

East SIG Report – February 2024

After welcoming members to the February and first meeting of East SIG for 2024, host Frank Maher outlined the nights agenda below:

Presentation 1: **Q&A** with George Skarbek

Presentation 2: **Ventoy, the last flash drive you will ever need** by Frank Maher

Presentation 3: **Maintaining Old Computers** by Peter Carpenter

Presentation 4: **Scams Update** by Dave Botherway

Presentation 5: **VLC Interface Configuration** by Peter Carpenter

Q&A by George Skarbek.

Question 1: I have a question about USB ports. I helped another member connecting a monitor to a new laptop. No instructions came with the monitor which had Up and Down USB ports on the back of the monitor. The connection from the laptop to the screen needed a male-to-male USB cable. Other USB ports on the back of the monitor seemed to be for connecting peripherals. I'd be interested to know how to set this up as I've not seen a male-to-male USB cable?

Answer 1: The input on the monitor takes a square shaped USB plug similar to the connection you find to a printer. The square-shaped USB plug that connects to a printer is called a USB Type-B connector. This type of connector is typically found on printers, scanners, and other peripherals, while the smaller, rectangular USB Type-A connector is often found on computers and USB hubs.



Figure 1 – Different USB plugs and ports

The other USB ports on the monitor are the input for other peripherals, but their power is likely to be limited. For instance, when I plugged in a phone into my monitor for charging, a message displayed stated this port does not have enough power to charge a phone. Reading or writing to a USB should not be a problem. In effect the monitor becomes a hub, with the cheaper ones only being an unpowered hub. The monitor would have plenty of power for it to run, but to power a hub the voltage would have to be drawn down to 5 volts and the cheaper monitors would avoid that extra cost.

Question 2: My LG smart TV will connect to my computers C drive, but I want it to connect to one of my external hard disk drives where I keep my videos. However, I can't get the LG to connect past the "Video" folder in Windows. Is there another way I might be able to connect to the external drive to view on my TV? Would a link in the Video folder work?

Answer 2: On the few occasions I wanted to watch a video from my computer on my TV, I would put the video, slideshows or photos in the "Video" folder in Windows. A link in the video Folder won't work. Some smart TVs will find Kodi. Kodi is a free and open-source media player software application. It allows users to play and view most streaming media, such as videos, music, podcasts, and other digital media files from local or network storage media and the internet. Alternatively, most TVs would have a USB input, copy the files to a USB drive and plug that into the USB port on the TV.

[Audience member] If the TV has a USB port it should be possible to connect the external drive to that to watch your media.

Question 3: What do others do to watch content from a computer on a TV? Do they have all their videos in the "Video" folder in drive C and use that to show on their TV?

Answer 3: Normally I wouldn't recommend putting all your videos in drive C, as a full image backup would take ages and be exceptionally large.

[Audience Replies]

- I have a NAS on my home network so that makes it pretty straight forward.
- Could you cast the movies to the TV? Play the videos on the device and cast to the TV.
- In Windows Explorer, right click on a video and select "Cast to Device" to see if your TV is shown.
- If you right click on the "Video" folder in Windows Explorer, you can change its location. I use this to point to videos on my D drive, but I suspect you could point the location to your external drive. Right click on the Video folder in Windows Explorer and select Properties. Change the location shown to point to your external drive and see if that finds your videos.

Ventoy, the last flash drive you will ever need by Frank Maher

In this presentation Frank Maher presents Ventoy, a new way of booting from a USB drive. Instead of having multiple flash drives with a single ISO file on each, Ventoy enables the one flash drive, with multiple ISO files on it, to run the ISO of your choice. In addition, this one flash drive can be used for your personal file backups as well.



Frank commences by playing a YouTube video by the Ask Your Computer Guy titled “The LAST flash drive you will ever need! Ventoy FULL walk-thru and review!” Figure 2 at <https://www.youtube.com/watch?v=MIT3w-EPA9M>.

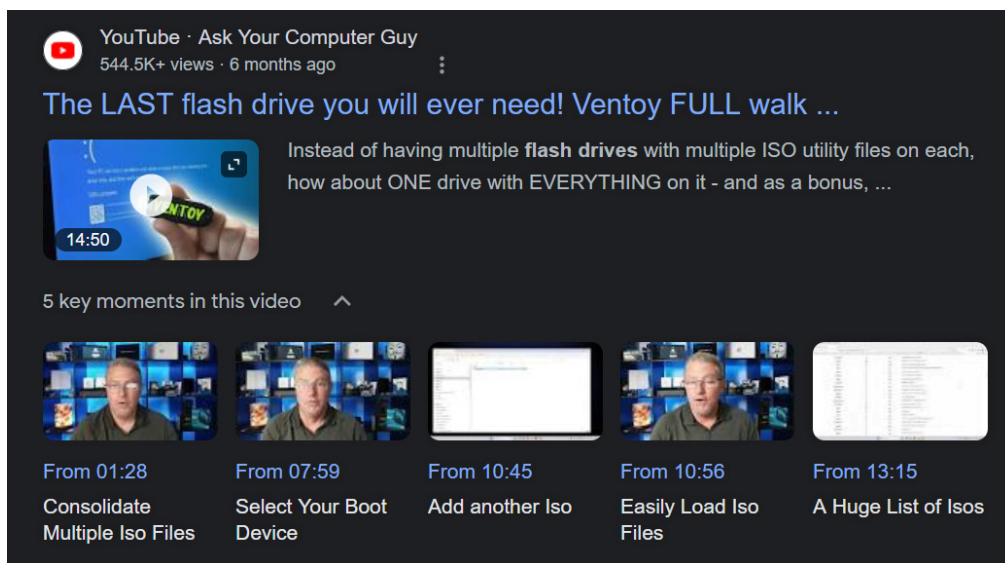


Figure 2 – YouTube banner for the Ventoy video

The video is easy to follow but you may need to play some sections more than once if unfamiliar with booting from a USB drive. At the conclusion of the video, Frank gives a few extra tips he learnt when running Ventoy.

In the video the speaker discusses the challenges of being in the IT industry, highlighting the tendency to stick to familiar methods despite advancements. He then introduces a new tool called Ventoy, which consolidates multiple ISO files, that can be run from the one USB drive, thus simplifying the old process of running ISO.

When running the Ventoy2Disk.exe file, Ventoy creates two partitions on the USB drive, a hidden partition containing Ventoy and an empty partition on which ISO or other image files can be copied to.

The speaker demonstrates how to download Ventoy, create a bootable drive, and add various ISO files for utilities like Windows installation, Linux, and recovery tools like Hiren's BootCD and Mediacat.

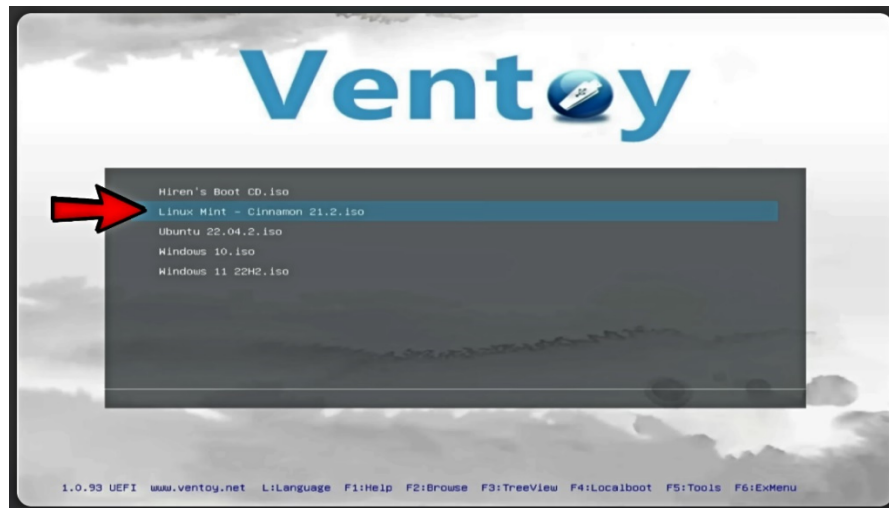


Figure 3 – The Ventoy boot screen displaying the various ISO files available from which a user can boot from.

The speaker recommended loading Windows installation ISO's in order to give quick access to Window repair options. This feature was demonstrated in the video and is shown in Figure 4. Both Linux Mint and Hiren's BootCD run as Live versions so are not installed on the PC when run. The speaker also suggested that the USB flash drive used, can be used for personal file backups using a program called FBackup. FBackup was also demonstrated in the video. For this to be of much use a large capacity flash drive would be needed.

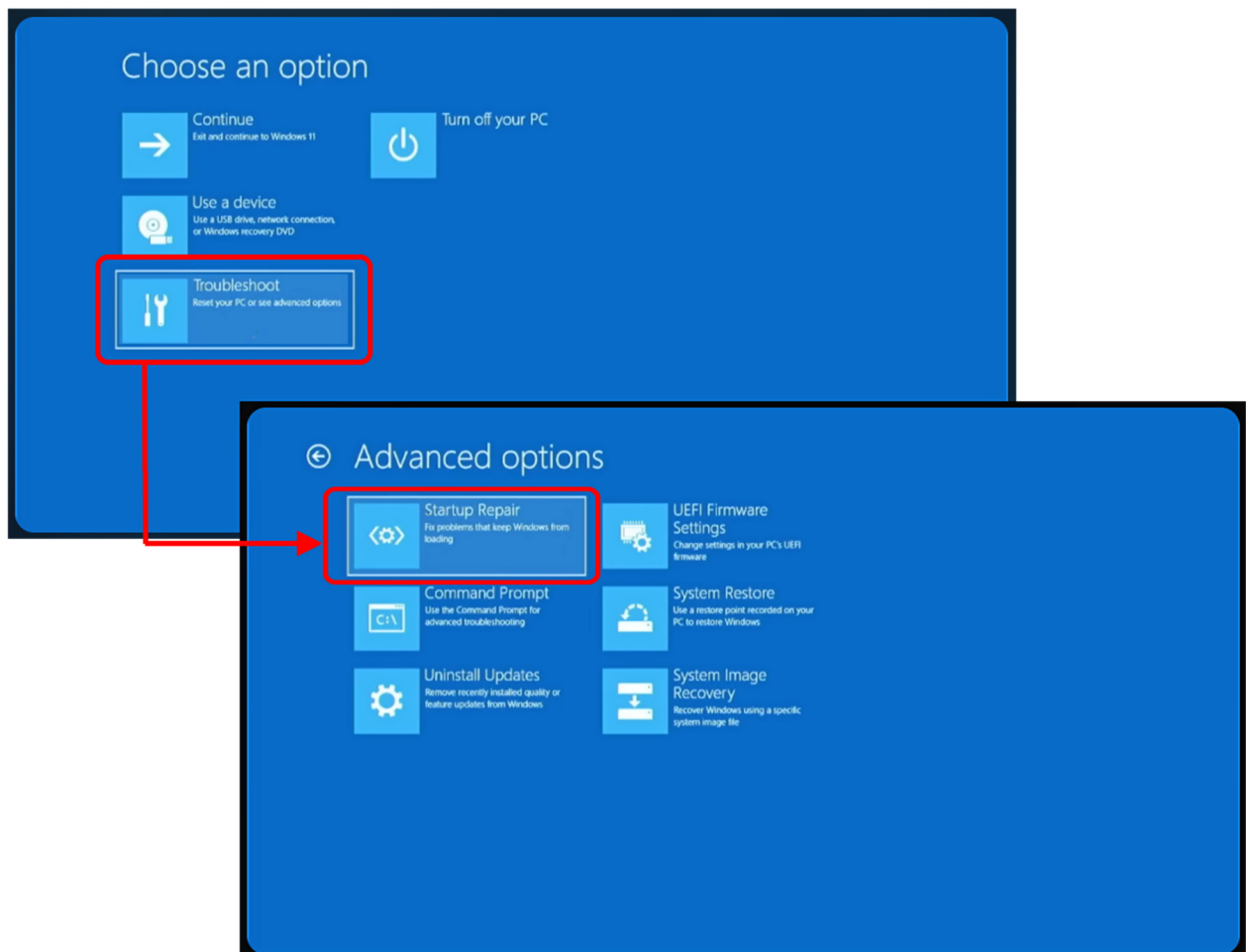


Figure 4 – Window ISO file “Startup Repair” options.

The size of the USB drive needed depends how many ISO files you plan to store on it. The speaker made the following recommendations:

- 32GB USB 3.0 (for very few ISO files and/or VERY few personal files):
- 64GB USB 3.0 (for fewer ISO files and small-to-medium personal files):
- 128GB USB 3.0 (for more ISO files and/or larger personal files):
- 256GB USB 3.0 (for even more ISO file and/or TONS of personal files): (recommended for future expandability):
- 512GB USB 3.0 (for the power users with LOTS of ISOs and TONS of personal files)

The speaker emphasizes the versatility and convenience of Ventoy, recommending it as a comprehensive solution for IT troubleshooting needs. Ventoy can be downloaded from <http://www.ventoy.net>. For those unsure where to download ISO files, the Ventoy website displays an option from its main menu that displays an extensive list of trusted ISOs.

A second YouTube video by Christopher Barnett at ExplainingComputers.com titled “Ventoy: Multi-boot USB Drive Tool” at <https://www.youtube.com/watch?v=-7APoZzNPYU> is another excellent video demonstrating how to install Ventoy on a Windows computer or on Linux.

In this video from "Explaining Computers," the speaker introduces Ventoy, an open-source tool for creating bootable USB drives capable of holding multiple ISO or image files. The speaker demonstrates how to download, install, and use Ventoy on both Windows and Linux systems. He shows how to install Ventoy on a USB drive, copy ISO files to it, and boot from the Ventoy drive to select and run different operating system images. Additionally, he highlights Ventoy's feature that allows booting from ISO files located on local drives, not just those on the Ventoy USB drive. Finally, the host concludes by summarizing the benefits of using Ventoy for managing various operating system images.

Franks Tips:

- After installing Ventoy and inspecting the flash drive to confirm that the software has loaded correctly, Frank discovered that the drive appeared empty, indicating that it hadn't loaded properly. Ventoy is installed on a hidden partition of the flash drive, making it less apparent that the installation has been successful, as Frank initially assumed.
- When loading Windows 11, Microsoft's secure boot feature may prevent the software from booting. However, Frank discovered that a signature number recognized by Microsoft soon appears, which needs to be entered to enable booting.

Maintaining Old Computers by Peter Carpenter

Introduction: In this presentation Peter Carpenter demonstrated how he revived an old 2009 first generation Intel i7-920 computer, that had not been used for a number of years, through cleaning and maintenance. The process was not difficult, but one that required attention to detail and care. Peter's presentation highlights an issue often encountered by users who might replace a computer when a good clean-up is all that is needed to stretch out its useful life.

Incident Overview: A common yet critical issue often encountered by users is the sudden shutdown of computers without warning or on-screen prompts. In such situations, diagnosing the root cause becomes important to ensure the durability and optimal performance of the system.

Peter recently faced such a predicament with an old desktop computer he was restoring. He observed frequent spontaneous shutdowns, prompting him to investigate the matter further. Upon booting into the computer's BIOS, Peter was alarmed to discover a disturbing "Current CPU temperature" reading of 97°C (prior to it immediately shutting down again), indicating a severe overheating issue.

Diagnostic Process: Recognizing the need to resolve the situation, Peter set about identifying the underlying cause of the overheating. His thorough approach involved a series of systematic steps which are outlined below:

- 1 **Visual Inspection:** Peter removed the side panels of the PC, revealing a significant accumulation of dust covering various components, including the CPU's fan, heatsink and motherboard. Once the fan and heatsink shown in Figure 5 were removed, the true extent of the dust buildup was revealed.

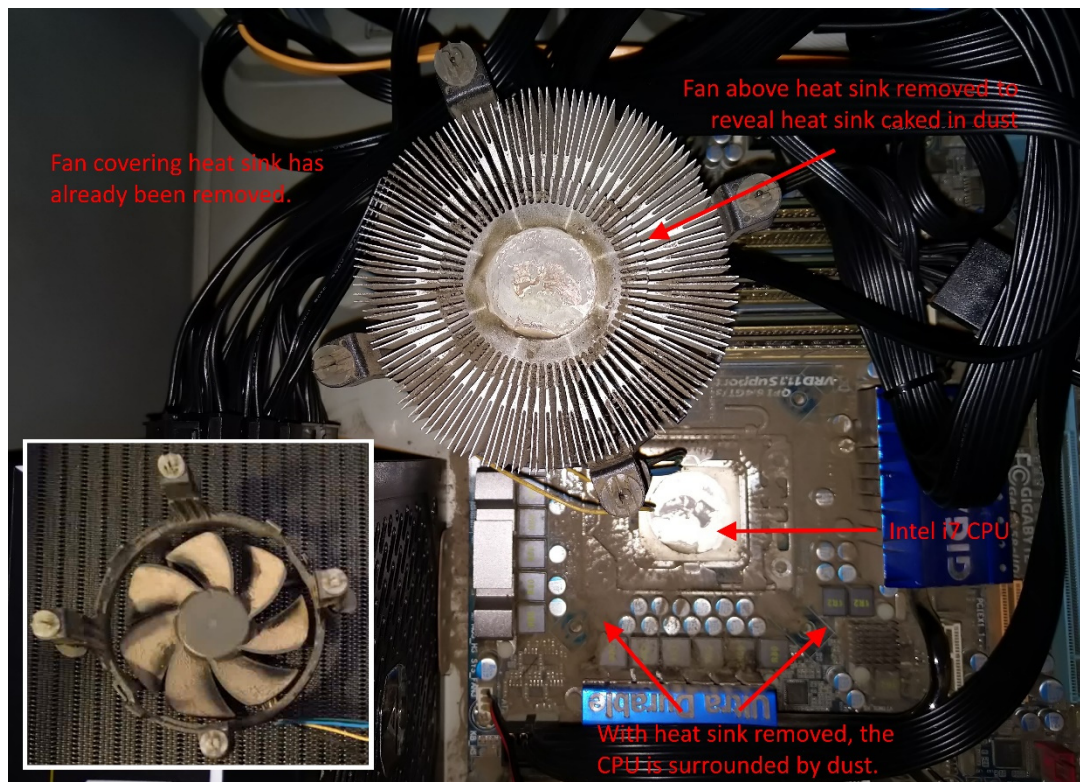


Figure 5 – Dust accumulation in Peter's computer prior to cleaning.

2. **Documentation:** Prior to disassembling any components, Peter documented the setup through photographs to enable easy reassembly.
3. **Component Cleaning:** With the aid of appropriate tools and cleaning materials, Peter carefully cleaned the heatsink, fan, and surrounding components. The removal of dried thermal paste residues from the surfaces of the copper base of the heatsink and from the surface of the CPU was an important element of the cleaning process.



Figure 6 – Heatsink fan before and after cleaning

4. **Thermal Paste Replacement:** Recognizing the importance of thermal conductivity in heat dissipation, Peter replaced the dried thermal paste on the heatsinks copper plate and on the CPU to ensure ideal contact between the two surfaces when reassembled.

Since the heatsink had no moving parts, Peter opted to clean it using water and a brush. He then left the heatsink out in the sun to dry, as depicted in Figure 7. Figure 8 illustrates the blue coloured tool Peter used to carefully remove the dried thermal paste from the surface of the CPU, ensuring minimal damage.

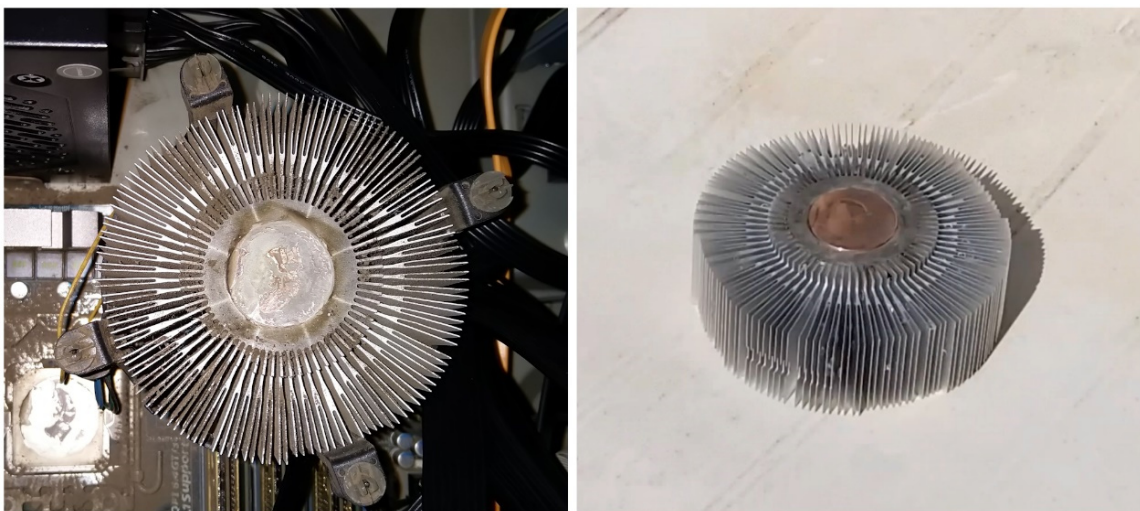


Figure 7 - Heatsink before and after cleaning

5. **Preventive Measures:** To lessen the risk of damage to the CPU pins, Peter refrained from removing the CPU from its socket, as the likelihood of dust penetration was deemed minimal.

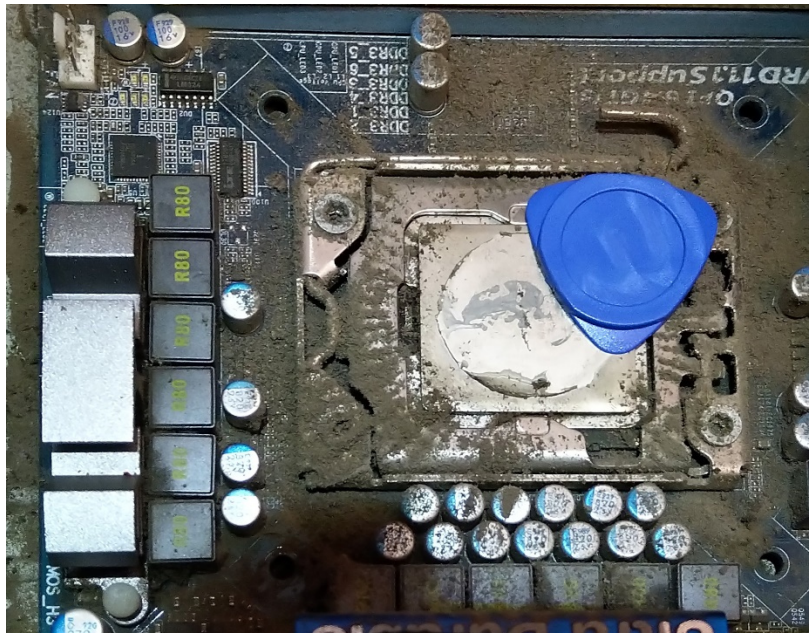


Figure 8 – CPU and motherboard before cleaning with the tool shown used to remove dried thermal paste.



Figure 9 – A clean CPU & heatsink-fan combination ready for thermal paste and assembly

Resolution: Following the thorough cleaning and maintenance treatment, Peter carefully reassembled the components with the aid of the photographs taken before removal of cables, fan and heatsink. He applied new thermal paste to the heat sink and when reassembled conducted a temperature stress test to evaluate the effectiveness of his repairs.

Outcome: The temperature stress test yielded much better results, with the CPU's maximum temperature reduced from 97°C to 70°C, with normal operating temperature stabilized at 39°C. With freshly cleaned components and the inclusion of a new SSD, Peter's Intel i7-920 CPU now operates with renewed vigour.

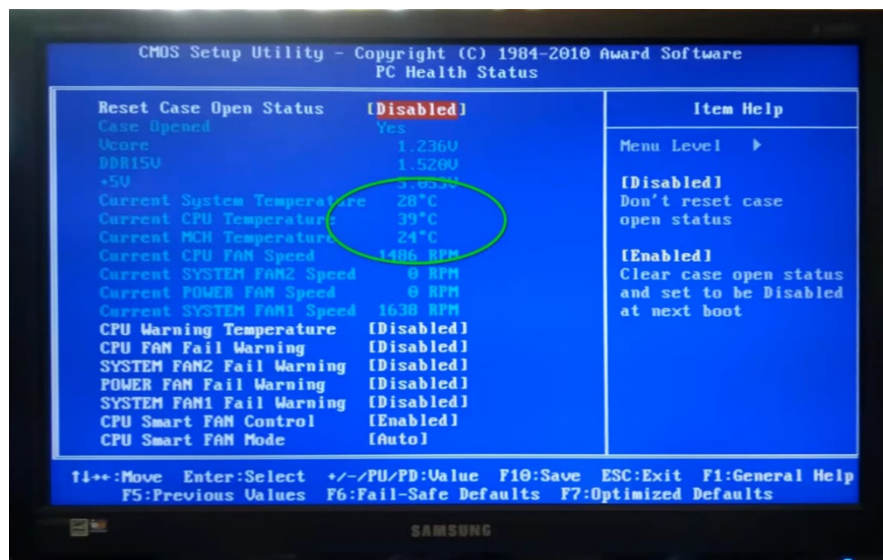


Figure 10 – BIOS showing “Current CPU Temperature” of 39°C.

Laptop computer maintenance

After successfully reviving his old computer, Peter employed the same cleaning treatment when his laptop began experiencing shutdown issues, also suspected to be caused by overheating. Removing a few screws from the laptops base reveals the inner components, which can be cleaned in a similar fashion to that used previously.



Figure 11 – The laptops fan assembly before and after cleaning.

When the laptop's base plate was removed, the fan assembly depicted in Figure 11 was found to be caked in dust. The fan assembly was detached for cleaning by removing an additional 5 screws, but its power cable was left connected for safety. Upon removal of the fan assembly, the fan's outlet vent, shown in Figure 12, was also found to be caked in dust and was subsequently cleaned using a small brush.

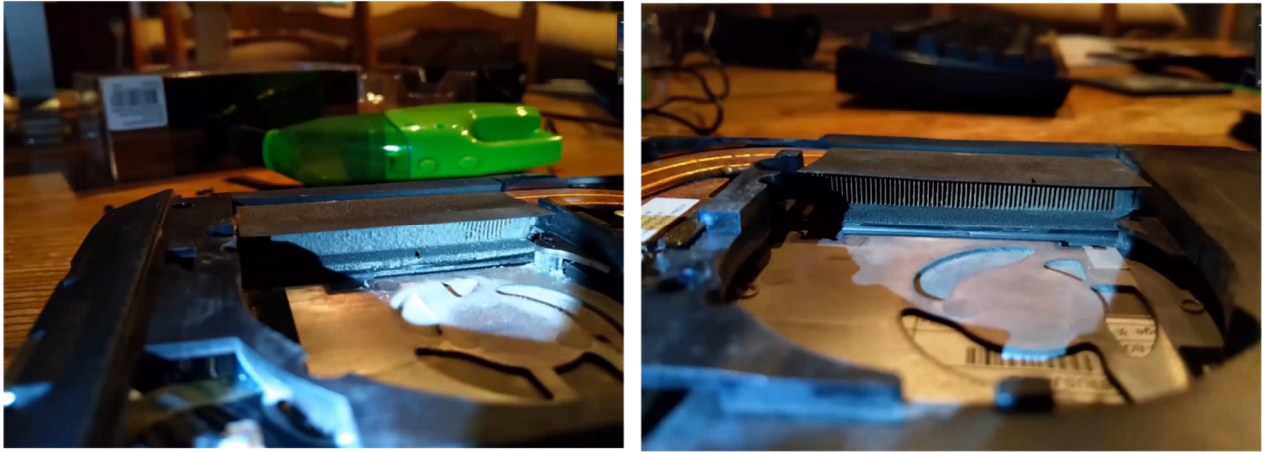


Figure 12 – The laptops outlet vent before and after cleaning.

Recommendation: Peter recommended users incorporate regular cleaning and maintenance routines to prevent dust accumulation and lessen potential hardware issues, thus prolonging the lifespan of their computing devices. Additionally, periodic monitoring of temperatures and performance measurements can aid in the early detection and prevention of future failures.

Conclusion

Peter's practical approach to diagnosing and addressing the overheating issue demonstrates the significance of regular maintenance in preserving the operation and performance of aging computer systems. Through meticulous cleaning, Peter successfully revived his old i7 computer and laptop, both which suffered overheating issues.

Tips

Following Peter's presentation, audience members gave their own tips and antidotes on the topic of dust penetrating computers. These tips were important enough that they have been included in this report below:

Power boards: Power boards are typically positioned on the floor with their sockets facing upwards, making them prone to accumulating dust over time. Unused sockets on power boards are especially susceptible to gathering dust, which can pose a potential fire hazard. A fireman friend cautioned a member about the risks associated with dust accumulation in power boards sockets, recounting instances where house fires were caused by dust infiltrating these sockets in moist environments, leading to ignition. To alleviate this risk, it is advisable to insert safety plugs similar to those shown in Figure 13, into any unused sockets on power boards.



Figure 13 – Safety power plugs

Heatsink Fans: At first glance, the heatsink fan depicted in Figure 14 might seem acceptable. However, upon closer inspection, while the trailing edge remained relatively clean, the leading edge was heavily caked with dust. The dust accumulation on the leading edge disrupted the airflow dynamics within the PC. Instead of creating a proper airflow, the thick layer of dust on the leading edge created a barrier, hampering efficient cooling and leading to the computer overheating. A seemingly minor dust accumulation is sufficient to significantly disrupt the laminar flow and cause cooling problems.



Figure 14 – Dust accumulated on the fans leading edge.

Locating a Desktop: The worst place to have a tower desktop PC located is on the floor and on a carpet. The PC should be at least 15cm above the floor or ideally on a desk.

Laptops not Starting: I encountered an issue where my relatively new laptop wouldn't start up. After some troubleshooting, I discovered a common solution for laptops that often refuse to power on. Holding down the power button for an extended period can initiate a restart. This problem is often attributed to Windows not being shut down properly. The same procedure often works for smart TVs and other media devices.

Scams Update by Dave Botherway

Dave regularly monitors the government ScamWatch website to stay updated on recent scams, comprehend their nature and identify emerging trends. His monitoring of the site reflects the increasing importance of the issue, given the escalating prevalence of scams globally.

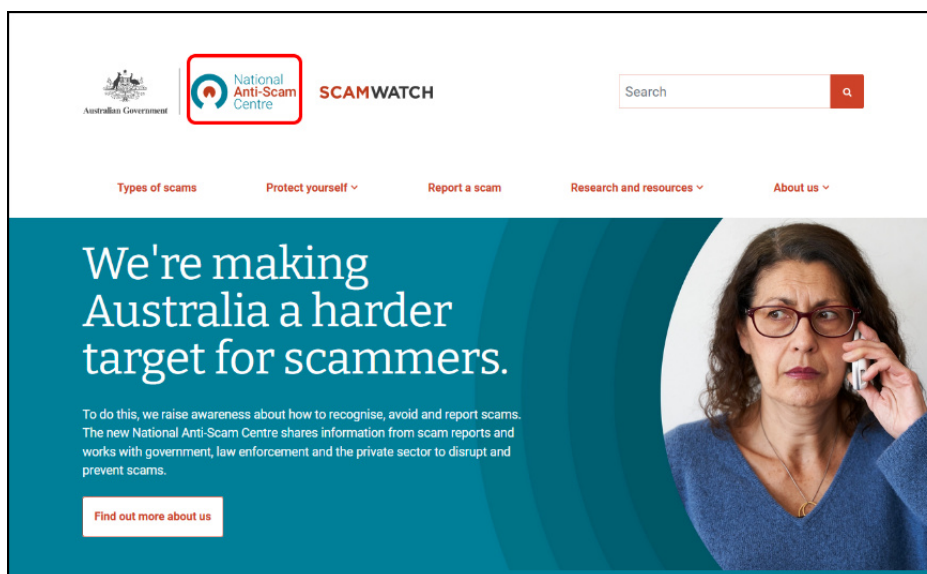


Figure 15 – ScamWatch website

ScamWatch.gov.au

The Australian Government has established the ScamWatch website (<https://www.scamwatch.gov.au>), which serves as an important resource for individuals like Dave. Of particular interest to him is the "News and Alerts" section featured further down on the site's homepage. Notable scams trending at the time of his presentation includes HSBC bank impersonation scams, fake Taylor Swift ticket scams, and counterfeit job advertisements.

National Anti-Scam Centre Initiative

A recent government initiative, the "National Anti-Scam Centre," aims to bolster the efforts of the ACCC's ScamWatch service. By bringing together experts from various sectors, including government, law enforcement, and consumer groups, the Centre aims to fortify Australia's defences against scammers.

The Little Black Book of Scams

An updated version of the "Little Black Book of Scams" dated July 2023 highlights impersonation scams as the top threat. Scammers employ deceitful tactics, posing as trusted entities such as law enforcement agencies, government bodies, banks, and reputable businesses. Through phishing emails and messages, they attempt to extract personal information from unsuspecting victims, often masquerading as friends or family members. Sample pages from the Little Black Book are shown in Figure 16.

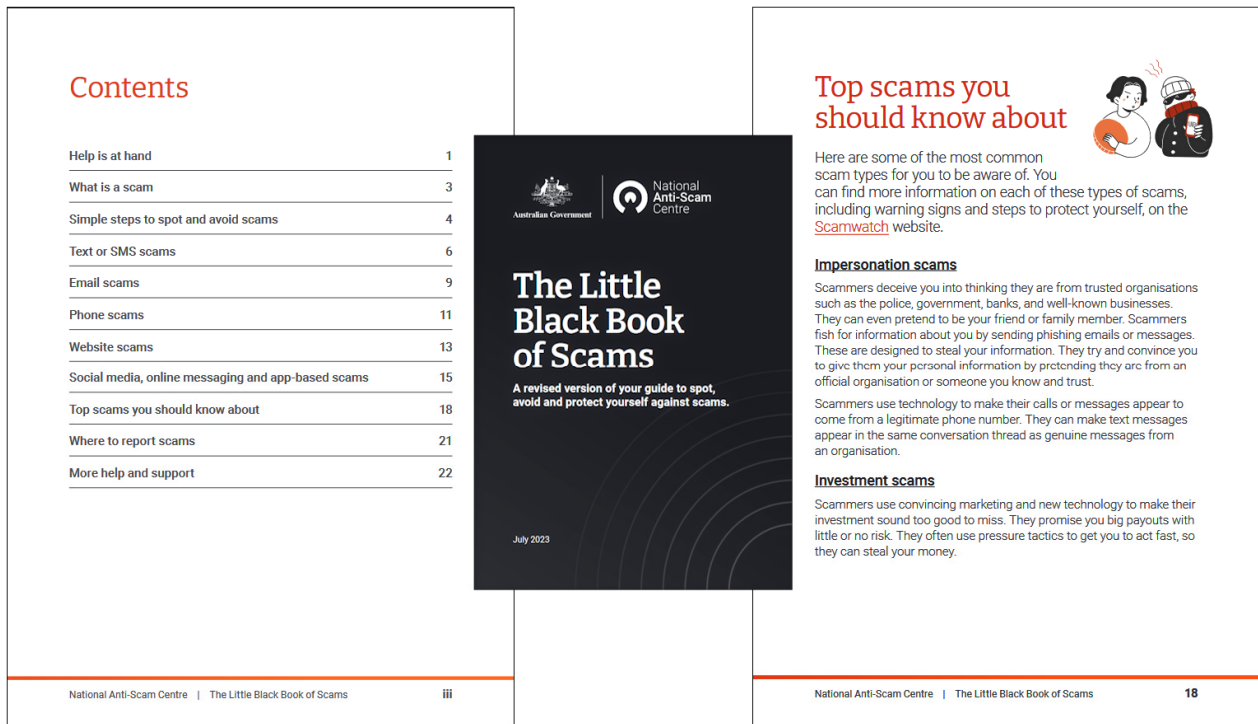


Figure 16 – The Little Black Book

Safer Internet Day

On February 6th, Safer Internet Day urged individuals to "Connect, Reflect, Protect." This initiative emphasized the importance of online safety and encourages visits to [eSafety.gov.au](#) for further information and resources.

- **Connect** safely by keeping apps and devices secure and reviewing your privacy settings regularly.
- **Reflect** on how your actions online may affect others or your safety.
- **Protect** yourself and others by visiting [eSafety.gov.au](#) to find out how to stay safe online and report online abuse.

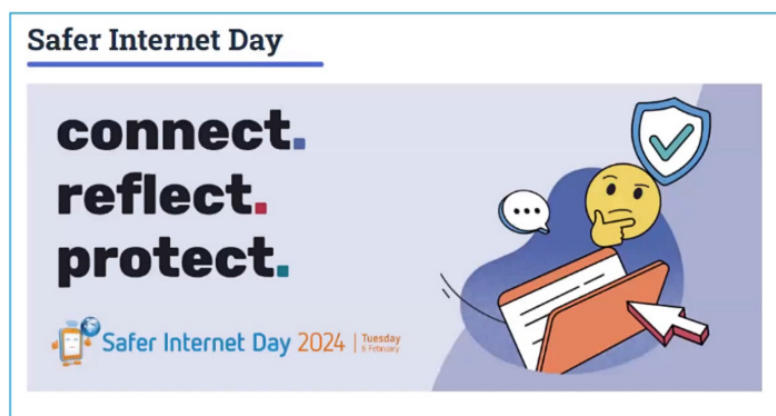


Figure 17 – Safer Internet Day

Statistics from <https://www.scamwatch.gov.au/research-and-resources/scam-statistics>

Three of a number of tables taken from the ScamWatch website that Dave felt were particularly relevant to many of our members are shown in Figure 18, 19 & 21.

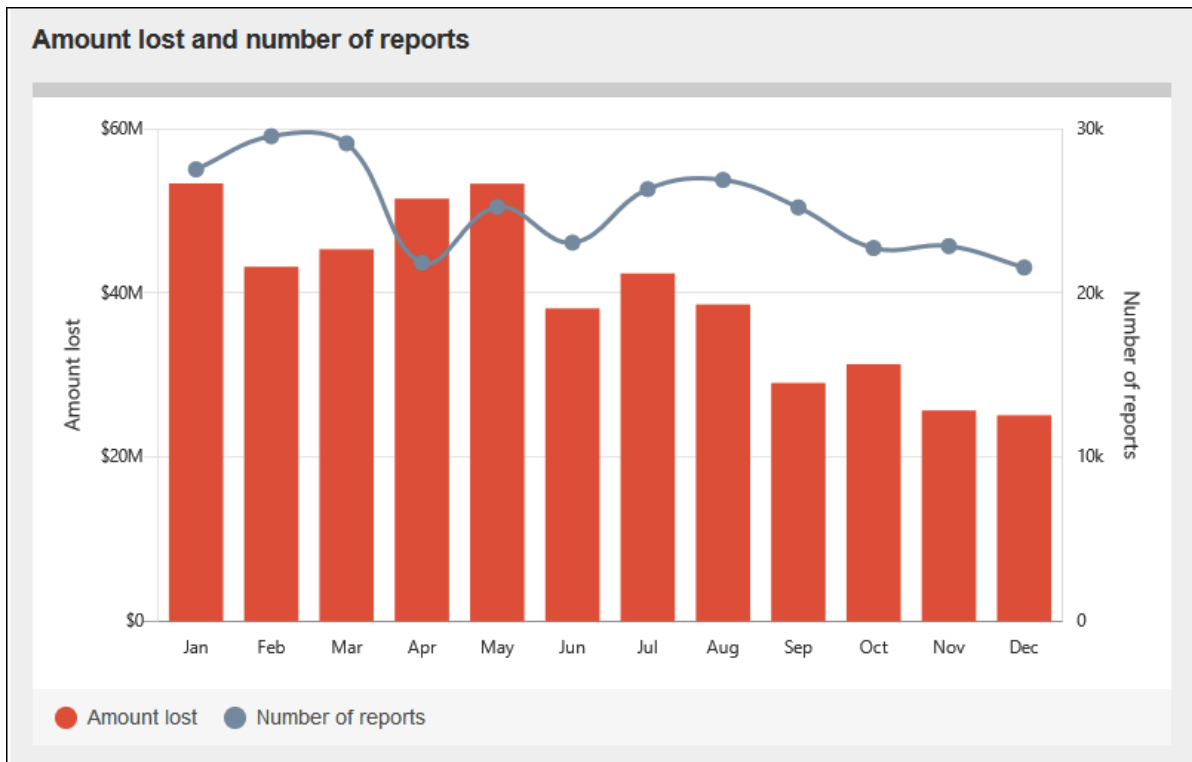


Figure 18 – Amount of money lost & Number of reports

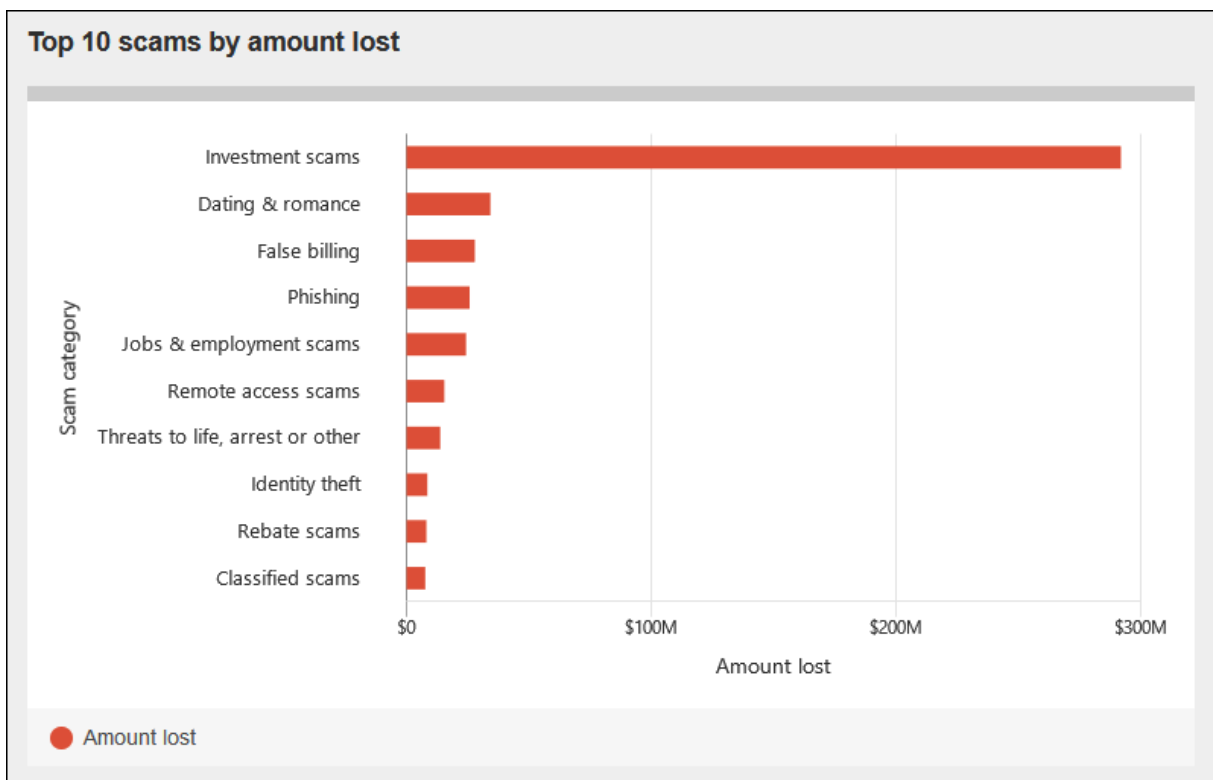


Figure 19 – Top 10 scams by amount of money lost.

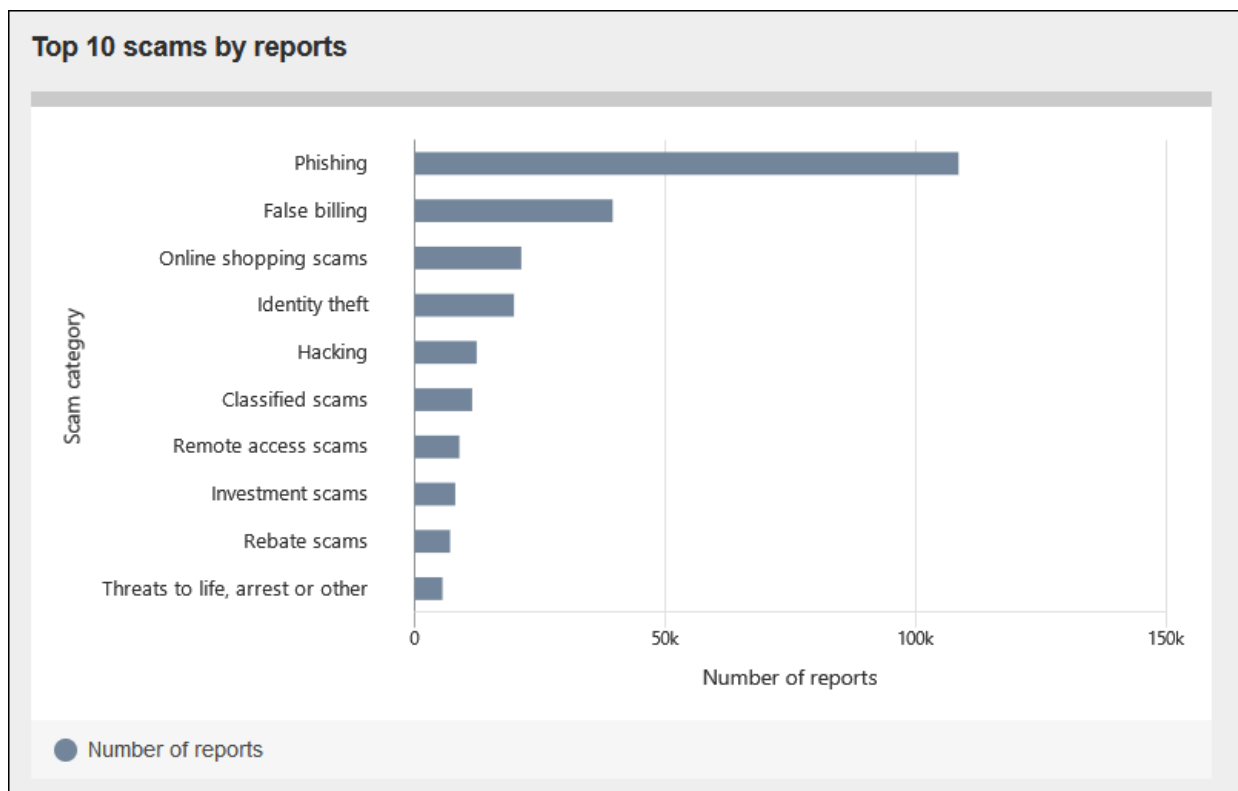


Figure 20 – Top 10 scams by number of reports

The Investment scam is currently the top scam for loss of money by a very large margin. The type of scam most common are the Phishing scams, where people are responding to false messages and opening documents without thinking where they might be from. Finally, the over 65 age group is the most alarming for us with the largest number of reports of these scams and this group has lost the largest amount of money.

Current Problem Areas

- 1 Time-base opportunists: Online purchases that have to be made urgently before time runs out such as Christmas gift deliveries, purchases from Boxing Day sales, Valentines day, Taylor Swift tickets, Easter gifts etc
- 2 Job Opportunities: These scams relate to fake jobs where the scammer might ask for your bank details to pay your wages into.
- 3 Selling / Buying: These scams are where the buyer or seller on websites such as Facebook Marketplace & Gumtree is not genuine. Facebook Market Place seems rife with scams recently and things are getting worse. Care is needed when using Gumtree, as this writer can attest, as there are more fake buyers than real.
- 4 Increasing sophistication: These scams include the use of AI and a scam called “business email compromise”.

Business email compromise scam

Business email compromise scams, categorised by fraudulent email interceptions and impersonations, pose a significant threat to individuals and businesses across various sectors. A recently reported case on the television program "A Current Affair" involved a luxury car purchase resulting in a \$100,000 loss.

In the highlighted case, scammers infiltrated the email systems of a car dealership, assuming the identity of legitimate representatives. Emails exchanged between the purchaser and the dealership were intercepted and redirected to a "man in the middle", enabling the perpetrators to manipulate

communication channels. By altering bank details within email correspondences, the scammers diverted payment intended for the dealership to their own account, evading detection well after the funds were transferred.

To prevent such scams, vigilance and verification measures are paramount. Simple steps, such as confirming payment details via phone calls to trusted contacts, can prevent fraudulent transactions

The real estate sector, characterized by substantial financial transactions and limited prior interactions between parties, is particularly susceptible to "man in the middle" scams. Another widespread scam of this nature involves Booking.com, with bookings for holiday accommodations hijacked by "man in the middle". Heightened awareness and verification procedures are crucial for mitigating risks within these industries.

The televised report available on YouTube provides a valuable insight into the modus operandi of scammers and highlights the necessity of proactive measures to protect against financial fraud.

Refer https://www.youtube.com/watch?v=Wk_nS9plbkQ

Before transferring large sums of money, Dave transfers a small amount, such as \$11.34, then contacts the firm to requested whether the money was received and how much it was. If the amount was correct, Dave would then have the confidence to then transfer the larger amount. This process gives him the confidence the larger amount is not likely to involve the man in the middle scam.

VLC Interface Configuration by Peter Carpenter

VLC is one of the most popular and versatile media players for Windows. Most users employ the standard toolbar configuration, with controls as depicted in Figure 21. In his presentation, Peter Carpenter demonstrated how additional functions could be easily added to the toolbar with minimal effort, thereby enhancing its usefulness and convenience.

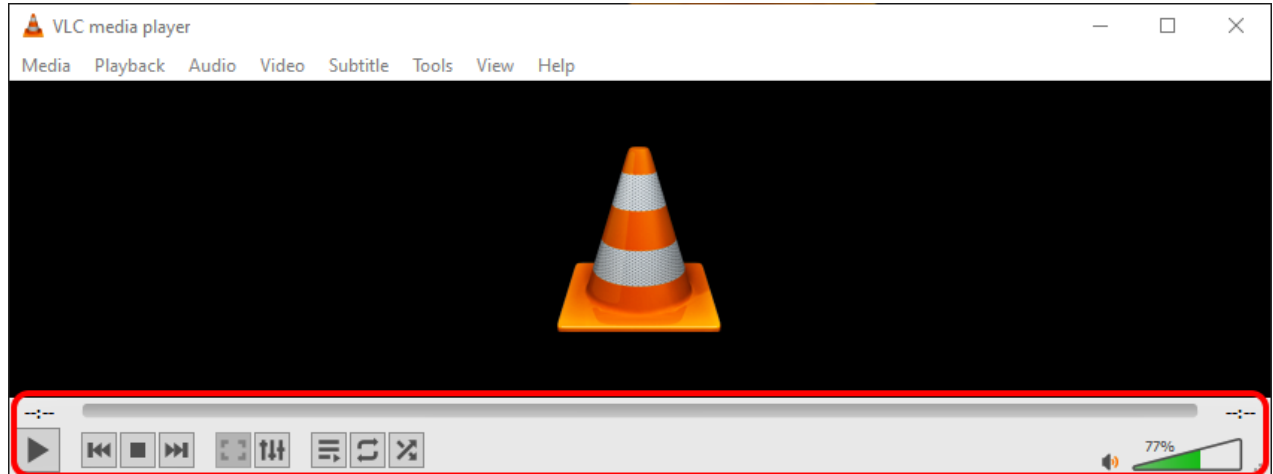


Figure 21 – VLC Standard toolbar

To customize VLC's toolbar, select "Tools" and then "Customize Interface..." from the VLC menu, as illustrated in Figure 22.

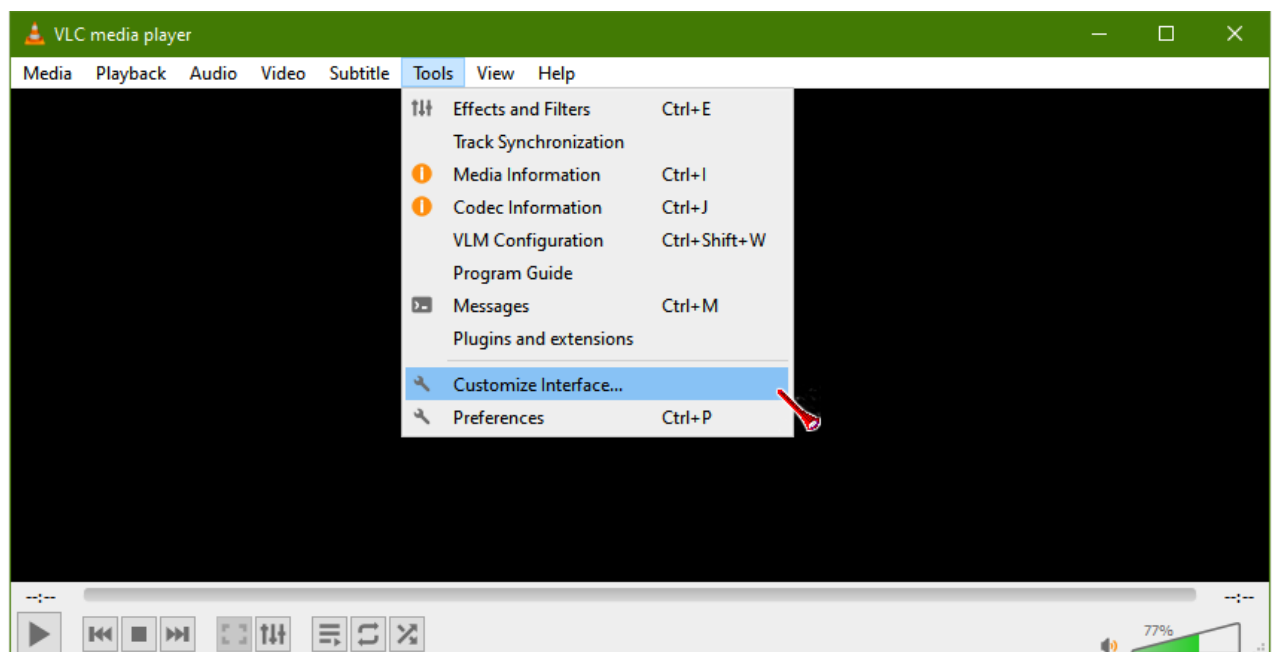


Figure 22 – VLC Tools → Customize Interface option

Navigate to the "Main Toolbar" tab, depicted in Figure 23, to add extra icons. Some of the additional functions Peter has incorporated into his toolbar include Snapshot, A→B Loop (for continuous replay of a section), Frame by Frame, 10-second Step Backward, 10-second Step Forward, and others.

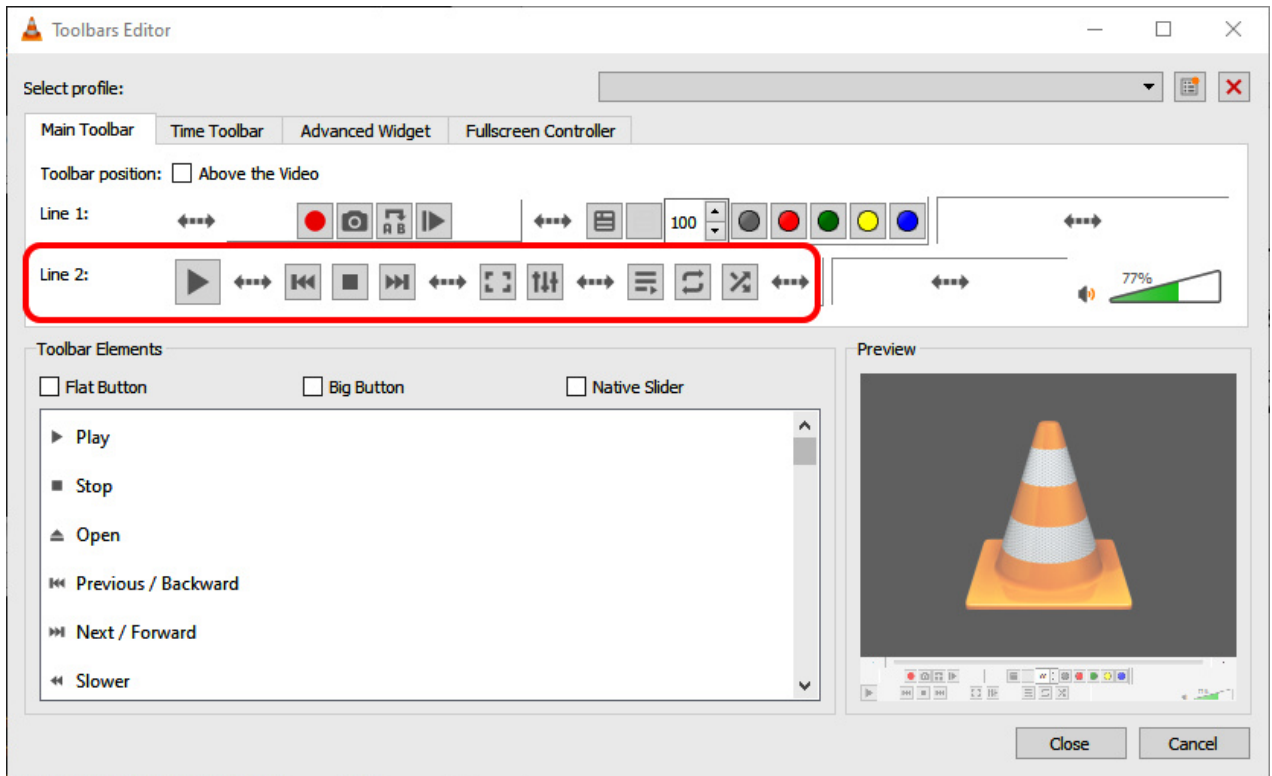


Figure 23 – Toolbars Editor window

From the Toolbar Editor's Main Toolbar tab, Peter selects the new functions and adds them to the toolbar by dragging the icons onto "Line 2:". To organize the icons into groups, the Expanding Spacer is used extensively, with the Play function centred similarly to Windows 11. The toolbar configuration Peter employs is shown in Figure 24.

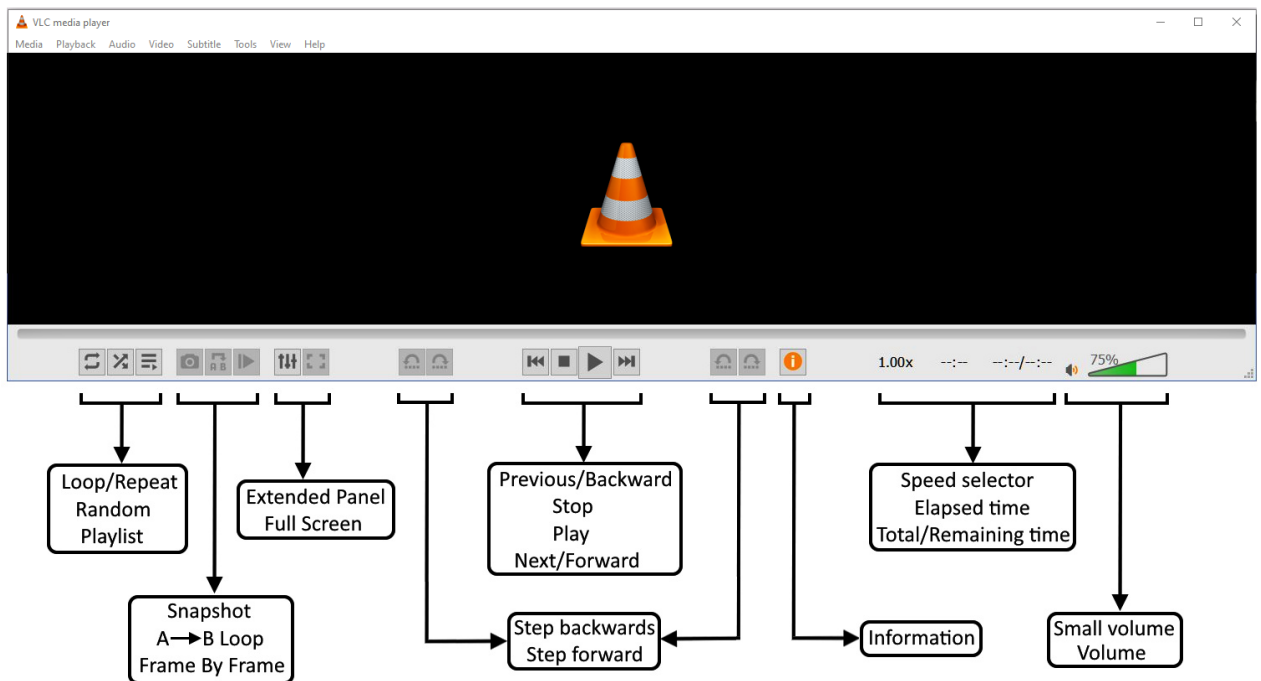


Figure 24 – Peter's VLC toolbar

For those interested in replicating Peter's layout, his instructions are copied below. The changes and additions made to the toolbar are retained when VLC is updated. Peter noted his inability to transfer the toolbar setting via an .ini file etc to another computer.

Peter's Instructions

1. Start VLC
2. From VLC's menu select Tools → Customise interface... → Toolbars Editor
3. (Ignore Line 1: that sits above Line 2:)
4. From the left-bottom corner of Line 2, drag these controls into place until a blue indicator shows placement, then drop:
 - Expanding Spacer, Playlist, Random, Loop / Repeat, Spacer
 - Camera, A-B Loop, Frame By Frame, Spacer, Spacer
 - Extended Panel (Equaliser), Fullscreen, Expanding Spacer, Step backward, Step forward, Expanding Spacer
 - Previous/Backward, [Big Button set] Play, [Big Button set] Stop, Next / Forward, Spacer, Expanding Spacer
 - Step backward, Step forward, Spacer
 - Information, Spacer, Expanding Spacer
 - Speed selector, Spacer, Elapsed Time, Spacer, Total Elapsed Time, Volume, Spacer, Spacer

Additionally, Peter suggested utilizing Hotkeys as another method to enhance performance when using the VLC media player. He demonstrated how he uses the "Forward slash" key to Step Forward when playing a video or audio file. The controls for Hotkeys can be accessed from the menu via Tools → Preferences → Hotkeys.

Neil Muller