OPCUG

Users helping users
for over 40 years

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Ottawa PC Users' Group

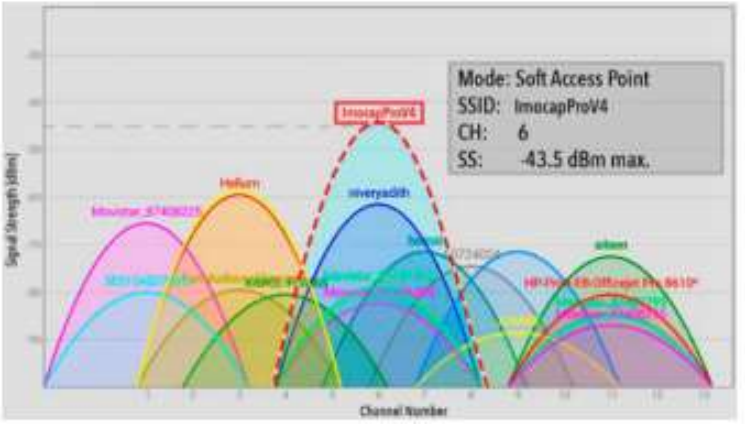
December 18, 2024

Wi-Fi Extenders & Analyzers

- After the question about WiFi extenders and analyzers at Q&A on December 4th
- Lots of discussion on the user forum
  - Have you tried a network cable? (*Ma Vo*)
  - I thought routers are always best placed up as high as practical etc. (*Bob Herres*)
  - I put a secondary access point, connected with a RJ-45 cable to the router, closer to the centre of the house, in the basement, and close to the ceiling that provided coverage everywhere in the house (*José Costa*)
  - One Rogers person said mirrors between the router and source can cause interference (*Carol Pearson*)
  - Microwaves can cause interference (*Timothy*)

Several suggestions for monitoring the strength and utility of the Wi-Fi were received:

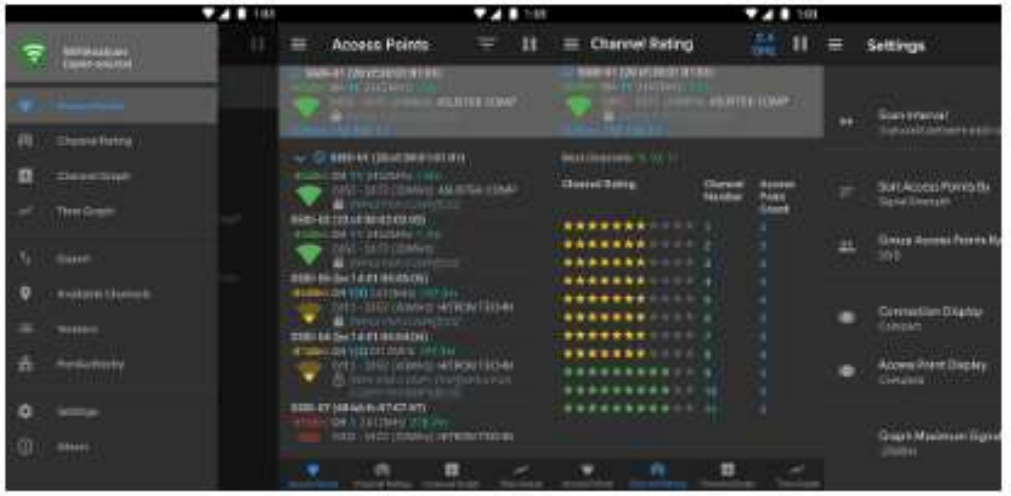
- I used *WiFi Analyser* and selected a channel with the lowest signal (*Jocelyn Doire*)
- Android wifi measurement: **https://play.google.com/store/apps/details?id=com.vrem.wifianalyzer** *(Tom Trottier)*
- The analyzer can identify a channel with minimal traffic (*Harvey Hope*)
- I like an Android app called WiFiman by Ubiquiti (*John Gingerich*)



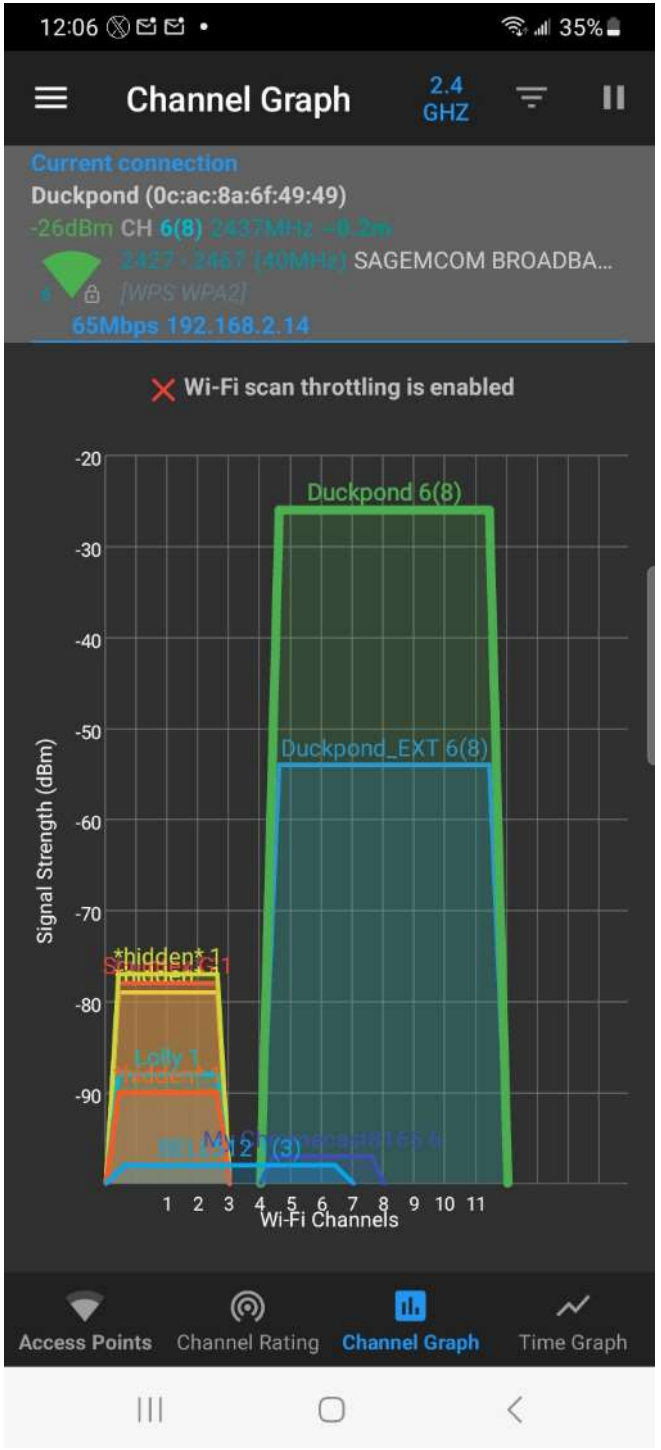
README GPL-3.0 license

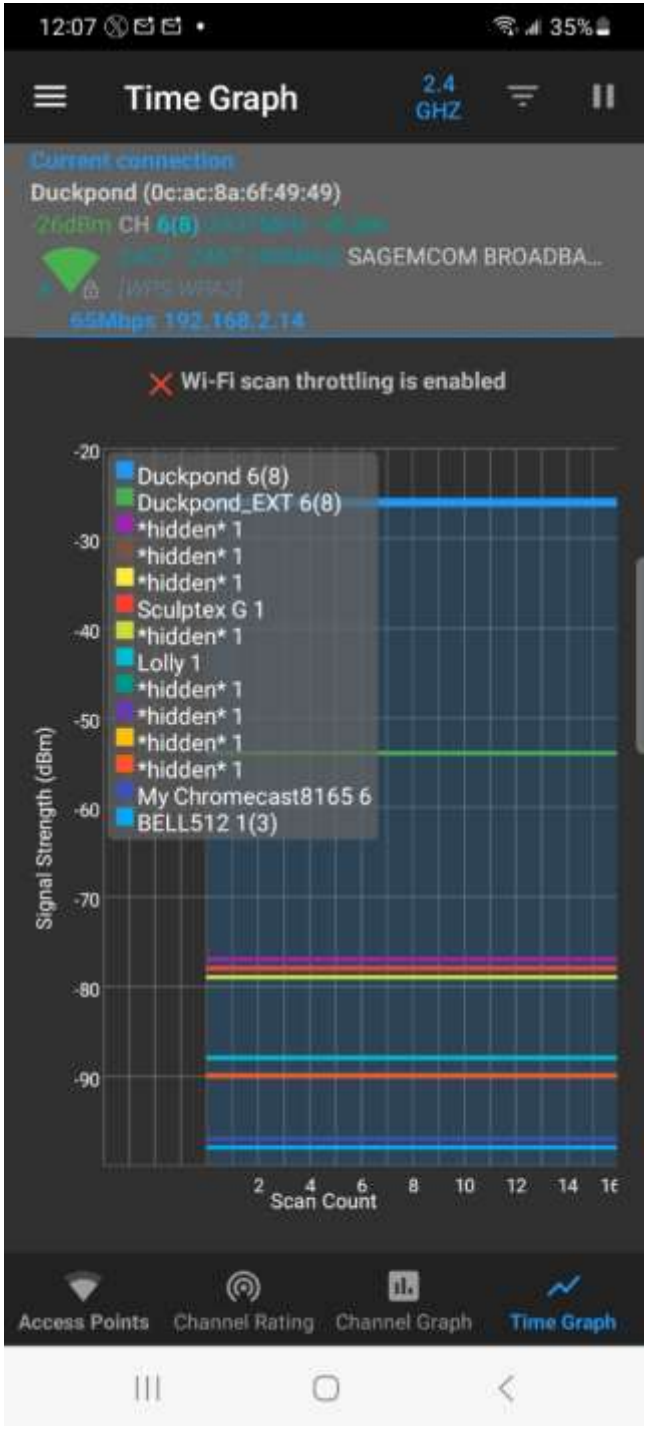
WiFi Analyzer

This is the official repository of WiFi Analyzer.



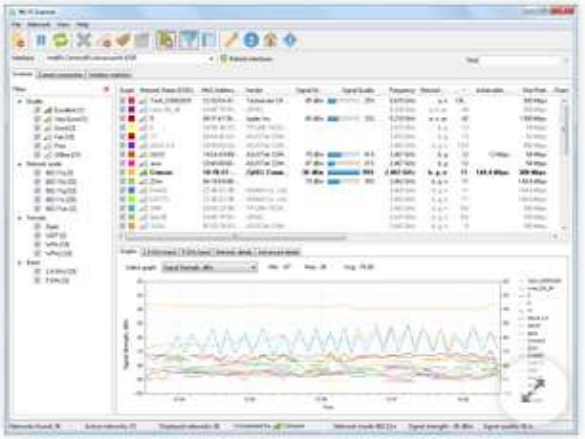
https://github.com/VREMSoftwareDevelopment/WiFiAnalyzer


12:06
35%
Channel Graph
2.4 GHZ
Current connection
Duckpond (0c:ac:8a:6f:49:49)
-26dBm CH 6(8) 2437MHz ~0.2m
2427 - 2467 (40MHz) SAGEMCOM BROADBA...
[WPS WPA2]
65Mbps 192.168.2.14
Wi-Fi scan throttling is enabled
Signal Strength (dBm)
-20
-30
-40
-50
-60
-70
-80
-90
Duckpond 6(8)
Duckpond_EXT 6(8)
hidden 1
Lolly 1
1 2 3 4 5 6 7 8 9 10 11
Wi-Fi Channels
Access Points
Channel Rating
Channel Graph
Time Graph


12:07
35%
Time Graph
2.4 GHZ
Current connection
Duckpond (0c:ac:8a:6f:49:49)
SAGEMCOM BROADBA...
[WPS WPA2]
65Mbps 192.168.2.14
Wi-Fi scan throttling is enabled
Signal Strength (dBm)
-20
-30
-40
-50
-60
-70
-80
-90
Duckpond 6(8)
Duckpond_EXT 6(8)
hidden 1
hidden 1
hidden 1
Sculptex G 1
hidden 1
Lolly 1
hidden 1
hidden 1
hidden 1
hidden 1
My Chromecast8165 6
BELL512 1(3)
2 4 6 8 10 12 14
Scan Count
Access Points
Channel Rating
Channel Graph
Time Graph

Wi-Fi Scanner

Easy-to-use tool to scan for and analyze 802.11a/b/g/n/ac/ax wireless networks



More screenshots ›

Wi-Fi Scanner allows you to easily locate visible wireless networks and its corresponding information. The tool obtains the network name (SSID), signal strength (RSSI) and quality, MAC address (BSSID), channel, maximum and achievable data rate, security, and much more.

Wi-Fi Scanner is useful for normal access point users who need to find out the signal strength distribution for their wireless network at home, or choose a position for their access point for optimal signal quality.

Using **Wi-Fi Scanner**, you can evaluate the allocation of wireless networks by channel and select the least congested bandwidth for their access point, allowing them to increase their connection speed significantly.

In addition, **Wi-Fi Scanner** is an indispensable tool for corporate network administrators in performing tasks such as configuration, planning and monitoring security parameters on business wireless networks.

Key features

- Simple, fast wireless **network search**
- Support for **802.11ax** and **802.11a/b/g/n/ac**
- Support for **2.4** and **5 GHz** frequency bands

Product Info

Version: 22.11
Date: Nov. 25, 2022
Fully-featured 10-day trial

DOWNLOAD

Overview
Screenshots
Articles
Online Help
FAQ
Tips & How To's
Release history

https://lizardsystems.com/wi-fi-scanner/

Wi-Fi Scanner 22.11 - UNREGISTERED EVALUATION VERSION

File Network Tools View Help

Interface: Intel(R) Dual Band Wireless-AC 3160 Refresh interfaces Find:

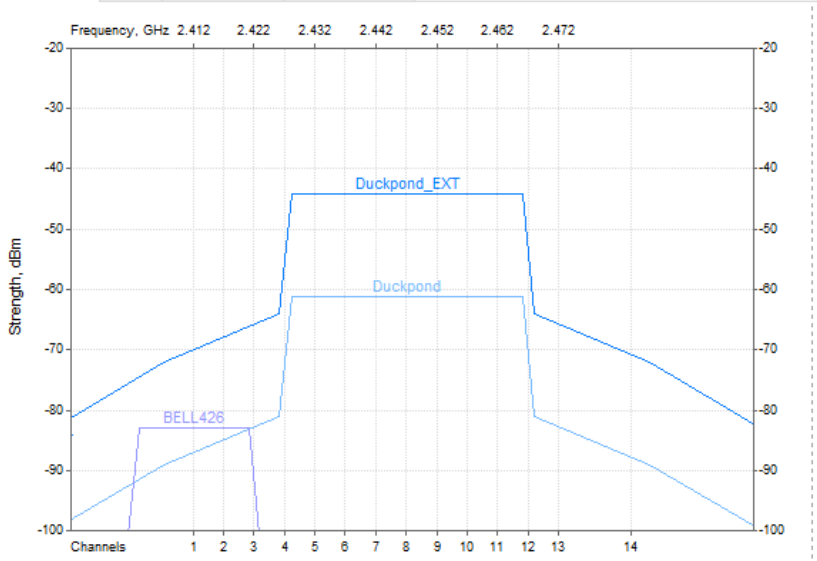
Scanner Current connection Wireless statistics

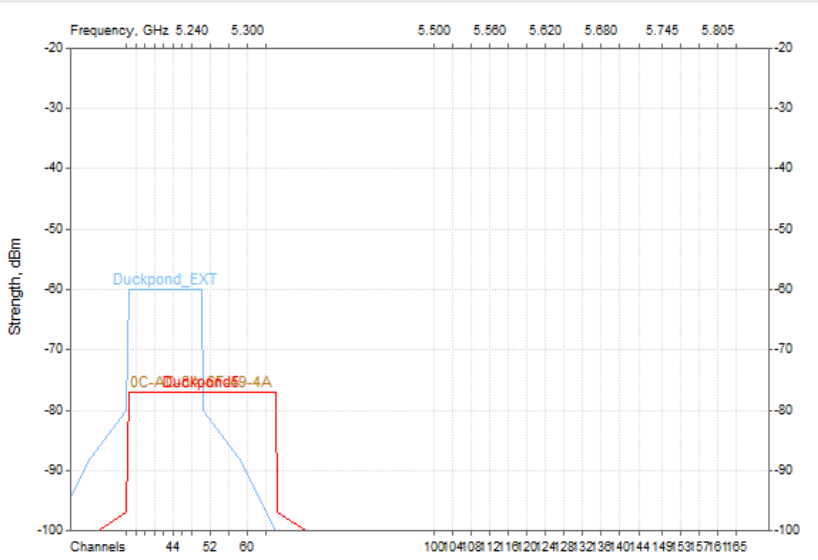
Filters

- Quality
  - Excellent [1]
  - Very Good [2]
  - Good
  - Fair [3]
  - Poor
  - Offline
- Network mode
  - 802.11a [3]
  - 802.11b [3]
  - 802.11g [3]
  - 802.11n [6]
  - 802.11ac [3]
  - 802.11ax [4]
- Security
  - Open
  - WEP
  - WPA
  - WPA2 [6]
- Band
  - 2.4 GHz [3]
  - 5 GHz [3]
- Channel Width
  - 20 MHz [1]
  - 40 MHz [2]
  - 80 MHz [1]
  - 160 MHz [2]
  - 80+80 MHz

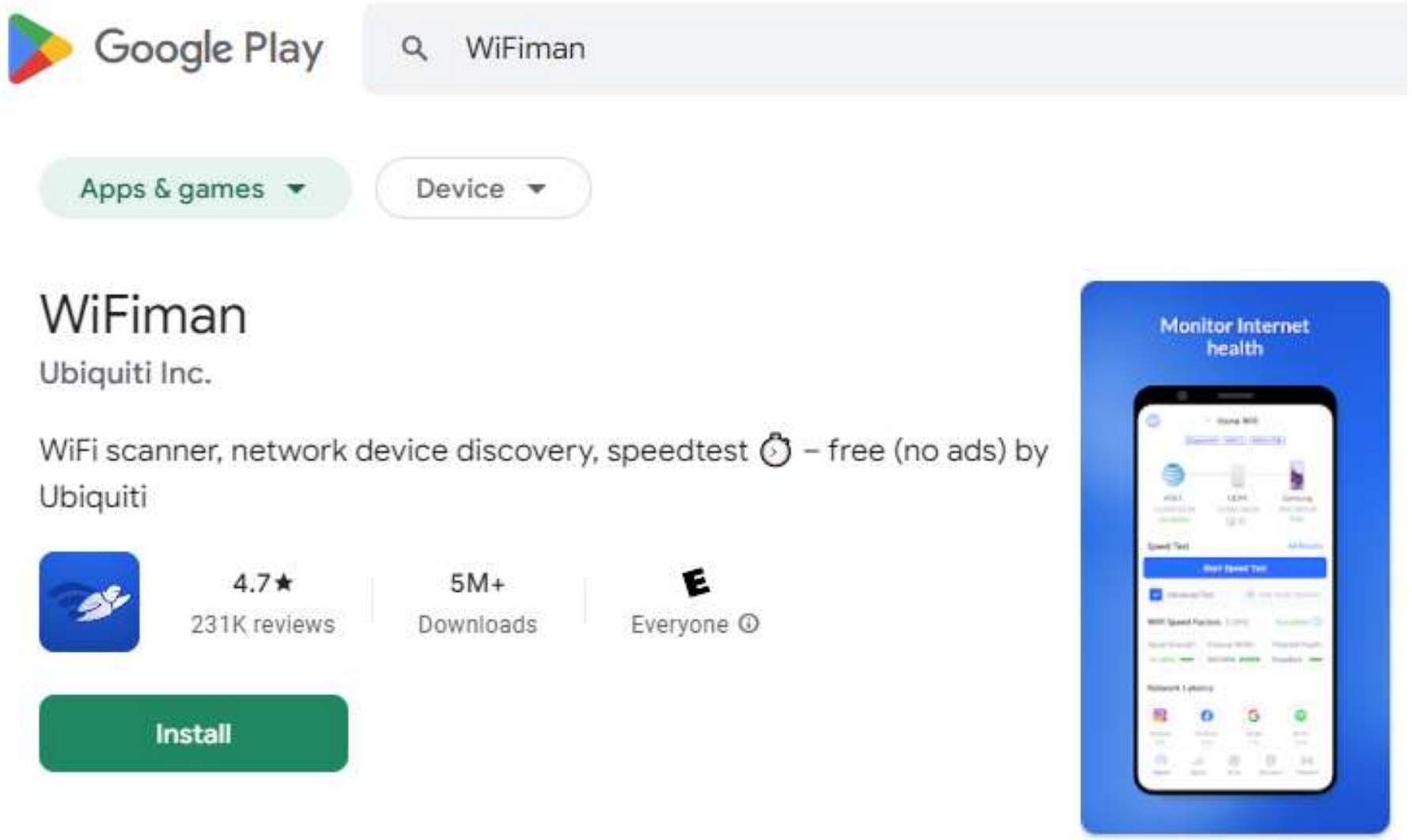
Graph	Name (SSID)	Strength	Quality	MAC Address (BSSID)	Vendor	Achievable Rate	Max Rate	Type	Mode	Channel	Band
	Duckpond_EXT	**-44 dBm**	**99%**	**7C-F1-7E-35-A1-C6**		**300 Mbps**	**300 Mbps**	**Infrastructure**	**b, g, n**	**6+10**	**2.4 GHz**
	Duckpond_EXT	-60 dBm	66%	7C-F1-7E-35-A1-C7		260 Mbps	866.7 Mbps	Infrastructure	a, n, ac	42[36]	5 GHz
	Duckpond	-61 dBm	65%	0C-AC-8A-6F-49-49	Sagemcom Broadband...	550.5 Mbps	1147.1 Mbps	Infrastructure	b, g, n, ax	8[6]	2.4 GHz
	<hidden network>	-77 dBm	38%	0C-AC-8A-6F-49-4A	Sagemcom Broadband...		4803.9 Mbps	Infrastructure	a, n, ac, ax	50[60]	5 GHz
	Duckpond5	-77 dBm	38%	0E-AC-8A-6F-49-4B			4803.9 Mbps	Infrastructure	a, n, ac, ax	50[60]	5 GHz
	BELL426	-83 dBm	28%	0C-AC-8A-06-5E-1B	Sagemcom Broadband...		600 Mbps	Infrastructure	b, g, n, ax	1	2.4 GHz

2.4 and 5Ghz Graphs Network details Advanced details

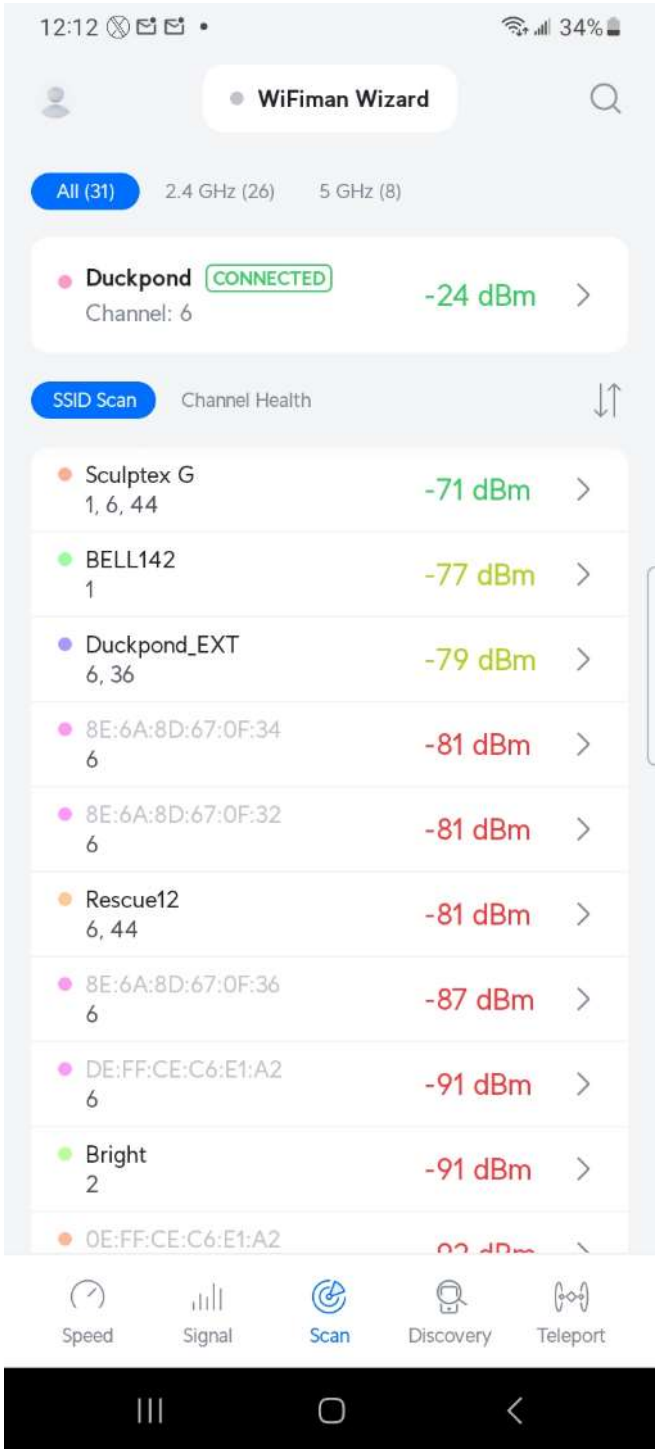




Duckpond_EXT | Network mode: 802.11n | Signal strength: -43 dBm | Signal quality: 99% | Rx: 150.0Mbps | Tx: 150.0Mbps | Networks found: 6 | Active networks: 6 | Displayed networks: 6

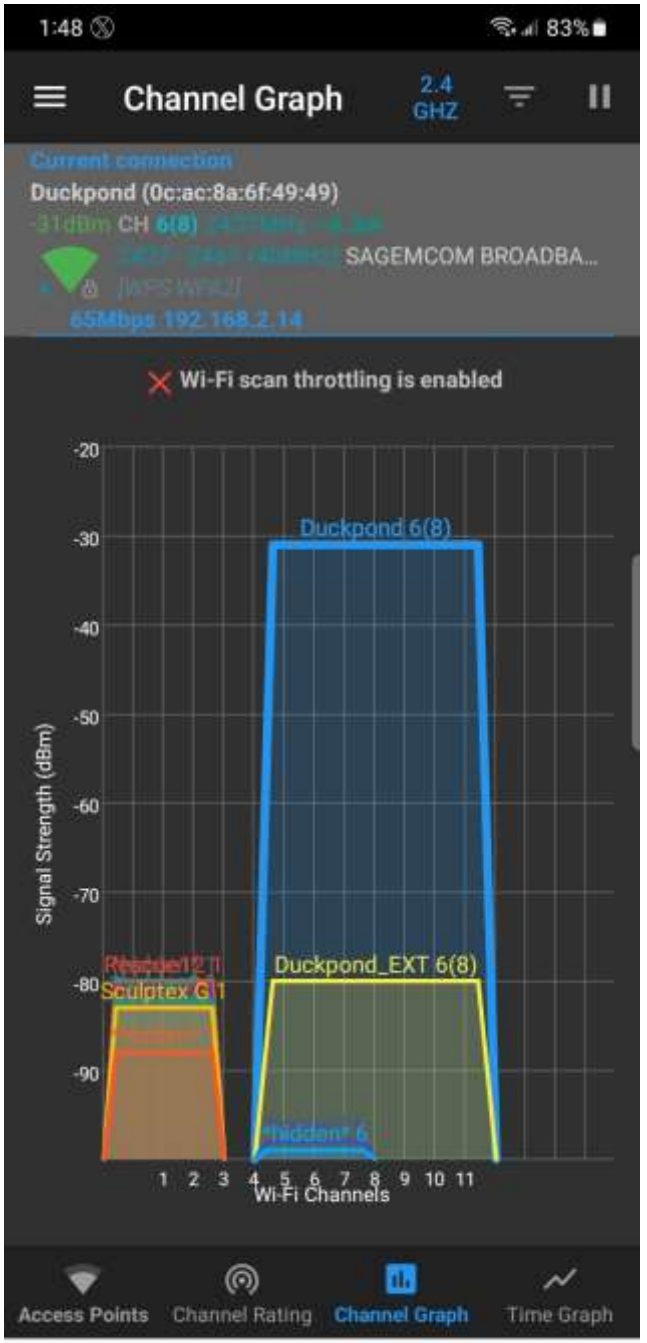


https://play.google.com/store/search?q=WiFiman

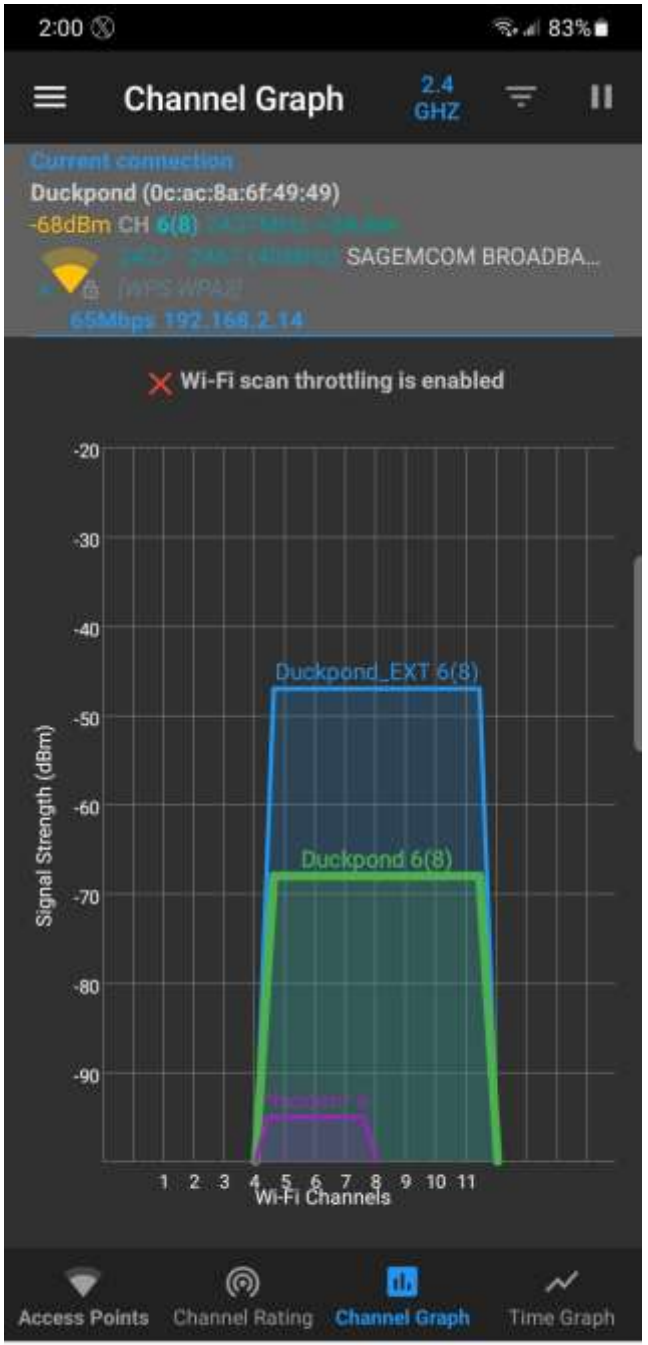


Router

Wi-Fi Extender



Adjacent to router



Remote from router


When it comes to WiFi problems
• extenders and analyzers are just the start
…and down we go

What to do about poor WiFi performance

- Router location
  - move WiFi router to center of home, or near computer in use
  - put as high as possible, away from books or other blockers
  - avoid motors, appliances, microwave ovens, & metal
- Router setup
  - try aerials horizontal, vertical & broadside to see what is better
  - aluminum foil, or board with foil to reflect signals in the right direction
  - check with *wifi analyzer* app to find emptiest channels
    - set on router & check periodically
  - kick off network interlopers
  - set router to use maximum power vs. *ECO*
  - use 2.4 GHz for widest coverage unless close neighbours/interference
  - use 5/6 GHz for maximum bandwidth or to avoid 2.4 GHz interference

Tom Trottier

What to do about poor WiFi performance

- Use WiFi extender
- Use more powerful/numerous routers
- Use most modern protocol
- Disconnect other devices using the internet
- Check results after each change with *wifi analyzer* app or
- Avoid WiFi & use ethernet cable

https://www.pcmag.com/how-to/10-ways-to-boost-your-wi-fi-signal

Tom Trottier

Distance from router

- Maximum distances for Wi-Fi coverage vary depending on the frequency band used
- Typical max ranges by band
  - 2.4 GHz
    - up to 150 feet (46 meters) indoors, 300 feet (92 meters) outdoors
  - 5 GHz
    - up to 50 feet (15 meters) indoors, 100 feet (30 meters) outdoors
  - 6 GHz
    - up to 30 feet (9 meters) indoors, 60 feet (18 meters) outdoors

Speed of bands

- 2.4 GHz
  - 802.11n (Wi-Fi 4): Up to 600 Mbps
  - 802.11ax (Wi-Fi 6): Up to 1.2 Gbps
  - real-world speeds typically much lower
    - 802.11n (WiFi 4): 100-150 Mbps at close range
    - 802.11ax (WiFi 6): 150-250 Mbps at close range
- 5 GHz
  - 802.11ac (Wi-Fi 5): Up to 1.3 Gbps
  - 802.11ax (Wi-Fi 6): Up to 9.6 Gbps (theoretical)
  - real-world speeds can be significantly higher than 2.4 GHz:
    - 802.11ac (WiFi 5): 700-900 Mbps
    - 802.11ax (WiFi 6): up to 1.2 Gbps (ideal conditions)
- 6 GHz
  - 802.11ax (Wi-Fi 6E): Up to 9.6 Gbps (theoretical)
- Actual speeds often lower due to distance, interference, etc.
- Keep in mind max speed of your internet connection

WiFi generations standards

Generation	IEEE standard	Adopted	Maximum link rate (Mb/s)	Radio frequency (GHz)
(*Wi-Fi 0**)	802.11	1997	1–2	2.4
(*Wi-Fi 1**)	802.11b	1999	1–11	2.4
(*Wi-Fi 2**)	802.11a	1999	6–54	5
(*Wi-Fi 3**)	802.11g	2003		2.4
Wi-Fi 4	802.11n	2009	6.5–600	2.4, 5
Wi-Fi 5	**802.11ac**	2013	6.5–6933	5[a]
Wi-Fi 6	802.11ax	2021	0.4–9608[1]	2.4, 5
Wi-Fi 6E				2.4, 5, 6[b]
Wi-Fi 7	802.11be	exp. 2024	0.4–23,059	2.4, 5, 6[2]
Wi-Fi 8	802.11bn	exp. 2028[3]	100,000[4]	2.4, 5, 6[5]

**Wi-Fi 0*, *1*, *2*, and *3* are named by retroactive inference. They do not exist in the official nomenclature.[6][7][8]

https://en.wikipedia.org/wiki/IEEE_802.11ac-2013

Channels

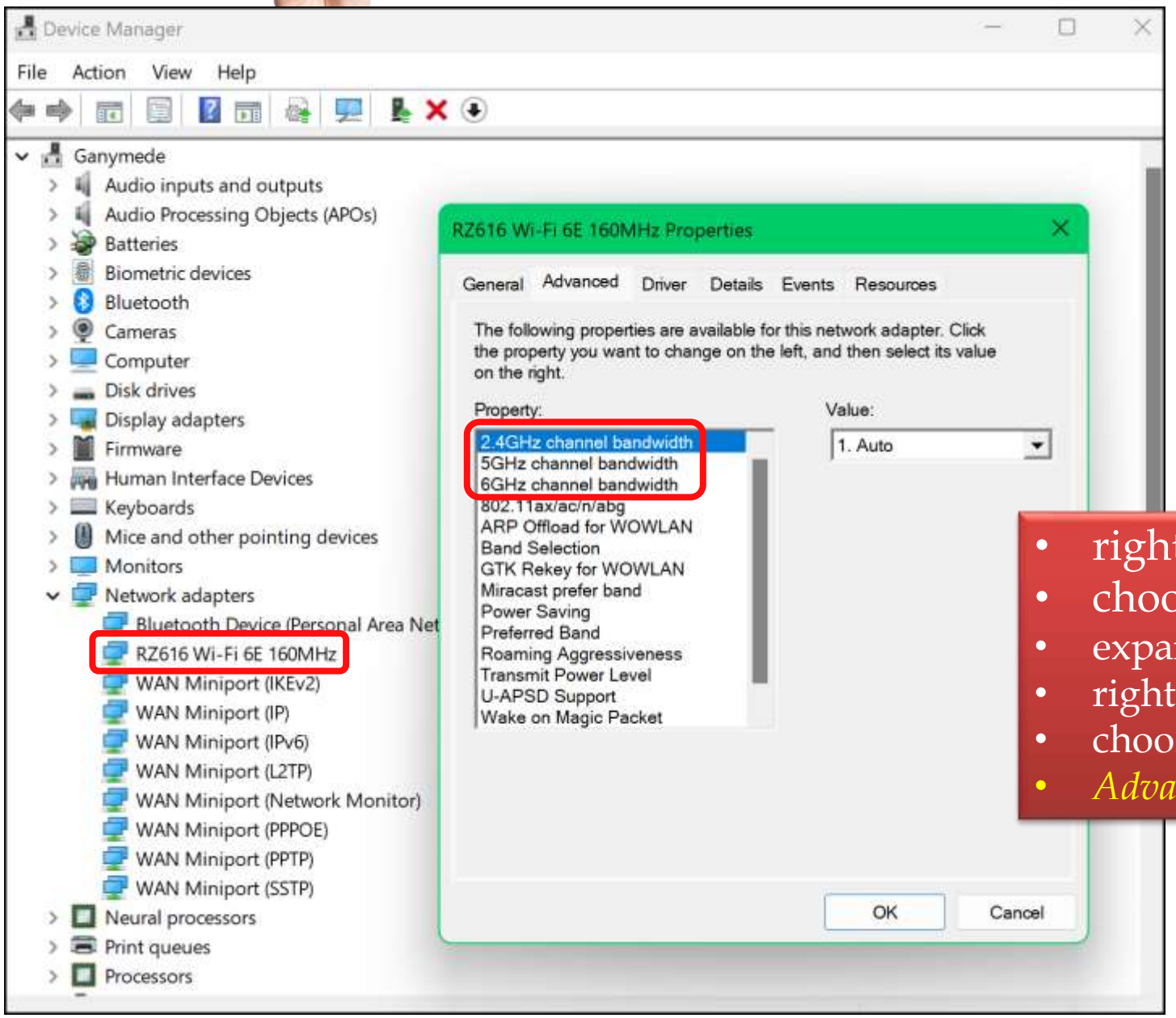
- Each band has a number of overlapping channels
- More channels means less collisions on congested bands
- Use WiFi analyser to find less congested channels
  - fewer networks using same channel
- Use channels 1, 6, or 11 on 2.4 GHz (no overlap)
- Reduce channel bandwidth
  - if using 2.4 GHz, switch from 40 MHz to 20 MHz to decrease susceptibility to interference

Auto-channel

- When the router powers on
  - scans for wireless channels in use & selects channel with least interference or congestion
  - some routers may periodically reassess channel conditions
    - switch channel if increased interference detected
- Advantages of using auto channel selection
  - convenience: eliminates need for manual adjustments
  - real-time adaptation: router can adapt to changing environments
- Disadvantages of using auto channel selection
  - router only scans for channels at startup & may not respond to changes until rebooted
  - routers may not select the best possible channel due to their scanning algorithms
- Recommendations
  - in a densely populated area with many Wi-Fi networks, consider manually selecting a channel using a Wi-Fi analyzer app to find less congested options
  - for most users, keeping the auto setting enabled is sufficient
  - monitoring network performance and manually adjusting can help

Follow Up

WiFi Bands on your computer



- right-click *Start*
- choose *Device Manager*
- expand *Network adapters*
- right-click your WiFi adapter
- choose *Properties*
- *Advanced* tab

Splitting WiFi bands at router

- Most routers use the same SSID for all bands
  - 2.4 GHz, 5 GHz, 6 GHz
- When computer connects, it selects the band to use
  - typically chooses band with strongest signal
  - may *prefer* 2.4 GHz (better range) or 5 GHz (higher speeds)
  - may choose less congested band
  - some routers can enable automatic switching of bands as conditions change
- To force the connection to a specific band
  - use different SSIDs for each band

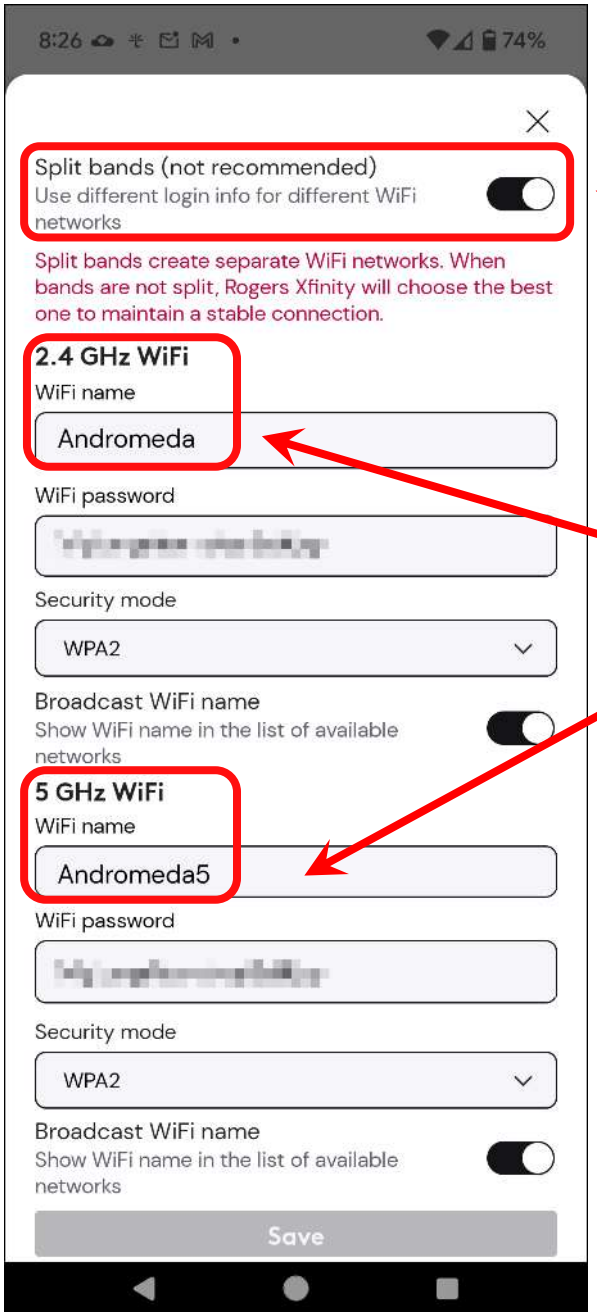
Share

Bell—splitting bands

- Login to the router's administration panel
- Select *Manage my Wi-Fi* > *Advanced Settings*
- Disable *Keep a common network name (SSID) and password across all bands (recommended)*
- Change *Network name (SSID)* for the 5 GHz band

Share

Rogers xFinity – splitting bands



Must use the Rogers Xfinity phone app to split bands into separate networks

- *WiFi*
  - *WiFi details*
    - select either band
      - *Edit WiFi settings*

Set different WiFi name for 2.4 GHz and 5 GHz bands

Another way of testing performance

- From a command prompt
  - *Start* > type *CMD*
- Type:
  - ***netsh wlan show interfaces***
  - provides metrics you can use to compare
    - Band: 2.4 GHz or 5 GHz
    - Receive rate: download speed in Mbps
    - Transmit rate: upload speed in Mbps
    - Signal strength: up to 100%

Real-world test
Three feet from router

```
Name                   : Wi-Fi
Description            : RZ616 Wi-Fi 6E 160MHz
GUID                   : 12c8d487-580d-4430-96a3-ac988b8b7adf
Physical address       : cc:5e:f8:cf:e0:5f
Interface type         : Primary
State                  : connected
SSID                   : Andromeda
BSSID                  : e2:db:d1:dd:6b:77
Network type           : Infrastructure
Radio type             : 802.11ax
Authentication         : WPA2-Personal
Cipher                 : CCMP
Connection mode        : Auto Connect
Band                   : 2.4 GHz
Channel                : 1
Receive rate (Mbps)    : 286.8
Transmit rate (Mbps)   : 286.8
Signal                 : 100%
Profile                : Andromeda
```

Signal strength almost equal

- 100% (2.4 GHz)
- 98% (5 GHz)

5 GHz 4.2x speed of 2.4 GHz

```
Interface type         : Primary
State                  : connected
SSID                   : Andromeda5
BSSID                  : e2:db:d1:e4:6b:70
Network type           : Infrastructure
Radio type             : 802.11ax
Authentication         : WPA2-Personal
Cipher                 : CCMP
Connection mode        : Auto Connect
Band                   : 5 GHz
Channel                : 157
Receive rate (Mbps)    : 1201
Transmit rate (Mbps)   : 1201
Signal                 : 98%
Profile                : Andromeda5
```

Real-world test
Indoors: 40 feet from router

```
Name                   : Wi-Fi
Description            : RZ616 W
GUID                   : 12c8d48
Physical address       : cc:5e:f
Interface type         : Primary
State                  : connect
SSID                   : Androme
BSSID                  : e2:db:d
Network type           : Infrast
Radio type             : 802.11a
Authentication         : WPA2-Pe
Cipher                 : CCMP
Connection mode        : Profile
Band                   : 2.4 GHz
Channel                : 1
Receive rate (Mbps)    : 286.8
Transmit rate (Mbps)   : 286.8
Signal                 : 79%
Profile                : Andromeda
```

Signal strength drops on both bands ~ equally

- 79% (2.4 GHz)
- 77% (5 GHz)

Same speed as beside router

- 5 GHz band 4.2x speed of 2.4 GHz band

```
Name                   : Wi-Fi
Description            : RZ616 Wi-Fi 6E 160MHz
GUID                   : 12c8d487-580d-4430-96a3-ac988b8b7adf
Physical address       : cc:5e:f8:cf:e0:5f
Interface type         : Primary
State                  : connected
SSID                   : Andromeda5
BSSID                  : e2:db:d1:e4:6b:70
Network type           : Infrastructure
Radio type             : 802.11ax
Authentication         : WPA2-Personal
Cipher                 : CCMP
Connection mode        : Auto Connect
Band                   : 5 GHz
Channel                : 157
Receive rate (Mbps)    : 1201
Transmit rate (Mbps)   : 1201
Signal                 : 77%
Profile                : Andromeda5
```

Real-world test
Outdoors: 100 feet from router

Signal strength drops more on 5 GHz than 2.4 GHz
- 69% (2.4 GHz)
- 54% (5 GHz)

5 GHz speed drops more than 2.4 GHz
- 5 GHz 1.7x speed of 2.4 GHz (receiving)
- 5 GHz 2.1x speed of 2.4 GHz (sending)

```
Name                   : Wi-Fi
Description            : RZ616 Wi-Fi 6E 160MHz
GUID                   : 12c8d487-580d-4430-96a3-ac988b8b7adf
Physical address       : cc:5e:f8:cf:e0:5f
Interface type         : Primary
State                  : connected
SSID                   : Andromeda5
BSSID                  : e2:db:d1:e4:6b:70
Network type           : Infrastructure
Radio type             : 802.11ax
Authentication         : WPA2-Personal
Cipher                 : CCMP
Connection mode        : Profile
Band                   : 5 GHz
Channel                : 157
Receive rate (Mbps)    : 272.2
Transmit rate (Mbps)   : 216
Signal                 : 54%
Profile                : Andromeda5
```

```
Name
Description
GUID
Physical address
Interface type
State
SSID
BSSID
Network type
Radio type
Authentication         : WPA2-Personal
Cipher                 : CCMP
Connection mode        : Profile
Band                   : 2.4 GHz
Channel                : 1
Receive rate (Mbps)    : 162.5
Transmit rate (Mbps)   : 103
Signal                 : 69%
Profile                : Andromeda
```

Real-world test
Outdoors: 125 feet from router

Signal strength drops much more on 5 GHz than 2.4 GHz

- 63% (2.4 GHz)
- 33% (5 GHz)

2.4 GHz band faster than 5 GHz band

- 2.4 GHz band 1.4x speed of 5 GHz band (receiving)
- 2.4 GHz band 3x speed of 5 GHz band (sending)

```
Name                   : Wi-Fi
Description            : RZ616 Wi-Fi 6E 160MHz
GUID                   : 12c8d487-580d-4430-96a3-ac988b8b7adf
Physical address       : cc:5e:f8:cf:e0:5f
Interface type         : Primary
State                  : connected
SSID                   : Andromeda5
BSSID                  : e2:db:d1:e4:6b:70
Network type           : Infrastructure
Radio type             : 802.11ax
Authentication         : WPA2-Personal
Cipher                 : CCMP
Connection mode        : Profile
Band                   : 5 GHz
Channel                : 157
Receive rate (Mbps)    : 72.1
Transmit rate (Mbps)   : 17
Signal                 : 33%
Profile                : Andromeda5
```

```
Name                   :
Description            :
GUID                   :
Physical address       :
Interface type         :
State                  :
SSID                   :
BSSID                  :
Network type           :
Radio type             :
Authentication         : WPA2-Personal
Cipher                 : CCMP
Connection mode        : Profile
Band                   : 2.4 GHz
Channel                : 1
Receive rate (Mbps)    : 97.5
Transmit rate (Mbps)   : 51.5
Signal                 : 63%
Profile                : Andromeda
```

Comparing apples to oranges

- ***netsh wlan show interfaces***
  - show signal strength as a percentage
- network analyzing apps
  - show signal strength in dBm
- Convert percentage to dBm: dBm = (percentage / 2) – 100
  - **excellent:** -50 dBm or higher (100% in *netsh*)
  - **very good:** -60 dBm to -50 dBm (80-100% in *netsh*)
  - **good:** -67 dBm to -60 dBm (66-80% in *netsh*)
  - **fair:** -70 dBm to -67 dBm (60-66% in *netsh*)
  - **poor:** -80 dBm to -70 dBm (40-60% in *netsh*)
- Practical use:
  - for most applications, including VoIP and video streaming
    - aim for at least -67 dBm (66% in *netsh*)
  - minimum for reliable connectivity
    - -70 dBm (60% in *netsh*)

Conclusions from real-world tests

- When close to router & signal strength ~75% or higher
  - 5 GHz much better speed than 2.4 GHz
- As distance/interference increases
  - 2.4 GHz surpasses 5 GHz in speed
  - at some point 5 GHz will fail while 2.4 GHz will still work
- What Internet speed do you pay for/get?
  - 2.4 GHz may provide more than your Internet speed
    - 5 GHz may not produce any speed benefit
- Your milage may vary
  - 2.4 GHz typically more crowded/more interference
  - interference (walls, electrical devices,…) may affect bands differently
- Test your situation periodically

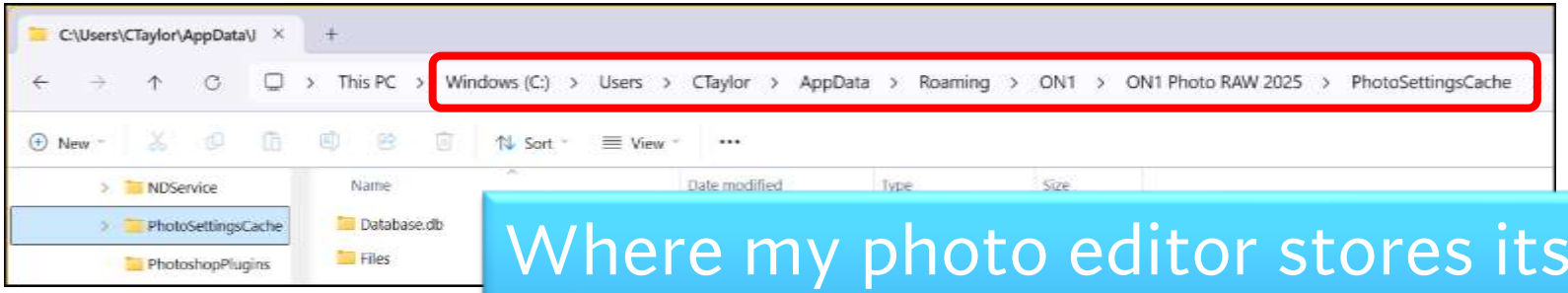
Migrating data from an old PC to a new one

- I have bought a new HP 17-cn4003ca laptop to replace to replace my old HP laptop running Windows 10 home edition that is reaching its “end of life”.
- Now that I have the new Laptop could somebody help me move all the information/data/programs from the old unit to the new one?

Bernard Lipski

Basic process
moving to new computer

- At basic level
  1. start new computer and follow prompts to install Windows
  2. install programs
     - find license keys
     - find installation media
     - install programs one-by-one
  3. restore data files from old computer
     - a tedious, error-prone process
       - depending on how organized you are
       - usually more than just *documents, photos, videos, desktop…*



Where my photo editor stores its catalogue
- with the edits for ***all*** my photos

Step 1: installing Windows

- *Start new computer and follow prompts to install Windows*

- Some backup programs claim to allow restoration to new/different hardware
- Not recommended
  - may have difficulty sorting out the differences in hardware
  - won't include custom drivers from vendor of new computer
  - almost certainly will result in less than optimum config

Steps 2 and 3

- Purpose-built programs can automate steps 2 & 3
  - *install programs*
  - *restore data files from old computer*
  - **should** also transfer info from
    - ***C:\ProgramData***
      - contains program-specific configuration data for installed apps
    - individual accounts including ***AppData***
      - contains program-specific configuration data for individual users
- Best known programs
  - Laplink PCmover Home/Ultimate
    - US$40/US$60
    - https://web.laplink.com/product/pcmover-home/
  - EaseUS Todo PCTrans Pro
    - US$50
    - https://www.easeus.com/pc-transfer-software/
  - Zinstall
    - US$129
    - https://www.zinstall.com/products/zinstall-migration-move-to-new-computer-to-windows-7-with-all-your-programs-and-files-no-reinstalls

Laplink PCmover testimonial

- In past, used Clonezilla to image old disk to disk in new machine, then rebooted & updated drivers
  - feared too much change in moving this time
    - new system Windows 11 & old system Windows 10
    - new OS as well as PC (hardware), and GPUs were different
- PCmover worked well
  - a few minor wrinkles
    - don't recall what
    - almost all apps moved over perfectly

Recommendation?

- Read vendor claims carefully
  - capabilities and restrictions vary
  - might be wise to not expect perfection
    - & might be difficult to discover what is *not quite right*

Reviews

RATING SNAPSHOT

Select a row below to filter reviews.

5 stars	146
4 stars	56
3 stars	45
2 stars	24
1 star	99

OVERALL RATING

3.3 ★★★½☆ 370 Reviews

106 out of 166 (64%) reviewers recon

Customer reviews

3.6

(754 customer reviews)

Write a Review

5 ★	315
4 ★	175
3 ★	77
2 ★	53
1 ★	134

★☆☆☆☆

Why this is a poor product.

Mikelefty

Verified Purchaser

a year ago

Did NOT do the entire job. Failed to transfer MS SQL 19, failed to duplicate NETWORK ENVIRONMENT. SETUP NEW MACHINE AT TOTALLY FIREWALLED AND INDEPENDENT. DID NOT TRANSFER OFFICE 365. i HAVE LOST 5 DAYS FIXING ALL THE ISSUES IT CREATED

★★★★★

Great product

Anonymous

Verified Purchaser

11 months ago

This software saved me hours of work by doing it for me while I slept. I didn't lose one file or photo.

★★★★★

Laplink PCmover

stsmith3103

Verified Purchaser

5 months ago

Moved my files and programs from old computer to new. Lost key for MS Office and had to install older version which I had the key. Otherwise program worked if you have the key code.

★☆☆☆☆

Not simple

EasyUser

Verified Purchase

a year ago

I am still working with their support so maybe my review will change. But this is not easy breezy fast way to move stuff. You are going to have to know and understand your computer and programs and it won't move all programs without issues. Some programs it won't move and you will still need to find any product keys you may have misplaced. The cord they send may not be compatible with a newer computer. Honestly if it was easy to send back I might just do that

Perplexity.AI: *generally don't need product keys for programs being transferred*

Stéphane's Best Practices

1. I have learned to keep the source files (i.e., downloaded from the internet, DVD, etc.) of all the software that I install, including a copy of the activation key, in a folder called "Software".
2. As Windows has a tendency to change the standard folders (e.g. My Documents, Music), I do not use them. I create a stand-alone folder, called MyData, to store ALL my data files, including the software listed in Step 1.
3. There are many programs for which you cannot change the location of the data, so I keep a text file with all of the data file locations that are not included in MyData.

4. I set up the new PC as per the standard approach. I keep a log of the changes that I do to the Windows configuration to make my life easier for the next new computer.

   For example, I have a folder called "Utilities" that contains all the utilities that I use.

   I add this folder to the Windows Path.
5. I share the folder "MyData" on the old PC.
6. I network the new PC with the old PC and access the "MyData" folder on the old PC.
7. I copy the "MyData" folder from the old PC to a new folder named "MyData" on the new PC.

8. Once the copy is completed, I have access to all my data and source files to reinstall all my programs.

   For some programs, like McAfee, you need to login to your McAfee account, and remove the old PC from the list of installation, and add the new PC.

9. Finally, I do an image backup of the new PC.

Stéphane Richard

What is POSIX?

- Portable Operating System Interface
- POSIX is a standard (IEEE Std 1003.1-2017) for Unix/Linux operating systems:
  - General terms, concepts, and interfaces
  - Definitions for system service functions and subroutines
  - Definitions for command interpretation services ("shell") and common utility programs
  - Extended rationale and historical information
- Defines application program interfaces (API's), system calls, library functions (e.g. file open, read, and write)

WINE – WIne is Not an Emulator

- Windows has a proprietary set of system calls, library functions, etc.
- WINE acts as a compatibility "layer"
- Linux developers have reverse-engineered calls to Windows API's
- WINE intercepts Windows calls and translates them to Linux (POSIX) equivalents

https://www.winehq.org

What apps/programs/software aren't compatible with Linux?

Some popular Windows software that typically won't run natively on Linux includes:

- **Microsoft Office**: While some versions can work with Wine, full compatibility and functionality are often lacking [1].
- **Adobe Creative Suite**: Applications like Photoshop and Illustrator may have limited functionality through Wine, but not all features are supported [1].
- **QuickBooks**: This accounting software generally does not run well on Linux, even with compatibility layers like Wine or Bottles [4].
- **Certain Windows-exclusive games**: Many games rely on Windows-specific technologies and may not run smoothly on Linux without significant tweaks [2] [3].

perplexity

WINE Compatibility Levels

- Platinum
  - Applications install and run flawlessly
- Gold
  - Work flawlessly with some special configuration
- Silver
  - Minor issues that do not affect typical usage
- Bronze
  - Some problems in normal use.
- Garbage
  - Severe problems, cannot be used

Top-10 Platinum List

AppDB

Home
Screenshots
Browse Apps
Browse by Developer
Top 25
Submit App
Help
Statistics
Operating systems (933)
Contact Us

User Menu

Log in
Register

Notepad++

View Screenshots

Notepad++ is a FOSS text and source code editor for Windows.

Application Details:

Developer:	[Open Source Software]
URL:	https://notepad-plus-plus.org/

Super Maintainers: About Maintainership

- Joerg Schiermeier

Be a super maintainer

Link Download Notepad++ **Link** Download Notepad++ (older versions)
For more details and user comments, view the versions of this application

Version	Description	Latest Rating	Latest Wine version tested	Test results	Comments
2.x	Version 2	Platinum	0.9.9.	1	0
3.x	Version 3	Gold	0.9.24.	5	0
4.x	Version 4	Platinum	1.1.12	18	0
5.x	Version 5	Silver	2.22	39	0
6.x	Version 6	Silver	7.20-staging	21	0
7.x	Version 7	Silver	7.20-staging	8	0
8.x	Version 8	Silver	9.17	9	0

Reservations about Linux

- I like the idea of getting away/escaping/being free from Windows, but with each Linux instalment, it is sounding like a lot of work/time to get me back to a working baseline, and I'm not feeling confident to take all of this on, on my own
- Reacted to "Re Linux…I like the..." with 👍
- ...probably initial jitters

Take it slow...

"We will go through the process... in manageable steps"

- A live-USB does absolutely nothing to an existing Windows installation (and the USB can be reused!)
- Dual-booting runs either Linux or Windows completely independently (can be reversed back to just Windows)
- Configuring the Linux desktop is similar to doing the equivalent in Windows
- Linux system updates are more flexible and faster
- Applications can be easily installed from a single, trusted source

- Many Windows apps can be run in Linux (WINE)
- Lots of help on-line including how-to web pages, video tutorials, user forums...
- You can always ask at OPCUG !!!

SuggestionBox@opcug.ca

OPCUG-Member-Forum@googlegroups.com

alan.german@opcug.ca

Share

Distrosea - Linux Online

- Don’t take it slow!
- Speed up your introduction to Linux using just your browser
- Distrosea lets you test Linux distros online

https://distrosea.com

- There are 71 distros for you to try!
- Popular distros include Linux Mint, Ubuntu, Fedora Linux and Zorin OS

Not Sure If You'll Like Li... | Test Linux distros online - | distrosea.com

DistroSea

Donate

Test drive Linux distros online!

Type here to filter...

Alma Linux

Alpine Linux

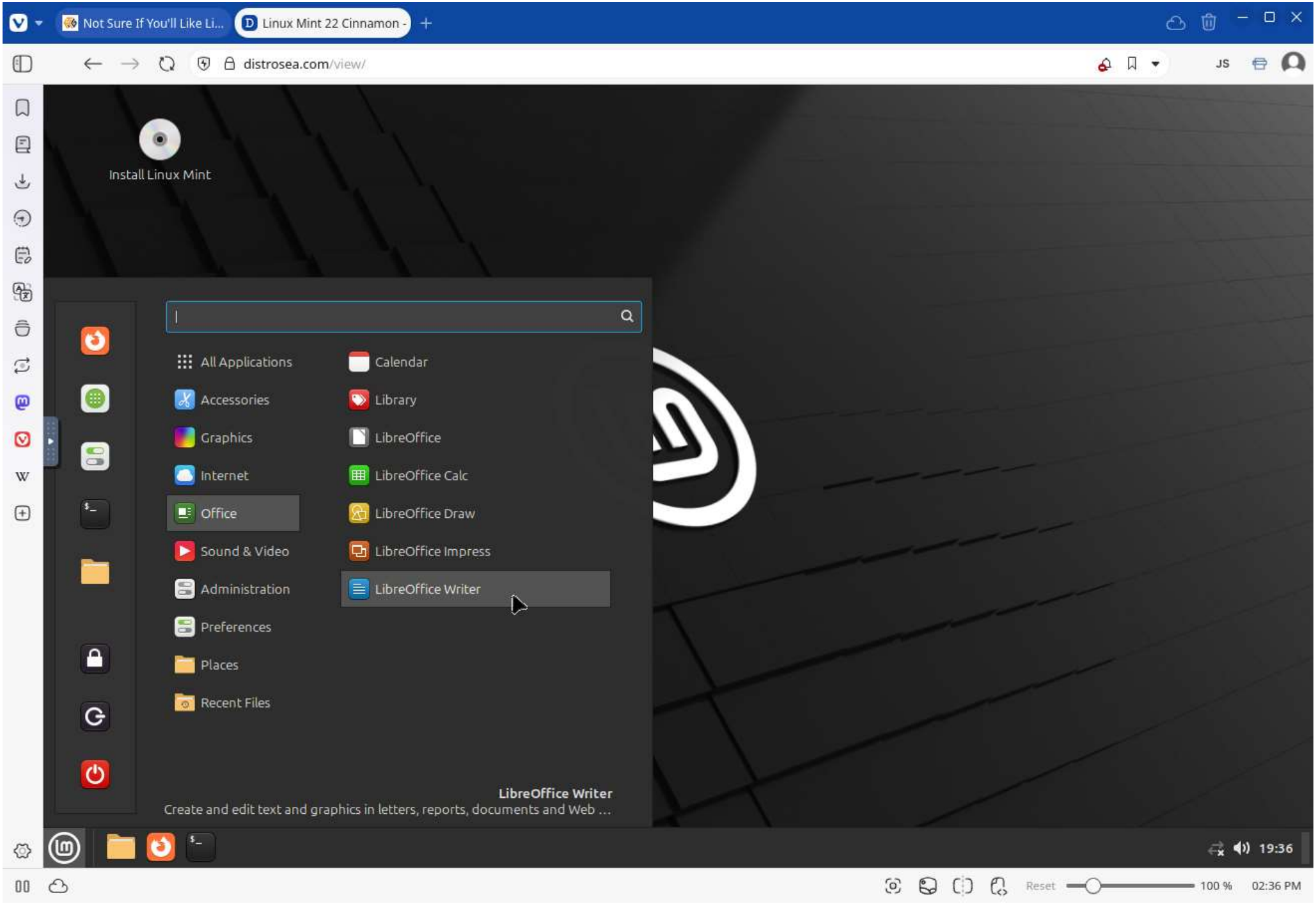
Antix Linux

Archcraft

Reset 100 % 02:43 PM

Linux Mint 22 Cinnamon

Linux Mint is a popular and user-friendly Linux distribution based on Ubuntu and Debian. It provides a polished and intuitive desktop environment, Cinnamon, Xfce or MATE, with a focus on simplicity. Linux Mint includes a variety of pre-installed applications and tools, making it a suitable choice for users seeking a stable and elegant operating system. Based on Debian and Ubuntu, it provides about 30,000 packages and one of the best software managers. Like the Ubuntu LTS versions, a major Linux Mint version is also supported for five years. Although, there are three point releases in between.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Linux Mint 22 Cinnamon -
distrosea.com/view/
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Install Linux Mint
All Applications
Accessories
Graphics
Internet
Office
Sound & Video
Administration
Preferences
Places
Recent Files
Calendar
Library
LibreOffice
LibreOffice Calc
LibreOffice Draw
LibreOffice Impress
LibreOffice Writer
LibreOffice Writer
Create and edit text and graphics in letters, reports, documents and Web ...
19:36
Reset
100 %
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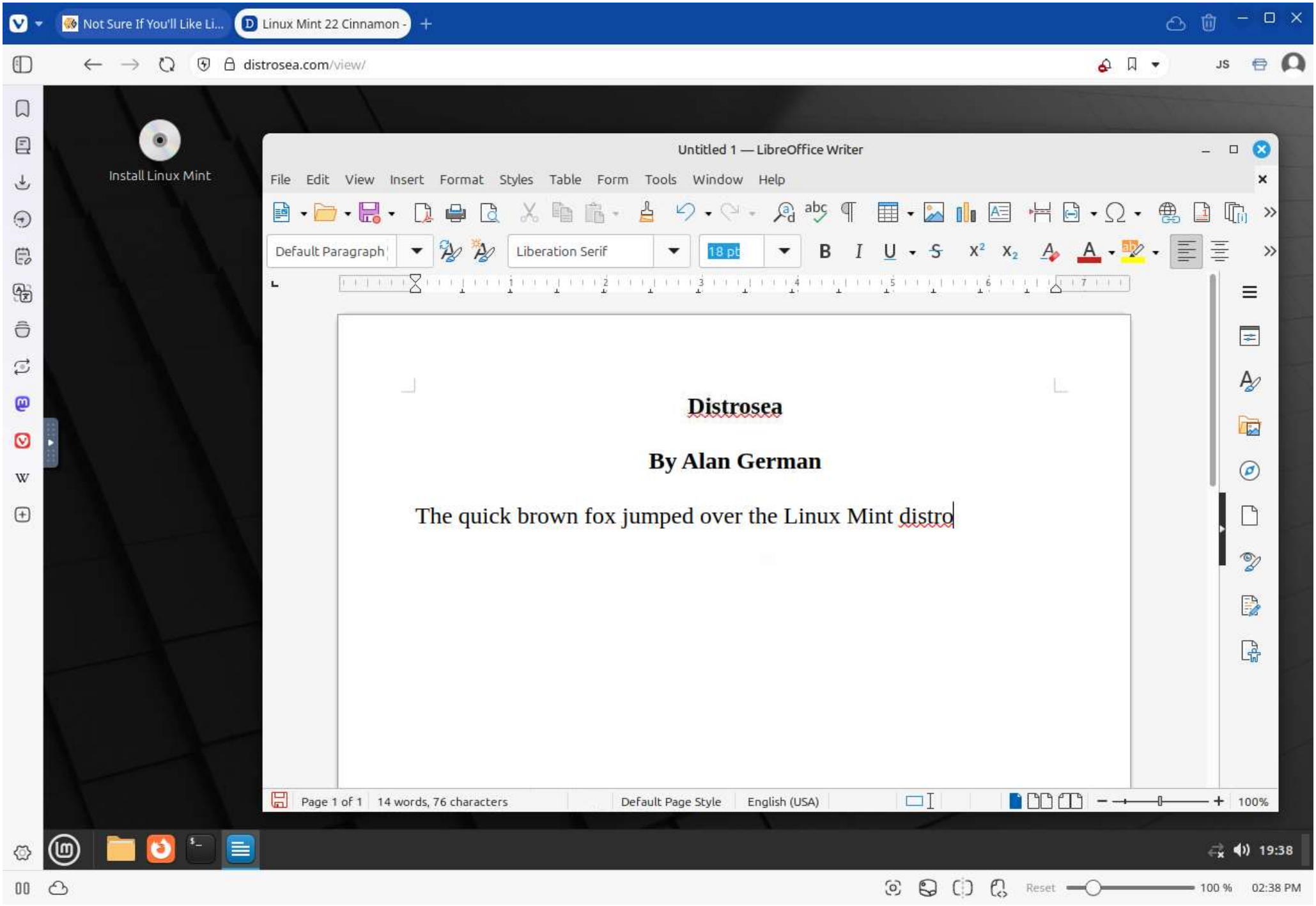
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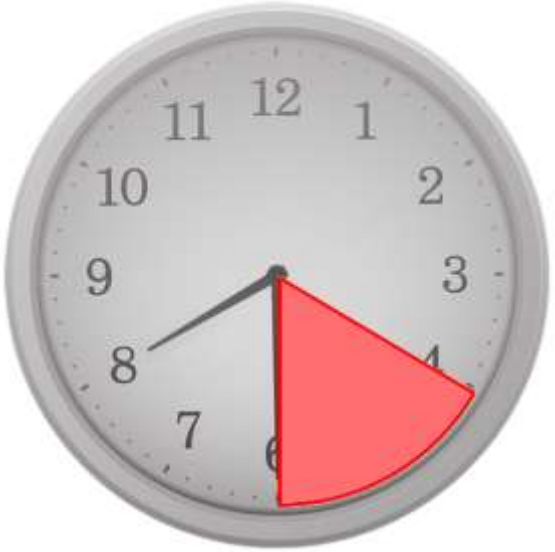
Linux Mint 22 Cinnamon -
distrosea.com/view/
Install Linux Mint
Untitled 1 — LibreOffice Writer
File Edit View Insert Format Styles Table Form Tools Window Help
Default Paragraph
Liberation Serif
18 pt
Distrosea
By Alan German
The quick brown fox jumped over the Linux Mint distro
Page 1 of 1
14 words, 76 characters
Default Page Style
English (USA)
100%
19:38
Reset
100 %
02:38 PM



Any other:

Questions

Comments

Shares?

Armchair Travel - Iceland

Lynda Buske
Ruth E. Dickinson, Tuesday Jan 21, 2025 at 2:00pm

Quick PC Tips: Enhancing capabilities and performance with free tools

Chris Taylor
Centennial, Thursday Jan 23, 2025 at 2:00pm

Keeping passwords safe with Chris Taylor

Rockcliffe Park, Thursday Jan 30, 2025 at 5:30pm

https://bibliootta walibrary.ca/en/program?text=pc+users

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We will give you an additional year's membership at no further cost!

https://opcug.ca/join-or-renew/

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Do not renew your membership !

Your membership expiry date will be extended by another year at no cost

SMARTPHONE ESSENTIALS

All the Best Apps for your Smartphone

- March 12, 2025 monthly meeting
- Useful apps for smartphones and tablets
- Android or iPhone/iPad
- Showcase your favourite app
- Send the name of the app to: S**uggestionBox@opcug.ca**
- First come – first served
- No duplicates!

No Q&A on December 25 (Feeding reindeer)

Don't forget :

Next Q&A Jan 1st

Send your questions, answers, and topics * you wish to share to:

SuggestionBox@opcug.ca

** Questions, comments, and shares can be anonymous if requested*