ARTICLE

Really, *really*, deleting files
by Chris Taylor

When you delete a file in Windows, the actual on-disk data is not removed. The file is usually moved to the Recycle Bin where it can be easily recovered. Even if you empty the Recycle Bin or bypass the Recycle Bin by holding down the Shift key while deleting files, the data remains on disk. All that happens is the pointers to the file are removed, making the space available for new files.

Recovering deleted files

Utilities to recover deleted files date back to *Unerase* in the first version of the Norton Utilities in 1982. They continue to this day with dozens of free and commercial programs available for Windows, macOS, Linux, Android, and iOS.

If you are in a high-security situation, please ignore this article. It is intended for the average home or business user whose adversaries are not about to use magnetic force microscope techniques to recover data. If you are likely to have CSIS looking for your deleted data, you need to go well beyond what I recommend here.

Making data unrecoverable

When you want to dispose of a storage device, you should ensure all sensitive data is deleted and *unrecoverable*. This can be achieved by physical destruction of the storage device: hard disk drive (HDD), solid state drive (SSD), flash drive, etc. or—if you want the storage device to be reusable—by over-writing the data areas of the disk with random data, obliterating the original data.

Some secure deletion programs boast of capabilities such as the Gutmann algorithm, which overwrites all data with 35 passes. For the average computer user, I wouldn't worry beyond a single pass.

There are many programs available, both free and commercial, for secure data removal. The programs I list are not necessarily the best—they are simply programs that have been around quite a while (have stood the test of time), are free, and have been used successfully either by me or other members of OPCUG.

Be careful using secure deletion programs. By their very nature, there is no "undo" button! There are several levels of overwriting data: individual files, free space on the drive, and the entire disk.

Individual files

If you just want to make a few files unrecoverable, there are programs that can target individual files or folders of files. One example is the free and open-source program File Shredder (https://www.fileshredder.org/). It is very simple and straightforward to use.

Free space

Storage devices eventually end up with data in all locations on the device. The free space has data that was used for files that have since been deleted. You have no way of knowing what recoverable data might be there. Some programs can target free space and securely overwrite data there. File Shredder is one program that can wipe free space.

Entire disks

If you want to securely delete all data on an entire storage device, HDShredder (https://www.miray-software.com/products/applications/hdshredder.html) is available in free and commercial versions. The free version should be sufficient for the vast majority of users. The website details the additional capabilities in the commercial versions.

Another popular program for securely erasing all data on storage devices is the free and open-source DBAN

Next Meeting: WEDNESDAY, September 13th, 2023

Next Meeting

Wednesday, September 13, 2023

Topic: Directory Opus: the Ultimate Windows Explorer Replacement
Speaker: Serge-Érik Thériault (OPCUG)

(Presentation summary to follow - check the link above for updates)

Product features (from the Directory Opus website):

⇒ Single or dual pane file display and folder trees
⇒ Tabbed interface let you keep multiple folders open and switch quickly between them
⇒ Unique Explorer Replacement mode provides a full replacement for Windows Explorer
⇒ Quickly filter, sort, group and search your folders
⇒ Color-code your files, assign status icons, star ratings, tags and descriptions
⇒ View images, documents and more. Image marking lets you sort your photos quickly and easily
⇒ Batch renaming including easy-to-use keyboard macros
⇒ Much, much more!

"We guarantee you won't want to go back to Explorer!"

This meeting will be via Zoom video conference.

Join us at **https://tinyurl.com/opcug-meeting**. The Zoom link will be live at 7:15 pm. The meeting will begin at 7:30 pm.

The above link includes the meeting ID and password. However, if you are prompted for the information, use:

Meeting ID: **924 9556 0898**
Password: **opcug**

All scheduled regular monthly meetings, weekly Q&A sessions, and a link to OPCUG presentations at the OPL are posted on our website at https://opcug.ca/#upcoming. All events are via video conference until further notice.
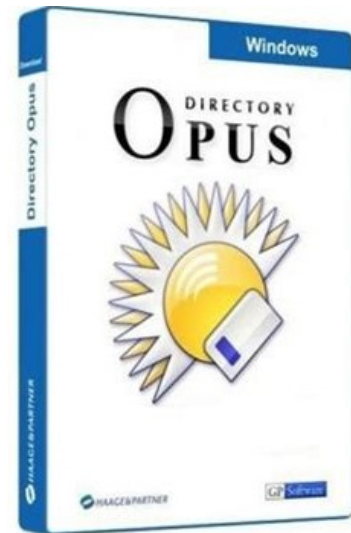
Coming Up…

October 11
Topic: Self-driving cars *(details to follow)*
Speaker: Bob Walker (OPCUG)

November 8
Topic: Celestial Shadows – Eclipses of the Sun and Moon
Speaker: Howard Simkover

This presentation is about the various types of eclipses – what they are, when they happen, the underlying geometry that causes them, why they are perceived to be rare events, and the spectacular beauty that they offer to us. [more…]

2023 CALENDAR		
Meetings	**Date**	**Time and Venue**
Regular Monthly Meeting	Wednesday, September 13th	7:30 pm via Zoom video conference: **https://tinyurl.com/opcug-meeting** To see all scheduled events, visit https://opcug.ca/#upcoming
Next Q&A Session	Wednesday, August 23rd	Until further notice, Q&A sessions are no longer held after regular monthly meetings. Join us on all other Wednesdays for weekly Q&A.
Beer BOF (Wing SIG East)	Wednesday, September 13th	Enjoy a cold brew or other beverage in the comfort of your home during the video conference.

CLUB LIFE

PizzaQ!

Our last meeting of the 2022-2023 season was held at the Britannia Park Trolley/Picnic Station, an old trolley station in the west end of Ottawa, just beside the Britannia beach. It was a perfect place to share Pizza and cold drinks with our fellow OPCUG members, in person! To finish our meal, we had oh-so-delicious cup cakes in many flavours and beautifully decorated, thanks to Debbie Begin & Bob Herres.

We had a stock of many prizes accumulated from the time we had meetings in person, so we took the occasion to draw them all. Congratulations to all the winners.

This year we asked people to register to better manage the expenses and 32 people did. Thanks to everyone for coming in such numbers.

Thanks to many people for making the event a great success, including Wayne Houston, Alan German, Bob Walker, Chris Taylor, Brigitte Lord, Jocelyn Doire, everyone who helped with the cleanup, and those who sent us pictures, including Tom Trottier and Bob Herres (https://opcug.ca/history/Pictures/PizzaQ/2023).

See you next year, again under the roof of the old Britannia trolley station!

Jocelyn Doire
OPCUG Special Events Coordinator

Q&A celebration

by Chris Taylor

The OPCUG has a long history of Question and Answer (Q&A) sessions. For decades we have reserved time after our main monthly meetings where people could ask questions about anything computer-related and hopefully, someone in attendance would know an answer…or at least have some ideas to pass on.

In April 2020, COVID-19 put the kibosh on in-person meetings and we switched to online meetings over Zoom. With no financial burden to hold additional Zoom meetings, Alan German had the brilliant idea to host weekly Q&A sessions. Starting April 29, 2020, we started them and have held them every Wednesday evening since with the exception that, in September 2021, we stopped holding Q&A on the second Wednesday of the month, when we have our regular meetings.

We recently hit some milestones worth celebrating:

- On May 17th, we passed 1,000 topics covered at Q&A

- On May 31st, we passed 5,000 participants attending Q&A

- On August 2nd, we held our 150th Q&A over Zoom

If you have a burning question or problem that has been bugging you, Q&A is the place where you just might get an answer. If you have come across something interesting such as a piece of software, an interesting website, a service, or anything else you think others could benefit from, Q&A is the place to share your info.

Come on out to Q&A each Wednesday evening from 7:30 to 8:30. If you have a question or problem, or if you want to share something with others, send an email to SuggestionBox@opcug.ca and we will reserve time at the next Q&A.

Help fulfill the OPCUG motto *Users helping users*.

LibreOffice Basic Programming using ChatGPT   *by Alan German*

ChatGPT (https://chat.openai.com/chat) is an artificial intelligence (AI) tool that, amongst other things, can create text based on a request from an end user. So, I thought I would use it to write an article for the newsletter by entering "*Write an article for OPCUG's newsletter on LibreOffice Basic Programming*". Had I gone ahead with this, you would now be reading the following:

"LibreOffice is a free and open-source productivity suite that provides several applications, including Writer, Calc, Impress, and Base. These applications are designed to provide a comprehensive set of tools to meet the needs of any user. LibreOffice also comes with a built-in programming language called LibreOffice Basic, which allows users to automate tasks and create custom solutions to enhance the functionality of the suite."

But, first let me explain the scenario. I have a LibreOffice document (ODT file) that contains the lists of topics that have been covered over the past three years in our weekly, on-line, Q&A sessions. Each week I build an agenda for the upcoming session as a simple text file (TXT) that list the titles of the topics to be discussed next. This text file is used for a variety of purposes, one of which has been to manually add the list of new topics to the main ODT index file. I wanted to automate this latter process by developing a macro that would read the topics from the text file and add them to the end of the ODT file.

I don't know all that much about object-oriented programming so, when I want to create a macro for a document in LibreOffice Writer,

my practice is to use Google to search for code extracts that I can then modify and string together to produce the final product. And, this is precisely what I did to build the required macro in this case.

But, then I saw a YouTube video of an individual using ChatGPT to create computer code in a number of programming languages by simply telling the AI bot what was required. Now, perhaps LibreOffice Basic is a bit of a backwater item in terms of mainstream programming, but I figured that it would be worth a shot to see if I could use ChatGPT to develop the code for my macro.

I know how to read and write lines of text from an ASCII file. My problem is that the ODT file isn't a simple text file. The ODT format is a special type of ZIP file that contains a number of XML and other components. So, the trick is to have the macro open the ODT file, identify the component that contains the body text of the document, add the desired lines at the end, and close the file.

At present, it's possible to use ChatGPT at no cost. All that is required is to create an account on the system, or login using an established Google account. Once logged in, one enters a request as a string into a text box. My request was "*Write a program in LibreOffice Basic to add a string to the end of an odt file*".

The result was amazing – as shown, in part, by the following screenshot:
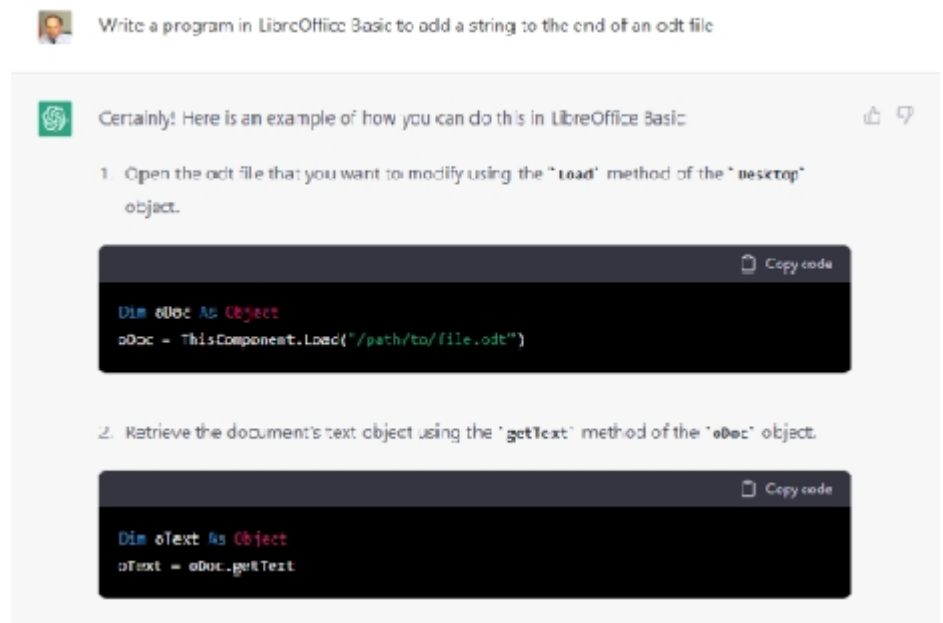
Programming using ChatGPT *(Continued from previous page)*

ChatGPT effectively produces a custom tutorial on building the macro. Each required step in the process is explained and the relevant code extract displayed. Finally, all the code that has been developed for the requested macro is shown as a complete block:

```
Sub AddStringToODTFile

    Dim oDoc As Object
    Dim oText As Object
    Dim oEnd As Object

    ' Open the document
    oDoc = ThisComponent.Load("/path/to/file.odt")

    ' Retrieve the text object
    oText = oDoc.getText

    ' Insert the string at the end of the document
    oEnd = oText.getEnd
    oText.insertString(oEnd, "This is the string that will be
        added to the end of the file.", False)

    ' Save the modified document
    oDoc.store

End Sub
```

In essence, this code segment is very close to the macro code that I had produced over some considerable time, having had to research several web postings to identify the required techniques. Clearly, it is very generic code, and only covers part of what is required for the final macro. But, it is evident from this simple test that the AI bot is fully capable of generating "modules" of code that can readily be adapted for the desired purpose, and that such modules could be quickly consolidated into a fully-functional macro.

The other consideration is that the current version of ChatGPT is at an early stage in the development of AI tools. As such applications become more sophisticated, and the computer systems running them become more powerful, it is highly likely that their use in computer programming will become ubiquitous.

Even now, ChatGPT is perfectly capable of developing useful code in a number of popular programming languages. For example, in addition to producing macros for LibreOffice Basic, it is just as easy to develop Python scripts. So, ChatGPT is a useful tool for anyone seriously developing programs, macros and scripts, and is a really interesting option for those who wish to learn the techniques.

Bottom Line

ChatGPT (Proprietary, web-based system)
OpenAI
https://openai.com
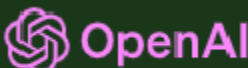
Nominations for OPCUG Board for 2024

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.

We currently have two vacant positions: Meeting Coordinator and Public Relations. The most pressing position is Meeting Coordinator. If you like our monthly speakers, please participate in the nomination process (you can nominate yourself!).

If you want more information about what is involved, please contact me or any current or past Board member. Names are listed on the back page of this newsletter and on the web site at **https://opcug.ca/executives/.**

Nominations can be submitted by sending an email to **nominations@opcug.ca .**

Nominations must be received by midnight, December 31, 2023.

Please get involved. Help the OPCUG continue in its role of *Users helping users*.

Bob Herres
Election Chair, 2024
Bob.Herres@opcug.ca

THROUGH THE LENS

A guide to digital photography for computer enthusiasts. After the click of your camera, you're only half done!

Hit the Streets!
by Lynda Buske

Wikipedia says street photography features subjects (usually people) in candid situations within public places. In fact, the image may exclude humans and be instead, an object that projects a human character or environment. For example, it may show the beauty of a flower stall or an interesting sign. Some photographers use street photography to make a social comment on issues such as homelessness or racism.

Street photography might require engaging in a conversation with a stranger in order to get the best shot. This can be daunting for anyone a bit introverted. Vendors are probably the most approachable if you are new to street photography and are certainly willing to pose or share details of their craft if you are actually buying something. So, if you are buying vegetables anyway in an outdoor market, choose a stall that may result in a nice photo.

Street musicians are another great place to start because they are happy to pose if you throw a bit of change into their hat.

You can also ask permission to take someone's photo as I did with this lady from Saskatoon. I gave her my card so she could write me if she wanted the photo of her relaxing afternoon in a Halifax Harbour hammock.

Canadian laws are not strict when it comes to photographing people in public but check when visiting a foreign country to know what is permissible. In Canada, it is perfectly legal to take someone's photograph while they are in public providing you are not harassing or stalking them and the photo is not for commercial purposes (if an identifiable person is the main subject).

However, in order not to infringe on someone's privacy or make them uncomfortable (especially mothers with respect to their children), it never hurts to ask permission or be very quick. If I'm not getting permission, I will set up my shot while pointing in a slightly different direction and swing back only at the last minute to my intended target. A tip is to hold the camera at waist level and shoot from there although this will take some practice to get know what will be captured from this angle. Another way is to shoot a wider angle than you need and straighten/crop after.

Cell phones are in some ways better than traditional cameras because they are less obvious and you can pretend you are actually taking a selfie! This is especially easy in high tourist areas where any number of people will have visible cameras and cell phones.

I am very careful with children in pubic as it can be very distressing for the parents to see someone take multiple photos of their child. I take a couple from far away and only post them if their faces are obscured. Never post a child's photo online taken with a cell phone (or camera with gps) that includes their name. A bad person can find the exact location and call the child over to their car by name….not good.

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This article is also in PDF format on the OPCUG website (https://opcug.ca/digital-photography/).

Deleting files *(Continued from page 1)*

(https://sourceforge.net/projects/dban/). DBAN was acquired by Blancco in 2012 and is no longer in development, but remains popular. I recently had occasion to use DBAN to help a friend dispose of an old laptop and it was quite easy to use DBAN to ensure the entire hard drive was securely wiped.

DBAN comes as a disk image (.ISO file) so you will need a program to create a bootable flash drive, CD, or DVD using the DBAN ISO file. Free options are available such as Rufus (https://rufus.ie/en/), NCH Software's Express Burn (https://www.nch.com.au/burn/index.html) and Ashampoo Burning Studio Free (https://www.ashampoo.com/en-us/burning-studio-free).

Solid state drives

Due to the architecture of the technology, SSDs cannot be securely wiped in the same manner as HDDs. If you want to securely delete data from SSDs, check that the software you are using specifies that it works on SSDs. EaseUS has a free version of Partition Manager (https://www.easeus.com/partition-manager-software/securely-erase-ssd-hdd.html) that can securely erase SSDs.

Some SSD manufacturers provide special utilities to securely wipe their devices such as Samsung's Magician (https://semiconductor.samsung.com/consumer-storage/magician/) or Crucial's Storage Executive (https://www.crucial.com/support/storage-executive). Personally, if the manufacturer of your SSD has a special utility for securely erasing their branded SSDs, I would choose that option.

Final words

Rather than destroying or securely wiping old storage devices, you might want to repurpose them for your own use. Inexpensive drive enclosures are available: you can install your old storage device in one and then plug it into a USB port to use it as an external drive.

While this article details effective means of securely removing data, if you can't be sure you have completely removed all sensitive files from your device, you might be better off destroying the device rather than disposing of it.

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Quick Tip 55: Moving the cursor in the on-screen keyboard   *by Chris Taylor*

A Windows 11 tip: If you have a device that supports touch and are using the on-screen keyboard, it is a minor inconvenience when you want to move the text insertion point: moving your finger from the keys, tapping where you want the insertion point in the text, and then moving your finger back to the keys. Depending on your dexterity, getting the insertion point exactly where you want it might take a few tries.

An easier way is to press and hold the spacebar on the on-screen keyboard and then slide your finger—the text insertion point will follow.

Editor's note: You can find this feature on your iPhone or Android smartphone. Long-pressing the spacebar fades the keys and turns the entire keyboard into a trackpad.
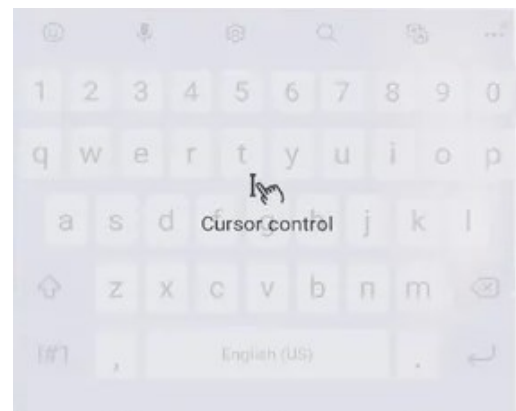
OTTAWA PC NEWS

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.

To receive the monthly newsletter by email, send an email to:
opcug-newsletter+subscribe@googlegroups.com (leave subject and body fields blank)
You do **not** need to create a Gmail or Google Groups account.

To subscribe to other OPCUG Google Groups member services, go to:
https://opcug.ca/google-groups-how-to/

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. OCTranspo bus #90 stops nearby. Details at https://opcug.ca/venue/.
(NOTE: Until further notice, all our events are via video conference. Details at https://opcug.ca/venue/)

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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Q&A HAS GONE ON-LINE! WEEKLY!

Because of the pandemic, the OPCUG is holding weekly Q&A sessions in Zoom video-conferences.

Join us every Wednesday (except on regular monthly meeting nights) at 7:30 pm to discuss computer issues. Questions (and answers) on any computer-related issue are welcome. Or, do you have a favourite computer program or topic that you would like to share with the group? Send your questions, answers, or the details of what you would like to share to:
SuggestionBox@opcug.ca

Everyone is welcome to attend Q&A sessions and to ask questions about their specific computer-related problems. Join us at: https://tinyurl.com/opcug-meeting (if you use the Zoom client, the meeting ID is **924 9556 0898** and the password is **opcug**).

Users helping users
for over 40 years