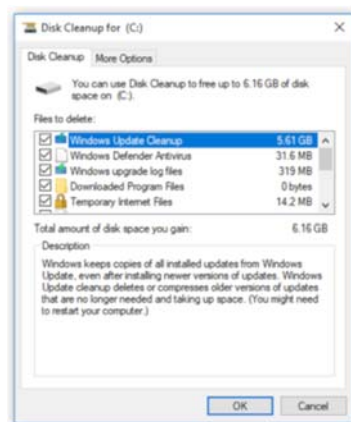
Run this program by navigating to the Start Menu | Windows Administrative Tools | Disk Cleanup (or simply search for Disk Cleanup in the search box). Select the disk drive where Windows is installed, usually (C:), and press OK. Windows will respond with a list of categories of files that can be deleted.



Initial cleanup options

You could start selecting file categories that you wish to delete but - wait! - do

you see the box labeled “Clean up system files” in the lower-left corner of the program window? This is the key to removing more files and, in particular, eliminating some potentially very large files that are taking up your disk space. So, immediately click the button “Clean up system files” as this will provide the most comprehensive clean-up options. Disk Cleanup will reload, but this time, it will offer additional categories that can be deleted.



“Clean up system files” adds Windows Update Cleanup

At this point, you can check / uncheck the boxes for the categories that you wish / do not wish to delete. For example, it’s completely safe to have “Temporary Internet Files” deleted since these are just cached web pages and images which your browser will reload the next time you visit the relevant web site. Similarly, if you have manually deleted some files, they will have been sent to the “Recycle Bin”.

If you intended to delete them, and you have no intention or need to recover them, this category of files can also be selected for deletion.

However, if this is the first time that you are running Disk Cleanup, you should check each category, and read the description of the files involved. You need to decide if you wish to retain certain categories of files or delete them. It’s your option to check the category and have the files deleted, or uncheck the box and retain the files in any given category, depending on how you use the files stored on your hard drive.

As indicated earlier, considerable amounts of disk space can be retrieved. For example, note that for the disk contents shown in the screenshot above, “Windows Update Cleanup” is using 5.61 GB of storage! The files in this category are used by Windows if you want to roll-back a Windows update that is causing problems. As a general rule of thumb, if your computer is

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April Raffle

It is so convenient to be able to carry important files and programs with you all the time. Are you always twiddling your thumbs waiting for your files to write to your pokey USB 2.0 flash drive? Are you always running out of room with your tiny 64 GB flash drive? Do you worry that your 2-inch flash drive will snap off when you forget to unplug it and you tuck your laptop in your backpack?

We have just the thing for you: a **SanDisk 256GB Ultra Fit USB 3.1 Flash Drive** (yes, you read that right – **256 GB**) that is fast and so tiny that it barely protrudes from your laptop.

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

March Prize Winners

Our raffle prize, a copy of the Glass Wire Firewall, was won by **Rob Murray**.

And **Marcello Qualizza** took home our door prize of a "No Tech" BBQ Cleaner!!



Coming Up...

The April meeting will be held in one of the back rooms, **not the main sanctuary**. Signs will be posted at the main entrance.

→ Wednesday, April 10th, 2019

Topic: Basic digital photo editing using free software

Speaker: Lynda Buske

It is easy to take hundreds of photos with your digital camera. But then what? Lynda will help you discover easy ways to organize and enhance your photos by adjusting light, colour, and composition so you will be proud to share or print them. Lynda will be using free photo editing software exclusively during the presentation.

Lynda is passionate about taking photos while travelling far away or close to home. She loves showing people how to take better photos and then enhance them through photo editing. She has made dozens of online photo books as souvenirs of her travels and important family events. She sends out a "photo of the week" to fans and friends.

May 8th, 2019

Topic: Effective backup strategies

Speakers: Alan German and Chris Taylor

June 12th, 2019

Annual Pizza Night and eWaste event followed by our speaker:

Speaker: Cameron Bell, CEO CANImmunize

Topic: Vaccination Tracking App

October 9th, 2019

Topic: Members' Favourites

Speakers:

Lawrence Patterson (video editing),
Bob Walker and Bob Herres (blue tooth hearing aids),
Alan German (free Software),
Chris Taylor (Wacom tablet)

Time permitting:

Bob Walker (Online and Cross-Border Shopping)

For meeting updates and additional details, visit <http://opcug.ca/regmtg.htm>.

2019 CALENDAR

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

ARTICLE

Google Chrome's cache

by Chris Taylor

It bugs me that Google doesn't let you change either the location or maximum size of Chrome's cache through its *Settings* page. The cache is located under your Windows profile folder; normally `C:\users\...` Its size is determined at Chrome's start-up and is based on available space on that drive. On my computer, the maximum cache size is about 1GB – ridiculously large.

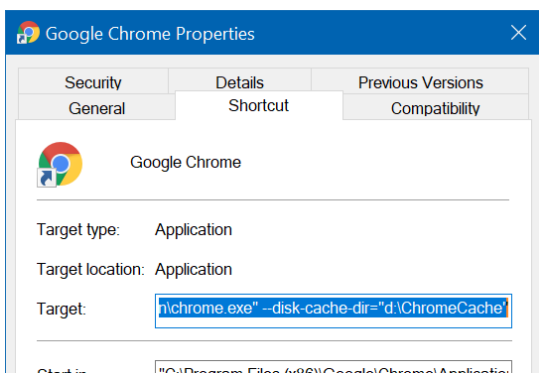
I finally decided to do something about this after upgrading to a solid state drive. Since my C drive dropped from 1.4 TB to 500 GB, I don't want the cache files on my C drive!

One way to modify the cache location is to change the start-up parameters for Chrome. Start by emptying the current cache. Press *Ctrl-Shift-Del* while in Chrome. From the *Clear browsing data* dialog box, select *Cached images and files* and click the *Clear data* button. Close Chrome.

Create the folder you want to use for Chrome's cache (e.g. `d:\ChromeCache`). Right-click on the shortcut you use to start Chrome, and choose *Properties*. At the end of the *Target:* line, add a space and;

```
--disk-cache-dir="d:\ChromeCache"
```

where `d:\ChromeCache` is the folder you created for the cache.

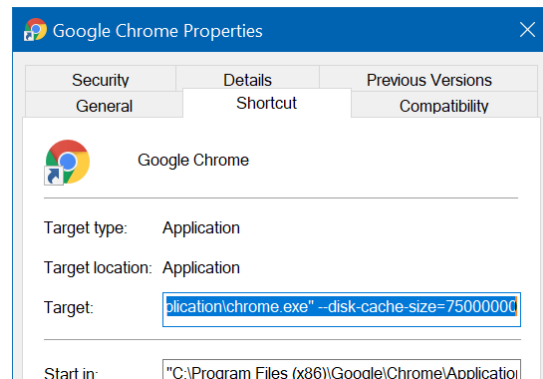


Click OK. When you start Chrome using that shortcut, it will use the new location for the cache.

If you also want to limit the size of the cache, you can add another parameter;

```
--disk-cache-size=75000000
```

where the number is the size you want for the cache, in bytes. In this example, it will limit the cache to 75 million bytes.



The drawback of this technique is that the parameters only take effect if Chrome is launched from the shortcut you modified. If, for example, you launch Chrome by clicking a link in an email, it will use the default location and size for the cache.

To change the cache location, there is a better way; create a symbolic link (shortcut) to your preferred cache location. Chrome thinks it is using the default location and Windows redirects things to the new location.

Step 1 – close all instances of Chrome.

Step 2 – create a new folder where you want the cache to reside, e.g. `d:\ChromeCache`

Step 3 – delete your current Chrome cache folder. Make sure you are showing hidden files (*File Explorer* | *View* tab | *Hidden items*). Navigate to `C:\Users\UserName\AppData\Local\Google\Chrome\User Data\Default\` (where *UserName* is your logon name for Windows). Delete the folder below there called *Cache*

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ARTICLE

Windows 7 End of Life—Contingency Planning III by Alan German

In the previous article in this series we explored how well Linux Mint would run on our computer using a Live-disk. With this test having proved successful, we are now ready to install Mint on the machine's hard drive. And, in order to maintain access to the already-installed version of Windows we will install Linux in dual-boot mode.

The installer will automatically shrink the size of the Windows partition on the hard drive and create an extended partition to hold both Linux Mint and an associated swap area. All we have to do is to specify how much of the hard disk space we wish to allocate to Linux. Mint needs about 15 GB for the software, and some space for our personal data files so, if we have room, we should allocate 20-30 GB of space for the Linux system.

The installer will also create a boot menu that will allow us to select between booting Linux (which will now be the default) and Windows. Once we power up the computer, we will have ten seconds to decide which operating system we wish to boot. If we don't make a selection then Linux Mint will boot automatically. However, as with almost all things Linux, all these options are configurable. We can choose to boot Windows by default, and we can modify the boot-up delay, as we wish.

Booting the computer using our Live-disk brings up Mint's desktop and, in particular, the "Install Linux Mint" icon (that we previously ignored). Double-click on this icon in order to load the installer. There will now be a series of screens prompting for various parameters relating to the installation. For most of these screens, the default options will work just fine. The first two screens follow this general rule. With English already selected as the default language, we simply need to press the "Continue" button to go to the next screen where we can accept English (US) for the keyboard layout. Of course, it is perfectly acceptable to change the defaults if such is your preference.

The contents of the next screen will depend on whether or not you are already connected to Wi-Fi. If there is no connection, but one or more is available, the screen will list the available networks. Select your Wi-Fi network, press "Connect", and enter the associated password in order to establish a Wi-Fi connection. Then, on the next screen, check the box labelled "Install third-party software..." This will ensure that any proprietary software necessary to play audio and video files (e.g. MP3 and MPEG) are included in the installation process.

The next dialogue effectively notes that our Live-disk is mounted and asks if we wish the installer to unmount it. The safe answer is yes since we don't wish to modify the Live-disk in any way.

Now, we come to a critical dialogue box – "Installation Type" (See Figure 1). Since, at this point, we are creating a dual-boot system, the default entry to "Install Linux Mint alongside Windows" is appropriate. Be careful not to select "Erase Disk and install Linux Mint" since that would remove Windows entirely!

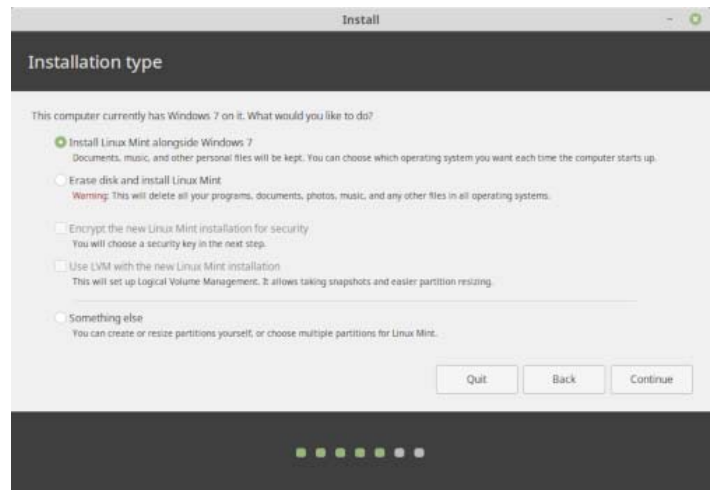


Figure 1

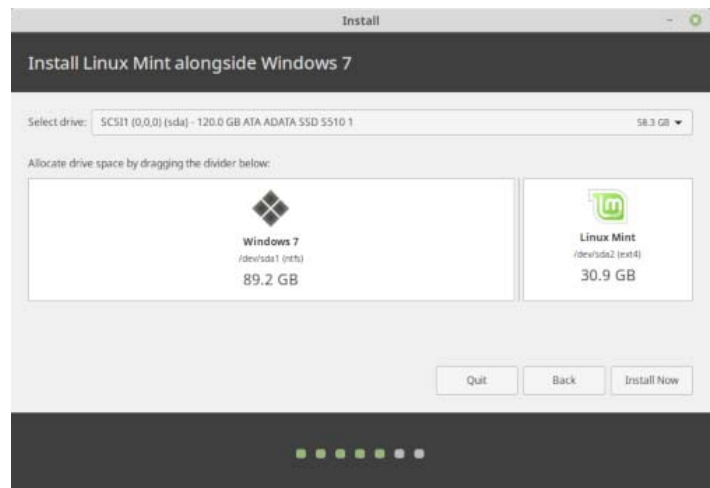


Figure 2

The following screen (see Figure 2) is a representation of the computer's hard drive, with suggested sizes for both the Windows and Linux partitions that are to be created. My test machine has a 120 GB SSD and the installer suggests reducing the size of the Windows' partition to 89.2 GB and creating a 30.9 GB Linux Mint partition. This is completely in line with the size needed for Mint and gives plenty of additional space for other files. If you need to change the partition sizes, simply drag the partition divider to the left or right as appropriate. Clicking on "Install Now" brings up a couple of warning messages that the contents of the hard disk are

(Continued on page 5)

Windows 7 EoL *(Continued from page 4)*

to be changed. These sound ominous since – the changes can't be undone and they will be written to the disk. However, we want the disk to be partitioned so it's OK to continue. (And, you do have full-system backups – don't you?)

Once the partitioning process has completed, the installation proper begins with files being transferred to the hard disk. The installer now asks a further series of questions, beginning with "Where are you?" It's really asking in which time zone are you located, and so the default of Toronto (Eastern Standard/Daylight Time) is correct. [You may also discover that the installer doesn't know that we live in Ottawa. Montreal (also EST/EDT) is the closest available city.]

One more screen and we are more or less done. "Who are you?" wants a number of data fields completed. Enter your name. You can type whatever you wish, e.g. Donald or Donald Duck. Similarly, you can overwrite the suggested computer name to use any name that is meaningful to you. I selected Dell-Inspiron for my old clunker.

The next entry is username. This doesn't have to be the same as your name, and I believe that it must be in lower-case characters. Be careful with this. I once did a live-demo of a Linux installation and typed in my friend's name as John. The installer changed this to john and I was subsequently unable to log in since I hadn't noticed the switch!

Finally, enter a password of your choice and confirm the entry by entering it in the second box. A green checkmark will confirm the validity of the entries. Remember (i.e. write down) this password! I would suggest leaving "Require my password to log in" checked. The login screen will show the account(s) that is available and you will be required to enter your password to log on to the system. The same password will also be required whenever administrator privileges are required for any future operation.

Press the Continue button one final time. Now, sit back, and watch the pretty slideshow about the features of Linux Mint and some of its applications, as the progress of the installation

is displayed along the bottom of the window.

In much less time than it takes to install a feature update in Windows (!), a dialogue box will pop up indicating that the "Installation is finished". As indicated, you can continue with the Live-disk but you will be unable to save any files that you may create (although you could send them to yourself by E-mail!) However, if you have been following the plan, you will already have thoroughly tested Mint using the Live-disk, so you should be ready to "Restart Now"!

The computer will reboot but, instead of loading Windows, the GRUB (GRand Unified Bootloader) menu will be displayed. Linux Mint will be selected by default so simply press Enter to boot into Mint directly from your hard drive. No waiting required!

Of course, you still have the option of booting into that "other" operating system, but eventually you are likely to find yourself doing this less and less. This should certainly be the case if you are dual-booting a Windows 7 machine. Once the support period for Windows 7 has ended there will be no more security patches and using this operating system, particularly over the Internet, will be highly risky.

Linux, on the other hand, will continue to have long-term support. Mint 19.1 will be supported through April, 2023 and new long-term support (LTS) versions are released routinely. The distro is based on Ubuntu which has a regular schedule for updates with new LTS versions being released every two years, each with support for the subsequent five years.

You will also find that Linux is very reliable and highly customizable. A vast range of software packages is available through the Software Manager, Synaptic Package Manager, or a variety of open-source projects. And, help is always at hand from the Linux Mint Forums, searches on Google – or, from your fellow OPCUG members in one of our Q&A sessions or on the OPCUG-Member-Forum!



Word Tables—Part 3 of 3



By Lawrence Patterson
lawrence@opcug.ca

WORD TABLE TIPS & TRICKS

Now that you've explored how to utilize tables to create documents that pop, let's go over some basic steps the pros use.

1. Use Excel to create the basics, and copy and paste the contents into Word;
 - a. By right clicking and selecting either of the first two options (with & with out formatting) you are able to quickly copy content;
 - b. Be careful you keep the size of the Excel content within a page width.
2. Use the Design menu to quickly apply formats;
 - a. Remember borders are optional and can be replaced by highlighting rows.
3. Ever copy a table and its boundaries go beyond the page size, me too, and the quick fix is to go to Layout > Cell Size > Auto Fit Window;
4. Ruler is your friend, especially when it comes to maximizing the size of your columns, so turn it on by clicking on View > Ruler;
5. Have data that has a consistent separator between fields (comma, tab, dash, etc.), highlight the text then click on Insert > Table > Convert Text to Table and follow the menu prompt;
 - a. This could take some experimentation to get the end result in the way you expect.
6. Experiment with the mouse and look up other tips as there are multiple ways for you to move rows / columns within the table itself;
7. Anything you can do in Word can be done within a Table Cell (i.e. pictures, tab, bullets, etc.).

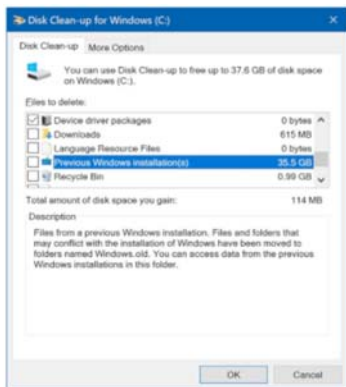
Take care.

Disk Space *(Continued from page 1)*

working fine for a few days after an update is applied, it is highly unlikely you will ever roll back the update and, therefore, you can use this option to clean up large amounts of space.

Note also that, by using “Clean up system files”, and selecting the categories using large amounts of storage, we have opted to free up more than 6 GB of disk space, as opposed to the 44 MB that was selected initially.

Another potentially huge disk space hog is “Previous Windows installation (s)”. In particular with Windows 10, when “Feature Updates” come out twice a year, the previous version of Windows is saved and you have the option to restore that version by using Settings | Update & Security | Recovery.



Huge savings with “Previous Windows Installations”

If you are confident that you don’t want to return to the previous version of Windows, this category in Disk Cleanup can free up enormous amounts of space. In the example shown above, this category is using up 35.5 GB of space!

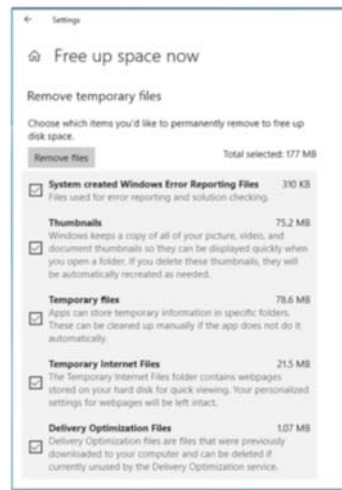
Now that we really have selected all of the file categories that we wish to delete, we can press OK. Disk Cleanup will “spring” into action and actually delete the selected files. However, “spring” is a relative term in this regard. If you select the category “Windows Update Cleanup”, be prepared for Disk Cleanup to chug away for an hour or more. But eventually the cleanup process will terminate – and

then you will have a nice, clean(er), shiny hard drive!

Windows 10

Microsoft has announced that “Disk Cleanup” is deprecated. This means that – at least for a while – the program will remain as a part of Windows but, eventually, it will go away.

However, fear not – all the functionality of “Disk Cleanup” is available in Settings | System | Storage | Free up space now. And, in this case, all of the file categories available for deletion are listed directly; there is no optional system-files button.



Windows 10's Settings app

However, for “all the functionality”, read almost all the functionality. There is one feature of “Disk Cleanup” that the Windows 10 Settings app is missing – the ability to script (and therefore automate) the process of performing the cleanup. In this case, rather than saying “Microsoft giveth and Microsoft taketh away”, we can only say “Microsoft taketh away”.

So, there you have it – two options to potentially save you gigabytes of disk space. You can implement the cleanup process any time but, as we have seen above, you probably should be sure to do so a few days after “Patch Tuesday” (the second Tuesday of the month), and a week or two after Windows 10 feature updates (which come out each spring and fall)!



Chrome Cache *(Continued from page 3)*

Step 4 – start a command prompt as administrator. In the search box on the taskbar, type in *CMD*. When you see *Command Prompt* in the results, right click on that and choose *Run as administrator*. In the *Administrator: Command Prompt* window that opens, type in;

```
mklink /D
"C:\Users\UserName\AppData\Local\Google\Chrome\User Data\Default\Cache"
"D:\ChromeCache"
```

Make sure you replace *UserName* with your logon name for Windows and *D:\ChromeCache* with the drive/folder name you created for the new cache.

After the command completes, you will see;

symbolic link created for
C:\Users\UserName\AppData\Local\Google\Chrome\User Data\Default\Cache <====>
D:\ChromeCache

If you look at the location *C:\Users\UserName\AppData\Local\Google\Chrome\User Data\Default* you will see a folder called *Cache* that has a shortcut arrow on it. This folder is now pointing to the new location you created and the cached web pages in Chrome will be stored there.



OPCUG Free Software Guide—Part 87

Compiled by Alan German
and Stewart Bruce

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.

FreeOffice 2018

SoftMaker FreeOffice 2018 is free to use for both home and business. It's a complete Office suite with a word processor, a spreadsheet application and a presentation program. You can work with either modern ribbons or classic menus and toolbars, and it's optimized for touch screens. Download this software for use with either Windows or Linux. After trying it, you may agree with the program's developers that it is the best free alternative to Microsoft Office.

Current Release: Version 942

Web Site: <https://www.freeoffice.com/en/>



nexusimage

The developer's description of this program has to the shortest on record – *"Nothing to say. It's just a simple image viewer."*

Current Release: Version 1.1.3.992

Web Site: <http://www.xiles.net>

Auslogics Registry Cleaner

Does your computer show signs of stability issues, such as freezing, crashes, or multiple pop-up error messages? Do these annoying problems reduce your computer's performance and affect your productivity. Registry Cleaner will clean, repair and optimize your Windows registry to eliminate errors and crashes, and restore your computer to smooth and stable operation.

Current Release: Version 7.0.13.0

Web Site: <https://tinyurl.com/yckzm9zw>

MiniTool ShadowMaker 3.0

This utility from Vancouver-based MiniTool Software Ltd. will make images of disks or individual partitions, and can create backups of multiple files and/or folders. Disk images may be restored in full, or mounted and browsed, allowing individual files and folders to be recovered.

Current Release: Version 3.0

Web Site: <https://tinyurl.com/ShadowMaker>

Photo to Video Converter Free Version

This easy-to-use tool will allow you to create MPEG-1 stunning slideshows with your still digital photos. The program has built-in dynamic pan & zoom and a range of other transition effects. And, you can add background music to give a really professional effect to your video presentations.

Web Site: <http://www.socusoft.com/photo-to-video-free.php>



HERE WeGo - Offline Maps & GPS

Getting around is easier with this app's off-line maps. Take your car, your bike or public transit. If you're in a hurry, call a taxi or find car sharing nearby. Use GPS navigation with voice guidance in your car. Walk guidance takes you every step of the way. And, you'll never miss a transfer when you take public transit. HERE WeGo will even give you bus ticket prices, taxi fares, and a heads-up on any traffic slowdowns.

Current Release: Version 2.0.12509

Web Site: <https://tinyurl.com/p4oarqq>



UFO: Alien Invasion

It is the year 2084. You control a secret organization charged with defending Earth from a brutal alien enemy. Build up your bases, prepare your team, and dive head-first into the fast and flowing turn-based combat. You will have multiple mission objectives as the aliens' terrifying plot unfolds. You'll have to watch your back, be quick on your feet, and take the fight to them. If you don't, humanity is doomed. This open-source squad-based tactical strategy game is in the tradition of the old X-COM PC games. Play it on Windows or Linux.

Current Release: Version 2.5

Web Site: <https://ufoai.org/wiki/About>



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 <http://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
Mailing Address: 3 Thatcher St., Nepean, Ontario, K2G 1S6
Web address: <http://opcug.ca>
Follow us on Facebook: <https://www.facebook.com/opcug>
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President and System Administrator		
Chris Taylor	chris.taylor@opcug.ca	613-727-5453
Meeting Coordinator		
Lawrence Patterson	meetings@opcug.ca	
Meeting Coordinator Co-chair		
(vacant)	meetings@opcug.ca	
Treasurer		
Alan German	alan.german@opcug.ca	
Secretary		
Gail Eagen	gail.eagen@opcug.ca	
Membership Chairman		
Mark Cayer	mark.cayer@opcug.ca	613-823-0354
Newsletter		
Brigitte Lord	brigitte lord@opcug.ca	
(editor/layout/e-distribution)		
Public Relations		
(vacant)	info@opcug.ca	
Facilities		
Bob Walker		613-489-2084
Webmaster		
Brigitte Lord	webmaster3@opcug.ca	
Privacy Director		
Wayne Houston	privacy2@opcug.ca	
Special Events Coordinator		
(Mr.) Jocelyn Doire	jocelyn.doire@opcug.ca	

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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 main 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.

