



ARTICLE

The 32-year history of the OPCUG’s online presence by Chris Taylor

With the move to hosted services for OPCUG’s online presence, I thought it might be interesting to look at the history of how we got to where we are now. This was compiled from a review of minutes of board meetings, past newsletters, and the history page on our web site.

The stone age (dial-up years)

A committee was formed in October, 1985 to explore the possibility of operating a BBS (electronic bulletin board system). For the next year, we were allowed to use some space on the Heath BBS. In October 1986, we negotiated with Bruce Miller to run a BBS – the Bureau – for our exclusive use. It ran on a PC clone with 20 MB HD and a Hayes 2,400 bps modem.

The board decided in June, 1988 to purchase a computer to run our own system; an AT Clone with 640K memory, 1.2MB floppy, Hercules card, monitor, 72MB hard drive, Digiboard with 4-channel serial interface and three 2,400 bps modems for about \$10,000. In October, the PUB opened for business. The acronym stood for the PC Users’ Group Bulletin Board. After all, it is friendlier to visit the PUB than the Bureau. The software used was TBBS, which supported file up/downloads, messaging, and conference areas.

In April 1990, the hard drive was upgraded to 676 MB and in November, a 4th phone line was added.

In June 1992, the motherboard was upgraded to a 40MHz 386DX with 4MB RAM for \$838.

We averaged 98 calls to the PUB per day in May, 1992, rising to 124 in November. One of the 2,400 bps modems was replaced with a 14.4 kbps modem for \$350.

In January, 1994, two more phone lines were added for a total of 6. The modems were upgraded to 14.4 kbps, the Digiboard upgraded to an 8-port version, and the hard drive upgraded to 1 GB. The cost for hardware upgrades was \$2,784. The PUB was receiving 140 to 180 calls per day. In November, storage was upgraded to twin 1.2 GB drives and a DAT drive was added for backup.

The first request to provide Internet access was received in September, 1994. It was turned down due to cost.

Usage continued to climb with an average of 211 calls per day in December, 1994. The modems were upgraded to US Robotics Sportster 28.8 kbps models at \$265 each in December, 1995.

The middle ages (getting onto the Internet)

In January, 1996 discussions began in earnest about having an Internet presence.

Usage on the PUB started to drop; we received 100 calls a day in May, 1996. One phone line was dropped.

In August, 1997, the OPCUG had its first web site, hosted at a temporary URL. With usage of the PUB down to 35 to 55 calls per day, another dial-up line was dropped, bringing us to 4.

A committee led by David Reeves investigated options to move the PUB to the Internet. At the time, the cost of a 56K ISDN connection was \$250.00 per month. Fortunately, Bell came out with an “experimental” ADSL service at \$65 per month. The board accepted the committee recommendation that we have an Internet-connected system with a web site, email, mailing list system, and file repository. 90% of members had access to the Internet, but the committee recommended maintaining the dial-up access at the same time.

(Continued on page 8)

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# February Raffle

Courtesy of Glasswire, we have a license for their namesake program.

**Elite Edition Glasswire** is a sophisticated firewall product that shows who or what your PC is talking to. It allows you to detect malware, badly behaving apps, and bandwidth hogs, then block their connections. It warns you of network related changes to your PC that could indicate malware. Glasswire can also alert you when new unknown devices join your WiFi.



For a review of Glasswire, see <http://opcug.ca/Reviews/GlassWire.html>

Glasswire Elite edition can be installed on up to 10 computers.

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

**January Prize Winner**  
**Richard Aylesworth** took home our raffle prize of an ArmourAll Bluetooth speaker w/call display.

## Coming Up...

### →Wednesday February 13, 2019

We will hold our **annual AGM** (~15-20 min) after which we will have the following speakers:

**Topic:** Members' Favourites

**Speakers:**

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

Time permitting:

- Bob Walker (Online and Cross-Border Shopping)

### Wednesday March 13

**Topic:** Multi-Factor Authentication

**Speaker:** Lawrence Patterson, OPCUG

### Wednesday April 10

**Topic:** Basic digital photo editing using free software

**Speaker:** Lynda Buske

### Wednesday May 8

**Topic:** Effective backup strategies

**Speaker:** Alan German and Chris Taylor, OPCUG

### Wednesday June 12

Annual Pizza Night

**Speaker:** TBA

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

## 2019 CALENDAR

Meetings	Date	Time and Venue
OPCUG General Meeting	Wednesday, February 13 <sup>th</sup>	7:30 p.m. at the Riverside United Church, 3191 Riverside Drive, Ottawa. Parking is free. OC Transpo bus #87 stops nearby. Visit <a href="http://opcug.ca/regmtg.htm">http://opcug.ca/regmtg.htm</a> for directions.
Q&A Session	Wednesday, February 13 <sup>th</sup>	Immediately following the OPCUG General Meeting.
Beer BOF (Wing SIG East)	Wednesday, February 13 <sup>th</sup>	10:00 p.m. (after the Q&A) at the Riverside Pub, 3673 Riverside Drive. Turn left onto Riverside Dr. from the Church.

## 2018 PRESIDENT'S REPORT

by Chris Taylor

Once again, we had ten engaging presentations at our general meetings. Four presenters were from the community and the remaining six from within the OPCUG. I would like to thank all who gave of their time and expertise to help us understand technology better.

In the spring, six members of the OPCUG received Ontario Volunteer Service Awards for over 15 years of volunteering for the OPCUG. Congratulations to Mark Cayer, Jocelyn Doire, Alan German, Brigitte Lord, Chris Taylor, and Bob Walker.

We held two all-day workshops. The spring workshop focused on beginner topics while the fall workshop was all about maximizing the performance of your computer. Both were well attended.

We had changes to the Board of Directors when Jeff Dubois resigned and Lawrence Patterson joined. I would like to thank all (Directors and others) who gave so much of their time and effort to help the OPCUG succeed. I would like to encourage everyone to consider how you might contribute. There are lots of ways, such as; presenting at a general meeting, Q&A session, or workshop; finding other presenters; running for the Board; helping at meetings; and writing for the newsletter. Keep in mind our motto is Users helping users.

We continued our tradition of helping the larger community. Our annual eWaste event kept electronics out of our landfills. We raised \$330 (and collected non-perishable food items) for the Ottawa Food Bank. We gave 74 presentations on 20 topics at 19 branches of the Ottawa Public Library.

We had some major shifts at the OPCUG. After it became clear that we would not be able to move back to the auditorium at the Canada Science and Technology Museum, we moved to the current location at the Riverside United Church, which has proved popular.

While the new venue is more expensive than the Canada Aviation and Space Museum, decisions to end the print version of the newsletter and move our web site and mailing lists to hosted services resulted in an annual surplus in our budget. As a result, annual membership dues have been reduced from \$25 to \$20.

In the fall we began having coffee, tea, and Timbits at meetings. The cost is \$1 for a coffee or tea and two Timbits with the OPCUG absorbing the remaining costs. Enjoy!

### Our financial plan - your input appreciated!

by Alan German

For the past several years, the Board of Directors has maintained a conservative outlook on the club's finances and, in particular, has held fairly substantial capital reserves against the potential impact of significant increases in expenditures. One major concern in this regard was the likely need to pay considerably higher rates for meeting space than has previously been the case. This issue became a reality with the skyrocketing cost for the auditorium at the newly-renovated Museum of Science and Technology. However, a much more economical solution was to find an equivalent meeting space at considerably lower cost at an alternate facility.

As indicated in the Treasurer's Report for 2018, the increase in meeting expenses has been offset by other cost savings and the Board of Directors considers that our future financial prospects are now well in hand. So much so that the Board is considering additional ways in which our accumulated capital assets might be reduced over time. In particular, the Board is considering the adoption of a programme of fiscal management designed to decrease the club's capital assets from the current level of around \$19,000.00 to approximately \$10,000.00 over the next 5-10 years.

Under our constitution, the Board has the duty to "promote interest in computer related topics for the benefit of its members". This is to be used as a guiding principle for any future expenditure programmes. Consequently, the Board will explore a number of possible actions that would draw down our accumulated capital, while promoting computer usage, and benefiting the membership in some manner.

There are many possible options such as: waiving membership dues entirely for certain periods, sponsoring student competitions to develop software/websites that would provide a public benefit, or providing information technology and services to local not-for-profit groups that are in need of such support.

However, the Board would very much like to know what members think of the proposal to spend some of our accumulated capital – and in particular – hear your ideas on how best this might be achieved.

So, please give this issue some thought – including thinking outside of the box! Send your comments and suggestions to [suggestionbox@opcug.ca](mailto:suggestionbox@opcug.ca) or contact any member of the Board of Directors (see <http://www.opcug.ca/exec.htm>).

# TREASURER'S REPORT—2018

by Alan German

As indicated in the balance sheet shown below, the club ran a modest deficit of \$160.54 in fiscal year 2018, but retained total capital assets of \$19,688.24, leaving us in a sound financial situation going forward.

The nature of our expenses changed significantly from those of past years such that a year-over-year comparison of income and expense amounts is not particularly useful. In consequence, the income statement shown below includes only the actual totals of the revenue and expense categories for 2018. Note also that the \$330.00 received in donation income is not offset by an equivalent donation expense amount. This income is the total of the auction receipts from our December meeting plus some additional cash donations. The proceeds were donated to the Ottawa Food Bank; however, the cheque had not cleared our bank by the end of the year so this expense is not included in our cash-accounting system for 2018.

ASSETS			
<b>Current Assets</b>			
1000	Cash		1,119.21
1100	Investment Account (Tangerine)		18,481.09
1200	Membership Float		40.00
1210	Petty Cash Float		0.00
1300	PayPal Account		47.94
<b>Total Assets</b>			<b>19,688.24</b>
LIABILITIES AND OWNER EQUITY			
<b>Owner Equity</b>			
	OPCUG, Capital		
	December 31, 2017		19848.78
	Total revenue	4,301.43	
	Total expense	4,461.97	
	<b>Net income</b>		<b>-160.54</b>
	OPCUG, Capital		
	December 31, 2018		<b>19,688.24</b>

**Balance Sheet and Income Statement for 2018**

Revenue			
2100	Bank Interest (Tangerine)		142.11
2200	Membership Income		2,250.00
2300	Raffle Income		835.00
2400	Merchandise Income		0.00
2500	Workshop Income		658.07
2900	Miscellaneous Income		86.25
2910	Donation Income		330.00
<b>Total revenue</b>			<b>4,301.43</b>
Expenses			
3100	Pub Expense		445.35
3200	Newsletter Expense		731.58
3300	Office Supplies Expense		26.58
3400	Bank Charges (TDCT)		59.40
3500	Barbecue Expense		694.78
3600	Meeting Expense		1,264.45
3700	Workshop Expense		408.41
3800	Merchandise Expense		0.00
3900	Miscellaneous Expense		702.85
3910	Donation Expense		0.00
3920	Membership Expense		43.85
3930	Raffle Expense		84.72
<b>Total expenses</b>			<b>4,461.97</b>
<b>Net income</b>			<b>-160.54</b>

The major changes in our financial picture resulted from our move to Riverside United Church for our monthly meetings. This necessitated an on-going annual facility rental fee of approximately \$1000.00. In addition, there was a one-time purchase of audio-visual equipment which largely accounts for the \$702.85 total of miscellaneous expenses for the year.

In order to offset the annual increase in expenses that will result from future facility rental fees, the club's Board of Directors took some measures to reduce other costs. In particular, printing and mailing of hard-copy newsletters were discontinued part way through the year. In addition, we moved our web site and mailing lists/discussion groups (The Pub) to external hosts which provided equivalent levels of service at substantially-reduced cost. These changes will result in total annual savings of approximately \$2000.00.

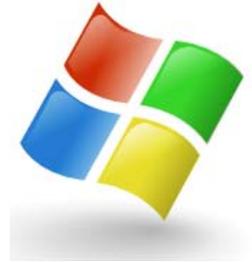
The net result of the above would be an on-going reduction in expenditures (and hence a potential increase in capital assets) in the order of \$1000.00 per annum. Since such gains do not accord with our club's status as a not-for-profit corporation, the Board proposed two specific actions to reduce the projected capital increase. Firstly, the membership fee was reduced from \$25.00 to \$20.00 per year as of January 1, 2019. This proposal was ratified by the membership at the club's meeting in December. Secondly, the club will provide speakers' gifts valued at approximately \$100.00 for non-members in the hope that this will attract additional presenters for our general meetings. It is anticipated that these two actions will increase our annual expenditures by an additional \$1000.00 and so will completely offset the cost savings that have been made.

The Board of Directors is in the process of a financial planning exercise aimed at further reducing the club's capital assets, and would be very grateful for members' input on both the desirability and the methodology of any such action. For full details see "Our financial plan - your input appreciated!" on [page 3](#).

## ARTICLE

## Windows 7 End of Life – Contingency Planning—Part 1

by Alan German



**W**indows 7 reached end-of-life status on January 13, 2015 but will receive extended support until January 14, 2020. However, that final date is now less than a year away. If you are currently using Windows 7, do you have a contingency plan?

Sure, you have some options – most of which have been generously provided by Microsoft. You can buy a brand new computer for several hundreds of dollars which will include a pre-installed version of Windows 10. But, note that the cost of your new OS was also included in the price of the new computer. Or, you can purchase a shiny new copy of Windows 10 – for the meagre sum of \$189.99 – and install this software on your current machine.

But, there is another possible solution. Why not give the “other” operating system a try? You know the one - it’s free, and it just works! I am, of course, suggesting trying out a Linux distribution on your current hardware.

There are dozens of Linux distros to choose from and many of them include the very desirable feature of running from a Live-CD/DVD or a Live-USB. This means that you can download a distro as an ISO file, burn this to a bootable disk, and run Linux directly from this Live-disk. No installation on your hard drive needed!

This is a painless way to try out Linux. Sure, it takes a few minutes to download the distro as a 700 MB or 1.2 GB ISO file, and a further few minutes to burn the ISO to the bootable medium. But, once you have the bootable disk, you can thoroughly test how well Linux will run on your hardware, without making any changes to your system.

And, even if you decide that you want to install Linux onto your hard drive (because it will then run much faster), you can opt to dual boot Windows and Linux and so maintain the best of both worlds. When you choose to install Linux "alongside" Windows, the installation process automatically creates a separate disk partition for Linux, typically by reducing the size of the partition used by Windows. In addition, the installer creates a boot menu which allows you to select which operating system to boot when the computer is powered up.

One of the advantages of Linux is evident during the initial installation process. Linux will install in much less time than a feature update for Windows, and there are no intermediate reboots! And, when it comes to updates, you will find that the process is highly configurable. Linux will indicate when updates are available, but you can choose which updates to install and when to install them. Now, isn't that a novel idea?!

Each Linux distro includes a whole raft of applications. By default, your Linux system will have a browser, an E-mail client, an office suite, a media player, a digital-image manager, and much more. And, if you want additional applications, or if you wish to replace any of the default packages, the software manager and a myriad of third-party developers are sure to have the object of your desire.

Even if you find that you just can't do without that Windows-specific application, Linux has a number of solutions. Many Windows packages are supported by Wine and can be run in this environment directly under Linux. Wine is a Windows "emulator", which attempts to translate Windows API (Application Program Interface) calls to their Linux equivalents thus allowing Windows software to run in Linux. [However, note that Linux purists will tell you that, because it acts as a compatibility layer, Wine is actually not an emulator, i.e. WINE = **W**ine **I**s **N**ot an **E**mulator.]

Not all Windows programs will run under Wine, so if you run into this problem, you can try using a slightly heavier weapon and set up a virtual machine. For example, running VirtualBox on a Linux host will allow a Windows 7 virtual machine to be established which functions just like an actual Windows computer running inside a desktop window.

So, what are you waiting for? Give Linux a try now, so that you will know if this operating system can fill all of your needs when Windows 7 goes to that great repository in the sky (although some might argue that it will go the other way!)

Not convinced that Linux is easy to try as a Live-disk and/or install in dual-boot mode on your computer? Check out Part 2 of this series where we will – fearlessly – construct a dual-boot system on a laptop running Vista. Now, if Linux will work on this old boat anchor, it should just fly on your machine!

## ARTICLE

# Lazarus – An IDE for Free Pascal

by Alan German

**W**hen searching for information on the Free Pascal Compiler (FPC), I found that most of the hits related to Lazarus, an integrated development environment (IDE) for FPC.

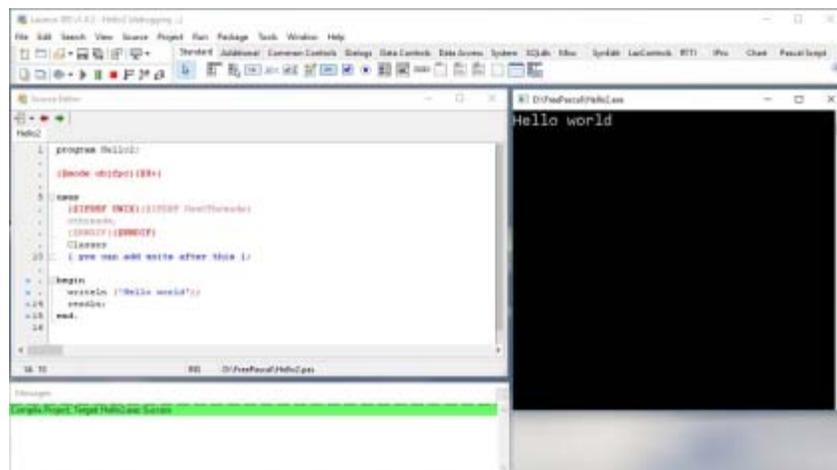
While the standard version of FPC runs in a command window, Lazarus offers a modern, graphical user interface, with multiple display windows for a variety of tasks.

The program is readily downloaded and installed from a single distribution file (I used `lazarus-182-fpc-304-win64.exe`, the 64-bit version) which installs both FPC and the Lazarus IDE.

By default, Lazarus opens a number of windows, including a source editor, form manager, and an object inspector. For simple programming, we don't need the form manager or the object inspector so both of these windows can be closed.

Using Lazarus is not particularly intuitive. For example, clearing the source editor window, loading our `hello.pas` source code (see the previous article in this series, *A Free Pascal Compiler*), and compiling the code, immediately generates a fatal error – Can't find unit1 used by Project1. Perhaps we shouldn't have cleared the "unit1" code from the source editor!

Fortunately, there are some very good on-line tutorials on how to use Lazarus. For example, [Lazarus Pascal Programming Tutorials - Tutorial 1 - Getting Started](#) shows how to use File – New – Program to create a program template. We simply add the `writeln ('Hello world');` and `readln;` commands between the already-established begin and end lines of code.



We can compile the program using Run – Compile and the message window will now indicate “Success”. Alternatively, we can use the run icon (the forward-arrow) on the menu ribbon which will both compile the code and run the executable program that is automatically created. This process also opens a command window in which the program's output – “Hello world” – is displayed.

So, Lazarus is (at least) one step up from using FPC in its default environment. In the next article in this series, we will see if we can use the IDE to breathe new life into an old Turbo Pascal program.

## Bottom Line:

Lazarus (Open Source)  
Version 1.8.2  
Lazarus Development Team  
<https://www.lazarus-ide.org>





## Word Tables Part 1 of 3

by Lawrence Patterson [lawrence@opcug.ca](mailto:lawrence@opcug.ca)

### WORD TABLES & WHY SHOULD I CARE?

So, you've used Word for your documents, and Excel for your spreadsheets and neither the two should meet, right.

Wrong, and though I would never suggest preparing a budget on Word, I would have use Word to summarize and grab your audience's attention with the key points (Excel is available for your reader if they need further details).

As such Word Table features the following advantages:

- Break up informational flow to allow for an easier read;
- Visual grouping of information;
- Applying of unique formatting to specific areas within the document.

In addition, using tables accentuates your document by:

1. Allowing for placement of a graphic and text side by side that'll stay in place as you add additional text around it (like using Text boxes);
2. Present additional details and individually format it so it punches out from the surrounding paragraphs;
3. And my favourite, structuring individual paragraphs into columnar like areas (with no borders shown).

Yes all of the above can be done without tables, yet I'll argue they add complexity to your document and Word may decide to have a hissy fit, which can result in many hours trying to console it.

Oh, and like most things in life, use Table sparingly, as Table has separate functionality from the rest of Word.

Next month we'll discuss Table basics & don't let it frazzle you.

Take care.

## Product Review:

### j5create USB 3.0 Docking Station (JUD481) Boomerang

by Lawrence Patterson [lawrence@opcug.ca](mailto:lawrence@opcug.ca)

Best Buy; \$109.99 (currently unavailable at Amazon.ca)



As the IT guy at work, the importance of having a workable docking station is important to my users as they want to quickly undock their laptop, go to a meeting and just as quickly dock back in to use the main monitor. At home, most consumer laptops just have an USB 3 standard port (though they're starting to come with USB C) and it be nice to have the same docking capability, while not constantly messing with cables (especially if you're swapping in and out multiple laptops at your home desk).

Most USB type docking stations are a rectangular box that just gets in the way, here the folks at j5create have come up with a solution that places itself out of the way and underneath the laptop (with the added advantage of tilting it up so the screen is position higher). As you can see it provides for a network connector, 4 USB 3 (2 charging ports), microphone / speaker, standard VGA and HDMI (max. resolution 2048 X 1152 at 1080p video playback). For those of us not into gaming, this unit more than does the trick, and I just have to plug in one USB 3 cable into my laptop (make sure it's a USB 3 port and not a USB 2) to have 2 additional screens come to life.

A quick note, when I picked up this just before Christmas, my biggest issue with the Best Buy folks is making them realize such a product exists (the term "Docking Station" was totally foreign to them) and you need to look for this where they have the USB hub devices.

Take care.

### CALL OUT FOR VIDEO CAMERA / PRODUCER PERSON

**D**o you have a video taking itch that needs scratching, love attending OPCUG meetings, willing to setup / teardown, then edit / post and provide OPCUG members a way to see their meetings on YouTube?

The OPCUG Board wants to hear from you!

OPCUG is willing to supply equipment (first attempt(s) will use borrowed or rented equipment, then once the concept is proven, it'll be purchased) as well as provide guidance and support.

Contact Lawrence Patterson, [lawrence@opcug.ca](mailto:lawrence@opcug.ca)



**OPCUG's online presence** (Continued from page 1)

In January, 1998, we were set up with ADSL and Mustang Software's Wildcat Interactive Net Server (WINServer), using the domain name opcug.ottawa.com, courtesy of Southam News. Another dial-up line was dropped, bringing us to 3. Bill Vandijk headed a committee to obtain a new computer. A Pentium 200 MMX, with 64MB RAM and 4 GB hard drive was purchased for \$1926.25. A new tape backup was added later at a cost of \$642.85.

By March, 2000, we were down to a single dial-up line and averaged 10 calls a day on dialup.

The domain name OPCUG.CA was obtained in October, 2001. Granite Canyon was chosen for DNS. We switched to DynDNS when Granite Canyon had some outages. We stayed with DynDNS until the PUB was retired in September 2018.

By March, 2003, only 13 members still used the dial-up connection. Eight were in favour of terminating dial-up and the other 5 did not respond. The last remaining dial-up modem was removed on June 16th, 2003, ending over 16 years of dial-up access.

In February, 2004, the PUB was upgraded to a 2.8GHz Pentium 4 with 1GB RAM and 80GB hard drive for \$941.85. Although there was one more computer purchased for use as the PUB, this was the last computer used in production. It ran for over 14 years.

In October, 2009, Bell cancelled their original "experimental" ADSL service. They didn't allow servers on their consumer-oriented ADSL and their business-oriented ADSL was quite expensive. We switched to the National Capital Freenet.

In August, 2013, with the PUB's hardware almost 10 years old, a new computer with an AMD A8 quad-core processor, 8GB of RAM and a 2 TB hard drive was purchased for about \$500 and configured with the PUB's WINServer setup, ready to be swapped in should the old computer die. The old server just kept running.

Led by Brigitte Lord and Alan German (with lots of help from other board members), the OPCUG's web site got a major facelift and cleanup in December, 2017. The process took several months to complete.

**Modern times (hosted services)**

Discussions about moving to hosted services started in February, 2018. Recently, the cost of hosted services plummeted. Our current approach of self-hosting was relatively costly at about \$700 per year.

Free Google Groups were chosen as a replacement for the PUB's mailing lists and discussion groups. In April they were launched.

Google provides their G Suite for free for non-profits and once we were approved, it was configured for the board of directors' use – mainly email and file storage.

An investigation of available web hosting services led to Toonie Hosting. We settled on their *CPanel Mega* which provides 20 GB of disk space and 400 GB bandwidth, for \$4 per month. Over the summer, the new web site was constructed.

The final move from the PUB to hosted services was done by changing the DNS servers on 21 September at 9:30 AM. That afternoon, the tornado hit Ottawa, knocking out power for 2 days at the location where the PUB had run for over 16 years. It was never brought online again.



# 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  
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## How to get the OTTAWA PC NEWS by e-mail



**H**ere's how to get the OPCUG newsletter by email:

### Create a Google Account

Any valid email address can be used as a Google Account. Pick an email address you want to use and browse to <https://accounts.google.com>. Click *Create account* and follow the instructions.

Make sure your new Google Account is functioning properly by going to <https://accounts.google.com> and signing in.

### Sign up for the OPCUG Google Groups

Browse to <https://groups.google.com>. If you are not signed into your Google Account, click the *Sign in* button at the top.

1. In *Search for groups or messages*, type *OPCUG*. The top of the search results will show Groups matching OPCUG. Click on *See all 3*.

2. Click on *OPCUG-Newsletter*, then click the *Join group* button. In the resulting dialog box, you can opt to change some preferences, such as;

- If *My display name* shows as your email address you can change this to something like *firstname lastname*
- Email preferences can be changed to only send daily summaries or not email you at all when new postings are made (meaning you must manually check at the web site to see if there are any new postings)

3. Click the *Join this group* button.

4. You will then see the list of postings that have been made to the group. Click on any entry to see the actual posting.

More detailed instructions on how to join this and other OPCUG Google Groups are found here:

<http://opcug.ca/GoogleGroups.html>

There are no issues of the newsletter published in July or August.