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Melbourne PC User Group Inc. is a member of the
Association of Personal Computer User Groups

[Membership application form online](#)

iHelp – get the help you need with your computer
Ph (03) 9276 4088 mailto:iHelp@melbpc.org.au
[Live chat](#)

PC Update

February 2018

The Newsletter of Melbourne
PC User Group Inc.

Monthly Meeting Live Stream

Tune in here at 7.00pm on Wed 7th of February
to view the Monthly Meeting live over the
Internet.

Test Transmission usually commences at around 6.30pm

<http://tv.melbpc.org.au>

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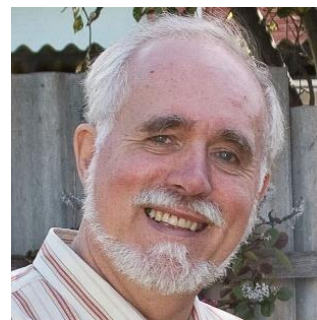
Deadlines for content: Please see [the calendar](#)

Iss 2

Editorial

Hi, you may not know me. I've been a member for "only" about 5 years, and I've been lurking mainly in the Microcontroller SIG. Last year, in a rush of blood to the head, I offered myself for Committee and found myself holding the marketing portfolio. I undertook the task of editing PC Update as part of Marketing. When you think about it an awful lot of things are of interest to, and affect, Marketing.

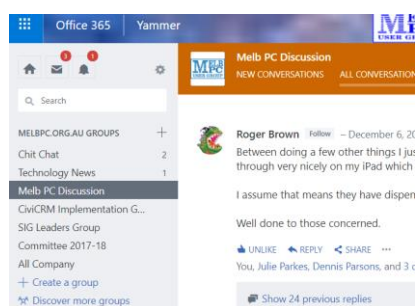
It's been a bit of a bumpy start due to an unplanned event that took out 2 weeks of my time. So, a more than normally special thanks to George Skarbek for his past editing and for helping me get up and running, to Harry Lewis for patiently answering my ignorant questions about several technical matters, and to Malin in the office who smoothed out one of the bumps for me very efficiently. Thanks George and Harry, *och tack så mycket*, Malin!



OK, OK, so that was taken a few years ago!

So, what's with Yammer????

Being a member of a club is to be a member of a community. Because MelbPC has members scattered across the geography, it's not practical for everyone to get together in the same physical location very often. But we have adapted.



We have regional groups that members can attend closer to home. We video stream the monthly meetings to members' homes and to regional groups (a project is under way to make that work even better). We have this newsletter, and we have a website to keep members informed.

We also have a forum where members can interact with each other online, Yammer, which is available to all members and accessible only by members. Yammer has many individual "groups" that reflect different interest areas from iHelp to Chit Chat, NBN to the latest technology (an accidental juxtaposition, but apt!).

Yammer got a bit of a bad rap in past years because a past president used it as a vehicle to humiliate and denigrate people objecting to his authoritarian manner. But that is all in the past; Yammer is now, if not exactly genteel, at least a place where you can express opinions, ask for help, post jokes or discuss technical and club matters, all in a reasonably polite and respectful environment. Sure, there's a bit of light hearted carry-on; I myself got nominated last week for the DOTW award (that's *something* Of The Week, work it out for yourself). DOTW is a poll for the Australian who has exhibited the most stupid, thoughtless or plain dumb behavior during the week. I was nominated for posting a "oldie but goodie" joke (which I will happily reproduce in these pages if I get enough requests. Just email editorpc@melbpc.org.au). But I'm relieved to report I lost to The Victorian opposition leader Matthew Guy who has promised, if elected, to sack councils that refuse to celebrate Australia Day, in the same week he pledged to change the state's curriculum to teach "Australian values".



Honoured to have been nominated!

So, if you haven't already joined the Yammer community, giving it a go! The easiest way to get started is to go to yammer.com/melbpc.org.au and log in using your Office 365 credentials. If you don't yet have Office 365 credentials (a melbpc.org.au email address and O365 password) the office (9276 4000) or iHelp (9276 4088 / iHelp@melbpc.org.au / [Live chat](#)) can help you out.

Introduce a new member and receive 3 months free membership extension*. Just have them name you on their [application form](#)

* Must be a new member, not someone renewing after their membership lapsed.

Our Statement of Purpose

The purposes of the Association are to conduct, on a non-profit basis, activities to help members learn and use systems and devices using various technologies, especially computing, software, and communications technology (including the Internet, personal computers & devices), to achieve the following outcomes;

- Advancing computer literacy;
- Advancing education and the exchange of ideas;
- Keeping members up to date on developments in computer and information technology and helping members to exchange information;
- Representing members in public debate in areas of interest including law reform proposals;
- Engaging with similar organisations; and
- Carrying out activities that benefit the Association

President's Report January 2018

John Hall, President

A Vision for the Future – Part 1 – Retaining Existing Members

With the start of a new year it is time to think about what we want to achieve over the coming months.

The Mission Statement for our club is based on “Members Helping Members” and to achieve this we have been fortunate to have a dedicated group of Members who take turns in answering the phones to assist Members who are experiencing problems – namely our iHelp Team.

We owe an enormous vote of thanks to these folks as I believe that many of our members see their annual Membership Fees as a form of “Insurance” as they know that if they ever get into trouble with their PC – our annual membership fees are probably lower than a single “Call-out” to a commercial PC Support organisation.

(Some of our Members have even likened Melbourne PC to be the “RACV” of the Computer world).

Now, with our Office 365 “YAMMER” application we are able to give our Members even more help as this allows any one of our Members to post a question on Yammer and any one of the other members who feels that they can assist can answer it.

This year, the most notable topic on Yammer has been the roll out of the NBN network and many Members have received advice about how to replace their land-line handsets etc. at the “NBN Questions and Comments Group” on Yammer at https://www.yammer.com/melbpc.org.au/#/threads/inGroup?type=in_group&feedId=12583677

(I have put some instructional videos which are intended to encourage Members to use Yammer at <https://www.melbpc.org.au/index.php/sigs/raspberry-pi-mt-waverley-sig/>).

Last year we implemented a new Membership System based on the open source Database System – CiviCRM. This has enabled Members to update their own phone and contact details “on-line” themselves thus saving a significant workload for our Office staff and Volunteers.

This year, it is hoped that we can implement the CiviCASE module of this System which would allow Members to lodge their own Help Requests and provides a mechanism for our iHelp Team Members to keep track of who is helping the Member and what actions they have taken so far (see “What is CiviCASE at <https://docs.civicrm.org/user/en/latest/case-management/what-is-civibase/>).

As our new System is accessible from your Home or Laptop PC from anywhere around the world (using your secure “Member Login” at <http://www.melbpc.org.au/wp-login.php>) you too could become a Member of our iHelp Team and if you feel that you could provide specialist help in some area (Video Production, Digital Photography, Genealogy or the like) please feel free to write to me at johnhall@melbpc.org.au and I will forward your offer of help to our iHelp Team.

With many more Members now being able to join in our “Members Helping Members” program I am very hopeful that we will indeed start to earn recognition as the “RACV of the Computer World”.

A Vision for the Future – Part 2 - Attracting more Members via our Web Site(s)

In order to grow our Membership, we will have to provide potential Members with on-line information about what our Club does and how it can be of potential benefit to them.

Our current web site is very poorly structured to achieve this – in fact one Member described it on Yammer as a “Complicated Maze” which was “Awful” – see <https://www.yammer.com/melbpc.org.au/#/Threads/show?threadId=945003707>

Now that we have implemented CiviCRM and WordPress we have the opportunity to completely re-design our Web Site and introduce a completely new Web Site for our “Melbourne Computer Club” organisation.

If you haven’t heard of the “Melbourne Computer Club” before – this is a totally owned subsidiary of the Melbourne PC User Group which we registered as a Business name in mid last year.

The reason for this was that our existing name of the “Melbourne PC User Group” does not immediately convey the breadth of our current interest Groups (such as the Android, Linux and Raspberry Pi Interest Groups. In fact one lady who I met recently asked me if the “PC” stood for “Politically Correct” !!!)

If you would like to know more about the way the “Computer Club” will try to attract new Members you can view my talk on the subject at the September Monthly Meeting – see https://melbpc.sharepoint.com/portals/hub/_layouts/15/PointPublishing.aspx?app=video&p=p&chid=0d1bb424-12c4-43b4-9c78-4a206b64527e&vid=7c0e8bd3-479f-4d15-96b9-54eaf02a20da

One of the first Projects to be undertaken by the Melbourne Computer Club is being developed by our Microcontroller Special Interest Group and is called the “RoboMite Project”.

This Project is being spearheaded by our new Marketing Co-ordinator on our Management Committee – David Stonier-Gibson.

David has designed a 3 Wheeled Micro Robot with the intention that Parent/Grandparents and their Children/Grandchildren should be able to work together on the construction and programming of this Robot. The Robot will have the potential to be programmed for a variety of autonomous tasks, including following a line or even solving a maze – it all depends on the creativity of the student. Students will be set a challenge each week (never homework!) with prizes awarded for the best effort(s).

(For those of you on Facebook you can see more about this Project at <https://www.facebook.com/groups/850575515084668/permalink/1085170814958469/>

Again, if you feel that you would be interested in joining David’s team or would like to bring your Child/Grandchild (or even just yourself) along to the RoboMite Workshops (which I believe are aimed to start in February) – please contact me at johnhall@melbpc.org.au or president@melbpc.org.au and I will forward your details to David.

As we are becoming more of an “On-line” Community Group I believe that we can start to attract new Members who may not want to (or not be able to) attend our traditional “Special Interest Groups” and instead of the declining numbers we have seen over the past few years – hopefully we might even start growing our Membership again.

John Hall – President

Monthly Meeting

Wednesday 7th of February

At 7.00 pm sharp the meeting will open with our regular Q&A Session. Bring along your computer related questions and we will all try and find answers for you.

After Q&A our president John Hall will present his President’s Report.

At 7:30 we have a special guest speaker, Mr Phil Smith from OptiComm. OptiComm is a wholesale access carrier specializing in the rollout of fibre-to-the-premises Internet to greenfield developments. They were instrumental in the rollout of Stage 1 of NBN Tasmania. OptiComm now services over one third of Australia’s greenfield developments over 100 lots. So, while he may not be able to offer individual home-owners relief from NBN woes, Phil may give us some insights into the underbelly of the industry as well as something to consider when planning a future change of life style.

After the break

At about 9:25 George Skarbek will give a short presentation of What's New, with interesting titbits from around the Internet.

The meeting will close at 9:30 pm.

After the meeting, we get together for WAFFLE@FONG. The WAFFLE SIG (“Wine And Fine Food Lovers’ Event”) will be at FONG’s Chinese Restaurant, 725 Centre Rd Bentleigh East, Corner of Francesco Street, Melways: 77: J-1 [Google maps](#). WAFFLE@FONG is a great way to socialise with fellow members while enjoying some nice food and maybe a drop of wine. Each time one or two people bring a long a bottle of wine (*This time it’s my turn, and I have a special little number earmarked - Ed*)

If you can’t make it to Moorabbin, be sure to tune in to <http://tv.melbpc.org.au> for a live broadcast of the meeting. Test transmission usually begins at around 6.30pm. You can also watch it on: <https://www.melbpc.org.au/index.php/monthly-meeting/live-stream/>

SIG leaders’ meeting in December

John Hall

A SIG leaders’ meeting where the new featured of the MMS software were demonstrated. Paul Woolard was the main presenter and the photos below, taken on a phone by George Skarbek, shows the attendees.



Short Story Entries – Subject: Keyboard

How Jack Got Computer Stress Relief

‘Keating! I want that report on my screen by ten.’ Jack froze. Keats, the new manager was paranoid. The key was still dangling from the keyring, not even in the keyhole to enable him to enter the night’s financials into the keyboard. Why a lock? Didn’t Keats know about passwords? This was another attack, and once again he was the target.

‘Yes, Mr. Keats’. Jack kept his voice level and emotionless to avoid further vitriol.

Jack knew Keats always glanced at his report after lunch although any sane manager would examine it immediately to address stock-market movements. In fact Jack’s analysis was now irrelevant. He’d been the economic advisor setting the keynote policies of the organisation for decades with his Keynesian economic models since his first employment there. He’d even worked there casual as a school-boy keypunch operator to enable the early computers to be programmed.

Resignation was an option but Keats told him that if he resigned he would go without superannuation, recreational leave, long-service leave, or sick leave...in Keats’ words he would go *‘with a square of toilet paper to wipe his hands of the organisation and an empty wallet so that he wasn’t weighted down with superfluous luggage’*. Personnel had been told not to tell Jack his rights. All he got was advice that if expert opinion said he suffered from a medical condition caused by the organisation he would get early retirement with full benefits. The trouble was, he felt fit and healthy.

The main problem was the new boss, but telling him that was pointless. He’d tried to tell the CEO what was really going on, but he thought Keats was *‘brilliant, just brilliant’*. There was also an issue he hadn’t faced before. He was bored. Work used to be a challenge. If the boss doesn’t read your reports, why bother to write anything? Because he demands it on his screen by ten, that’s why. And now the task of typing in the financials every morning was boring, boring, boring. Just looking at that keyboard brought on depression. He had to focus hard just to press the keys.

‘Damn’, thought Jack *‘I’ll follow personnel advice get medical opinion’*. This turned out positive and he got his discharge with all benefits. He was diagnosed with a repetitive brain injury. The report said he was *‘Key Bored’*.

Graham Hurford, who instigated this competition, replied:
“hmm, the writer has used ‘Key Bored’ instead of keyboard....no cigar I'm afraid”.

Library Loans Pick Up In 2017

Clemens Pratt, librarian

I drew attention last year to the steady and profound fall in the rate of loans from our Moorabbin library since 2007. During 2017, acting on comments from members visiting the library, a policy was introduced encouraging loans of magazines after they had been on display for reference for about three months: APC, PC & Tech Authority, and Choice Computer. The data for the 2017 year can now be added, and it looks like this:

Year	Loans	Books	Magazines
2007	684	684	—
2008	566	566	—
2009	465	465	—
2010	285	285	—
2011	145	145	—
2012	112	112	—
2013	84	84	—
2014	51	51	—
2015	49	49	—
2016	41	41	—
2017	62	41	21

From this it is evident that there is still a small level of interest in borrowing books, but also an interest in borrowing the magazines. Choice Computer is a unique case as it is not available from newsagents but comes from the Australian Consumers' Association through subscription. A group of magazines on Raspberry Pi has also attracted borrowing activity.

So next time you visit the MelbPC Moorabbin club rooms, check out the display of magazines set out on the table. If you borrow one, just write the details in the library register, which is also on the table.

Trouble in the basement

On January 27 Sean Clarke, the volunteer who maintains our servers at Moorabbin, reported that the "SIG LAN" router had failed. A hurried email poll was conducted of Committee members and Sean was authorised to buy replacement equipment ASAP. These are not ordinary routers like you have at home - they are commercial grade units capable of supporting many more simultaneous WiFi connections, with robust security and firewalls.

Sean is hopeful of having new equipment deployed and commissioned before the next main monthly meeting.

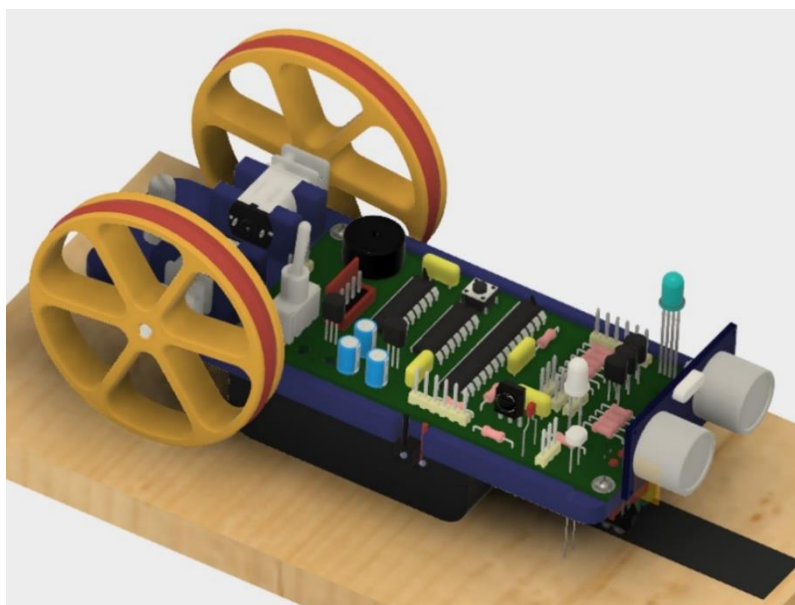
Thank you Sean for your efforts

Robotics workshops

David Stonier-Gibson.

As John Hall mentioned in his President's Report, the Microcontroller SIG is working to bring you a workshop on robotics. This was instigated by Amir Fouladvandi and started out primarily aimed at kids vaguely in the 10-15 years age bracket. After consultation with a couple of STEM (Science, Technology, Engineering, and Maths) teachers we (Amir and myself) have narrowed it down to around 13 years of age. We have also added a new wrinkle: The "kid" (what *do* you call a 13-year old? Not a child, not an adult) is to be accompanied by a parent or grandparent (or adult mentor). The reasoning behind this is that we want to do much more than just "coding", and helping build a kid/adult bond has to be a worthwhile objective.

We have visited schools and studied similar initiatives elsewhere. One noticeable thing was that in schools the robot platforms they use are too expensive for the kids to keep. We felt it is important for the robot to be cheap enough "to take home and show Mum". So I have designed a wheeled robot called RoboMite that costs roughly \$40 to make, including some add-ons like a digital multimeter, a solderless breadboard, a servo motor, and hook-up wires. The plastic parts are 3D printed. The cost is low because we are buying all the parts super-cheap on eBay, the main chip is "sponsored" by the maker, MicroChip, and because the physical construction is being performed by a group of volunteers



I don't have a built-up robot to photograph right now, so here's the CAD model. You can examine and rotate the 3D drawing at <http://a360.co/2jk94j7> which is whatever I last saved while working on it. It's done on Fusion 360, which will be the subject of the presentation at the March main meeting.

from the Microcontroller SIG. Also, the tires are rubber bands and the front caster is a marble (\$2 for 20 from the local El Cheapo's)

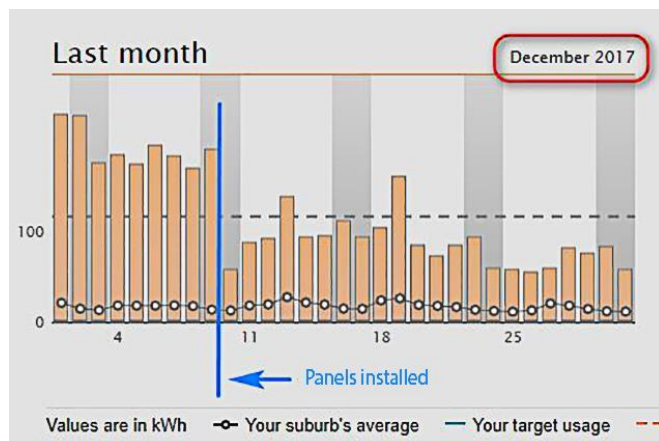
RoboMite is based on the MicroMite single chip computer. It's programming language, MMBasic, was developed in Australia and is very suitable for teaching beginners a text based language. RoboMite contains a much richer assortment of sensors and actuators than many commercial platforms that cost 2 or 3 times as much. It can play melodies, produce light in any colour, follow a black Texta line, avoid obstacles, measure temperature and light intensity, control 3 RC hobby servos and respond to commands from a hand held infrared remote. That's before we even attach the motors and wheels and program it to move around! But when the kids first get it RoboMite will do none of those things; the whole purpose of the workshop is to teach them about interactions between electronics, sensors and actuators and the real world, and the programming skills they need to exercise their creativity and unleash those capabilities.

At this stage we are planning to start the workshop in March. Actually, there will be 2 workshops: One on weekends will be for kids and mentors, and another during the week (daytime) for adults. We are limiting it to 10 places for each workshop, and some will be allocated to members and some (with a higher fee) to non-members. One of the objectives is to try and attract new members.

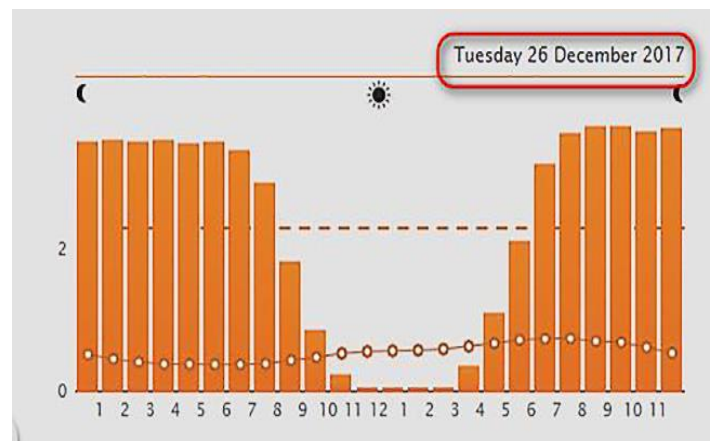
Our solar panels are installed

John Hall

In early December, our 5.1kW solar panel was turned on after passing the inspections. We have a base load of close to 5kWh for 24 hours a day, mainly due to the servers running in the basement and therefore our electricity bills are high. These solar panels will save us just over \$1,000 a year on the current electricity cost.



This graph shows the effect of our daily power usage for December.



Over the Christmas break the half hourly demand for Boxing day shows clearly the effect of the solar panel generation. Huge dip during sunshine hours! At the time of writing, our electricity supplier has not implemented the 11.3 cents per kWh rebate for the occasional power that we will supply to the grid.

At a recent real-time Java conference, the participants were given an awkward question to answer:

"If you had just boarded an airliner and discovered that your team of programmers had been responsible for the flight control software, how many of you would disembark immediately?"

Among the forest of raised hands only one man sat motionless. When asked what he would do, he replied that he would be quite content to stay aboard. With his team's software, he said, the plane was unlikely to even taxi as far as the runway, let alone take off.

Photography: remove the fog from your phone pix

David Stonier-Gibson

Each month I will try and do a small tip on getting better results out of your camera, be it your phone camera or a full frame DSLR with high end optics. Or maybe I'll just do a general interest article on photography. First off the rank a tip based on a common mistake I see people make with their phone cameras.

Did you ever take a quick snapshot of your child or grandchild, only to discover it looked as if it was taken through a fog? The reason is almost certainly very simple: Your lens is covered in fingerprints and general gunk. So make a habit of keeping the lens clean. You can breathe on the lens (actually, most phones have a glass lens cover) to get a little bit of condensation, then *gently* wipe it with a clean tissue or handkerchief. If you have some spectacle lens cleaner, a squirt of that on the tissue will also work well. I have even used a spot of saliva in a pinch (saliva has oil dissolving properties). Don't do it more than necessary, as there is always a risk of scratching the glass. Be gentle!

Of course, prevention is the best cure, so try to avoid getting the lens dirty in the first place. I find with my phone that just being in a case that recesses the lens a bit helps.



Ten Questions

A new section by Graham Hurford

Each month we will ask a club member ten questions. Seven will be constant - every member will be asked the same seven questions. Three more questions will be asked and these three will differ from person to person, month to month. This is not meant to be a psychological profile but just a fun way to get to know someone. Questions can be answered in any way the member wishes. Correspondence will not be entered into about such.

This month, we ask MelbPC President John Hall

Q: For how long have you been a member of MelbPC?

A: 18 years.

Q: Why did you join the club?

A: To find out how to edit Video (VHS Tapes) using a P.C.

Q: Declining membership is a concern to us all. What are your thoughts?

A: If we make more of an effort to fulfil our Club's mandate – i.e. "Members helping Members" – we will have more chance of retaining and recruiting Members.

We have a great tool for doing this in our Office 365 "Yammer" app (which can be run on iPad or Android as well as a PC) and we have had great success in assisting our members with the transition to NBN through Yammer.

The problem is – many people have trouble finding how to log in to Yammer and we need to simplify our Web Site to make Yammer and all the other free Office 365 Apps (Word, Excel etc.) easier for our Members to access.

Q: You are stranded on a deserted island. It has no electrical power. What three things would you want to have with you?

A: A solar panel with a USB lead out, my Android Tablet with its large collection of books and Music and a knife to cut up the Coconuts!!!

Q: If you could make one rule that we all must obey, what would it be?

A: Don't say anything in writing that you wouldn't be prepared to say face to face.

Q: What is your favourite book?

A: Ender's Game. - Watching my young grandsons, I can well imagine it coming true!!!

Q: Can you recite a poem?

A: The only poem that instantly springs to my mind is by an Australian Poet called A.D. Hope – which goes something like

***“They call her a young country but they lie,
she is the oldest of lands – the emptiest,
where second-hand Europeans timidly pullulate
around her alien shores”.***

It probably sticks in mind because I had to look up the word pullulate (no I'm not telling you) and the guy's name was Hope – the irony of that appealed to me!!!

Q: What is the greatest invention in your life time, so far

A: The Computer of course.

Q: What "morals" should we program into intelligent machines?

A: Always do what the Human tells you – Hal, Hal, are you listening??!!!!!!

Seriously though, If it was possible to instil “Morality” into a program then it should be programmed to only take actions that improve the lot of humanity – otherwise it might start taking actions that would improve the lot of Robots to the detriment of humans.

Q: If you could ask one person one question who would it be and what would you ask?

A: I would ask Donald Trump how he sees the situation with North Korea being resolved.

The power of minus – power your Google searches

David Stonier-Gibson

Did you ever go googling for something only to find that the relatively obscure thing you were after gets buried in hundreds of hits for something much more popular but of no interest to you? This is where the power of a minus sign comes in: By preceding a search word with a minus sign you will exclude any hits that contain that word. You can have multiple minus words, so you can drill down and filter out the unwanted stuff until the gems you are after start to emerge.

For example, if I google for [very stable genius](#) I will get a predicable flood of hits on the world's most famous (infamous?) self-proclaimed ultra-genius.æ

If I now modify the search to [very stable genius -trump](#) I eliminate POTUS. But now I get a whole bunch of T-shirt ads (enterprising fellows, those T-shirt makers!).

So I add a couple more negatives: [very stable genius -trump -tee -shirt](#) and discover some enterprising brewery have made a beer with that name. What a pearl amongst all that junk!

By the way, with a phrase like this you can often refine your search by enclosing the words in quotes: ["very stable genius" -trump -tee -shirt](#). In this case it makes no difference, perhaps because those 3 words are seldom used separately in any other context.

OK, so my example is a bit contrived, but it does illustrate the point. I use it quite often but can never remember the instances later, so I had to invent an example.

This also works on eBay. eBay merchants frequently overload their headline descriptions with as many keywords as they can think of to capture the attention of more buyers. That tends to muddy the waters and give you a huge number of hits

for exactly what you are *not* looking for. So just add minus words from the junk hits until you filter out what you don't want. At one time you could also do this on AliExpress, but it seems they have taken that ability away.

Does anyone know of other places where this works? Let me know at editorpc@melbpc.org.au

Everything Apple SIG: Changed regular meeting date

Everything Apple

Everything Apple SIG is **changing its regular meeting date**.

Commencing Feb-2018:

- We meet 2pm – 4pm on the **third Tuesday** of the month.
- **Next Meeting: Tuesday, 20-Feb-2018, 2pm.**

Everything Apple SIG is a joint venture between Melb PC and Apple Users Society of Melbourne (AUSOM).

The emphasis will be on Apple Devices (iPad, iPhone, iPod, and Apple TV) and helping PC users understand the Mac environment. We welcome newcomers to Apple or computers, Apple experts, and everyone in between. There will be a 10 minute tea break half way through and time for questions at the end.

Join us for **anything** you want to know about Apple products.

Location: Melbourne PC Headquarters, Level 1, 479 Warrigal Road, Moorabbin
<https://www.melbpc.org.au/index.php/contact-us/>

Convener: Peter Emery

Co-convener: Sam Fiumara

Email to: everything-apple@melbpc.org.au or everything-apple@ausom.net.au

SIG Reports

Northern Suburbs Linux SIG – January 2018 Meeting

Report by Paul Addis

Our first meeting of 2018 was held at our usual venue, Watsonia Library meeting room. The start was the now customary Linux News from Nick Vespo.

All the items were interviews, the first was of Florian Effenberger, executive director of the LibreOffice project. The project is backed by and is a part of The Document Foundation. It is possible for people to join the project: there is an application form on the web, and applications are evaluated by a membership committee. The current membership is drawn from many countries, so the project is truly international.

The changes planned for the future include LibreOffice online and support for LibreOffice on mobile phones. Currently, mobile phone support is a viewer, with full functionality in development because mobile phones are so diverse.

The second interview of a manager from LibreOffice was of Italo Vignoli, who has marketing responsibility. He was one of the original group of people who founded LibreOffice, which split off from Open Office at version 3.3 of the original.

Open Office started in 1984 (for CP/M) and was carrying the burden of such a long history. Some rewrites took place initially, but the move to 4.x involved a more or less complete rewrite of Calc - the Excel equivalent, maybe 1 million lines of code were written. Version 5.x updated the user interface to modernise it, another substantial rewrite.

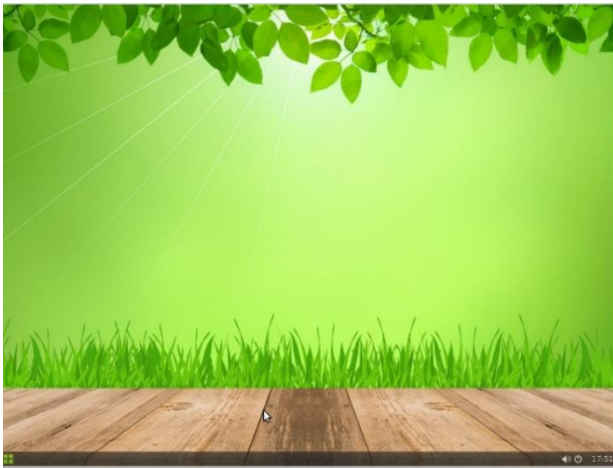
The third interview was of a manager from Thunderbird - the email program. It was started a long time ago, and had a close relationship with Mozilla. Thunderbird is slowly moving to its own infrastructure as it continues to work on separation from Mozilla. Thunderbird has a very large user base - about 26 million users, and is still growing; about 1 million new users have come aboard recently.

The Open Forum started with a discussion of the new membership system for Melbourne PC Users Group. There are known problems, but a poll of users present did not reveal anyone who had experienced problems. The discussion spread to what platform the Group uses. Members have Office365 access which is used for authentication. But the Group's website and Membership Management System now run on Linux (Red Hat Enterprise Linux).

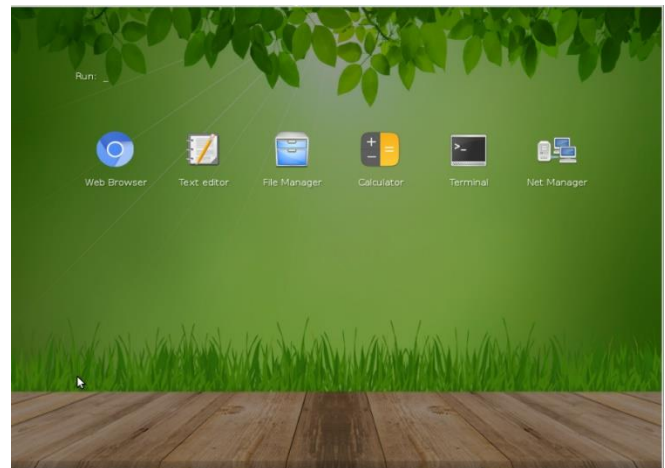
After a lively social cum refreshment break we came to the main session of the evening. David Hatton presented another of his fascinating Random Bytes sessions. Two small Linux distributions were looked at. Each might be good way to bring back into use an older computer which is no longer large or powerful enough to run current software platforms.

First up was Slax 9.3 - A small and fast Linux operating system with modular approach. From the website at slax.org - "Despite its small size, Slax provides nice graphical user interface and the only two programs everyone really needs: a Web browser and a Terminal." It does provide some more facilities than the two mentioned, but is fast and lightweight by virtue of its use of Fluxbox and ICEWM to avoid the memory and processor costs of a "full" graphical user environment.

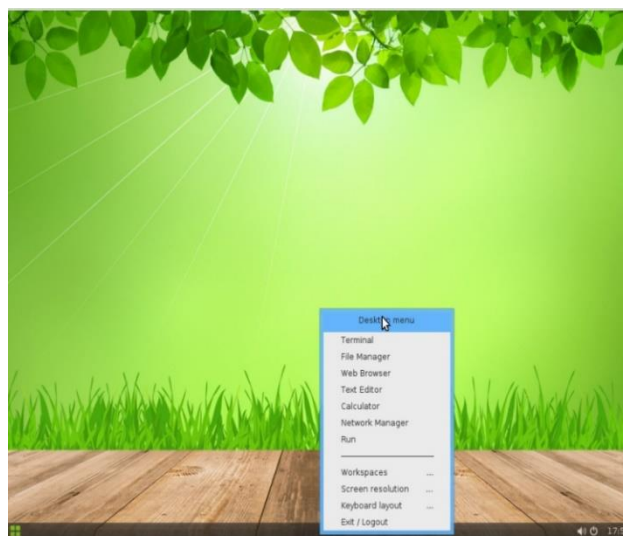
David ran it in a virtual machine, booting from a virtual CD. The project web site recommends a USB stick rather than CD for booting. The screenshots below show some of the Slax desktop functions.



Slax 6.3 Initial screen with small menu button bottom left

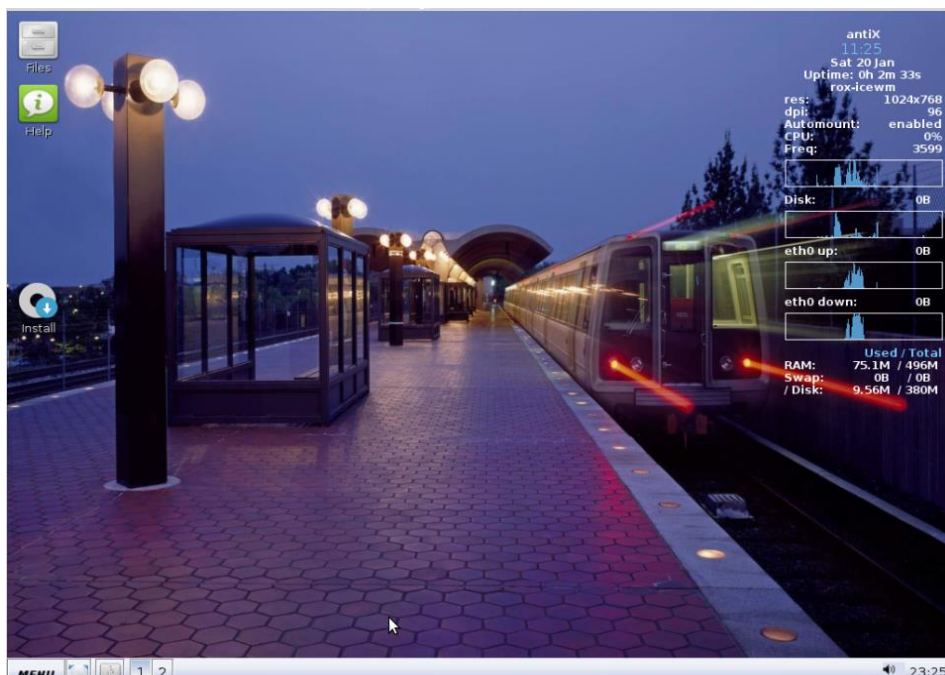


Clicking on the menu button gives desktop icons.



Right click anywhere on the background shows a Desktop menu

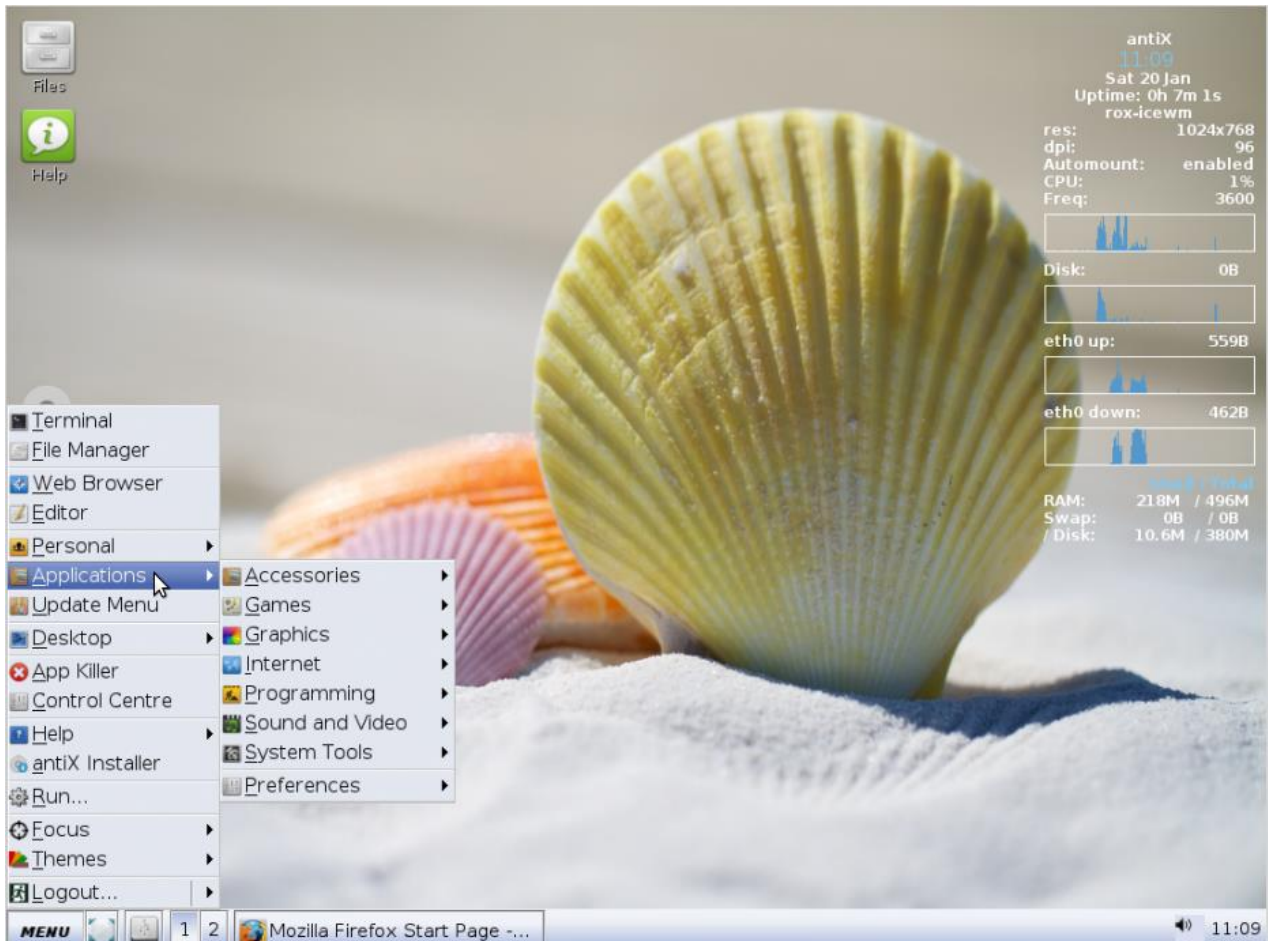
Next was Antix 17 - This is rather larger than Slax, but includes more programs and functions. Antix, like Slax, is based on the Debian distribution.



Antix Base default desktop showing system monitor top right

Antix is available in a number of versions. The base version could run in a machine with 256MB of memory, but does not have an Office suite. The Full version includes LibreOffice, and has quite a large number of other included programs. The AntiX Base .iso file, downloadable from the website at antixlinux.com, is around 650MB compared to the Slax .iso file of around 270MB. The Full version has a .iso file size of around 800MB and thus will not fit on a CD in contrast to the Base version. So if you have an old machine with a CD drive you can use the Base version to do the initial install, and then use a package manager to install any other available software you need.

Antix has its own package manager which only supports program installs, but it is also possible to use the apt command line package manager or the evergreen GUI Synaptic for a more comprehensive package management.



Antix with customised desktop wallpaper and showing the main menu.

Antix also uses Fluxbox to create the desktop, but provides a choice of Window Managers, including ICEWM.

Both Slax and Antix demonstrate how an attractive and useful GUI desktop can be created using some of the veteran window managers and their associated utility software to end up with an attractive and responsive desktop that is very frugal with computer resources.

After this session, members present may well be looking at that older machine, with the aim of bringing it back into service rather than gathering dust on a shelf somewhere.

"I have travelled the length and breadth of this country and talked with the best people, and I can assure you that data processing is a fad that won't last out the year." –

The editor in charge of business books for Prentice Hall, 1957

Special Interest Groups (SIGs) – Meetings & contact details

Maintained by John Hollow

Data Source: data-source for SIG-List

Updated: 30-Jan-2018 - 16:26

Amendments: Please advise changes/corrections to: calendar-admin@melbpc.org.au/

Recent changes are at: <http://www.melbpc.org.au/interest-groups-resources/sig-changes/>

Access (database) and Excel

Date Jan	No Meeting
Feb-Nov	Second Mon of month (inc. Public Holidays)
Dec	Second Mon of month
Time	6:30pm - 8:30pm
Email	access@melbpc.org.au
Location	Melb PC HQ, Level 1, 479 Warrigal Rd, Moorabbin Melway:78.D8
Convenor(s)	Craig Evans craig_evans@racv.com.au

Bayside

Date Jan	Third Thu of month
Feb-Nov	Third Thu of month
Dec	Third Thu of month
Time	10am - 12noon
Email	bayside@melbpc.org.au
Location	St Stephens Church Hall, 111 North Road (cnr Cochrane St), Brighton Melway:67.F7
Convenor(s)	Peter Carpenter - 9596 3441 Brian Fergie Les Johnston

Beginners East (BEAST)

Date Jan	No Meeting
Feb-Nov	Third Sun of month
Dec	Second Sun of month
Time	10am - 12:30pm
Email	beast@melbpc.org.au
Location	Vermont South Community Centre, 1 Karobran Drive, Vermont South Melway:62.G7
Convenor(s)	Dave Botherway

Casey - Main Meeting

Date Jan	No Meeting
Feb-Nov	Second Fri of month
Dec	Second Fri of month. (Christmas function - check location/time etc with Convenor)
Time	1pm - 3:30pm
Location	Beaconsfield Neighbourhood Centre, 8 O'Neil Road, Beaconsfield Melway:214.A1
Convenor(s)	Jan Whitaker - 9705 9009 jwhit@janwhitaker.com Jan Weiner - 9796 2807 weijan@westnet.com.au

Casey - Workshop

Date Jan	No Meeting
Feb-Nov	Fourth Fri of month
Dec	No Meeting
Time	1pm - 3:30pm
Location	Beaconsfield Neighbourhood Centre, 8 O'Neil Road, Beaconsfield Melway:214.A1
Convenor(s)	Jan Weiner - 9796 2807 weijan@westnet.com.au Jan Whitaker - 9705 9009 jwhit@janwhitaker.com

Communications

Date Jan	No Meeting
Feb-Nov	Second Wed of month
Dec	Second Wed of month
Time	7 - 9:30pm
Email	phil@melbpc.org.au
Location	Melb PC HQ, Level 1, 479 Warrigal Rd, Moorabbin Melway:78.D8
Convenor(s)	Phil Lew - 0418 567 019

Digital Images

Date Jan Third Fri of month
Feb-Nov Third Fri of month
Dec No Meeting
Time 10am - 12noon
Location Wadham House, 52 Wadham Parade,
Mount Waverley Melway:61.E12
Convenor(s) Ian Bock - 9807 3701
bockey@melbpc.org.au
George Skarbek

East

Date Jan No Meeting
Feb-Nov Second Thu of month
Dec Second Thu of month (starts 6:30pm)
Time 7:30pm - 9:30pm
Email east@melbpc.org.au
Location Eley Park Community Centre,
87 Eley Rd,
Blackburn South Melway:61.H5
Convenor(s) Paul Woolard - 9877 1059
Ian Dewhurst - 0438 480 500

East Workshop & 3D Printing

Date Jan No Meeting
Feb-Nov Second Sun of month. NO meeting in
May - Mother's Day.
Dec Second Sun of month
Time 10am - 2pm
Email eastwsh@melbpc.org.au
Location Wadham House, 52 Wadham Parade,
Mount Waverley Melway:61.E12
Convenor(s) Paul Woolard - 0417 566 209
pwoolard@melbpc.org.au
John Swale (3D printing) - 0417 530 766

Essendon - Main meeting

Date Jan No Meeting
Feb-Nov First Fri of month
Dec No Meeting
Time 9:30am - 12noon
Email essendon@melbpc.org.au
Location Nancye Kirchner Neighbourhood
Centre, Doyle Street (corner
Somerset St),
Avondale Heights Melway:27.D6
Convenor(s) John Guegan - 9317 7114

Essendon - Open Forum

Date Jan No Meeting
Feb-Nov Second Fri of month
Dec Second Fri of month. (Christmas
Function, starts 10:30am)
Time 9:30am - 12noon
Email essendon@melbpc.org.au
Location Nancye Kirchner Neighbourhood
Centre, Doyle Street (corner
Somerset St),
Avondale Heights Melway:27.D6
Convenor(s) John Guegan - 9317 7114

Essendon - Various topics

Date Jan No Meeting
Feb-Nov Third Fri of month
Dec No Meeting
Time 9:30am - 12noon
Email essendon@melbpc.org.au
Location Nancye Kirchner Neighbourhood
Centre, Doyle Street (corner
Somerset St),
Avondale Heights Melway:27.D6
Convenor(s) John Guegan - 9317 7114

Everything Apple

Date Jan No Meeting
Feb-Nov Third Tue of month
Dec No Meeting
Time 2pm - 4pm
Email everything-apple@melbpc.org.au
Location Melb PC HQ, Level 1, 479 Warrigal Rd,
Moorabbin Melway:78.D8
Convenor(s) Peter Emery
everything-apple@ausom.net.au
Sam Fiumara

Genealogy East

Date Jan No Meeting
Feb-Nov Third Sun of month
Dec Second Sun of month
Time 1pm - 3:30pm
Email geneast@melbpc.org.au
Location Vermont South Community Centre,
1 Karobran Drive,
Vermont South Melway:62.G7
Convenor(s) Denis Street

Hardware

Date Jan	No Meeting
Feb-Nov	Second Fri of month
Dec	Second Fri of month
Time	10am - 12noon
Location	Wadham House, 52 Wadham Parade, Mount Waverley Melway:61.E12
Convenor(s)	Kelvin Cording - 9438 1047 kcording@bigpond.net.au

iHelp

Date Jan	Approximately 6 monthly
Feb-Nov	Approximately 6 monthly
Dec	Approximately 6 monthly
Time	7pm - 9pm
Email	ihelp@melbpc.org.au
Location	Melb PC HQ, Level 1, 479 Warrigal Rd, Moorabbin Melway:78.D8
Convenor(s)	Dave Simpson

Investment Tools - WASINT

Date Jan	No Meeting
Feb-Nov	Second Tue of month
Dec	Second Tue of month
Time	10:30am - 12:30pm
Email	wasint@melbpc.org.au
Location	Melb PC HQ, Level 1, 479 Warrigal Rd, Moorabbin Melway:78.D8
Convenor(s)	Richard Solly

Linux Workshop - Moorabbin

Date Jan	No Meeting
Feb-Nov	In Recess
Dec	In Recess
Time	
Email	linuxworkshop@melbpc.org.au
Location	Melb PC HQ, Level 1, 479 Warrigal Rd, Moorabbin Melway:78.D8
Convenor(s)	David Hatton

MACE (Atari Computers)

Date Jan	Third Sun - BBQ - check with Convener for location
Feb-Nov	Third Sun of month
Dec	Third Sun of month
Time	10am - 2pm
Email	maceatari@gmail.com
Location	Melb PC HQ, Level 1, 479 Warrigal Rd, Moorabbin Melway:78.D8
Convenor(s)	Andrew Boschan andrewbosc@gmail.com

Microcontroller

Date Jan	Second Wed of month
Feb-Nov	Second Wed of month
Dec	Second Wed of month
Time	7pm - 9:30pm
Email	microcontroller@melbpc.org.au
Location	Melb PC HQ, Level 1, 479 Warrigal Rd, Moorabbin Melway:78.D8
Convenor(s)	David Stonier-Gibson 0419 320 300 John Hollow - 0417 031 164 Phil Lew - 0418 567 019

Microcontroller Workshop

Date Jan	Second & Fourth Sat of Jan.
Feb-Nov	Second & Fourth Sat of month.
Dec	Second Sat (only) of Dec.
Time	12noon - 5pm
Email	microcontroller-workshop@melbpc.org.au
Location	Melb PC HQ, Level 1, 479 Warrigal Rd, Moorabbin Melway:78.D8
Convenor(s)	John Shirt - 0409 568 267 Rob Brown - 0419 285 806

Mornington Peninsula - General, Q&A

Date Jan	Third Mon of month
Feb-Nov	Third Mon of month
Dec	No Meeting
Time	9:30am - 12noon
Email	peninsula@melbpc.org.au
Location	Mornington Community Information and Support Centre, 320 Main St, Mornington Melway:104.E12
Convenor(s)	Terry Said - 0427 750 327 dulnain@gmail.com Ian Thomson iaroth@netspace.net.au Colin Ackehurst

Mornington Peninsula - Family History

Date Jan	Third Mon of month
Feb-Nov	Third Mon of month
Dec	No Meeting
Time	1:30pm - 4:30pm
Email	peninsula@melbpc.org.au
Location	Mornington Community Information and Support Centre, 320 Main St, Mornington Melway:104.E12
Convenor(s)	Colin Ackehurst colin_a_ackehurst@bigpond.com

Mornington Pen. Family History: Adv.DNA

Date Jan	last Wed of month (5th Wed if there is one, otherwise 4th Wed)
Feb-Nov	last Wed of month (5th Wed if there is one, otherwise 4th Wed)
Dec	No Meeting
Time	2pm - 4pm
Email	peninsula@melbpc.org.au
Location	Mornington Community Information and Support Centre, 320 Main St, Mornington Melway:104.E12
Convenor(s)	Colin Ackehurst colin_a_ackehurst@bigpond.com

Multimedia Home Entertainment

Date Jan	No Meeting
Feb-Nov	First Fri of month
Dec	First Fri of month
Time	10am - 12noon
Email	MHE@melbpc.org.au
Location	Wadham House, 52 Wadham Parade, Mount Waverley Melway:61.E12
Convenor(s)	John Hall - 9803 2731 johnhall@melbpc.org.au Kelvin Cording - 9438 1047 kcording@bigpond.net.au

Music

Date Jan	No Meeting
Feb-Nov	Third Thu of month
Dec	No Meeting
Time	7:30pm - 9:30pm
Email	music@melbpc.org.au
Location	Melb PC HQ, Level 1, 479 Warrigal Rd, Moorabbin Melway:78.D8
Convenor(s)	Bill Sakell - 0430 566 422 John Shirt - 0409 568 267

North East Android

Date Jan	No Meeting
Feb-Nov	Third Wed of month
Dec	Second Wed of Dec - join with North East Daytime SIG - end-of-year breakup
Time	10am - 12noon
Email	ne-android@melbpc.org.au
Location	Hawdon Street Community Hall, 80 Hawdon Street, Heidelberg Melway:32.A4
Convenor(s)	Colin Lampshire 9857 5372 or 0413 640 408 lampshir@melbpc.org.au Kelvin Cording - 9438 1047

North East Daytime and Photography

Date Jan	No Meeting
Feb-Nov	Second Wed of month
Dec	Second Wed of month
Time	10am - 12noon
Email	neday@melbpc.org.au
Location	Hawdon Street Community Hall, 80 Hawdon Street, Heidelberg Melway:32.A4
Convenor(s)	Colin Lampshire 9857 5372 or 0413 640 408 lampshir@melbpc.org.au

North East Genealogy

Date Jan	No Meeting
Feb-Nov	First Wed of month
Dec	First Wed of month
Time	10am - 12noon
Email	negen@melbpc.org.au
Location	Hawdon Street Community Hall, 80 Hawdon Street, Heidelberg Melway:32.A4
Convenor(s)	Lynn. Hammet lynnhammet@gmail.com

Northern Suburbs Linux

Date Jan	Third Mon of month
Feb-Nov	Third Mon of month
Dec	No Meeting
Time	7:30pm - 9:30pm
Email	nslig@melbpc.org.au
Location	Community Meeting Room, Watsonia Library, 4 Ibbotson St, Watsonia Melway:20.E4
Convenor(s)	David Hatton Nick Vespo

Online

Date Jan	Available online at any time
Feb-Nov	Available online at any time
Dec	Available online at any time
Time	Available online at any time
Email	kazkev@melbpc.org.au
Location	Melb PC Yammer online forum
Convenor(s)	Kevin Martin Evening only - 5964 7627 or 0407 343 162

Programming

Date Jan	Suspended, meet only on request.
Feb-Nov	Suspended, meet only on request.
Dec	Suspended, meet only on request.
Time	By arrangement
Email	programming@melbpc.org.au
Location	Melb PC HQ, Level 1, 479 Warrigal Rd, Moorabbin Melway:78.D8
Convenor(s)	John Viney

Raspberry Pi - Moorabbin

Date Jan	Second Sat of month
Feb-Nov	Second Sat of month
Dec	Second Sat of month
Time	2pm - 4pm
Email	raspi-moorabbin@melbpc.org.au
Location	Melb PC HQ, Level 1, 479 Warrigal Rd, Moorabbin Melway:78.D8
Convenor(s)	Mohan Gupta - 0421-214-081 Rob Brown - 0419 285 806

Raspberry Pi - Mt Waverley

Date Jan	No meeting Jan-2018 - Australia Day
Feb-Nov	Fourth Fri of month
Dec	No Meeting
Time	10am - 12noon
Email	raspi@melbpc.org.au
Location	Wadham House, 52 Wadham Parade, Mount Waverley Melway:61.E12
Convenor(s)	John Hall - 9803 2731 johnhall@melbpc.org.au Lance Lloyd - 9884 5559 lancelloyd@melbpc.org.au

Sunbury Daytime - New Users

Date Jan	No Meeting
Feb-Nov	First Thu of month
Dec	First Thu of month
Time	9:30am - 12noon
Email	sunburydaytime@gmail.com
Location	Sunbury Senior Citizens Centre (back room), 8 O'Shannassy Street, Sunbury Melway:382.E4
Convenor(s)	Kevin Hale - 9740 5786

Sunbury Daytime - Advanced

Date Jan	No Meeting
Feb-Nov	Second Thu of month
Dec	Second Thu of month
Time	9:30am - 12noon
Email	sunburydaytime@gmail.com
Location	Sunbury Senior Citizens Centre (back room), 8 O'Shannassy Street, Sunbury Melway:382.E4
Convenor(s)	Kevin Hale - 9740 5786

Sunbury Daytime - Main Meeting

Date Jan	No Meeting
Feb-Nov	Third Thu of month
Dec	No Meeting
Time	9:30am - 12noon
Email	sunburydaytime@gmail.com
Location	Sunbury Senior Citizens Centre (back room), 8 O'Shannassy Street, Sunbury Melway:382.E4
Convenor(s)	Kevin Hale - 9740 5786

Sunbury Daytime - Maintenance & Linux

Date Jan	No Meeting
Feb-Nov	Fourth Thu and Fifth Thu of month.
Dec	No Meeting
Time	9:30am - 12noon
Email	sunburydaytime@gmail.com
Location	Sunbury Senior Citizens Centre (back room), 8 O'Shannassy Street, Sunbury Melway:382.E4
Convenor(s)	Kevin Hale - 9740 5786

Video Inner East

Date Jan	No Meeting
Feb-Nov	Second Mon in month, except NO meetings in Mar & Jun; and meeting moved to third Mon in July, namely 15-Jul-2018.
Dec	Second Mon of month
Time	7:30pm - 9:30pm
Email	rbalse@tpg.com.au
Location	Copland Room, Ashburton Library, 154 High St, Ashburton Melway:60.C9
Convenor(s)	Richard Balsillie - 9809 4116

Video Production - Pinnacle

Date Jan	No Meeting
Feb-Nov	Fourth Wed of month
Dec	No Meeting
Time	10:00am - 12:30pm
Location	Melb PC HQ, Level 1, 479 Warrigal Rd, Moorabbin Melway:78.D8
Convenor(s)	Wayne Spicer - (03) 5971 1617 spisawn@optusnet.com.au Tony Pickup - 9878 0706 tonypickup@optusnet.com.au

Video Production - Sony

Date Jan	Second Wed of month
Feb-Nov	Second Wed of month
Dec	Second Wed of month
Time	10am - 12noon
Location	Melb PC HQ, Level 1, 479 Warrigal Rd, Moorabbin Melway:78.D8
Convenor(s)	Roger Wragg rdwragg@fastmail.fm Bob Flack

WAFFLE - wine & fine food lovers event

Date Jan	No Meeting
Feb-Nov	First Wed of month
Dec	First Wed of month
Time	9:35pm (after the Monthly Meeting)
Email	phil@melbpc.org.au
Location	Fong's Chinese Restaurant, 725 Centre Rd (cnr Francesco St), Bentleigh East Melway:77.J1
Convenor(s)	Phil Lew - 0418 567 019 Tom Rado - 9807 4072

Website Design - Tutorials

Date Jan	No Meeting
Feb-Nov	Fourth Sun of month
Dec	No Meeting
Time	2pm - 4pm
Email	webdesign@melbpc.org.au
Location	Melb PC HQ, Level 1, 479 Warrigal Rd, Moorabbin Melway:78.D8
Convenor(s)	Fleur Stephens - 0407 330 963

Website Design - Troubleshooting

Date Jan	No Meeting
Feb-Nov	Fourth Sun of month
Dec	No Meeting
Time	4pm - 6pm
Email	webdesign@melbpc.org.au
Location	Melb PC HQ, Level 1, 479 Warrigal Rd, Moorabbin Melway:78.D8
Convenor(s)	Fleur Stephens - 0407 330 963

Windows Plus

Date Jan	No Meeting
Feb-Nov	Third Sat of month
Dec	No Meeting
Time	10am - 12noon
Email	winplus@melbpc.org.au
Location	Melb PC HQ, Level 1, 479 Warrigal Rd, Moorabbin Melway:78.D8
Convenor(s)	John Swale - 0417 530 766 Barry Stone

OFFICE 365 PRO PLUS

1 Year Subscription



Word



Excel



PowerPoint



OneNote



Access



Publisher



Outlook

Microsoft Office 365 ProPlus for MelbPC Members

Subscriptions for Microsoft's desktop program suite Office 365 ProPlus are now available to Melbpc members at a reduced rate.

The programs included are; Word, Excel, OneNote, PowerPoint, Outlook, Publisher and Access. Members who take up this offer will be able to install the suite on up to fifteen different devices: 5 computers (PC or Mac), 5 tablets (iOS/Android/Windows) and 5 smartphones (iOS, Android, Windows). The new 2016 versions are available now.

Microsoft Office ProPlus is available to members for an annual subscription, set for the first year and payable by members in advance. (*) **Renewal for each year will reflect Microsoft's current price at the time of renewal.**

After payment members will be able to download the program suite onto their own computers using their Office 365 login details (the same as they already use for email and other cloud services). As long as the subscription is maintained, members will receive updates and upgrades to the latest version of Office.

Our existing Office 365 Enterprise service provides the 'cloud' versions of some Office applications: Word, Excel, PowerPoint and OneNote. These can be used during a login to Office 365 via the web. They do not include all of the features available on the desktop versions. Office 365 ProPlus provides the full versions of those applications, and others not available at in the cloud at all: Outlook, Publisher and Access. (Publisher and Access are not available in the Mac OS X version.) The ProPlus programs can be used when the computer is offline and not connected to the internet, as they are installed directly on the computer (or tablet/ smartphone).



Skype for Business



InfoPath



OneDrive for Business

<div>  <div>SIG & Other Meetings — Feb-2018</div> <div>V3 – updated 29-Jan-2018</div> </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	Other SIG (Special Interest Group) information: https://www.melbpc.org.au/index.php/sigs/about/ Recent Changes: https://www.melbpc.org.au/index.php/sigs/about/recent-changes/	Have A Question Post it on Yammer Yammer: http://yammer.com/melbpc.org.au/	1 Sunbury Daytime SIG New Users 9:30am - 12noon	2 Essendon SIG Main meeting Avondale Heights 9:30am - 12noon Multimedia Home Entertainment SIG Mount Waverley 10am - 12noon	3
4	5	6	7 North East Genealogy SIG Heidelberg 10am - 12noon MONTHLY MEETING Melb PC HQ, Moorabbin 7pm - 9:30pm then Supper (WAFFLE) at Fong's 9:35pm	8 Sunbury Daytime SIG Advanced 9:30am - 12noon East SIG Blackburn South 7:30pm - 9:30pm	9 Essendon SIG Open Forum Avondale Heights 9:30am - 12noon Hardware SIG Mount Waverley 10am - 12noon Casey SIG Main Meeting Beaconsfield 1pm - 3:30pm	10 Linux Workshop – Moorabbin SIG In Recess Microcontroller Workshop SIG Moorabbin 12noon - 5pm Raspberry Pi – Moorabbin SIG 2pm - 4pm
11 East Workshop & 3D Printing SIG Mount Waverley 10am - 2pm	12 Access (database) and Excel SIG Moorabbin 6:30pm - 8:30pm Video Inner East SIG Ashburton 7:30pm - 9:30pm	13 Investment Tools - WASINT SIG Moorabbin 10:30am - 12:30pm	14 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	15 Sunbury Daytime SIG Main Meeting 9:30am - 12noon Bayside SIG Brighton 10am - 12noon Music SIG Moorabbin 7:30pm - 9:30pm	16 Essendon SIG Various topics. Avondale Heights 9:30am - 12noon Digital Images SIG Including Photoshop Mount Waverley 10am - 12noon Melb PC Committee 1pm, Mt Waverley	17 Windows Plus SIG Moorabbin 10am - 12noon
18 Beginners East (BEAST) SIG 10am - 12:30pm MACE (Atari Computers) SIG Moorabbin 10am - 2pm Genealogy East SIG Vermont South 1pm - 3:30pm	19 Mornington Peninsula SIG General inc Q&A Mornington 9:30am - 12noon Family History Mornington 1:30pm - 4:30pm Northern Suburbs Linux SIG Watsonia 7:30pm - 9:30pm	20 Wyndham PC Users/Multimedia Hoppers Crossing SIG has now ceased – no future meetings Everything Apple SIG Now third Tue of the month. Moorabbin 2pm - 4pm	21 North East Android SIG Heidelberg 10am - 12noon	22 Sunbury Daytime SIG Maintenance & Linux 9:30am - 12noon	23 Raspberry Pi - Mt Waverley SIG 10am - 12noon Casey SIG Workshop Beaconsfield 1pm - 3:30pm PC Update – Articles Deadline	24 Microcontroller Workshop SIG Moorabbin 12noon - 5pm
25 Everything Apple SIG. Changed to third TUE of month. See 20-Feb. Website Design SIG Tutorials Moorabbin 2pm - 4pm Troubleshooting Moorabbin 4pm - 6pm	26	27 Yarra Ranges SIG Kilsyth SIG has now ceased – no future meetings	28 Video Production – Pinnacle SIG Moorabbin 10:00am - 12:30pm Mornington Peninsula SIG LAST Wed of month Mornington 2pm - 4pm PC Update – Reports Deadline			