

>PC Update

October 2019



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Publishing Information



The newsletter of

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[Live Chat!](#), [Online Support Request](#)

[Online membership form](#)

Responsibility for content in this newsletter lies with individually named authors

Monthly Meeting Live Stream from 7.00pm on Wednesday 2nd October at <http://tv.melbpc.org.au>

Please remember to always bring your membership card to meetings

[SIG Listings](#) and up to date calendar are available on our [homepage](#)

Editorial October 2019



Hugh Macdonald

Welcome to the October 2019 edition of PC Update. Firstly thank you to everyone who has provided feedback on last month's issue. On the whole it's been very positive. You'll notice some further changes to the PDF version of PC Update this month, and I hope to introduce some further improvements to the online edition of PC Update next month. Please continue to provide feedback via Yammer or email - anything constructive is greatly appreciated.

My aim as editor is to create a publication that every member of Melbourne PC User Group can benefit from. So if you have information or an article that you think other members might benefit from, then please send it in. For example, this month I received a couple of useful Windows tips from Graham Swanston (thanks Graham!) and so I've created a section called Member Tips and Tricks. Hopefully members will find this useful, and will send in more tips and tricks that they've discovered. They can be for Android, iOS, Linux or Mac OS too. - all operating systems are equally welcome.

Likewise if you have any ideas for the type of article you'd like to see, but don't have the inclination to write it yourself, please let me know your thoughts. I'm more than happy to write some more articles myself, or find other ways to accommodate your needs.

Enjoy this month's issue. There are interesting articles, columns, book reviews and SIG reports to be perused.

Australian Synchrotron Open Day

The light created at the [Australian Synchrotron](#) is about a million times brighter than the sun. This brilliant light can be used to assemble tiny machines that would fit into the eye of a needle, improve cancer detection, and develop new drugs to fight malaria.

On Sunday 20 October 2019 you will have a rare chance to go behind the scenes of this state-of-the-art facility and experience these scientific wonders first-hand.

Please book into the introductory 30-minute presentation and allow one hour for the self-guided Synchrotron tour. In this time you will have the chance to:

- Learn how the Synchrotron works and the amazing research it enables.
- Talk to our scientists stationed at each of the Synchrotron nine beamlines
- Unwind in our cafe and picnic areas, where you can listen to live interviews with ANSTO scientists while children enjoy one of our exciting science workshops and hands-on activities

There will be plenty of photo opportunities and regular giveaways too!

Entry to the Synchrotron Open Day is free including an introductory presentation and self-guided tour.

Date Sun 20 Oct at 9.00am – Sun 20 Oct at 5.00pm

Cost Free entry

Australian Synchrotron

Venue 800 Blackburn Road
Clayton, VIC 3168

From The President September 2019



John Hall

Volunteering for your Club

By the time you read this it will be the end of September/early October and the time for nominations for committee members will be closing soon.

I am very pleased to be able to tell you that David Stonier-Gibson has nominated for the position of President and Stephen Zuluaga has nominated for Vice-President.

Those of you who have read David's statement about his reasons for nominating as President on Yammer ([or in Planning to Plan, PC Update September 2019](#)) will know that this hasn't been an easy decision for him and I sincerely hope that he will get great support from all of his committee members. It is great to know that Stephen Zuluaga - who has been my Vice-President over the past year - will be there to help David to settle in to his new role.

However, at the time of writing we do not have nominations for the Treasurer's position or the SIG Co-ordinator's portfolio.

The Treasurer's position is fairly self-explanatory, the role requires the reporting of our accounts, profit and loss and balance sheet statements and the presentation of capital expenditure items for approval by the Committee. Whilst it would be preferable for the person holding this position to have an accounting background, the reports themselves are produced by our Quickbooks application and we have an external Accountancy firm for advice and guidance on unusual items. In addition to that, Stewart Gruneklee who has done an excellent job as our Treasurer over the past 2 years, will be staying on Committee and will (when he isn't travelling) be able to give advice and guidance to anyone who takes up the role.

The SIG Group Co-ordinator's role would probably be best filled by an existing SIG Leader who knows the type of support that is required from the committee in order to keep the local groups updated with

equipment and guidance in order to support our regional SIGs.

This role has been filled over the past 3 years by John Morris but due to ill health John will no longer be able to continue on committee. John has been a tireless volunteer for our club for as long as I have been a member and is still an office volunteer at the age of 87 !!!

As you know, I have been very keen on recruiting more “younger” members to our group as MOST of our current volunteers, SIG Leaders and the like are in their 70’s or older.

Whilst this has been a “shot in the arm” for our club – and we can look forward to our younger members taking over the leadership of our group with renewed enthusiasm and vigour – it is also important to maintain a balance of longer term members of the club who can bring their existing knowledge of our SIG Groups, news groups and iHelp functions to the committee.

I sincerely hope that by the close of nominations we will have had some of the longer term members of our Club nominating for the Treasurer and SIG Co-ordinator positions and I wish all the very best of success in the upcoming elections.

October Monthly Meeting

The October Monthly Meeting will be held Wednesday October 2 at 7pm

Guest Topic: Data Collection, Computing and Climate Modelling



Our October guest speaker is Lynette Bettio, a Senior Climatologist at the Australian Bureau of Meteorology. She will talk to us about the data collection, computing and climate modelling work she is involved with.

Lynette has a PhD in climate science and works in the Climate Monitoring section at the Bureau. The Climate Monitoring section is responsible for the preparation and analysis of Australia's instrumental climate record. Lynette examines and communicates on changes to Australia's climate including long-term trends in rainfall and temperature and the interaction with extreme events. Another focus is drought across Australia and how the Bureau can best communicate and inform around this.

In-house Topic: Who Do You Think THEY Are? Discovering Family Histories and Mysteries

Jan Whitaker, long time Melbourne PC User Group member, will take us through the whys and wherefores of getting started discovering your family history, including her own beginnings in genealogy, online and offline tools, as well as where to go for more help.

Meeting Agenda

7.00pm sharp: Meeting opens. MC is Peter Bacon

Guest speaker: Lynette Bettio

President's Report: John Hall

Social break

Q and A with George Skarbek

In-house speaker: Jan Whitaker

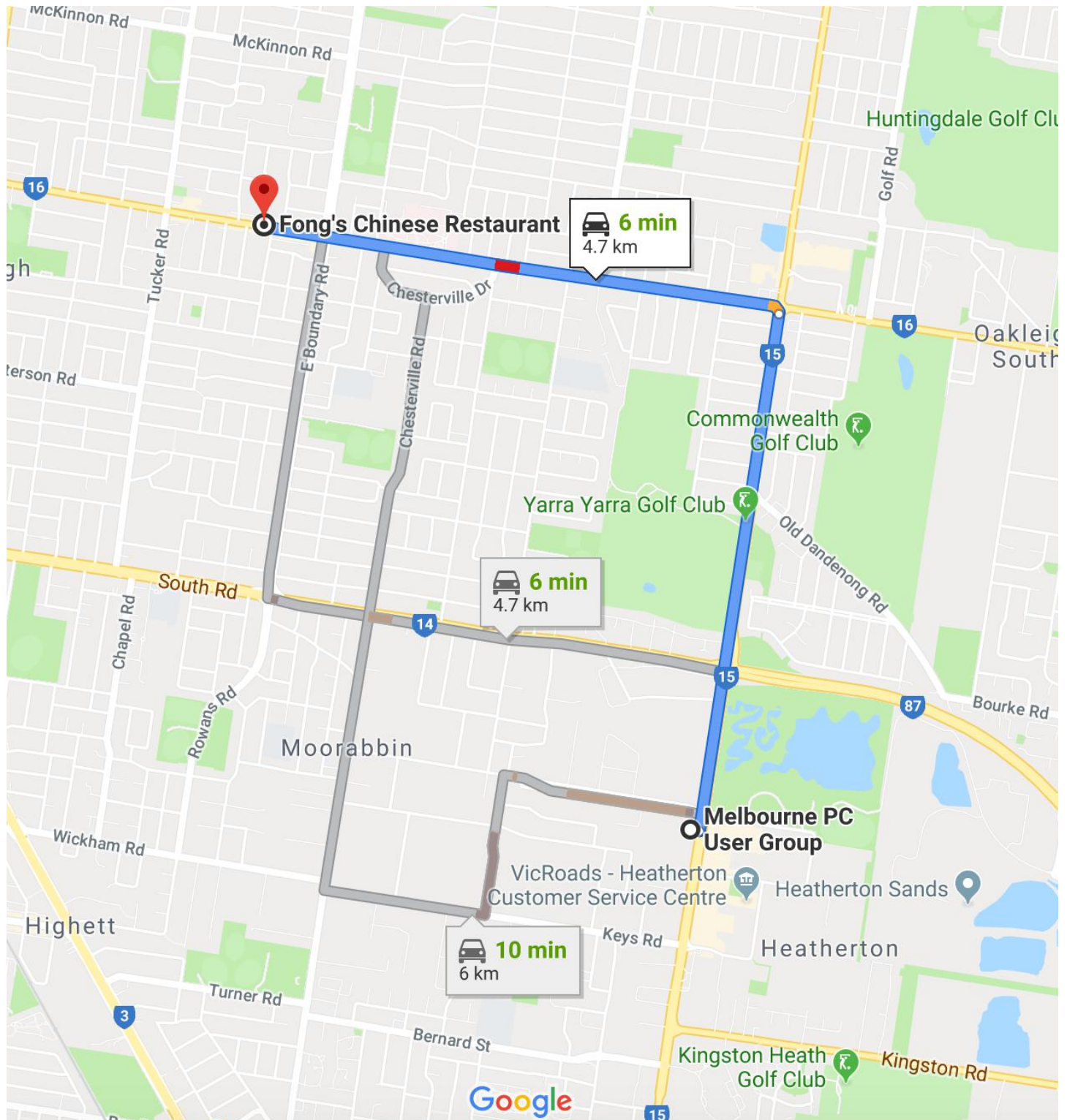
What's New? with George Skarbek

9.30pm: Close

Please remember your membership card or a photo of your QR code on your phone

The meeting is streamed live online at <https://tv.melbpc.org.au>

Don't forget, directly after the meeting WAFFLE SIG at Fong's Chinese restaurant in Bentleigh. This is a totally social gathering where you can enjoy a snack, a full meal or just a cup of coffee. Sketch maps at the meeting or use [Google Maps](#)



Computer History Tours of Melbourne

Graham Farr

You are invited to join one of the upcoming **Computer History Tours of Melbourne**, organised by the Faculty of IT at Monash University. The tours are on Sat 19 Oct, and Sun 3 Nov 2019 (though I'd encourage people to go for Sat 19 Oct if possible, please, as we have lower capacity for the 3 Nov tour).

This tour is unique in the world. It covers some remarkable connections that Melbourne has with the earliest days of computing. The tour is a chance to explore another dimension of Melbourne's history and to better understand how computers have changed science, business and society. The sites visited include:

- the first site in Melbourne of CSIRAC, Australia's first computer and the world's fourth (and the only one of its generation still (mostly) intact)
- a site of codebreaking in the Second World War
- Melbourne's first Computer Room
- Melbourne's link to Charles Babbage, the originator of the concept of a computer
- the site of Australia's first supercomputer
- Monash's first computer
- the former Melbourne Computer Centre near Albert Park.

It should be an interesting day of sight-seeing and socialising as well.

Start: 8:45am at Caulfield campus, Monash University;

End: ~ 4pm, probably at the University of Melbourne.

The plan is to have lunch at a cafe somewhere on the way. There will be a fair bit of walking and getting on and off trams.

A preview and guide for the tour, including photos, is at:

<http://users.monash.edu.au/~gfarr/tour/>

If you'd like to come, please register at

https://docs.google.com/forms/d/e/1FAIpQLSfyqbMt_pRaEVnKaYW2XJiQFZHF0UqFAT6tswMc4QDmTR0qrw/viewform

where you can indicate your preferred date and numbers. Feel free to invite family and friends, but include them in the numbers you book for.

Book early to avoid disappointment, as capacity is limited.

The costs will be the necessary tram travel and whatever you buy at the cafes. The tour itself is free.

Apple's iPhone 11 Pro wants to take your laptop's job

Andrew Maxwell, [University of Southern Queensland](#)



What a week it has been in the Apple core. In recent days the tech giant has released a litany of products, including new phones, watches, tablets, and more.

The big-ticket items are clearly the new iPhone 11 range. These hint at some interesting technology directions, which will most likely spread across the mobile sector.

Of course, it's hardly radical to create a phone that is also a camera, web browser, computer, and gaming device. That idea is as old as smart phones themselves.

But Apple's continued progression down this road raises the question of whether this trend can be sustained indefinitely, or whether there is in fact a limit to what the market will bear in terms of functionality, aesthetics, and cost. The new iPhones are priced from [A\\$1,199 for the basic model](#) up to [A\\$2,499 for a top-spec iPhone 11 Pro Max](#).

Cameras, computing and competition

In keeping with its rivals, Apple has clearly made the camera system the focus (pardon the pun) of its new iPhones. Aesthetically minded users might find the cluster of camera lenses jarring – more function than form – and doubly distressing if you're unlucky enough to suffer [trypophobia](#), the fear of irregularly clustered bumps or holes.

The back of the 11 Pro sports three cameras with different focal lengths. Despite still being only 12 megapixels each, in this era of filters and digital enhancements, pixel-count is no longer the crucial metric.

Each camera, including the front-facing one, can be used simultaneously. It's now conceivable to film an entire feature-length movie on a phone (should you ever actually want to). This requires a significant amount of internal coordination to ensure that colour grading and exposure blend seamlessly between these cameras, which in turn brings us to the question of computing power.

The new iPhones are equipped to handle not just complex computational photography but also advanced augmented reality and fast-learning artificial intelligence.

This level of highly integrated computing is one of the clearest direction changes in the iPhone lineup. It makes perfect sense from Apple's point of view, not just because it helps to enhance performance, but because Apple controls its entire research, development and production line anyway.

But all of this integration comes with a couple of obvious downsides for the user. One is that it's increasingly difficult to [service your own phone](#). The other is that for all their "multitasking" claims, it's still only possible to do one thing at a time. One of the reasons I sound sceptical about filming feature-length movies on an iPhone is the question of what happens if you receive a phone call halfway through shooting a big scene.

What are 'pro' phones really for?

Despite the "Pro" moniker, and the suggestion that they can be used to produce commercial-standard creative work, even top-end iPhones are still inherently personal devices. Of course, Apple isn't really pitching its phones as essential kit for film directors. The actual use case is somewhat more prosaic.

The top-end price tag of A\$2,499 looks remarkably like laptop pricing. For professionals who do most of their work on their phone, Apple clearly thinks even this hefty price tag will represent a sensible investment for a versatile piece of kit.

Remember that mobile phones in the early 1990s were comparatively just as astounding in price, yet they sold to professionals who were busy and affluent enough to require one (or at least wanted to look as if they were).

That said, flagship phone pricing is creating a digital divide between those who insist on the latest phone and those happy to make do with an older model. As a result, the budget and mid-range phone market has become as competitive as it is varied, with fantastic handsets available for less than A\$400 outright, as well as a booming secondhand market.

I always consider repairability when buying technology. I maintain my phone by replacing screens and batteries, which anyone can do with the right guidance. But many manufacturers work hard to [thwart these home repair efforts](#).

Many phone components, [including batteries](#), are now often "authenticated" with the phone's central processing unit, so that should an unofficial repair occur the device may refuse to work as intended. Sadly, users have little control over this.

If you buy a device, you should have the [right to repair](#) it. When buying a flagship phone, remember you will almost undoubtedly one day drop it on the floor, so it pays to think about how you'll get it fixed, and whether you're happy to play by the manufacturer's rules.

It is clear that modern mobile devices are trying to be the "everything" device, balancing functionality with aesthetics, and even trying to take a bite out the laptop market (with a price tag to match). Premium

pricing structures have been tested and appear set to say. It seems that expensive phones bristling with high-performance cameras have become the new norm.

[Andrew Maxwell](#), Senior Lecturer, [University of Southern Queensland](#)

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Software Literacy Begins With Learning To Code

Dick Maybach, Brookdale Computer Users Group, NJ

If you're reading this, you probably work with computers almost every day, and you probably also find yourself repeating some tasks many times, not because you enjoy them but because they have to be done. Often, you could reduce the tedium by writing a simple program.

For example, I belong to a club that uses its website to manage registrations for its activities, and we wanted to make available to the members a list of those registered for each event. The registration feature can download its data in the form of an Excel spreadsheet, but it includes data that we didn't want to make available on our site. It's of course possible to use Excel commands to extract and organize the information, but we often have several changes each day. Here's what has to be done.

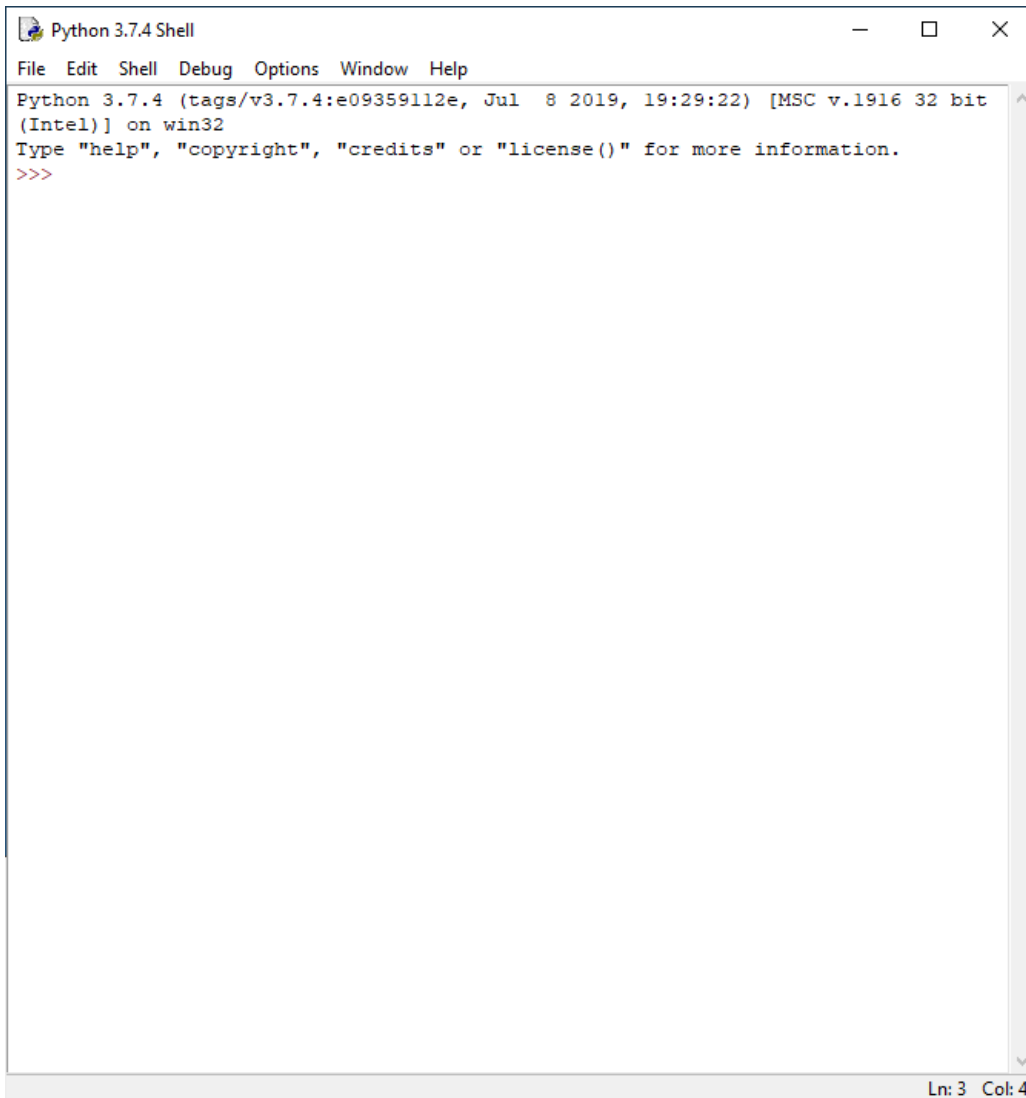
- Download the spreadsheet.
- Extract the first names (from column 4) and the last names (from column 5).
- Create a list with the format (last name, first name).
- Sort the list and format it with one item per line.
- Add HTML code so that it displays properly on a Web page.
- Paste the result onto our site.

I wrote a 13-line Python program that reduced the steps to these.

- Download the spreadsheet to my PC.
- Call the program with the spreadsheet file as an argument, which performs the above steps and places the result on my PC clipboard.
- Open the website and paste.

The program makes keeping the rosters updated much easier and with a greatly reduced chance of error.

I chose Python for this task, because it has extensions to read and write to applications such as Excel, and Word, download data from websites, schedule tasks, and send e-mail, see <https://docs.python.org/3/py-modindex.html>. That there are hundreds of applications is not an unmixed blessing, as many are evolving rapidly and keeping up can be challenging. You'll be making some Internet searches to find the current information. There are many tutorial books and articles on Python, for example see <https://www.python.org/>. For me, Automate the Boring Stuff with Python, by Al Sweigart, provided a good introduction to writing programs that access and manipulate data in office applications. However, Python Crash Course by Eric Matthes is a better introduction to the language with applications in computer games, data plotting, and Web page design.

A screenshot of a Python 3.7.4 Shell window. The window has a title bar that says "Python 3.7.4 Shell" and standard window controls (minimize, maximize, close). Below the title bar is a menu bar with "File", "Edit", "Shell", "Debug", "Options", "Window", and "Help". The main text area contains the following text: "Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 19:29:22) [MSC v.1916 32 bit (Intel)] on win32", "Type 'help', 'copyright', 'credits' or 'license()' for more information.", and a red prompt ">>>". The status bar at the bottom right shows "Ln: 3 Col: 4".

```
Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 19:29:22) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
```

As brick-and-mortar bookstores close and reduce their inventories, it becomes more difficult to find good programming books. If I can't find what I need locally, I make an Internet search on, for example, "Python Tutorial Books," and I usually find some good guidance on purchases and free books I can download. I've found computer-language reviews in magazines less helpful, as their space is too limited for adequate coverage.

That Python was a good choice for me at this time, of course says nothing about what language might be best for you. Learning one takes time and effort, and you want to take some care in your choice from the scores of those available. Some factors that might influence you are these.

- What operating systems and hardware support it?
- What are the costs of a development environment (editor, compiler, debugger, etc.)?
- Are tutorials, references, and application articles available?
- Is there an active user community?
- Is it currently under active development?

You may find better information in a group or publication interested in your application than one concerned with computers in general. For example, if you want to work with smart phone software, you might look to an Android interest group. I favor open-source approaches, as they reduce the costs.

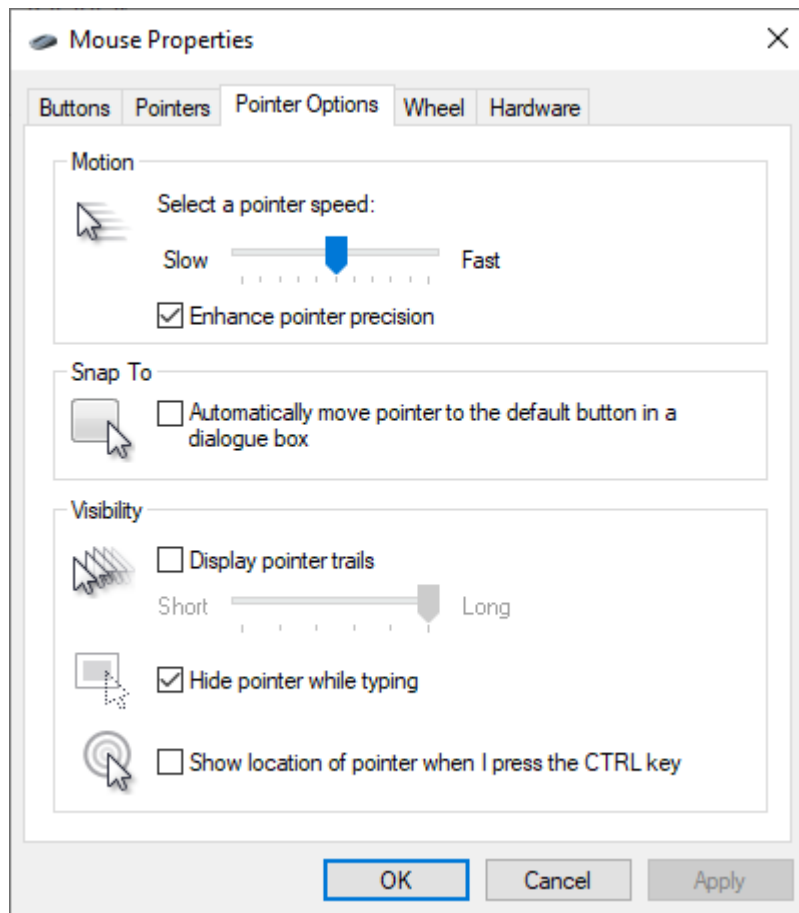
Things may not work out, and that's OK. I once spent several weeks learning the Forth programming language, and my conclusion was, "I never want to do that again." I don't regret the effort, as learning is always worthwhile. If we never learn, we just repeat our daily lives, and there is a big difference between 12 years of experience and one year of experience repeated 12 times.

Member Tips and Tricks

Each month we'll publish tips and tricks from members that could help you use your computer more effectively. If you have any tips and tricks you think are particularly useful, please send them to editorpc@melbpc.org.au.

This month's submission comes from **Graham Swanston**

Ever wasted time finding the pointer or cursor lost at the side?

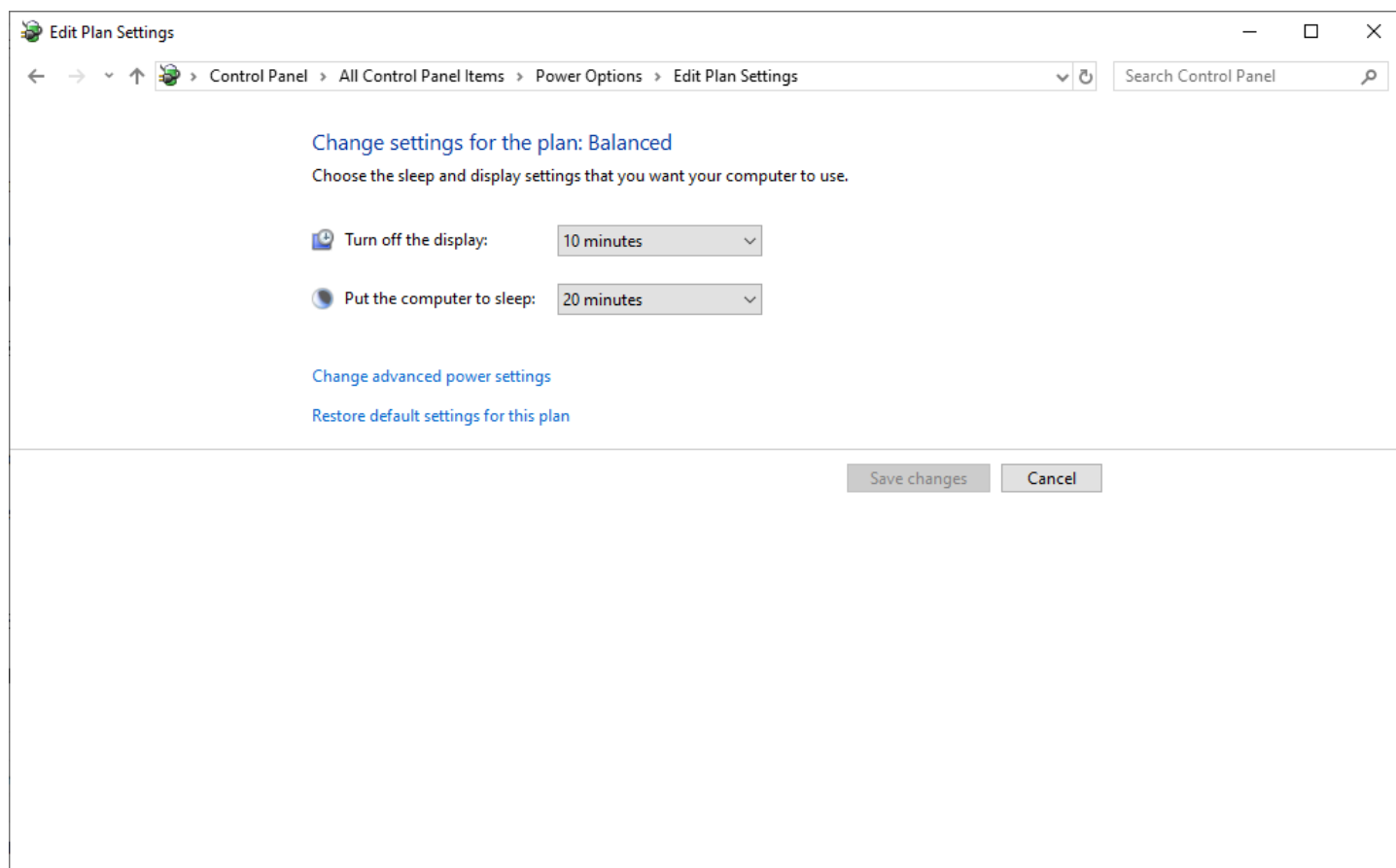


In Control Panel go to Mouse, and then click on the Pointer Options tab:

Show location of pointer when CTRL key is pressed:

Click OK, and Save.

Is the Sleep function too short?



Go to Control Panel and select Power Options:

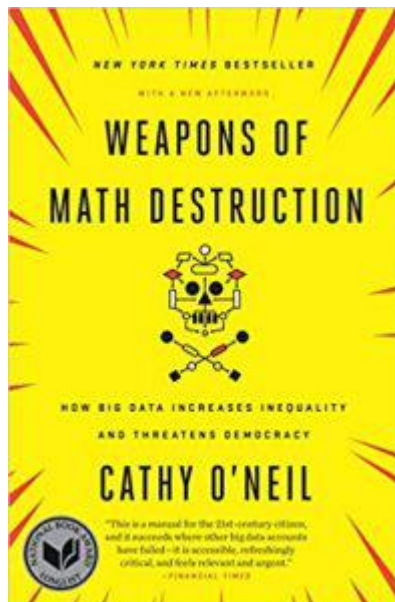
Balance:

Change Plan settings:

Adjust Sleep Settings.

Click OK and Apply.

Book Reviews



Weapons of Math Destruction - Cathy O'Neil

Tim McQueen

Melb PC purchased a copy of Weapons of Math Destruction after the recommendation by Michael Brand who spoke on The Data Science Revolution - A User's Guide at the May monthly meeting. O'Neil is a mathematician who was a Professor at Barnard and has worked in finance and risk analysis and was involved with Occupy Wall Street. She defines Weapons of Math Destruction (WMDs) as being opaque, unquestioned, unaccountable and scaleable to target millions of people. By confusing their findings with on-the-ground reality, most WMDs create pernicious feedback loops.

The examples she quotes are all American. These include the evaluation of teacher performance in schools, the rating of colleges, setting car insurance premiums and health insurance coverage. These don't have direct parallels in Australia because of our State based education systems, smaller population and different insurance models. However, there may be many who would like to see similar evaluations introduced here. O'Neil also looks at studies of recidivism in prisons. The negative feedback involved is that poorer non-white prisoners tend to be ranked as more likely to re-offend, leading to longer sentences and greater recidivism. Similarly with pre-active policing (using statistical analysis to determine where crimes are most likely to occur); police resources are concentrated on disadvantaged neighbourhoods and black and hispanic youth. The best way to avoid the effects of WMDs in the United States is to be white and rich.

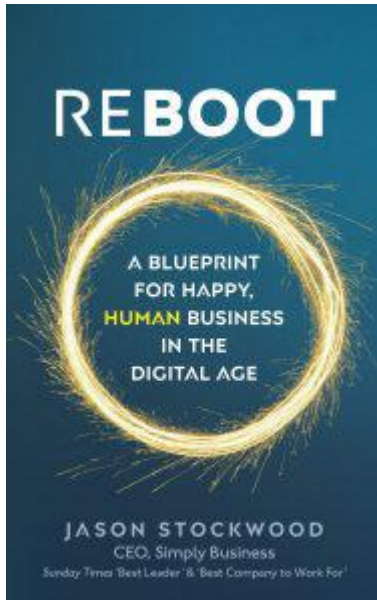
Areas where WMDs may be encountered in Australia are targeted advertising, job seeking, loan applications, dating sites and shift scheduling in the gig economy.

O'Neil quotes an oath for data engineers devised by Emanuel Derman and Paul Wilmott:

- I will remember that I didn't make the world, and it doesn't satisfy my equations;
- Though I will use models boldly to estimate value, I will not be overly impressed by mathematics;

- I will never sacrifice reality for elegance without explaining why I have done so;
- Nor will I give the people who use my model false comfort about its accuracy. Instead I will make explicit its assumptions and oversights;
- I understand that my work may have enormous effects on society and the economy, many of them beyond my comprehension.

Following these simple precepts should lead to more equitable applications with fewer unintended consequences.



Reboot - Jason Stockwood

David Stonier-Gibson

This is not a book review in the traditional sense, more an overview of a book on modern management and how the philosophies it expounds could be relevant to our club. I find it impossible to read a book on management without trying to map it into my own context.

The author, Jason Stockwood, is CEO of a successful insurance brokering firm in the UK. He took over a dysfunctional company and has guided it to reinvent itself and eventually merge with a much larger US operation. He has done that by rejecting the “classical” 20th century theories of strict hierarchical management structures, employees who tow the line, top down control and the notion that companies are there only to serve the financial interests of the shareholders. Employees, and their well being, are as important as shareholders. Without happy and fulfilled employees the company will eventually degenerate and become dysfunctional. Companies must also behave responsibly towards society and the environment, not only because it’s the right thing to but because the customers are more and more coming to expect it of the companies they choose to deal with.

Agile thinking

Jason starts out by calling into question the notion that advances in a company’s performance can only come about through detailed planning and design, by mapping out every step, every change, and then introducing it all at once. This is something I find difficult to wrap my head around; being an engineer I feel the need to plan and design in meticulous detail before implementing a complex system. Indeed, I

have brought home a number of complex projects due to a strict top-down, hierarchical design philosophy. But Jason subscribes to the practice of “Agile” management. Agile was initially a methodology for software development. The basic idea is that rather than design and write a whole huge computer program all at once it is better to start with a *minimal viable product (MVP)*, test it in the market place, and then incrementally enhance and extend it in the light of user feedback. That way the product can become better aligned with what the customers want, which may not be what was visualised at the outset, and there is much less risk of wasted effort.

A vision, a goal

Agile management, as propounded by Jason, encourages the empowerment of employees to test out new ideas on their own initiative. In a large operation like Jason’s insurance business an idea can be tested on a limited scale to see how it works out, then rolled out across the whole company if it works. (There will be failures!). Naturally the ideas, maybe a change to the website user interface or adoption of a new technology like a chatbot, must be aligned with the overall objectives and philosophies of the company. That’s why it is important for the company, and its employees, to actually have a clear vision of where it is headed and of what its values are. It is also important to not introduce changes or new technologies without a clear idea of what value they may bring to the organisation and how they will ultimately improve the product for the customers and improve the employees’ work experience.

Technology

Jason discusses at length the role of new technology. He is especially concerned about the potential benefits and dangers. Will technology, especially AI and robots, lead to a dystopian future where people are brushed aside and become redundant? Or can technology in the workplace be judiciously deployed to make work more meaningful? One thing is for sure: Technology will change the nature of work, though exactly how is hard to predict. What Jason is doing in his company, and he cites other companies with similar strategies, is to offer employees opportunities to acquire new skills that will have value into the future. He also has a strong view that employees must not be made redundant by new technology, if only because the negative effect on morale, and hence productivity, of seeing colleagues laid off due to technology would be far too costly.

Final impressions

Like most such non-fiction books I found *Reboot* too repetitive; it’s almost as if the author has to spin out and drip feed the ideas so there’s enough to fill up a whole book. That said, the ideas presented are intriguing, beguiling even. I think, too, there is a message for our club in there, especially the importance of having a vision for the future, not just long-term but also short term. The *Agile* concept is also something that probably needs to be part of our *modus operandi* going forward, if only because it is something that fits with the mental processes of younger people, and we need young people to take the club forward. I do however believe that agility must be tempered with the common sense to not introduce change just for the sake of change, especially where it may confuse or distress the “more mature” members. It should be a tool in the arsenal, not a religion.

East SIG Report September 2019

The September meeting opened with **George Skarbek** conducting his usual Q&A segment.

Q: I received an email from Google Map Timelines in early September titled "Your August in Review". The email stated "You received this email because you opted-in to Location History with this Google Account". The email included a link titled "Explore Your Timeline" which opened to a calendar and timeline in my browser. When I select a day I was shown routes travelled that day.

On a recent photographic trip to Gippsland during August, I had the GPS turned off on my camera and phone yet Google was able to pinpoint the exact shops and places I visited. I did pay for one meal at a hotel by credit card, but Google shouldn't have access to the hotel's financial records to know I was there? The email also said I drove for 11 hours that month which seemed plausible. Photos taken that day did not have GPS enabled and were not saved online, therefore the location information did not come from them. How does Google do this with the GPS off?

A: Stuart Bedford answered stating he had a similar situation when he visited Eastwood shopping centre recently. With everything on his phone that could track his movements turned off, he later received a message thanking him for visiting a particular store where no items were purchased. Stuart is also in the dark as to how Google can track you in that situation. No answer was forthcoming.

(Tech Ed: Google not only uses your phone's GPS to determine location, it can also use mobile towers and WiFi points to determine your location.)

Q: About a year ago Windows 10 did a compulsory update to my computer that added new features. A month ago Windows asked to do a non-compulsory update to my computer. Is this update advantageous?

A: Microsoft says every update is advantageous and I would recommend that also. Windows does major updates twice yearly so you may not have the latest update. Microsoft's updates may not always be to the operating system but could be a patch to another Microsoft product or a security update.

To determine what version of Windows you're running, type "winver" in the windows search panel on the Taskbar. A window like that shown in Figure 1 below is displayed showing your current version. You should then go to the Microsoft website or search Google to see if you have the latest version and update to that if you haven't.



Figure 1 - Windows 10 version information window

Q: Previously when I used Reply or Forward to an email in Outlook, it would be sent in the font I selected. Recently when I looked at one of the emails I replied to, I discovered the font was increased 2 or 3 times. That caused me to reduce the size of the font I use to correct this problem. However when I looked at one of those emails, the font was so small it was almost unreadable. As this has only recently started to happen can you suggest what might cause this?

A: In Outlook there is a screen setting where you can set what magnification you want to use when viewing emails. This setting is independent of the font you are using to send or reply to an email and may be the reason for your problem. As this is a recent problem, it's most likely you unknowingly changed a setting in Outlook. To problem solve this, send an email to yourself and view it on another computer. If you don't have a second computer, send a message to a friend and ask them what the email looks like and what font is displayed.

(Tech Ed: It may not be the cause of the problem but it should be noted that if the recipient doesn't have the same font installed on their computer that was used to compose the email then the email may look very different at their end.)

George concluded Q&A by announcing that the USB Promoters Group has issued new specifications for USB. The new standard for USB4 will incorporate Thunderbolt 3 and the top speed will be very much faster than current Thunderbolt and SATA connections. There will be 3 speeds, 10Gbps, 20Gbps & 40Gbps. USBs adopting the new standard will be able to power monitors and will be fully backward compatible. The shape of the plug has not been determined but is likely to use a type C connector.

Following Q&A **Dave Botherway** covered a number of short topics requested or of interest to MelbPC members.

After last month's (August) presentation on OneDrive, Dave was contacted by a member who could not see OneDrive on his Windows 10 computer. Dave commenced by summarizing last month's presentation on OneDrive, then suggested the member download and install the OneDrive app from the Microsoft store. This partly solved the member's problem as files created on his desktop PC could now be saved to his OneDrive folder. Using the same desktop PC the member could still not see earlier files stored on OneDrive when viewed in Windows Explorer. Earlier files saved to his MelbPC OneDrive via Office365 are all visible but only when viewed in Office 365 in his Firefox browser. Dave suggested syncing OneDrive would most likely solve this issue.



Figure 2 - The OneDrive app shown in the Microsoft store

The next item Dave discussed was a Dual Band USB3 WiFi (802.11ac1200) adapter he recently purchased on eBay for under \$18. The adapter was purchased to give his desktop PC easy 5G WiFi capability, simply by plugging the adapter into a vacant USB slot. The 5dBi antenna can be used straight or bent at right angles to the USB slot (refer Figure 3) to maximize signal strength.

Using an old notebook PC to test the WiFi adapters performance, Dave obtained a ten times speed improvement on the 5G band over the notebook's inbuilt 2.4G WiFi. It's important to note that a PC won't benefit from the 5G capability of this adapter if you're using an older modem that only delivers a 2.4G signal.

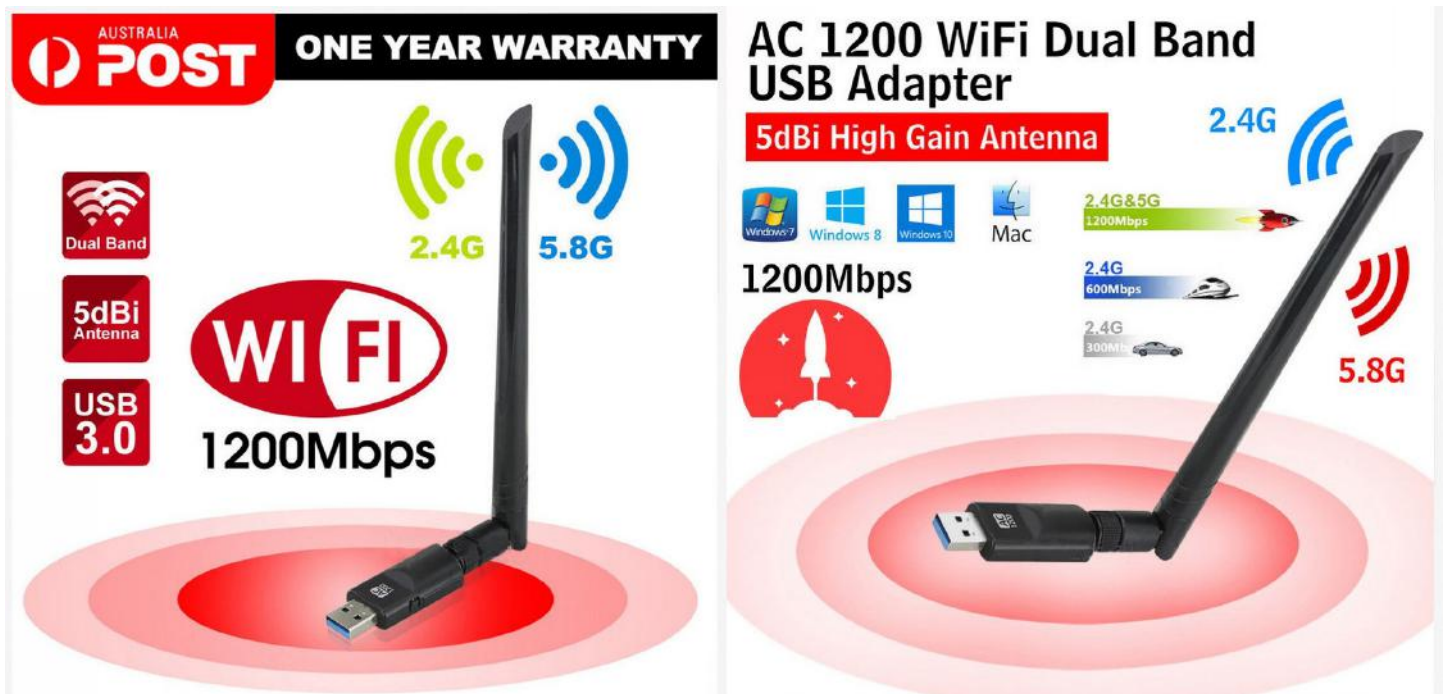


Figure 3 - AC1200 WiFi Dual Band USB3 adapter

At last month's meeting, NBN connections Fibre to the Premises (FTTP) and Fibre to the Node (FTTN) were discussed during Q&A. When a MelbPC member told Dave he was soon to obtain a Fibre to the Curb (FTTC) installation, Dave expanded on those earlier discussions with a brief overview of FTTC. FTTC is a more recent technology used by NBN Co and is less common than FTTP and FTTN so is often ignored when discussing NBN connections (*Tech Ed: FTTC is being used around parts of Melbourne that predominantly have HFC connections but require infill due to suburb expansion – rather than build out the HFC network, NBNCo appears to favour using FTTC*).

The graphic and images below are from the NBN website <https://www.nbnco.com.au> and show what a FTTC installation will look like within your premises. With FTTC there is no external box attached on the dwelling as the fibre is terminated in a nearby (formerly Telstra) pit in the street. From that pit your existing copper wire phone connection to the house is used for your internet connection.

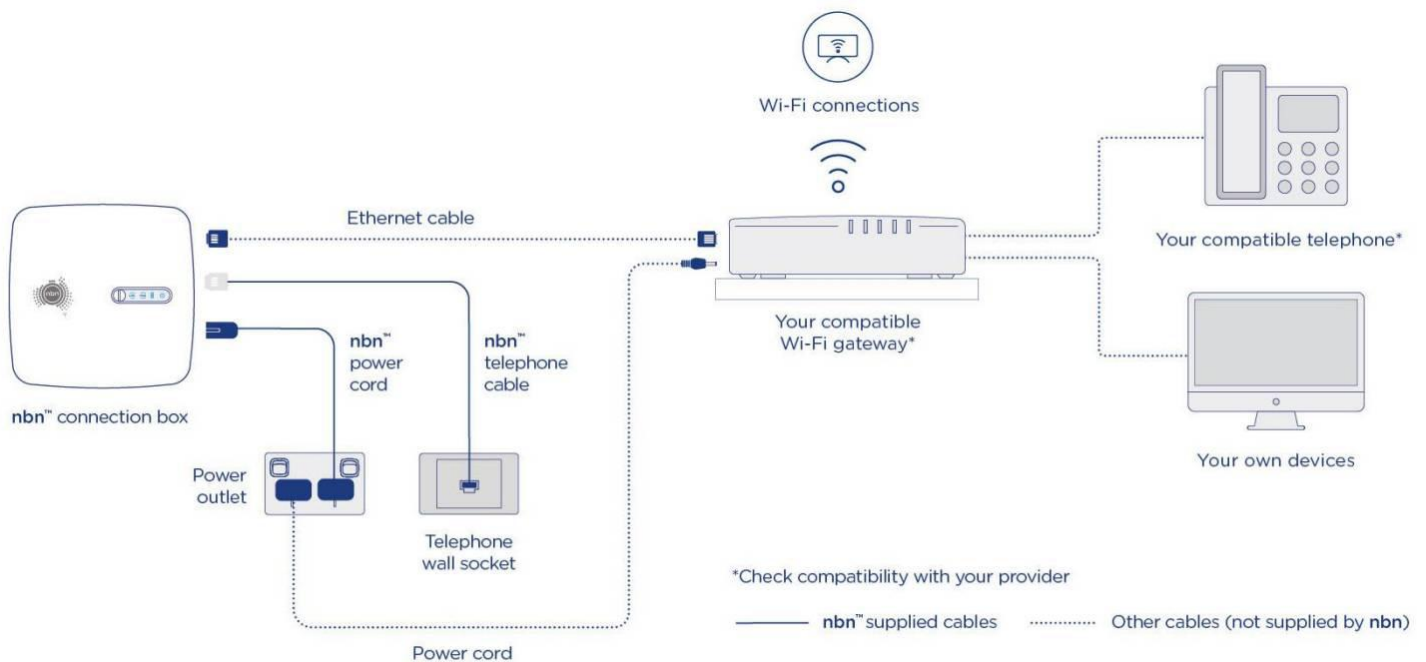


Figure 4 - NBN FTTC connection diagram

For those members receiving a FTTC connection, NBN Co will supply a NBN Connection Box and a cable that plugs into an existing standard telephone wall socket. Also supplied is a power cable to power the Connection Box. The image in Figure 5 shows the Connection box and two cables supplied by NBN Co.



Figure 5 - NBN FTTC Connection Box and cables

Once the NBN equipment arrives you will then physically connect the equipment as shown in Figure 6 yourself. The next step is to connect the NBN supplied equipment to a modem (most likely) provided by

your Retail Service Provider (RSP) unless you're using your own modem. If using your own modem ensure it is supported by your RSP. The image Figure 6 below shows how the NBN equipment is connected to your modem.

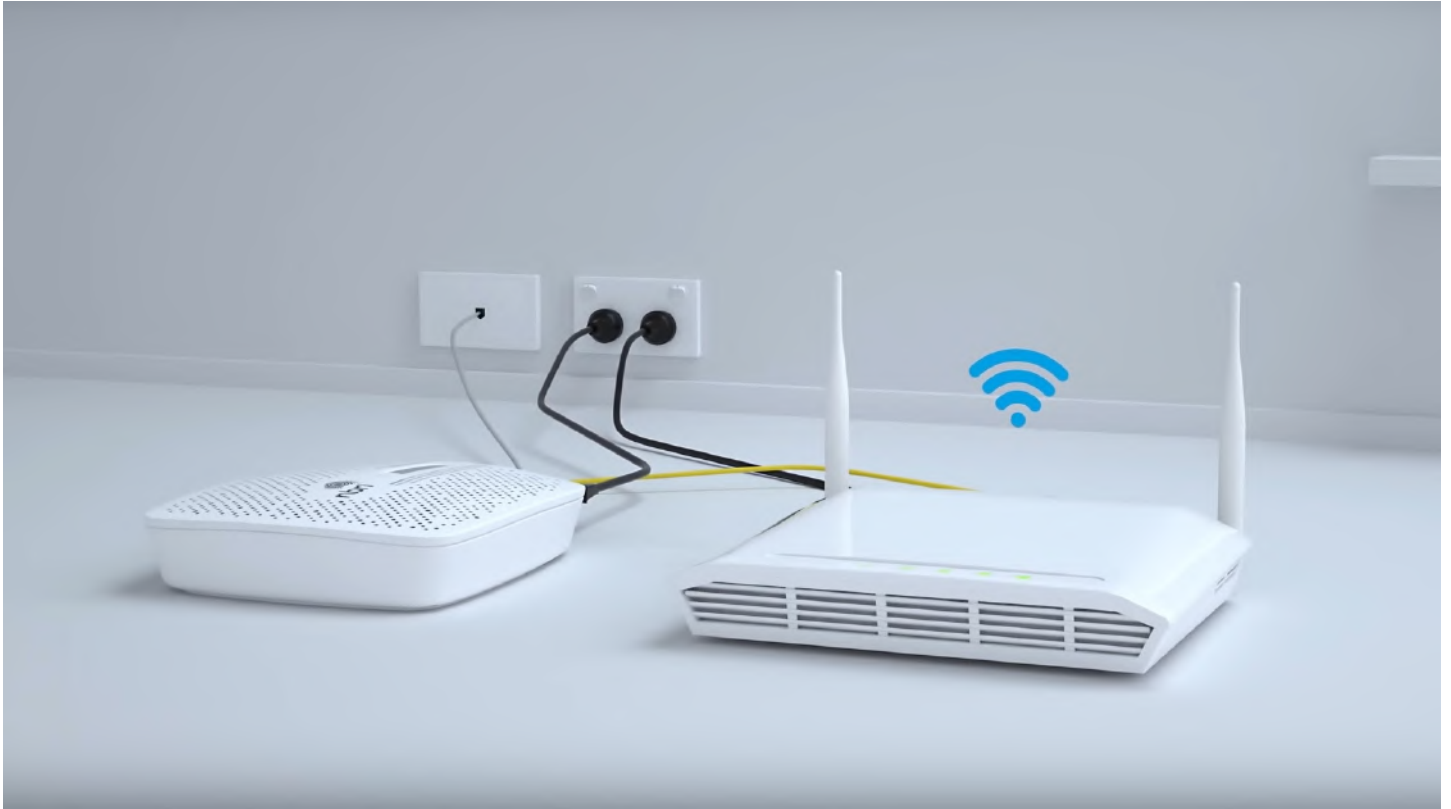


Figure 6 - A typical NBN connection to your modem

FTTC differs significantly from other NBN connections in a number of ways. Firstly a small number of households, possibly up to 4 or 5 can connect to the internet from the single “mini node” housed in the old Telstra pit in the street. Secondly the NBN Connection Box sends a small amount of electrical power to the NBN equipment in the pit in the street. The latter differs from a Fibre to the Node (FTTN) installation where a battery backup system is installed in the street cabinet housing the node.

After a break **Stuart Bedford** took many of us down memory lane with his presentation “My Journey from 405 line Black & White to a 4K Digital UHD Smart TV”.

Stuart’s first TV was a 12 inch, 405 line black and white TV. This was in 1957 where only one channel, the BBC was available and the TV was rented for \$5 a month from RadioRentals. TVs of that era were analogue and required continual adjustment of the Vertical Control knob to keep the picture from rolling.



Figure 7 - A typical early model B&W TV

Ten years later in 1967 came Stuart's first colour TV. This was still an analogue TV but now had 625 lines in glorious colour. Test patterns were a feature at that time where viewers adjusted the colour and shape of the picture, the latter using a circular section of the Test Pattern.

There were no remotes and channel changing was done manually. When remotes arrived the first types were connected to the TV via a long cable. Later remotes used ultrasounds to channels up/down and volume on/off, followed by electronic remotes that used piezoelectric crystals. Stuart noted that the first colour transmission in Australia was in Brisbane around 1974/5.

Digital Television in Australia commenced in 2001 with analogue being phased out in 2013. Digital had many advantages over analogue which was prone to noise, ghosting and distortion, while digital suffered now of these. Analogue TVs used CRT tubes and had a maximum size equivalent to Standard definition or 720 x 480. With the development of cheaper flat panel screens replacing CRT TVs, digital development was "fast and furious".

Today Stuart enjoys a 65 inch 4K (3840 x 2160) TV with features you could not imagine 60 years ago. Apart from viewing traditional free to air TV, Stuart's Smart TV can play 3D videos, connects to the internet via wireless or Ethernet cable and runs a Firefox OS allowing the loading of apps, particularly YouTube which is an important source of information and entertainment for Stuart. It has Bluetooth connectivity although this proved a little troublesome when Stuart recently attempted to connect to Bluetooth enabled headphones. The TV can be voice controlled, can stream videos and photos from any Windows PC on his network and can mirror a smart phone or laptop PC. Stuart doesn't use many of these features but listed what's offered to show the extensive range of features available. Stuart warned that buyers need to be aware as some cheap 4K TV's don't always have the smart capability he enjoys.

Essendon Daytime Group Report September 2019

John Guegan

Our three meetings for this month are over and we look forward to October for our next three meetings for that month. Each meeting follows a similar format when we have a Q&A session which usually takes us up to morning tea time.

Nick Merrigan, our computer operator, and the font of all knowledge usually has several web sites for us to look at, which have posted some subject of interest that sparks some further engagement from the members present. We have several members, John Nelson, Rod Britton, Brian Hallam and Armin Freibrueck, who regularly step and do presentation that are of interest to the members. At our last meeting Rod Britton showed us the process he uses when making Birthday Cards, most recently for a 90 year old friend, sourcing his characters from Google and pasting the into a card format using Publisher for printing on glossy photo paper.

We try and make each meeting interesting and informative in a friendly atmosphere, so if you have nothing to do on a Friday morning and don't mind a drive, come to Essendon you will be most welcome.

Northern Suburbs Linux SIG Report September 2019

Paul Addis

The Linux News for this month was about Android – which does use the Linux kernel, after all.

The question addressed was “can you use an Android-based phone or tablet without accessing Google services?”. The video shown answered the question with a “Yes” response via an Android variant called F-Droid. There is no need to sign in to Google, and the F-Droid applications are all open-source. It was claimed that, with a little preparation and care, an Android user can use only the F-Droid “store” for all their Android apps.

F-Droid applications include Notepad; Feeder – which allows the filtering of information displayed; Slimtwitter – which reduces the “bait-type” messages; Postmail – an e-mail client; and the Privacy Browser. The Privacy Browser sets privacy sensitive features to be disabled by default. If one of these technologies is required for a website to function correctly, the user may choose to turn it on for just that visit.

F-Droid supports the downloading of maps, reducing the need for continuous Internet availability. A related application is Backtrack – this allows a user to return via a previously mapped route, which should be especially useful in difficult country. A very useful Android variant for those who do not want to be beholden to a giant company with tentacles in so many areas.

The open forum started with a discussion of 5G mobile technology. This uses much higher frequency and shorter wavelength transmission, and is therefore more restricted in the range of the mobile towers. An argument was advanced that the high-frequency was the basic reason why 5G allows much faster data transmission and shorter latency than the current technologies.

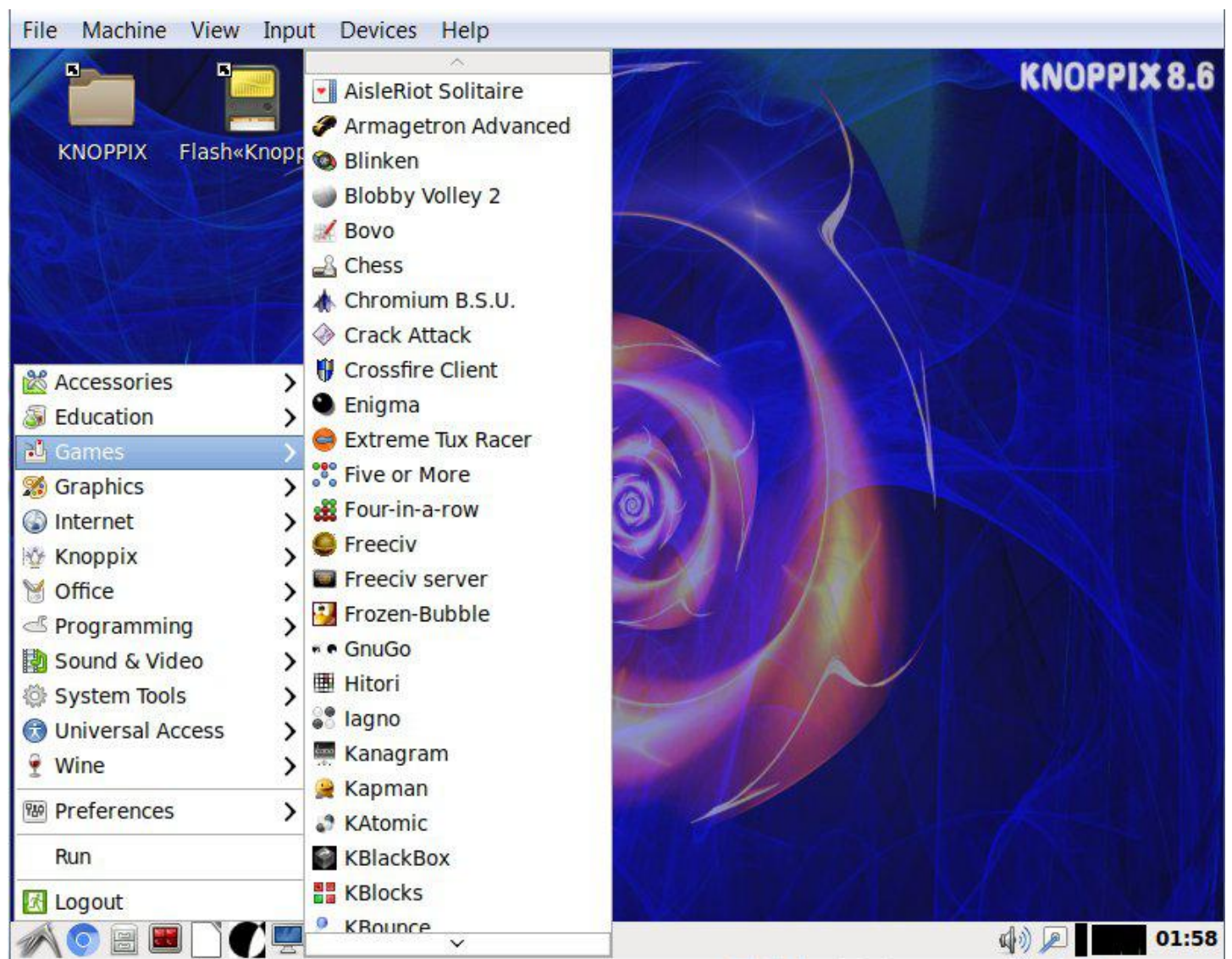
Microsoft has introduced a FAT variant named exFAT to handle files greater in size than 4GB. They are now requesting that exFAT support and the related Fuse program be included in the Linux kernel. The kernel developers and others in the Linux community are wary of this proposal, not least because those programs are not open-source. In the meantime, users should be aware that FAT files larger than 4GB will not be supported in Linux. The problem could be most acute when running Linux using the Window Subsystem for Linux on Windows 10.

A sort-of related problem has occurred with Backup and Restore. When backing up from an older disk and restoring to a more recent one, the restore failed, and the cause was traced to the change in sector size. Older disks were recorded with a sector size of 512 bytes, whereas newer disks have a sector size of 4096 bytes. That is something to watch for; a user may not know about it until after a disk failure – a time when the ability to restore is absolutely critical.

There was a short demonstration of using a tablet to access the Internet while tethered to a mobile phone hot spot. This could be a very useful way to get Internet access when the “normal” method is not available, but people should be aware of the likely mobile phone charges when doing it.

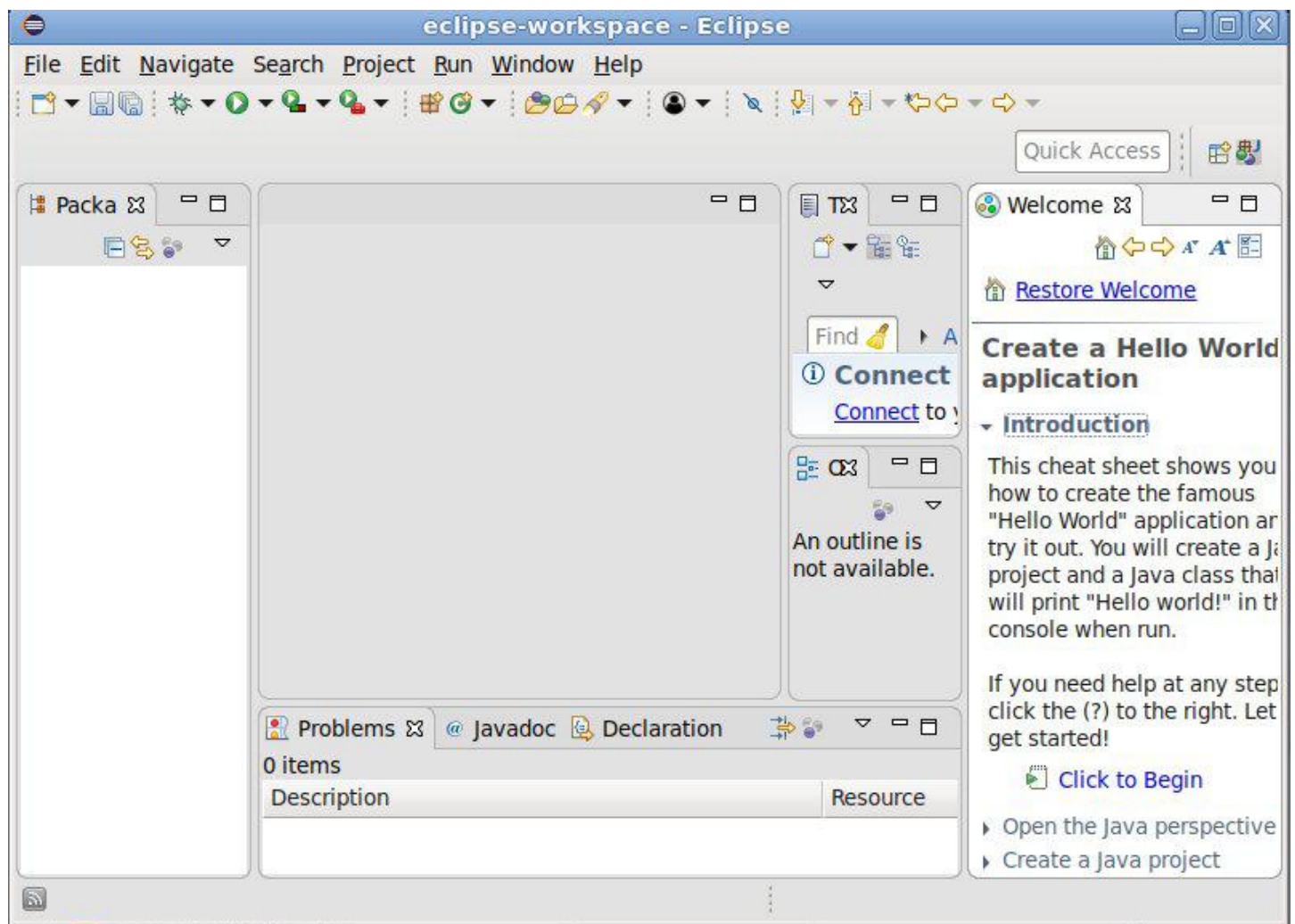
After the social break, David Hatton spoke about and showed us the latest version of a widely-used Linux distribution: Knoppix 8.6. David had downloaded the Knoppix .iso file and used it to burn a bootable Live Knoppix DVD. Next, the Live DVD was used to boot Knoppix on a convenient machine, and the Knoppix flash utility used to create a bootable Live USB drive. Running a Live instance of Knoppix from a USB drive is much faster than running from a Live DVD, but creating a Live USB version of Knoppix can be a bit tricky with other methods.

Note that the current Live Knoppix 8.6 version will almost fill a standard DVD (4.7GB) because of its wide-ranging selection of application programs and support of three desktop environments. The user can choose their preferred desktop and have access to all the appropriate programs while working. There are said to be more than 2,000 applications available in this version of Knoppix.



Knoppix menus showing some of the included Games

There are several file managers and editors included. One file manager allows a user to edit a file from the file manager itself. The almost universal Midnight Commander is included, and Eclipse - which among other programming environments has an HTML editor which provides a live preview of the result.



Eclipse HTML editor with Hello World instructions

Among the more exotic applications is OPENS CAD, a solid 3D CAD modeller for programmers. It was not shown in operation because of the time and effort required to provide a suitable model for demonstrating.

Knoppix has been around for a long time, and has come a long way since some of us first saw it and used it as a first attempt at handling Linux. David Hatton did it full justice in the presentation.

Video Production Group Report September 2019

John Hall



Frank Catlin started his talk by giving us some background on his background in the video industry.

Frank's wife Jean trained in the art of movie making and editing in 1980. She created her own company "Catlin's Video Events" offering corporate and wedding video services. As Frank was still working full time his role was second cameraman and helper.

Jean started with VHS tapes progressing through S-VHS, Hi8, Mini-DVD, Mini Hard Drive, DV Tape and finally SD Cards. The output was given to the customers as VHS Tapes, S-VHS Tapes and finally DVDs.

When Frank retired in 2006 he took up editing their holiday video under Jean's supervision and we have seen some great examples of these at our Video SIG Meetings on the second Monday of each month at Moorabbin (see [Video Production SIG](#))

Frank also joined Roger Wragg's [Vegas Pro Group](#) to learn more about video editing. Over recent years Frank has spent his own time concentrating on holidays, school productions, concerts and grandkid's soccer - which is typical of our regular attendees.

As Frank had been showing some really good videos at our monthly meetings we asked Frank to give us some tips on his videoing and editing techniques and Frank has created a series of presentations - the first of which was shown at last month's meeting and will continue over the coming months.

The full presentation can be found at [Frank Catlin's Presentation](#) .

The following slides are a brief overview of the topics that Frank has or will be covering including:-

- **Weddings**
- **School or Theatrical Productions**

- **Sports**
- **Parties**

Preparation Well Before The Event

Wedding Videos - Don't Wing It!!

- Groom's home
- Bride's home
- Church
- Gardens
- Reception
- Where you and cameras will be (will you use remote?)
- Where possible use 2 or more cameras, one unmanned if necessary. One camera always on wide screen.
- Will you have enough light?
- Reserve a central position Tripods take a lot of space
- Will you need a platform or ladder? Will you need seating?
- Ensure no heads or late arrivals can interfere
- Any lights, doors, windows to avoid
- Linesmen, ushers, photographer, bridesmaids, coach
- Where will lighting and sound guys be located?
- Will there be coughing, clapping or talking near your microphones? Can your tripods be easily bumped?
- Dedicated access to power (sharing with sound and lighting?)
- Ensure you will be given a copy of the programme
- Arrange an "official" list of all relevant names and titles
- Arrange for your food and drink (if necessary)
- Arrange for copies of any relevant music, photos or video
- Bride and groom may want to provide the music for the video
- Arrange for early access to the site
- Take photos for Intro
- Arrange for seating and or platform

Preparation before the Event 2

Equipment

- Charge batteries and spare batteries
- Check tripods (practice attaching cameras) Check cameras are working (2 plus spare) Check SD cards work (including spares) Check additional microphones are working Remote control
- Stepladder Stools Torch
- Battery chargers or adapters
- Extension leads
- Power boards and double adapters
- Umbrellas
- Texta, pen, notepad and clipboard
- Gaffa tape.

Preparation before the Event 3

Covering all the bases

Ensure you will be given a copy of the programme

Arrange an “official” list of all relevant names and titles

Arrange for your food and drink (if necessary)

Arrange for copies of any relevant music, photos or video

Bride and groom may want to provide the music for the video

Arrange for early access to the site

Take photos for Intro

Arrange for seating and or platform

.

On the Day

Make sure everything is working !!

- Allow time to set up tripods and cameras etc.
- Make secure any power leads and tape over switches
- Allow time to tape down tripods and any exposed leads etc
- Check cameras working and can film all angles. Check microphones working.
- Make sure the MC will warn you before any items commence
- Make sure you know how each item progresses
- Identify the main players eg mother of bride.
- If possible record large segments without a stop eg 60 mins
- Coordinate start of recording cameras and sound
- If necessary warn persons of need to keep silent near microphones
- At weddings, the photographer is often the key person
- Consider lapel microphones
- On the day things might be materially different to expected

Wedding - Typical Video Content

Pre-Plan your Video Content

- Intro
- Groom
- Bride
- Bride arriving at church

- Ceremony
- Signing register
- Family Photos
- Bridal party photos
- Reception Centre
- Bridal party entrance
- Guest tables
- Speeches
- Cutting cake
- Bridal Waltz
- Dancing
- Bouquet
- Garter
- Farewell

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Yammer September 2019

Dennis Parsons

Chit Chat

We had an interesting and educational thread involving three of Melbourne's great religions - AFL, Judaism & gambling! Judy heard it mentioned on the radio that orthodox Jews wouldn't be able to attend the Grand Final due to various strict religious rules but she reckoned a few would manage it by subverting these rules. She explained the lengths that some go to, to circumvent the Sabbath rules, such as pinning tickets to their clothing as they aren't allowed to carry anything.

Then James mentioned the almighty dollar was the main religion of the AFL which led to pokies in the clubs, with Di opining that you'd need to be brain dead to call them entertainment! Several members proudly proclaimed they were ahead on the pokies having only ever played a handful of times. Football? What's that? It barely rated a mention!

<https://www.yammer.com/melbpc.org.au/#/Threads/show?threadId=342674757885952>

Computer Help

With the end rapidly approaching for Windows 7 (support ceases on January 14th 2020) Jan is sensibly looking at her options for moving to Windows 10. Previously her practice had been to buy a new system complete with new operating system rather than upgrading the old, being a good excuse to buy new hardware if nothing else. But she's happy with her current hardware and doesn't feel the urge to replace it so is faced with an in-place upgrade from Win7 to Win10.

Her questions were:

1. Has the dust settled? Yes.
2. Is the upgrade still free? Yes, it appears so.
3. Will I need to reinstall all my programs? Opt to leave programs and data in place.
4. Can someone please hold my hand during the upgrade? It's straight forward so you should be fine

<https://www.yammer.com/melbpc.org.au/#/Threads/show?threadId=339312222429184>

NBN Questions and Comments

Harry reported on an interesting development in the NBN service to be provided to Wye River and Separation Creek, a couple of small towns on the Great Ocean Road. As is usual for difficult to service rural areas Sky Muster (the NBN satellite based service) was the delivery method originally chosen by the NBNCo. Not great as it's expensive, and suffers speed and congestion issues. It also requires a line-of-sight view of the satellite which is a problem if your house is situated on the wrong side of steep terrain, as is the case for many in these towns.

Sanity has prevailed and FTTP has been chosen instead, meaning they will be in the fortunate position of having a better NBN service than much of metropolitan Melbourne. Not bad for towns that rely on septic tanks and bottled gas. Provided it actually happens of course!

<https://www.yammer.com/melbpc.org.au/#/Threads/show?threadId=341328658849792>

Security, Scams and Phishing

The scam phone calls purporting to be “Nicole” from the NBN advising the that NBN is now available in your area and your pre-NBN Internet service will be cut off within 24 hours unless action is taken by pressing “1” to talk to a technician continue unabated. Peter mentioned a colleague decided to have some fun by pressing “1” and asked the scammer who answered to agree to the call being recorded as evidence in legal proceedings and for dissemination on social media. They hung up.

While it sounds great fun to bait scammers and maybe waste their time thus helping to protect the more gullible, it’s not recommended to engage with them – don’t press “1” and just hang up.

Another member was assured this was definitely a scam – they’d coincided with a change in his mobile phone service so he’d been wondering if it was related. Sensibly he’d declined to press “1” regardless.

<https://www.yammer.com/melbpc.org.au/#/Threads/show?threadId=319342947827712>

DOTW September 2019

Roger Brown

Latest winners of the DOTW poll were:



Townsville Mayor Jenny Hill who says homelessness charities providing food and laundry services to people are “enabling” them to “live a lifestyle” in public parks.



DOTW alumnus Tony Abbott who this week has praised the far-right prime minister of Hungary, Viktor Orbán, and warned a conference in Europe about “military age” male immigrants “swarming” the continent.



The three men charged over a massive A\$1bn drug haul found on a tiny island off Western Australia after a yacht ran aground and was abandoned, sparking a search for its occupants. Not only were the miscreants easily detected due to the “hot pink” shirt one of them was wearing, but their escape was then blocked by, of all things, a huge aggressive seal!!



The followers of a Tongan-born missionary preacher who have set fire to artefacts considered sacred by many Aboriginal elders, and dismantled and burned other sacred buildings and objects. Cultural insensitivity at its worst!!

Time Machine: FreeBSD

Peter Kostouros

Every month we delve into the PC Update archive to take a look at what computing was like in the past...this month, a review of FreeBSD from February 2000.

Until recently my home workstation was host to several operating systems: Linux, my preferred environment; Windows 98 and Windows NT (I have legacy applications), and BeOS which I loaded to see if it really was 'cool'. An on-going episode with a sound card and Windows NT got me thinking it was time for something new.

FreeBSD is a freely available operating system primarily for Intel-based (386 and higher) PCs. A descendant of 386BSD, it has many features expected from a UNIX type operating system, for example multi-user support, preemptive multi-tasking, TCP/IP networking, and memory protection; it can also run SCO and Linux programs.

People may take these features for granted, but what also interested me was that FreeBSD was behind some popular and busy Internet sites including Yahoo! and Walnut Creek (the world's busiest ftp server which recently served out more than a terabyte of data in a day).

In this article I will describe installing and running FreeBSD.

Preamble

I purchased FreeBSD (3.2) online and received the package a few hours later. (A couple of days later FreeBSD 3.3 was released.) Since I was not rushed into installing the software I took time and read FreeBSD related news-groups (comp.unix.bsd.freebsd.misc) to prepare for the "Oh no, what have I done?" kind of feeling.

FreeBSD requires at least 5 MB RAM to install (though it will run with 4 MB RAM), and a minimum of about 100 MB of free hard disk space. Additionally, FreeBSD does not attempt to support as many devices as possible as its focus is elsewhere: it may be preferable to scan through the compatibility list.

Two problems arose immediately: FreeBSD must reside on a primary partition and to enable it to boot, certain files must be located within the first 1024 cylinders of the disk on it is installed. (Note some motherboards enable booting of operating systems loaded within the first 8 GB.) Disk partitioning software is supplied however it may be inadequate (FAT32 or VFAT partitions are not supported), so a commercial product may be required. In my case, I played a variation of the Towers of Hanoi problem with my partitions to allocate space.

Installation

The installation manual describes various install methods including installing over the Internet; the simplest method though is via CD-ROM, which I chose. If your system cannot boot from CD-ROM discs, boot floppies must be created.

When the computer was rebooted the first recognizable thing to pop up was a kernel configuration program that enables you to manually select and configure components such as hard disk controllers and network cards, or remove support for components: I removed support for components not present in my system. Once completed, FreeBSD probes the computer and after a few moments the install program is (automatically) started.

The install program is text-based and offers several install methods: beginners, impatient, and expert.

I chose expert as this option gives the most flexibility. With the expert option you set up partitions for FreeBSD; partitioning can be a complex process as hard disk performance and maintenance are dependent on the way partitions have been set up, so it may be worthwhile investigating. During the partitioning stage, a boot manager may be installed: the boot manager enables booting from various partitions or from different hard disks.

I chose to forgo this option as I have been happy with the Linux boot manager lilo. It is also possible to use NT's boot manager. (As no boot manager was installed, the installation process sets the partition FreeBSD was installed on as bootable.)

To assist users select programs to install, several prepackaged distributions are offered, for example, 'X-User' which installs a graphical user interface (the X Window System, which is more than a GUI) and general programs along with documentation,

and 'X-Kern-Developer' which along with the programs installed for 'X User', lots of source code and the necessary components to create the operating system itself are loaded. Alternatively, a custom distribution can be created where various components are selected for installation.

Once my selections the system started installing. This process took about an hour. If installing the X Window System you are required to select the appropriate X server that supports your graphics card and extra fonts to install.

Post installation

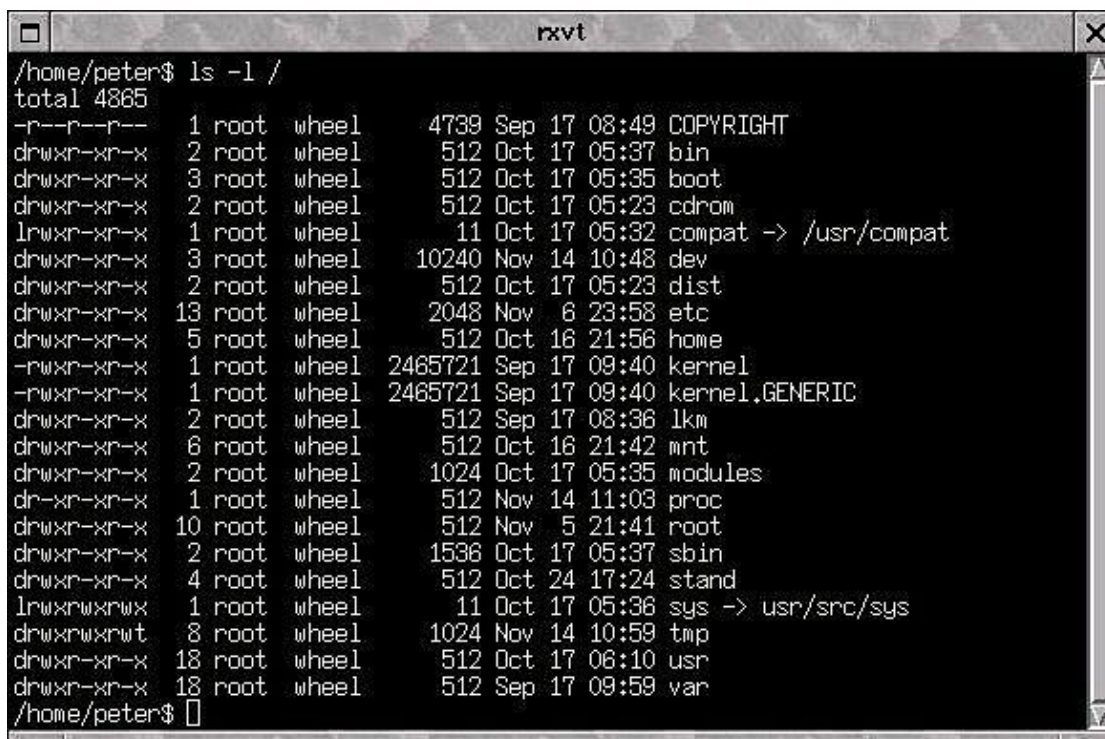
At this stage FreeBSD is about ready to run. Here several user accounts were created as was a group 'ppp' for those users who will have Internet access.

I also setup access to my Windows partitions and configured the X Window System with the program XF86Setup. This process involves selecting an appropriate graphics card, graphics modes, monitor timings, and keyboard. More programs can also be installed: I wanted to make the system resemble what I was accustomed to with Linux so I installed the Windowmaker window manager.

To enable my system to boot FreeBSD I restarted Linux and added a FreeBSD section in the lilo configuration files and ran the program lilo to commit the changes.

Working with FreeBSD

The first time I started FreeBSD I was presented with a login prompt on a text console. Once logged in, I started exploring the system by issuing commands like 'cd' to change directory and 'ls' to list the contents of directories. At first it may be difficult for those new to UNIX. However, once familiar with it you may find working with Windows difficult!



```
/home/peter$ ls -l /
total 4865
-r--r--r-- 1 root wheel 4739 Sep 17 08:49 COPYRIGHT
drwxr-xr-x 2 root wheel 512 Oct 17 05:37 bin
drwxr-xr-x 3 root wheel 512 Oct 17 05:35 boot
drwxr-xr-x 2 root wheel 512 Oct 17 05:23 cdrom
lrwxr-xr-x 1 root wheel 11 Oct 17 05:32 compat -> /usr/compat
drwxr-xr-x 3 root wheel 10240 Nov 14 10:48 dev
drwxr-xr-x 2 root wheel 512 Oct 17 05:23 dist
drwxr-xr-x 13 root wheel 2048 Nov 6 23:58 etc
drwxr-xr-x 5 root wheel 512 Oct 16 21:56 home
-rwxr-xr-x 1 root wheel 2465721 Sep 17 09:40 kernel
-rwxr-xr-x 1 root wheel 2465721 Sep 17 09:40 kernel.GENERIC
drwxr-xr-x 2 root wheel 512 Sep 17 08:36 lkm
drwxr-xr-x 6 root wheel 512 Oct 16 21:42 mnt
drwxr-xr-x 2 root wheel 1024 Oct 17 05:35 modules
dr-xr-xr-x 1 root wheel 512 Nov 14 11:03 proc
drwxr-xr-x 10 root wheel 512 Nov 5 21:41 root
drwxr-xr-x 2 root wheel 1536 Oct 17 05:37 sbin
drwxr-xr-x 4 root wheel 512 Oct 24 17:24 stand
lrwxrwxrwx 1 root wheel 11 Oct 17 05:36 sys -> usr/src/sys
drwxrwxrwt 8 root wheel 1024 Nov 14 10:59 tmp
drwxr-xr-x 18 root wheel 512 Oct 17 06:10 usr
drwxr-xr-x 18 root wheel 512 Sep 17 09:59 var
/home/peter$
```

Figure 1. The files and directories under the root directory

For those unfamiliar with UNIX, '/' is a file delimiter and the topmost directory (the root directory) is identified by /. Figure 1 shows the files and directories under the root directory: /kernel and /kernel.GENERIC are kernels (programs that interact with hardware); /var contains log files, administration files, and mail; /usr contains system files and system programs; /usr/local is usually reserved for programs that you load, and; /home is the base directory for users, for example /home/peter is the work directory for the user 'peter'.

FreeBSD comes with a handbook that covers installation and basic use. It should be noted that when issuing certain commands (e.g., rm, remove a file), the system does not display counselling windows informing you of damage (if any) about to be caused. There are also many UNIX resources available on the Internet which cover basic to advanced system administration.

There are several ways to start the GUI, one being by running the program xinit. As I stated earlier I wanted the look and feel of what I was used to and spent some time putting things together: that meant setting up icons and menus. Figure 2 shows one of my sessions. If you are used to the Windows look and feel, there are window managers which imitate it.

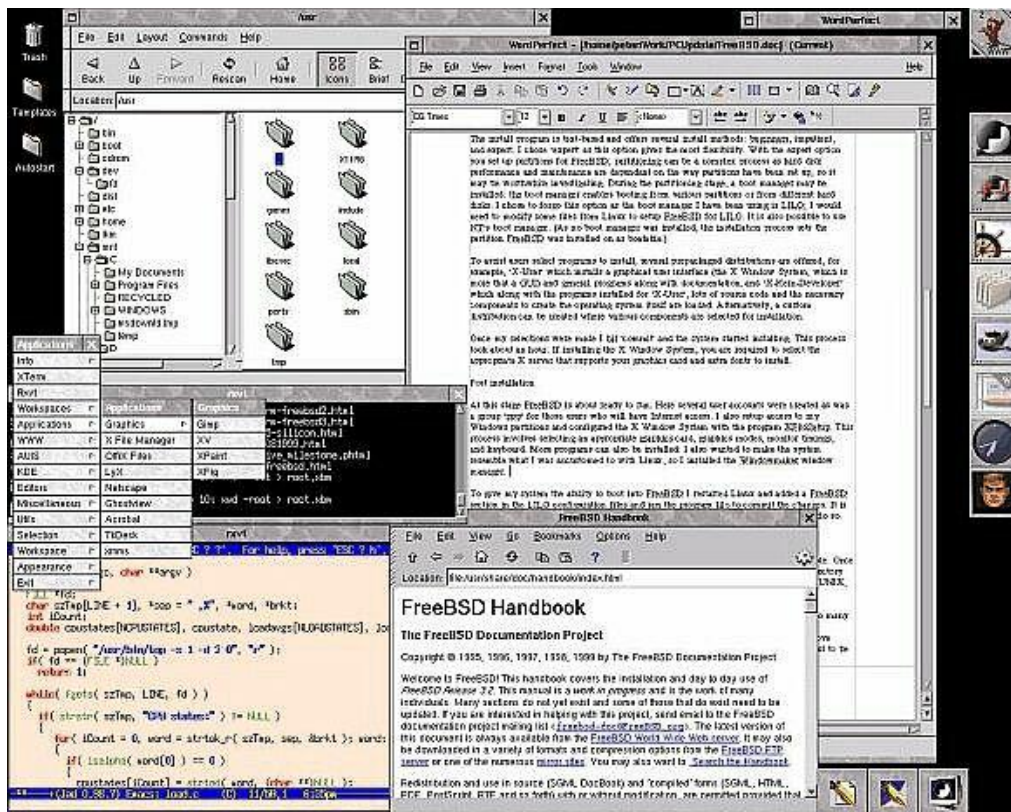
There are several file managers, among them kfm (KDE's file manager and integrated web browser) and gmc (GNOME's file manager), and are used for exploring the system and basic maintenance. KDE and GNOME are efforts to make working with UNIX simple and come with many supporting programs such as text editors, word processors, user management utilities, network utilities, and of course, games.

Along with the KDE and GNOME applications there are about 2700 applications for FreeBSD, and as stated earlier, Linux programs can be run (this document was written with *WordPerfect for Linux* under FreeBSD). Additional components of the FreeBSD system can be installed by running the program 'sysinstall'. For those who enjoy creating applications instead of installing pre-built ones, FreeBSD has a ports collection. Many UNIX programs come with source code and the idea behind the ports collection is to get these programs working under FreeBSD: note that not every UNIX program is supported by the ports collection.

Connecting to the Internet

There are several programs that assist setting up PPP connections, however, I chose to it the hard way. The handbook describes setting up connections to an ISP and essentially it requires editing the example PPP configuration files. My first attempt was unsuccessful: I did not give myself permission to dial out! (The person I logged in as was not given such privileges by the administrator, who also happens to be me.) Once the configuration files were modified (setting up users for PPP), the world was my oyster.

Initially dialling out was a manual process: I issued the command 'ppp - background melbpc' from the console. Once satisfied all was well, I created menu items from which to launch PPP sessions, and modified some files to display messages upon connection or disconnection; the example files also show how to play sounds dependent on the state of the connection.



Concluding Remarks

Some newsgroups have heated discussions on which is the best operating system as zealots wave their banners; occasionally some people add they have the best of most worlds by running several operating systems, and this is the camp I am in. With thousands of applications available, its ability to run Linux programs (Oracle for Linux, DB2 for Linux, WordPerfect for Linux), (limited) support for running Windows programs via the WINE project, and being behind some high profile Internet sites, FreeBSD has become the darling of operating systems on my PC.

To find out more about FreeBSD, visit <http://www.au.freebsd.org>.

October Calendar

| <div>  <h2>SIG & Other Meetings — Oct-2019</h2> <p>Latest version of this Calendar is at: https://www.melbpc.org.au/ (see Quick Links) This version is: V1–updated–22-sep-2019</p> </div> | | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
| Legend SIG meeting at Melb PC HQ, Moorabbin. Non-Moorabbin meeting. Cancelled Meeting Changed Meeting To be confirmed | Changes Please advise changes to: calendar-admin@melbpc.org.au | 1 | 2 North East Genealogy SIG 80 Hawdon Street Heidelberg 10am - 12noon MONTHLY MEETING Melb PC HQ, Moorabbin 7pm – 9:30pm then Supper (WAFFLE) at Fong's 9:35pm | 3 Sunbury Daytime SIG New Users 9:30am - 12noon | 4 Essendon SIG Main meeting Avondale Heights 9:30am - 12noon Multimedia Home Entertainment SIG Mount Waverley 10am - 12noon | 5 |
| 6 Science & Tech Projects Group Moorabbin 1pm - 5pm | 7 | 8 Investment Tools - WASINT SIG Moorabbin 10:30am - 12:30pm | 9 Video Production – Sony SIG Moorabbin 10am - 12noon North East Daytime & Photography SIG Heidelberg 10am - 12noon Communications SIG Moorabbin 7pm – 9:30pm Microcontroller SIG Moorabbin 7pm – 9:30pm | 10 Sunbury Daytime SIG Advanced 9:30am - 12noon East SIG Blackburn South 7:30pm - 9:30pm | 11 Essendon SIG Open Forum Avondale Heights 9:30am - 12noon Hardware SIG Mount Waverley 10am - 12noon Casey SIG Beaconsfield 1pm - 3:30pm | 12 Microcontroller Workshop SIG Moorabbin 12noon - 5pm Raspberry Pi – Moorabbin SIG 2pm - 4pm |
| 13 East Workshop SIG Mount Waverley 10am – 12noon | 14 Access (database) and Excel SIG Moorabbin 6:30pm – 8:30pm Video Production Group Moorabbin 7pm - 9:30pm Please confirm if meeting on Queen's Birthday. | 15 Everything Apple SIG Moorabbin 2pm - 4pm Melb PC Committee Moorabbin 7pm | 16 North East Android SIG Heidelberg 10am – 12noon | 17 Sunbury Daytime SIG Main Meeting 9:30am - 12noon Bayside SIG Brighton 10am - 12noon | 18 Essendon SIG Various topics. Avondale Heights 9:30am - 12noon Digital Images SIG Including Photoshop Mount Waverley 10am - 12noon | 19 Windows Plus SIG Moorabbin 10am - 12noon |
| 20 Beginners East (BEAST) SIG Vermont South 10am – 12noon MACE (Atari Computers) SIG Moorabbin 10am - 2pm Genealogy East SIG Vermont South 12:30pm - 2:30pm Science & Tech Projects Group Moorabbin 1pm - 5pm | 21 Mornington Peninsula SIG General inc Q&A Mornington 9:30am - 12noon Family History Mornington 1:30pm - 4:30pm Owner's Corp AGM Borrett Room 5:30pm-7pm Northern Suburbs Linux SIG Watsonia 7:30pm – 9:30pm | 22 | 23 Video Production – Pinnacle SIG Moorabbin 10:00am – 12:30pm | 24 Sunbury Daytime SIG Maintenance & Linux (Fourth & fifth Thu of month) 9:30am - 12noon | 25 Raspberry Pi - Mt Waverley SIG 10am - 12noon PC Update – Articles Deadline | 26 Microcontroller Workshop SIG Moorabbin 12noon - 5pm |
| 27 Website Design SIG Tutorials Moorabbin 2pm - 4pm Troubleshooting Moorabbin 4pm - 6pm | 28 | 29 | 30 Mornington Peninsula SIG Family History – Advanced DNA (LAST Wed of month) Mornington 2pm - 4pm. PC Update – Reports deadline | 31 Sunbury Daytime SIG Maintenance & Linux (Fourth & fifth Thu of month) 9:30am - 12noon | Other SIG (Special Interest Group) information: https://www.melbpc.org.au/signs/about/ Recent Changes: https://www.melbpc.org.au/signs/about/recent-changes/ | Have A Question Post it on Yammer Yammer: http://yammer.com/melbpc.org.au/ |