



PRODUCT REVIEW

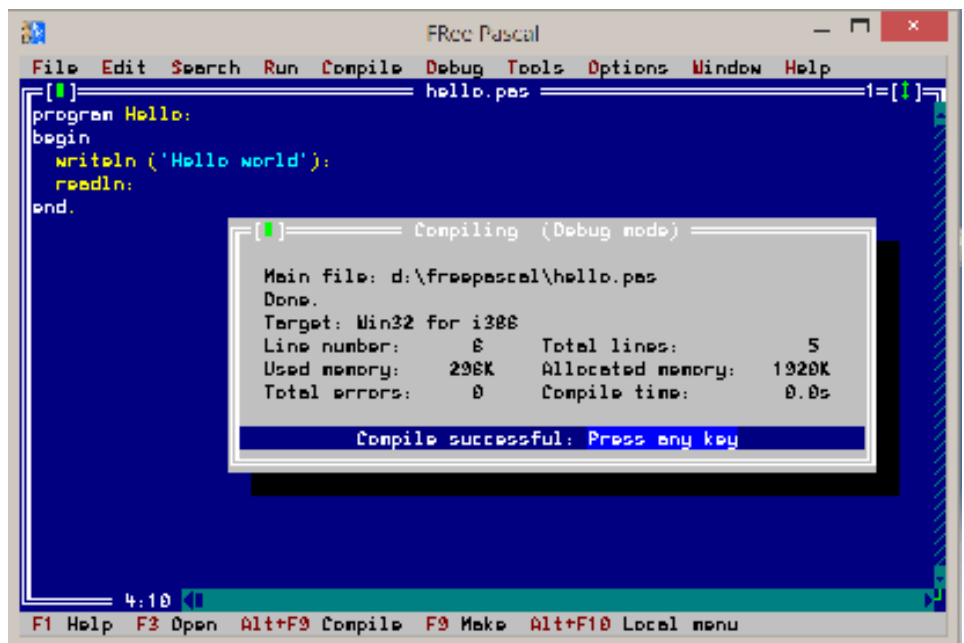
A Free Pascal Compiler by Alan German

A recent venture into programming (see the earlier newsletter article Back to Basics) using a language that I initially thought I knew something about turned into a research project on a very different, object-oriented variant. I came across a reference to Free Pascal, seemingly a version of yet another language I have used previously. So, attracted by the combination of "free" (my favourite category of software) and "Pascal", I decided to take a look at this open-source Pascal compiler.

The documentation for Free Pascal indicates that it supports multiple hardware platforms and operating systems. In particular, it will support 32- and 64-bit Windows and Linux which, potentially, makes it a useful tool for my purposes.

I didn't find downloading the installation package all that intuitive. On the download page of Free Pascal's web site, I selected AMD64/Intel 64/x86_64, Windows 64-bit, and SourceForge as the mirror, and was confronted by a number of packages. These included fpc-3.0.4.i386-win32.exe and fpc-3.0.4.i386-win32.cross.x86_64-win64.exe. Now, while the latter package appears to be related to 64-bit systems, Windows indicated that the installed Free Pascal Compiler (fpc) was not compatible with my 64-bit operating system. It turned out that I needed to install fpc-3.0.4.i386-win32.exe, after which fpc ran quite happily.

I opted to install the compiler in C:\FPC. The program is then activated by running C:\FPC\3.0.4\bin\i386-win32\fp.exe. The display is interesting. The compiler essentially opens in a command window,



and displays (on my system at least) an extremely pixelated "FPC" graphic. More importantly, there is a File, Edit, Search, Run... menu bar running across the top of the window. This DOS-type menu system is FreePascal's Integrated Development Environment (IDE).

The IDE provides the tools that we need to create, edit, save, compile and run our Pascal programs. It displays multiple windows such as a text-entry screen in which we can enter the Pascal source code, and a window in which messages (e.g. errors) from the compiler are reported.

Our first task is to establish contact with an existing data folder (D:\FreePascal) in

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January Raffle

Bluetooth Speaker Phone with Caller ID

This rechargeable Bluetooth phone speaker clips onto your visor and connects to your phone so you can play music and answer phone calls with both hands on the steering wheel. Features include easy pairing, voice dialing, caller ID display and volume controls.

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



December Prize Winners

The Raffle Prize - a licensed copy of Glasswire Elite Firewall software - was won by **Mike Stallabrass**.

The Door Prize - a hazard safety flashlight - was won by **Richard Aylesworth**.

Coming Up...

→ Wednesday January 9, 2019

Topic: Fighting to reduce the digital divide
Speaker: Zeina Osman, co-executive director, CompuCorps

Everyone should be able to use the internet to better their lives and fully participate as citizens. This requires digital access: the means to reliably connect to the internet, understand its uses and implications, feel safe online, and engage with how the internet is governed and develops. CompuCorps is a registered charity located in Ottawa that operates across Canada. They are fighting to reduce the digital divide which creates barriers for youth, women, immigrants, seniors and Indigenous Peoples that may not be able to participate fully in our digital society. This impacts access to services and career opportunities. CompuCorps focus on programs such as STEM for under-served communities and mentor them in computer software and hardware workshops, free of charge.

Wednesday February 13, 2019

Topic: Members' Favourites
Speakers: Various OPCUG members

Wednesday March 13, 2019

Topic: Multi-Factor Authentication
Speakers: Lawrence Patterson, OPCUG

Wednesday April 10, 2019

Topic: Basic digital photo editing using free software
Speakers: Linda Buske

Wednesday May 8, 2019

Topic: Effective backup strategies
Speakers: Alan German and Chris Taylor, OPCUG

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

2019 CALENDAR

Meetings	Date	Time and Venue
OPCUG General Meeting	Wednesday, January 9 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, January 9 th	Immediately following the OPCUG General Meeting.
Beer BOF (Wing SIG East)	Wednesday, January 9 th	10:00 p.m. (after the Q&A) at the Riverside Pub, 3673 Riverside Drive. Turn left onto Riverside Dr. from the Church.

CLUB LIFE

Nominations for OPCUG Board for 2019

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.

Nominations can be submitted to nominations2019@opcug.ca.

If you want more information about what is involved, please talk to a current or past Board member. Board members are listed on the back page of this newsletter and on the web site at <http://opcug.ca/exec.htm>.

Nominations must be received by midnight, December 31, 2018.

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

*Election Chair,
Mike Pereira*

Motion to reduce membership fees passed!

The club's recent move to a new meeting venue resulted in an increase in annual expenditures of approximately \$1000.00. In contrast, switching our web presence to external hosting services, and eliminating printing and mailing costs for the hard-copy newsletter, will reduce expenditures by approximately \$2000.00 per annum. The net result of these actions is projected to be an annual increase in capital assets of about \$1000.00. Since the OPCUG is a not-for-profit corporation, the Board of Directors takes the view that we should adjust our on-going fiscal position accordingly by reducing income and/or increasing expenditures. One of the actions that the Board proposed is to reduce the annual membership dues. Under the terms of our constitution, this requires the approval of the membership at a general meeting. In consequence, the motion was presented at the club meeting held on December 12, 2018. Vote by show of hands resulted in the motion being passed.

Motion: *Passed that membership dues be reduced from the current level of \$25.00 to \$20.00 with effect from January 1, 2019.*

Auction Frenzy!

At our December meeting, the final stages of the auction for our backup server machine drove members of the audience into a bidding frenzy. The computer, an Acer A8 quad-core machine with 8GB Ram and a 2TB hard drive, had been offered on a web-based auction site for a number of weeks prior to the meeting; however, there had been little bidding activity. Things picked up at the meeting, with a bidding sheet for the silent-auction portion of the event generating some interest. But, the real action took place right at the end of the meeting when Chris Taylor, our celebrity auctioneer, called for any final bids on the machine. The audience went wild, with a number of individuals throwing out numbers thick and fast. When the smoke cleared, the computer had raised \$240.00 for the Ottawa Food Bank. Together with a further \$20.00 generated by the sale of a more-modest Linux-based machine, and a number of cash donations, the club wrote a cheque for a total of \$330.00 for the Food Bank's Christmas campaign. This was accompanied by a couple of bags of non-perishable food items that were delivered to the Food Bank. So, many thanks to all our members, and especially those who participated in the auction and/or made donations. We had another successful fund-raising event to benefit The Ottawa Food Bank – and, once again, had lots of fun doing it!



PRODUCT REVIEW

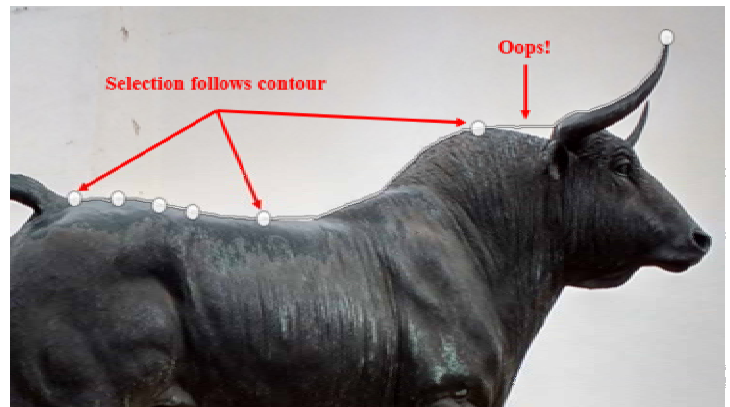
Intelligent Scissors in Gimp by Alan German

In a previous article ([Digital Image Editing with GIMP](#)), I suggested that you could get most of the benefits of a \$1000 image editing program at zero cost by using the open-source GNU Image Manipulation Program (GIMP). This program offers a vast array of features, from the most basic editing tools, to some extremely powerful techniques to achieve quite complex tasks.

I have been using GIMP as my main image editor for several years, mainly using simple features such as tools to crop photographs, or change the brightness and contrast. But, as noted in the earlier article (or simply hinted at) GIMP has a number of very powerful tools. For example, suppose that we wanted to cut an object out of a photograph for use as a stand-alone image. How would we go about doing this? In Gimp, one answer is to use the “Intelligent Scissors”.

As the name of the tool suggests, the “scissors” are used to cut out part of an image, but this is accomplished with minimum effort on the part of the user – hence the “intelligent” qualifier.

Suppose, for example, that we want to extract the image of the bull from the photograph shown below (left). Firstly, we open the original image in Gimp. Now, since we are only interested in the portion of the image containing the bull we can crop the image appropriately and then enlarge the selected area. Click on the Rectangle Select Tool, draw a box around the bull, select Image – Crop to Selection, then View - Zoom – Fit Image in Window.



Now, it's time to click on the intelligent scissors' tool. The cursor changes to crosshairs with an adjacent tiny scissors icon. We position the crosshairs along the bull's back, immediately ahead of the junction with the tail, and left-click on the mouse. A white dot shows our first selected point. We move along the bull's back, selecting individual points as we go.

We don't have to be too precise as the scissors are intelligent so the selected outline pretty well follows the desired contour. However, sometimes it's necessary to select an inflection point so as to avoid the selected contour from taking a short cut away from the desired outline of the object. Note, for example, in the above screenshot (right) that the selection follows the bull's contour, even when we select two points that are quite far apart. However, if we are too ambitious, i.e. going from the back of the neck to the tip of a horn, the selected line fails to follow the contour of the neck and jumps across to a point near the base of the horn.

There are “tricks” to make our lives easier in such situations. Edit – Undo Modify Scissors Curve (Ctrl-Z is even easier!) will remove the selected point at the tip of the horns. We can then select a couple of points along the neck to the base of the horns before continuing to define the horns themselves. It is also useful to temporarily enlarge our view in areas where the image has considerable detail (e.g. the horns and tail). Selecting View – Zoom In (or just using the + key), and re-centering the image in the window using the scroll bars, enlarges a section of the image and makes point selection more definite.

Once all the desired points on the outline have been selected, we can click on the very first point in order to complete the selection. Hovering the mouse over this point produces a message on the status bar indicating "Click to close the curve". Having done this, the status bar message indicates "Click or press Enter to convert to a selection". Clicking once more on the image changes the solid line with the selected points into a continuous dashed line that "shimmers" to highlight the selected area. Now, we can copy the selected image to the clipboard using Edit – Copy.

(Continued on page 5)

Gimp Scissors *(Continued from page 4)*

Finally, we can create a blank canvas on which to store our extracted image. Select File – New and choose an appropriate width and height. In my case, the image of the bull would fit into a frame of 2500 x 1400 px. Clicking OK displays the new blank image window onto which we can copy the extracted image of our bull using Edit – Paste. Save the new image as a new JPG file. Job done!



Bottom Line:

GNU Image Manipulation Program (GIMP) (Open Source)
Version 2.10.0
Spencer Kimball, Peter Mattis and the GIMP Development Team
<https://www.gimp.org>



Word Tables Part 1 of 2

By Lawrence Patterson lawrence@opcug.ca

WORD TABLE & 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 and 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.

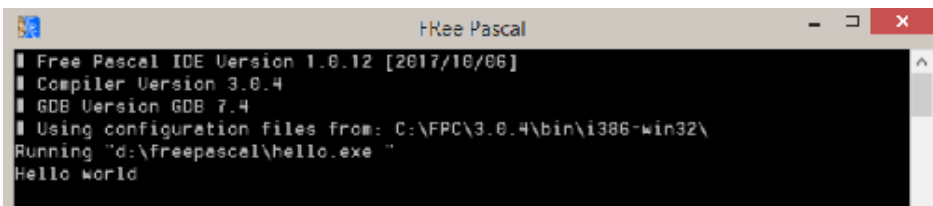
Next month we'll discuss Table basics & don't let it frazzle you.

Take care.

Free Pascal *(Continued from page 1)*

which we are going to store our source code. Click on File and select the Change dir... option to display the default directory tree. The easiest way to get to our existing folder is to navigate to Drives, double-click to show the available drives, double-click on D, and finally double-click on the FreePascal folder. Now click on the Ok button in the dialogue box to make D:\FreePascal the active directory. (And, that was the easiest way!)

Now, we select File – New and, thinking back to our Turbo Pascal days, we type in the five lines of code for the infamous “Hello world” program. We can use File – Save to store this as the source file hello.pas. Selecting the Compile item from the main menu allows us to choose the Compile option. If there are no mistakes in our typing (or in our



```
Free Pascal IDE Version 1.0.12 [2017/10/06]
Compiler Version 3.0.4
GDB Version GDB 7.4
Using configuration files from: C:\FPC\3.0.4\bin\i386-win32\
Running "d:\freepascal\hello.exe"
Hello world
```

memory!), the compiler will return the message “Compile successful: Press any key”.

However, suppose that we forgot that the “Hello world” writeln statement must end with a semi-colon. Now, when the source code is compiled, two message windows will pop-up. One of these, labelled Compiling (Debug mode) will tell us that there are 2 errors and that “Compile failed”; the second window, labelled “Compiler Messages” will indicate:

```
hello.pas(4,3) Fatal: Syntax error “;”
Expected but “identifier READLN”
found
hello.pas(0) Fatal: Compilation aborted
```

The (4,3) portion of the error message tells us that the error is on line 4 in column 3. This seems to indicate that the syntax of the readln statement is at fault. However, the error message also indicates that FreePascal is expecting a semi-colon but it found readln instead. Perhaps this is a clue! There is no semi-colon on line 3. We can fix any such

errors in the source code window and click on the small green square in each of the error-message windows to remove them from the display.

Once we have successfully compiled the program, we are left with our source code visible in the editor. In the background, FreePascal has created the files hello.o (the object file) and hello.exe, the executable program. If we navigate to D:\FreePascal in File Explorer and double-click on hello.exe, a command window opens and “Hello world” is displayed. Success!

Note that we can also run the program by selecting Run from FreePascal’s menu, and then selecting the Run option. The IDE changes to a command window and displays:

To return to the IDE, we simply (but non-intuitively) hit the Enter key.

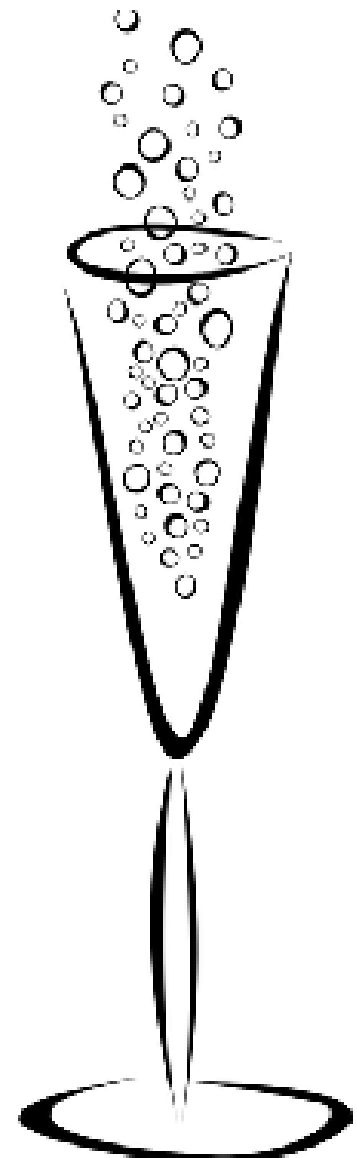
So, we know a few of the basics of how to create, compile, and run FreePascal programs. Now the trick is to produce a program that will do something useful! However, before we move on to such heady tasks, we will take a small detour to explore a somewhat more sophisticated version of the IDE – a package named Lazarus. But, this will have to wait for Part 2 in the series...

Bottom Line:

free pascal

Free Pascal (Open Source)
Version 3.0.4
Free Pascal Development Team
<https://www.freepascal.org>

Happy
New Year
to all
OPCUG
members!



OPCUG Free Software Guide—Part 85

Compiled by Alan German
and Chris Taylor

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.

CloneSpy

Free up hard drive space by detecting and removing duplicate files. CloneSpy will find files with exactly the same content regardless of their name, date, time and location, and files that are not identical but which have the same file name.

Current Release: Version 3.41

Web Site: <http://www.clonespy.com>



HTTrack

This off-line utility allows you to download a complete web site from the Internet to a local directory, recursively building all the directories, copying HTML code, images, and other files from the server to your computer. Open a page of the "mirrored" web site in your browser, and you can browse the site just as if you were viewing it on-line.

Current Release: Version 3.49-2

Web Site: <http://www.httrack.com/>

QPDFview

A fully-featured, PDF viewer for Linux. Open multiple PDF files in separate tabs. Easily scale pages or fit them to the window, with continuous or multiple-page layouts. Search for text in the entire document.



Current Release: Version 0.4.17 beta1

Web Site: <https://launchpad.net/qpdfview>

FairStars CD Ripper

This powerful software will rip audio CD tracks to WMA, MP3, OGG, VQF, FLAC, APE and WAV formats files on-the-fly. Free CDDB is supported (querying and submitting). It supports normalization when ripping, ID3 tag, and playback using its built-in player.

Previously reviewed: CD Ripping; Alan German;

<http://opcug.ca/public/Reviews/FairstarsCDripper.htm>

Current Release: Version 2.00

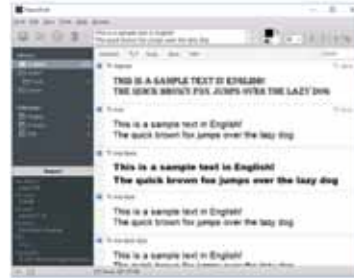
Web Site: http://www.fairstars.com/cd_ripper/

nexusfont

Manage, compare, and choose fonts from an organized display with this easy-to-use font manager.

Current Release: Version 2.6.2

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



CrystalDiskInfo

Monitor the health and operating temperature of your hard drive with this utility. You can set alarms and E-mail notifications. The program also reports on a wide range of disk parameters including S.M.A.R.T. information.

Current Release: Version 7.6.1

Web Site: <https://crystalmark.info/en/software/crystaldiskinfo/>

Avid Media Composer First

At the core, this free program provides the same editing tools your favorite filmmakers, editors, and directors rely on daily. Quickly cut together footage from your camera, mobile device, or video clip collection to start shaping your story. Create the look and sound you want with tons of available visual effects, transitions, and audio tools.

Web Site: <http://www.avid.com/media-composer-first>

ConfigureDefender

While it is possible to configure Windows Defender through the Settings application, Group Policy, PowerShell, Windows Registry, and other management interfaces, doing so may require opening multiple interfaces or switching between different settings pages. ConfigureDefender is an open source portable program that lets you configure Windows Defender from a single screen.

Web Site: <https://github.com/AndyFul/ConfigureDefender>

Colossal Cave Adventure

You are in a twisty maze of passageways, all alike... Do you remember this classic text-based adventure game? Play it now on your Android device. But beware! "Somewhere nearby is Colossal Cave, where others have found fortunes in treasure and gold, though it is rumored that some who enter are never seen again". Perhaps XYZZY will help!



Web Site: <https://tinyurl.com/oy63d3s>

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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Follow us on Facebook: <https://www.facebook.com/opcug>
Follow us on Twitter: <https://www.twitter.com/opcug>

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How to get the OTTAWA PC NEWS by e-mail



Here'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.