Volume 40, Number 2 February 2023

ARTICLE

Building a NAS System - Part 2: Shared Folders by Alan German

n the first part of this series we installed *openmediavault* (OMV) on an old computer that we are using as a NAS server. Our next task is to establish a shared folder on the server and ensure that we can access the folder in Windows 10 from another computer on our network. We can accomplish both of these goals by logging into the server's web control panel through a browser on our second machine and undertaking the tasks detailed below using the options and fly-outs in OMV's main menu.

Note that some of the parameters listed are specific to my system, e.g. a 64 GB Ultra Fit SanDisk USB flash drive, but is should be evident to other users how such items should be modified/selected for a different hardware configuration.

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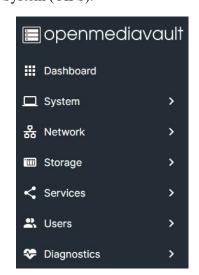
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Also, we will be setting up a shared folder using OMV's SMB/CIFS networking services. For those of us who are not familiar with these acronyms, they refer to standard network file sharing protocols, namely Server Message Block (SMB) and Common Internet File System (CIFS).



[IMPORTANT – Take note that confirmation of configuration changes is often required by OMV. Don't rush through the specified steps. Pause when confirmation is required to allow time for the pop-up message to be displayed. All the changes must be applied for the shared folder to work!]

- 1) Navigate to *Storage Disks* which (in my specific case) displays an entry for: /dev/sdb Ultra Fit San Disk 57.28 GB.
- 2) Select the eraser icon (*Wipe*) and confirm that the disk is to be wiped clean (all data lost). Select the *Quick* option and then *Close* when the command window shows END OF LINE.
- 3) Navigate to Storage File Systems. Select the + sign (Create/Mount) and then Create. In the drop-down menu for the device, select Ultra Fit [/dev/sdb, 7.28 GiB]. Select Save, wait for the file system to be created, and press Close.
- 4) The dialogue screen is now ready to mount the file system. Select /dev/sdb1 [EXT4, 57.28 GiB) from the drop-down menu for the File System. Press Save and confirm that the file system is to be mounted.
- 5) A pop-up message in a broad yellow band at the top of the screen indicates that you must apply these changes in order for them to take effect. Click on the checkmark (*Apply*) and confirm (check *Confirm*, press *Yes*) that the configuration changes are to be applied.
- 6) Navigate to Storage Shared Folders. Select the + sign (Create), and give the shared folder a name, e.g. NASdrive.

(Continued on page 5)

Next Meeting: WEDNESDAY, February 8th, 2023

Next Meeting

Wednesday, February 8, 2023

The meeting will start with our AGM which should take about 15 minutes.

Presentation: How to get paid software daily for free... totally legally!

Speaker: Serge-Érik Thériault (OPCUG)

Using freeware is great, but did you know that you can get commercial software every day for free and use it for up to a year? Fear not, you won't be breaking the law! The licenses are entirely legit! Wouldn't it be nice if you could tap into some fantastic online resources and make better-informed decisions about software? Interested? Well, don't miss this unique presentation!

Reformed freeware junkie Serge-Érik Thériault has discovered a way to legally get commercial software beyond the usual seven-day- or one-month-trial period! Let him show you his innovative try-and-trash-or-keep secure approach that gives users time to try out a great many software apps for a whole year before, perhaps, deciding to buy. Who knows, maybe like Serge-Érik, you will get to "build" your own ultimate computer with software tailored to your exact needs, all at a fraction of the cost!

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.

Coming Up...

March 8

Tales from the workbench

Speakers: Maria & Paul Middleveen, The Trailing Edge

April 12

Computer – It is all about the bits!

Speaker: Stéphane Richard, OPCUG

May 10

Members' Favourites Night (tentative)

June 14

Annual Pizza Night

September 13

Directory Opus: the Ultimate Windows Explorer Replacement

Speaker: Ser ge-Érik Thériault (OPCUG)

November 8

Celestial Shadows – Eclipses of the Sun and Moon

Speaker: Howard Simkover

Tech exhibits at the museum

The Canada Science and Technology Museum currently has an exhibit on Wearable Tech "from smartwatches and spy cameras to pacemakers and pet tracking devices". There is also an exhibit on household technologies.

For the full list of exhibits, including everyone's favourite, The Crazy Kitchen, visit https://ingeniumcanada.org/scitech/exhibitions/calendar.

For information about fees and opening hours visit https://ingeniumcanada.org/scitech/visit#hours.

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.

MeetingsDateTime and VenueRegular Monthly MeetingWednesday, February 8th7:30 pm via Zoom video conference: https://tinyurl.com/opcug-meeting To see all scheduled events, visit https://opcug.ca/#upcomingNext Q&A SessionWednesday, January 25thUntil 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, February 8thEnjoy a cold brew or other beverage in the comfort of your home during the video conference.

TREASURER'S REPORT - 2022

By Alan German

As indicated in the balance sheet shown below, while the club had a deficit of \$1576.44 in fiscal year 2022, we retained total capital assets of \$15,945.49, placing us in a sound financial situation going forward.

ASSE	rs			Revenue			
Curre	nt Assets			2100	Bank Interest	98.22	
				2200	Membership Income	460.00	
1000	Cash		2.858.25	2400	Merchandise Income	0.00	
1100	Investment A	Account	13,000.00	2500	Workshop Income	0.00	
1200 Membership Float		40.00	2900	Miscellaneous Income	0.00		
1210	Petty Cash F		9.00	2910	Donation Income	0.00	
1300	PayPal Acco		38.24	2920	Coffee Income	0.00	
		Total Assets	15,945.49		Total revenue		558.2
				Expenses			
LIABI	LITIES AND	OWNER EQUITY					
	Dirico In.	o militar Equiti		3100	Internet Expense	506.23	
Owner Equity				3200	Newsletter Expense	0.00	
Owner	Equity			3300	Office Supplies Expense	71.73	
OPCUG, Capital				3400	Bank Charges	28.50	
December 31, 2021			17521 93	3500	Barbecue Expense	710.77	
Decen	1001 31, 2021		1/521.95	3600	Meeting Expense	800.41	
Total -	evenue	558.22		3700	Workshop Expense	0.00	
Total expense 2,134.66			3800	Merchandise Expense	0.00		
10tal expense 2,134.00			3900	Miscellaneous Expense	0.00		
Mar i-			1 556 44	3910	Donation Expense	0.00	
Net in	Net income		-1,576.44	3920	Membership Expense	17.02	
0.000				3940	Door Prize Expense	0.00	
OPCUG, Capital			3950	Coffee Expense	0.00		
Decen	ber 31, 2022		15,945.49		T-1-1		
			-		Total expenses		2,134.6
					Net income		-1,576.4

Due to continuing limitations imposed by the Covid-19 pandemic, we were unable to hold any in-person meetings during the 2022 fiscal year. This meant that, once again, we had no expenses for the facility rental with the church and, instead, we renewed our Zoom account to facilitate our meetings over video conferences, including both the regular monthly meetings and the weekly Q&A sessions.

The Board of Directors opted to continue the suspension of membership fees for existing members as of March 31, 2022. This also allowed us to repeat the "two-for-one" membership offer for new members joining the club before the March 31st deadline, where their payment of a single year's fees effectively provided a two-year membership.

Increases in expenses for the current fiscal year were dominated by outlays for our in-person "Pizza-Q" that was held outdoors in Vincent-Massey Park in June, and the cost of Amazon gift cards for external speakers and non-Board members who gave presentations at our regular monthly meetings.

Despite an earlier membership survey that suggested occasional outdoor events would be of interest, attendance at the Pizza-Q was lower than expected. The Board intends to manage expenditures on any similar events in the future by implementing a registration process. The provision of honoraria for both external speakers and non-Board members who give presentations at our monthly meetings will continue in recognition of the considerable amount of time and effort required to develop and present the material.

While the deficit for the current fiscal year is somewhat larger than normal, this remains in accord with the club's financial plan that is aimed at reducing the accumulated assets over a number of years in a manner that provides benefits to club members.

ARTICLE

Re-authentication after inactivity by Chris Taylor

n December (https://opcug.ca/ Articles/2212NEWS.pdf), I showed how to disable automatic sign-in to Windows and make sure all user accounts have a password. In January (https://opcug.ca/Articles/2301NEWS.pdf), I showed how to ensure re-authentication is required after waking from sleep mode and after a screen saver is dismissed.

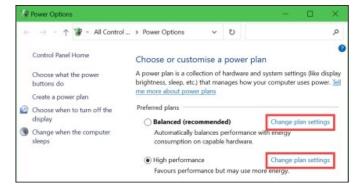
One drawback to using a screensaver is that it doesn't cut the video signal—even if the screensaver is set to *Blank*—and this prevents the monitor from going into a low-power state.

On the other hand, power settings in Windows provide the capability of turning off the monitor after a period of inactivity and this feature does cut the signal to the monitor. A modern monitor can then go into a low-power state.

Go to **Settings** | **System** | **Power & sleep** and select a time for **Screen** – **turn off after**.



You can also set the time for individual power plans. Click the *Additional power settings* link and then *Change plan settings*.

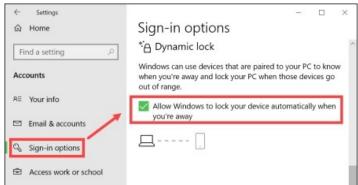


Unfortunately, the Windows setting to turn off your monitor doesn't have an option to require reauthentication when the monitor turns back on after you start using the computer again. However, you can combine options to get the best of both worlds.

Set your screen saver to *On resume, display log-on screen* and choose the *Wait* period you want. Then, in *Power & sleep* in *Settings* set the *Screen – turn off after* to the same time period. The screen saver will ensure re-authentication is required when you resume and the *Power & sleep* option allows your monitor to go into low-power mode.

Dynamic lock

You can configure Windows to lock your computer if a paired phone's Bluetooth signal falls below a certain threshold. In *Settings* | *Accounts* | *Sign-in options* under *Dynamic lock* select *Allow Windows to automatically lock your device when you're away.*



Microsoft says Dynamic lock works with "devices that are paired with your PC" but a phone is the only device currently supported.

I don't view Dynamic lock as a main means of protection: it only locks your computer after the Bluetooth signal strength drops below a certain level for 30 seconds. While it might help you if you accidentally walk away from your computer without locking it, a quick-thinking attacker watching you walk away can easily defeat Dynamic lock simply by starting to use your computer before the 30-second timeout.



NAS - Part 2 (Continued from page 1)

From the drop-down menu for *File System* select / dev/sdb1 [EXT4, 40.00 KiB (1%) used, 56.06 GiB available]. Press *Save* and confirm the changes.

- 7) Navigate to Services SMB/CIFS Settings. Check Enabled for WORKGROUP. Press Save and confirm.
- 8) Navigate to Services SMB/CIFS Shares. Select the + sign (Create). In the drop-down menu for Shared folder select NASdrive [on /dev/sdb1, NAS-drive/]. Press Save and confirm the changes.
- 9) Navigate to *Users Users*. Select the + sign (*Create/Import*) then the + sign (*Create*). Use your Windows login credentials for the *Name* and *Password* (*E-mail address* is optional). Press *Save* and confirm the changes.
- 10) Select <*Your username*>, then the folder/key icon (*Shared folder privileges*). Select *NASdrive Read/Write*. Press *Save* and confirm the changes.

To link to the NAS shared folder in Windows10, open File Explorer and do the following:

- 11) Navigate to *This PC Map network drive*.
- 12) Retain the default drive letter Z: (or select any available drive letter)
- 13) Press *Browse* and, from the drop-down menu for *OPENMEDIAVAULT*, select *NASdrive*.
- 14) Press Finish.

The shared folder in the NAS on the Acer Aspire is now available in Windows as Drive Z:

Note that it is important to enable WORKGROUP for the SMB services as this is the name for the default workgroup in Windows 10. Similarly, your Windows userid must be provided with access privileges (read/ write) to the shared folder on the NAS. If these items are not configured correctly, File Explorer will be unable to make the connection to the shared folder.

Bottom Line

openmediavault (Open source) Volker Theile Version 6.0.24 https://www.openmediavault.org



Quick Tip 50: MAC address randomization by Chris Taylor

very network interface has a Media Access Control (MAC) address, made up of 12 hexadecimal (0-9,A-F) digits. The first 6 digits are the manufacturer's ID and the last 6 digits are the device identifier assigned by the manufacturer. MAC addresses are normally hardcoded into the device when manufactured.

MAC addresses must be unique on a Local Area Network (LAN) and the above scheme pretty much assures this, given that each manufacturer has over 16.7 million possible device IDs.

When unique identifiers don't change, people can use them to track you. For example, a shopping mall with free Wi-Fi could use your MAC address to track you: how often you go there, what areas of the mall you frequent, etc. To prevent this, Windows allows you to turn on random MAC addresses (for Wi-Fi only).

Go to **Settings** | **Network & Internet** | **WiFi** and toggle on **Use random hardware addresses**.



You can also set this for a specific Wi-Fi network at **Settings** | **Network & Internet** | **WiFi** | **Manage known networks**. Select a network, click **Properties** and toggle on **Use random hardware addresses**.



THROUGH THE LENS

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

Fun with filters!

by Lynda Buske

any photo editing programs allow you to apply certain creative filters to your photo during post processing. Sometimes these types of filters are called digital painting. If you find your current photo editing program limited in this respect, there are multiple free apps that can be downloaded (e.g. Fotosketcher at https://fotosketcher.com/). The Nik Collection from Google is a bundle of free photo filter software which includes: Analog Efex Pro 2, Color Efex Pro 4, HDR Efex Pro 2, Silver Effex Pro 2. Each of these software programs target a slightly different aspect of photography. For example, Silver Effex is used for black and white images.

Here are some examples of the artistic effects you can create. I modified the original image below in Fotosketcher by applying a water colour effect and there are plenty of controls you can adjust to get the desired effect. It can definitely take a few minutes for the program to apply the filter to a full resolution photo. If you want to then adjust the brush size or strength of the effect, it takes another few minutes to recreate. I lose patience. Instead, I first play with a reduced photo (1500 pixel width) which usually processes in about 10 seconds, depending on the filter. Once I get the desired look, I bring in the full resolution photo and go get a cup of tea!



(This article is available in PDF format at https://opcug.ca/digital-photography.)

(continued on next page)

Fun with filters (continued from previous page)

You may actually be able to use a filter to rescue a slightly out-of-focus image. See below where a pencil filter sharpened the soft edges of the original.





Once you get comfortable, you can use a filtered photo for a background and layer another one on top. I used two photos for the one below, applying a brush-filter in Photoscape X on the first image of sunflowers in a field before using it as a background.







BLAST FROM THE PAST

In October 2014, Alan continued to offer us all kinds of software in his seemingly inexhaustible Free Software series. This also marks the time when our meetings were relocated to the Canada Aviation and Space Museum for a few years after the Canada Science and Technology museum was closed due to the presence of mould. See the article on page 1 of that newsletter asking members needing a ride to the distant museum to post a request on our message board.

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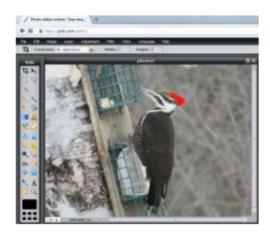
OPCUG Free Software Guide - Part 51

his 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.

Pixle

Need to edit a digital image? Now? Pull up the Pixlr Editor in your browser and you have a wide range of tools, controls, and image filters instantly available. Create a new image, edit an existing image, and save the result to your hard disk.

Web Site: https://pixlr.com/editor/



Fast Duplicate File Finder

Find duplicate files in a folder, on a computer or an entire network. The application will compare the contents of the files and will find duplicates even if they are using different file names. After a file scan is completed, you can automatically mark the oldest versions for deleting. Current Release: Version 4.1.0.1

Web Site: http://preview.tinyurl.com/deovrb

Open Hardware Monitor

This open-source utility supports most hardware monitoring chips found on today's mainboards. The program will display temperatures, voltages, fan speeds, etc. for a variety of components.

Current Release: Version 0.6.0 Beta Web Site: http://openhardwaremonitor.org/

NoScript

This open-source extension for Firefox prevents executable content, such as JavaScript, Java, Flash, and Silverlight from running in the browser unless explicitly allowed by the user. The add-on is highly configurable with, for example, a whitelist for trusted web sites.

Current Release: Version 2.6.8.28 Web Site: http://noscript.net/

Allow Scripts Globally (dangerous)

S) Allow all this page

Temporarily allow all this page

Free-OCR

With this on-line, optical character recognition (OCR) tool you can extract text from any image that you upload. Free-OCR takes either a JPG, GIF, TIFF BMP or a PDF file (only the first page). Images must not be larger than 2MB, no wider or higher than 5000 pixels, and there is a limit of 10 image uploads per hour.

Web Site: http://www.free-ocr.com/

Moonbase Alpha

NASA has once again landed on the lunar surface and has established a small outpost. Returning from a research expedition, you witness a meteorite impact that cripples the life support capability of the settlement. With precious minutes ticking away, you and your team must repair and replace equipment in order to restore oxygen production. Web Site: http://preview.tinyurl.com/39aeayt





SpeedTest

Not sure if you are receiving every Mbps that you pay your ISP for? Go to speedtest.net and run what the developer's state is "the world's most popular internet speed test". If your speed is too low, call your ISP. They may be able to tweak your settings or, these days, they may have an updated package at a reasonable price.

Web Site: http://www.speedtest.net/

2014 HISTORY

Retrospective: The OPCUG Free Software Guide

by Bob Walker

n the October 2014 issue of the OPCUG Newsletter (Volume 31, No. 10), there was 'Part 51' of the 'OPCUG Free Software Guide'. This particular issue of the guide took a quick look at seven programs, including Fast Duplicate File Finder, Free-OCR, Moonbase Alpha and Speed Test.

The Guide eventual wrapped up with Part 100 in the June 2020 newsletter. The series was compiled by OPCUG's own Alan German, and in Alan's own words "This guide features an annotated list of free computer programs. The software mentioned has not been re-viewed (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." The series was indeed very useful to many of us who tried and continue to use some of the software featured over the years.

However, as noted in Part 100, "The fact is that, these days, there is a paucity of new freeware packages being developed for the PC", so the decision to end the series on a high point was made. Who knows, maybe at some point in the future one of our members can continue on with the 'OPCUG Reasonably Priced Software Guide'.

Club History - 2014 (taken from https://opcug.ca/history/)

Dec 2014

At its Dec 10, 2014 meeting the OPCUG had its third highly successful silent auction, with 45 items for bidding, and despite a rather nasty winter storm we collected a total of \$144 plus an additional \$285.00 of cash donations, for a total of \$429.00, all donated to the Ottawa Food Bank, just in time for the holiday season. The event was really a group effort including Chris Taylor getting 10 books from O'Reilly plus announcing the event, Alan German doing the accounting and the slide show, Gail Eagen helping with the accounting, Brigitte Lord promoting the event in the newsletter and the OPCUG's web site, Jocelyn Doire creating the auction web page and organizing the event, Bob Walker setting up the room with tables and chairs, and certainly not least, all the donors of the items for the silent auction.



Snowy also showed up at the meeting, thanks to Jeff Dubois for the idea and for taking care of the logistic, and to Crystal Casey, a local sketch artist, that provided the drawing free, to be used at our discretion.

Oct 2014

In September 2014, mould is found at the museum of Science and Technology, which forces it to close and us to find quickly a new auditorium. Thanks to the museum's staff, we have our October 2014 meeting at the Bush Theatre of the Canada Aviation and Space Museum, 11 Aviation Parkway. In November 2014, the federal government announced \$80.5 million to fund major renovations, keeping us at the new museum for the long term.

Jun 2014

The OPCUG holds its second eWaste event in parallel with our annual PizzaQ at our June meeting, which thanks to Jeff Dubois, is advertised in many newspapers, such as in the Ottawa Citizen and the Ottawa South News EMC. Like last year, Evolu-TIC Outaouais collects the eWaste for recycling, but new this year, CompuCorps picks up some of the reusable material for their good causes. We collected 1.4545 ton x 150 \$ = 218.18 \$ (21 screens, 22 TV, 24 Casing, 1 Laptop, 24 Printer, 21 scanner, 26 Keyboard, 4 VHS player, 6 DVD, 45 Radio, 42 Phone, 19 Router 13 Cell, 3 Sound System, 5 Camera, 2 decoder, 1 Server, 11 Controller, 2 Projectors 2 Microwave).

Mar 2014



Jeff Dubois suggests that we offer SWAG items at our Mar 17, 2014 BOD meeting and we all agree that's a great idea. The last time we had t-shirts was in 1995. The sale was a great success with \$545.00 worth of merchandise at our May 14, 2014 meeting.

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: Due to COVID-19 safety guidelines, all our events are via video conference until further notice. 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).

