ISLE OF WIGHT PC USER GROUP
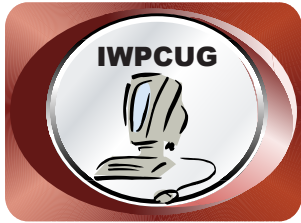
IWPCUG

HOT KEY

JANUARY 2020

At our December 2019 meeting Denny Linzmaier gave us a talk on the "Smart Home", followed as usual by one of his short quizzes.

The Isle of Wight Personal Computer User Group

We welcome anyone who has an interest in computers and related technology and what you can do with them.
We are a group which seeks to exchange ideas and new information.
Membership is £12 per annum

Our meetings are normally held on the first Wednesday of each month at
The Riverside Centre, Newport from 7.00 to 9.00 pm
Visitors are always welcome.

A charge of £2 is made per meeting, which includes tea or coffee during the break.

If you would like to know more about us, you are most welcome to come along to one of our meetings, or you can contact one of our Committee Members listed on page 3.

The Club web site address is **www.iwpcug.org**
We also have an e-group discussion area on
Yahoo groups: **iwpcusers@yahoogroups.com**
Details of how to join are on page 15.

FUTURE MEETINGS

Date	Subject	Speaker
8 January	Using Social Media for Business	Nosy Design
5 February	AGM & Question and Answer session	Jonathan Burt
4 March	TBC	

ISLE OF WIGHT PC USER GROUP COMMITTEE

Chairman : David Groom

Secretary : Susanne Bone

Treasurer : Mike Hoar

Membership and Database Secretary : Roger Skidmore

Committee Member : Steve Sutters

Treasury Supervisor : Phil Rogers

Note :
contact details removed prior to publishing on the
internet

Suggestions for new events, topics or speakers for talks are always
welcome.
Please contact Steve Sutters, or any committee member, with your ideas.
If necessary we may be able to find a speaker for your subject.

Chairman's Report

Firstly may I wish you all a very happy 2020. As we look into the new year at the IWPCUG our thoughts turn to the AGM next month, the formal notice and agenda can be found on page 8.

The calendar on page 2 may look a little sparse, but we have a number of ideas for speakers and just have to finalise the details. Please keep an eye on the web site, and the email list for updates.

At the February meeting, after the formal AGM, we will have a question and answer session hosted by Jonathan Burt. These sessions are always interesting, but they are helped if beforehand you could think of a number of questions you might like to ask.

Lastly I will make my regular plea for articles for HotKey. A quick glance through this issue will find one page provided by members, and nine pages provided by myself. Not only does the give me a slight burden to write or source articles, but it also means that the topics appearing in the magazine are obviously biased to what I feel might be interesting, and a different perspective would I feel bring a more rounded feel to HotKey.

David Groom

Car Sharing / Lifts

It is possible that a number of our members do not attend our monthly meetings because they find transport to Newport difficult and the committee have wondered if it might be possible to arrange lifts for those members. With a membership as large as ours it is not always obvious who might like to attend but has difficulty with transport, and secondly, who might live nearby and be able to offer them a lift.

As a first step, if you would like to attend the meetings, currently can't get to the Riverside Centre on a Wednesday evening and would like to see if there is a nearby member who might offer you a lift, then could you please get in contact with me. We will then try and find a member who might be willing to give you a lift.

One Click to Shutdown Windows – now or in 3600 Seconds

I like to have a red shutdown shortcut on my Windows desktop. One click and the PC turns itself off in the normal way.

But it's just as easy to create a number of shortcuts so that the PC will turn itself off after 10 minutes, one hour, 4 hours – or next year if you like!

This is useful every Saturday when I want to leave my PC recording our favourite 3-hour radio program with 'RadioSure', while we go out I click the icon "shutdown 3-hrs 10 mins." and leave home. When I return, the computer is off and my recording has been successful. You may be able to think of many more uses. Here's how to do it…

CREATING THE SHORTCUT

Firstly, calculate how many seconds the PC is to remain 'on' - from zero to anything you like – (how many seconds are there in a year anyway?).

1) Right-click the desktop and select 'new' and 'shortcut'.

2) Type "shutdown –s –t x" (where 'x' is the number of seconds to wait). Eg: Type '0' for an instant shutdown, '120' for a shutdown in two minutes, and even '7200' if you want to delay for 2 hours, etc.

3) Click 'next' Name it: eg. "shutdown 2hrs". And 'finish'.

You now have a shortcut on your desktop that will begin the countdown when you click it.

GIVING IT A NICE ICON

If you want to make it look nice, right-click it, select 'properties' and 'change icon'. Click OK. Click your preferred icon (I like the red one for instant OFF, and the old PC-screen with a half-moon for a delayed turn off). Then click 'OK', 'Apply' and 'OK'.

If you get hooked, you can place a folder of shutdowns on your desktop. I did!

Ron Keeler

The New "Millennium" Bug

As we enter a new year we may be reminded that 20 years ago we were worrying about the "Millennium Bug" or "Y2K Bug". Essentially this was a problem in computer programs related to the fact the dates were often stored using only the last two digits of the date, so for instance 10 July 1989 would have been stored in the computer as 10 / 07 / 89. The issue that arose was that after 31 /12 / 99 the next day would become 01 / 01 / 00 and many programs would recognise or calculate that date as 1 January 1900. Many thousands of programming hours were spent reviewing code, identifying problems, and rewriting the code where necessary.

A similar, but unrelated issue will occur in January 2038, and whilst this may seem a long time away its worth noting we are now closer to that date than we are to the year 2000.

The Year 2038 problem (also called Y2038 or Unix Y2K) relates to representing time as the number of seconds passed since 00:00:00 UTC on 1 January 1970 and storing it as a signed 32-bit binary integer.

The latest time that can be represented in Unix's signed 32-bit integer time format is 03:14:07 on Tuesday, 19 January 2038 (2^{31}-1 = 2,147,483,647 seconds after 1 January 1970).

Many data structures in use today have 32-bit time representations embedded into their structure. A full list of these data structures is virtually impossible to derive but there are well-known data structures that have the Unix time problem: file systems (many file systems use only 32 bits to represent times in inodes); binary file formats (that use 32-bit time fields); databases (that have 32-bit time fields); database query languages, like SQL that have UNIX_TIMESTAMP() like commands.

The issue is not limited to retrieving the current time. Programs that work with future dates will begin to run into problems sooner; for example, a program that works with dates 20 years in the future should have been fixed no later than 19 January 2018.   In fact one of the earliest known real world manifestations of this problem occurred in May 2006. AOLserver software was designed with a kludge to handle a database request that should "never" time out. Rather than specifically handling this special case, the initial design simply specified an arbitrary time-out date in the future. The default configuration for the server specified that the request should time out after one billion seconds. One billion seconds (approximately 32 years) after

01:27:28 UTC on 13 May 2006 is beyond the 2038 cutoff date. On 13 May 2006 the time-out calculation overflowed and returned a date that was actually in the past, causing the software to crash. When the problem was discovered, AOLServer operators had to edit the configuration file and set the time-out to a lower value (i.e. lower than one billion seconds).

In many cases Year 2038 problem may be a harder issue to solve than the Y2K bug. The Y2K bug was essentially a coding issue that could be fixed by rewriting the code to use all four digits for the year. The Year 2038 issue is more fundamental as it related to a mathematical limitation.

Most newer operating systems are designed to run on 64-bit hardware and already use signed 64-bit integers for time. Using a signed 64-bit value introduces a new wraparound date that is over twenty times greater than the estimated age of the universe: approximately 292 billion years from now, at 15:30:08 UTC on Sunday, 4 December 292,277,026,596. However individual applications, protocols, and file formats which run on these systems may still need to be changed to use 64-bit integers if they were originally written for 32 bit systems.

The biggest problem may be in embedded systems that use dates for either computation or diagnostic logging are most likely to be affected by the 2038 problem. Many transportation systems from flight to automobiles use embedded systems extensively. In automotive systems, this may include anti-lock braking system (ABS), electronic stability control (ESC/ESP), traction control (TCS) and automatic four-wheel drive; aircraft may use inertial guidance systems and GPS receivers. However, this does not imply that all these systems will suffer from the Y2038 problem, since many such systems do not require access to dates. For those that do, those systems which only track the difference between times/dates and not absolute times/dates will, by the nature of the calculation, not experience a major problem.

Another major use of embedded systems is in communications devices, including cell phones and Internet appliances (routers, wireless access points, etc.) which rely on storing an accurate time and date and are increasingly based on UNIX-like operating systems. For example, the Y2038 problem makes some devices running 32-bit Android crash and not restart when the time is changed to that date.

David Groom
The article above was based on this Wikepedia page available under a Creative Commons Attribution-Share Alike License https:// en.wikipedia.org/wiki/Year_2038_problem

Windows 7 End of Life

Microsoft ended mainstream support for Windows 7 on January 13, 2015, but extended support runs until January 14, 2020. Extended support essentially means the company stops adding new features and ends complimentary support for that version of Windows. But it still provides bug fixes and patches.

This means that from next week Windows 7 will not receive any bug fixes, and should not be considered a "safe" operating system.

David Groom

NOTICE OF AGM

Notice is hereby given that the Annual General Meeting of the Isle of Wight PC User Group will be held on Wednesday 5th February 2020 at 7:00 PM at The Riverside Centre, Newport.

Nominations are requested for the positions of: Chairperson, Treasurer, Secretary, Membership Secretary, and up to eight other committee members.

Please send your nominations to the Secretary, Su Bone. Seconders are not necessary at this stage.

ISLE OF WIGHT PC USER GROUP ANNUAL GENERAL MEETING AGENDA

1. Consider matters arising from the minutes of the previous AGM, held on 6th February 2019, (https://www.iwpcug.org/secure/minutes/AGM19v1.pdf).
2. Receive reports:
    2.1 Chairman
    2.2 Treasurer, including approval of the Club Accounts
    2.3 Secretary
    2.4 Membership Secretary
    2.5 Other activities: Computability, HotKey, Website, Egroup, Facebook
3. Elect a Chairperson, Treasurer, Secretary, and Membership Secretary.
4. Elect other Committee members (up to a maximum of eight persons).
5. Set the Annual Subscription.
6. Appoint an Independent Examiner.
7. Any Other Business.

8 Great Podcasts for Open Source Enthusiasts

A podcast is an episodic series of digital audio files that a user can download in order to listen, though many are also available to listen to online. Alternatively, the word "podcast" may refer to the individual component of such a series or to an individual media file. Expand your knowledge about Linux, Python, and open source generally while you're doing other things.

Where I live, almost everything is a 20- or 30-minute drive from my home, and I'm always looking for ways to use my car time productively. One way is by listening to podcasts on topics that interest me, so as an open source enthusiast, I subscribe to a variety of open source-related podcasts.

Here are eight Linux and open source podcasts that I Iook forward to every week.

Linux4Everyone (https://linuxforeveryone.fireside.fm/)
Linux4Everyone by Jason Evangelho (whom I recently interviewed) is a favourite. The podcasts always offer fresh insights on Linux along with thoughtful interviews, including his conversations with Barton George of Dell and Christopher Scott of Microsoft. Jason's only been at this gig for a few months, but he already has a loyal following supporting him on Patreon.

Command Line Heroes (https://www.redhat.com/en/command-line-heroes)
I have recently been listening to Command Line Heroes. Its host, Saron Yitbarek, is a developer and the founder of CodeNewbie. I've learned about how C and Unix laid important groundwork for the development and growth of Linux, as well as the evolution of the Python community—which will continue since founder Guido Van Rossum stepped down from his benevolent dictatorship role.

Linux Headlines (https://linuxheadlines.show/)
Linux Headlines from Jupiter Broadcasting never fails to pique my interest in what's happening in the Linux world. Hosts Chris Fisher, Joe Ressington, Wes Payne, and Drew DeVore are always dishing up the latest developments that inspire me to learn and explore more. If you only have a few minutes to spare, this podcast is for you.

Self-Hosted (https://selfhosted.show/)
Self-Hosted is a new podcast about home networks that hooked me immediately. With all the emphasis on containers and the cloud, you might

think your local network doesn't have much to offer anymore. Hosts Alex Kretzschmar and Chris Fisher are two longtime self-hosters who share their learnings with listeners.

Online Life is Real Life (https://irlpodcast.org/)
In Online Life is Real Life, sponsored by Firefox, "host Manoush Zomorodi shares real stories of life online and real talk about the future of the web." A recent show, "Privacy or Profit—Why Not Both?," dug into the concept that "privacy" means different things to different people. Do you know how your personal data is being used? Do you care? If so, this podcast might interest you.

The Changelog (https://changelog.com/podcast)
The Changelog bills itself as "conversations with the hackers, leaders, and innovators of software development." In a recent episode, Chris Anderson, former editor-in-chief of Wired, shared how his hobby with drones started out terribly wrong but led him to 3D robotics, do-it-yourself drones, and the Dronecode project.

Destination Linux (https://destinationlinux.org/)
Destination Linux, where "Linux is our passion," is a weekly show hosted by Ryan, Michael, Zebediah, and Noah. The show started in 2017, and all of its content is licensed under Creative Commons 4.0 ShareAlike. One recent podcast focused on the addition of ZFS to Ubuntu 19.10 and how Project Trident ditched FreeBSD for Linux.

Talk Python to Me (https://talkpython.fm/)
Talk Python To Me with host Michael Kennedy keeps me growing on my Python learning curve. In one of my favourite shows, "Python in digital humanities research" Michael interviewed Cornelius Van Lit, a medieval Islamic philosophy scholar, who is using Python to parse ancient manuscripts.

Most of these podcasts come with show notes, which include links to the content they cover. Since I can't take notes when I'm driving, the show notes help me review what I hear and learn more about the topics mentioned.

I am always eager to learn, so please share your favourite open source-related podcasts in the comments section.

Don Watkins

2019 Worst Password Offenders

In December Dashlane announced its fourth annual list of the "Worst Password Offenders." The list highlights the high-profile individuals and organizations that had the most significant password-related blunders in 2019.

1) Facebook: In back-to-back incidents earlier in 2019, Facebook admitted to both exposing passwords belonging to hundreds of millions of users, and breaching user privacy by asking for the email passwords of new users and harvesting contacts without consent. The tech giant brought giant problems on itself by storing account passwords in plaintext within its internal data storage systems for years, violating a security best practice followed by most companies and services to protect user data from prying eyes. Making matters even worse, later this year, the company also left a server unprotected without a password, exposing phone numbers and records of over 400 million users.

2) Google: Not to be outdone by Facebooks failure, Google also confessed to accidentally storing the passwords for a percentage of its G Suite users in plaintext - since 2005. "Accidents" like this have major implications for platforms and their users; breaches can go undetected for years, so you never know when an account might have been exposed. Plaintext passwords give cybercriminals plenty to go on - they can access user accounts and wreak havoc on digital lives through credit card fraud or identity theft.

3) Lisa Kudrow: The actress got by with a little help from her Friends after she posted a picture on Instagram of her computer monitor, which featured an article about an upcoming role, along with a Post-It with her password. Her savvy followers immediately pointed out the mistake, prompting Kudrow to delete the photo and share a new version with another Post-It poking fun at her own bad password hygiene. Celebs are not the only ones who need to be careful about what they post on social media; take a moment before you hit upload to ensure you aren't inadvertently publicizing sensitive or personally identifiable information in a post. Otherwise, it'll have us saying "my eyes, my eyes!"

4) Congressman Lance Gooden: This year, during the televised testimony from Mark Zuckerberg before the House Financial Services Committee, the Republican representative from Texas was caught on camera using "777777" as his passcode. He isn't the only person in politics over the years to commit passé password offences, which have many calling into question the basic security understanding of elected or appointed officials.

5) WeWork: While the debate as to whether or not WeWork is a tech company rages on, one thing is for sure: a tech company should know better than to use the same insecure password for its entire global WiFi network. A Fast Company story added to WeWork's fair share of controversies this year, calling out how easy their network password is to guess and how it puts members at risk.

6) Elsevier: The publishing company left a server open to the public online, exposing email addresses and passwords for users from educational institutions and universities all over the world. The open server also allowed access to password reset links, which are produced when users request to change login credentials. These infractions for Elsevier are also severe due to the pervasive issue of password reuse.

7) Virgin Media UK: After an ethical hacker in the UK forgot the login for his Virgin Media account and requested a password reset, he received his previous password by mail - a clear sign that the company didn't encrypt user passwords. The hacker took to Twitter to call out Virgin Media, to which they replied: "Posting it to you is secure, as it's illegal to open someone else's mail." Matthew Hughes, a journalist at The Next Web put it best, "Yes, because criminals don't break laws, right?

8) GPS Trackers by Shenzhen i365 Tech: GPS trackers designed to help parents track their children put them at risk of having real-time location data exposed to strangers, when over a half a million users were assigned the easy-to-hack default password, "123456," for their devices.

9) Ellen DeGeneres: Do not use "password" (or any form of the word) as your password! After Ellen's Instagram was briefly hacked and offered giveaways to followers, she tweeted an apology along with a bad password practice - which is no joke: "My Instagram account was hacked last night (despite my clever password "password")."

10) Ashleys: A list released by the UK's National Cyber Security Centre found the name Ashley to be the highest-ranking first name among the top hacked passwords, making anyone using it this year's #10 offender. Never use passwords that are easy to guess or that contain names, proper nouns, or things people can easily research about you. All your passwords should be longer than eight characters and include a mix of random letters, numbers, and symbols. Even better, use a password generator to come up with them for you.

Dashlane Press Release

Affinity Publisher

In the last issue of HotKey I wrote about Affinity Publisher, the new desktop publishing software from Serif. I said that although I had already used the software to create some simple publications I needed more time to start to create Hotkey in Affinity Publisher ("AF"). If all goes well the copy of HotKey you are reading will have been produced using the new software. I'm certainly intending that it will be, and so far have layed-out about three quarters of the issue.

I wrote in October that the software is radically different in look to PagePlus ("PP"), and therefore many of the tasks which I could automatically do in PP I now need to look at the help file in order to complete. I hope that over time using AP I will become accustomed to how to quickly achieve what I want.

So far the only thing which I can't do with AP is to set a double border round the outside of a text frame. I've found it harder to get gradient fills on text frames (as used on the coloured boxes at the top[of the front cover), it is sometimes better to put a coloured frame underneath the text frame, and then gradient fill that, but this may just be my unfamiliarity with the new software.

AP can't import LibreOffice files, instead text documents have to be saved as an RTF file. There isn't really a problem with this, other than the fact that since RTF is not the default format for saving files in LibreOffice a few warnings come up when you try to save in RTF format.

The biggest plus side for me is what is called Studio Link. If you also have Affinity Photo (the new Serif photo editing software), or Affinity Designer (the new Serif vector graphic editing software) installed then you can seamlessly access these programs from within Affinity Publisher. You no longer have to switch from your desktop publishing software to your photo editor, it now happens with a simple click and you have to see it in action to fully understand how this changes workflows. In fact it is so seamless that it is sometimes easy to forget it's there.

It's also fair to say that with the relatively simple layout of something like HotKey I have not needed to explore and use some of the new features in AP.

I did see one comment that even Serif has said Publisher won't have all the features of PagePlus for several generations. Though by then I will probably have forgotten what it was I felt was missing from Publisher in the first place!

David Groom

Humanitarian OpenStreetMap Team

The Humanitarian OpenStreetMap Team ("HOT") is an international team dedicated to humanitarian action and community development through open mapping. They work together to provide map data which revolutionises disaster management, reduces risks, and contributes to achievement of Sustainable Development Goals. They do this though a number of different ways:

(i) *Reaching those in need through maps*. When major disaster strikes anywhere in the world, thousands of HOT volunteers come together online and on the ground to create open map data that enables disaster responders to reach those in need.

(ii) *Putting the world's most vulnerable people and places on the map*. Through the Missing Maps project, the HOT global community creates maps of high vulnerability areas where data is scarce, putting millions of people onto the world map in OpenStreetMap.

(iii) *Expanding knowledge across partners and communities*. HOT enables communities, NGOs, international organizations, and government partners to use and contribute to OpenStreetMap for locally-relevant challenges through provision of training, equipment, knowledge exchange, and field projects.

(iv) *Developing innovative new technology to serve the humanitarian and development communities*. HOT develops open source apps and tools for collaborative mapping and geospatial data collection. Our tools are free for all to use and leveraged by partners such as Red Cross societies, Médecins Sans Frontières, UN agencies and programmes, government agencies, and local NGOs and communities.

The last three of those tasks are mainly undertaken by specialised HOT personnel, however anyone can assist in improving OpenStreetMap data in specific areas affected by a natural disaster.

When a disaster strikes, and it is determined that the area in question could benefit from more detailed mapping, a mapping project is started to encourage OpenstretMap mappers to map the area, usually using existing aerial imagery. The Tasking Manager is a mapping tool designed and built for the Humanitarian OpenStreetMap Team's collaborative mapping process

in OpenStreetMap. The purpose of the tool is to divide up a mapping project into smaller tasks that can be completed rapidly with many people working individual tasks within the same overall area (see the image on the back outside cover).

This approach allows the distribution of tasks to many individual mappers in the context of emergency or other humanitarian mapping scenario. It also allows monitoring of the overall project progress and helps improve the consistency of the mapping (e.g., mappers are instructed which elements to cover, specific tags to use, etc.).

Whilst we were all looking forward to Christmas dinner typhoon Phanfone, a relatively strong tropical cyclone, traversed through the central Philippines, bringing destructive winds and torrential rain on Christmas Eve and Christmas Day. The weather system caused destruction in the Eastern Visayas, particularly in the islands of Samar, Leyte and Panay.

Two specific mapping projects were set up to help map parts of the island of Panay, each project being divided in to areas of 1.35km x 1.335km which a mapper could select to map. The time taken to map such an area is dependent upon a number of factors including, the number of features (buildings and roads) present in the area, the number of those features already mapped, the quality of the aerial imagery, and the mappers own experience.

If a 1.35km square covers a city or town then there will obviously be many buildings to map and it could be a time consuming process. There is an option within the Tasking Manager to split a square into four smaller squares to make the tasks more manageable.

**David Groom**

Joining the Yahoo Group

Send an email to: iwpcusers-subscribe@yahoogroups.com with "join" in the subject line.

All members are encouraged to join this group (it's free and private to club members) so you can keep in touch with events and join in with the discussions.

You can also keep in touch by regularly visiting www.iwpcug.org

At our October meeting Jonathan Burt talked about the Universal Boot Disk.
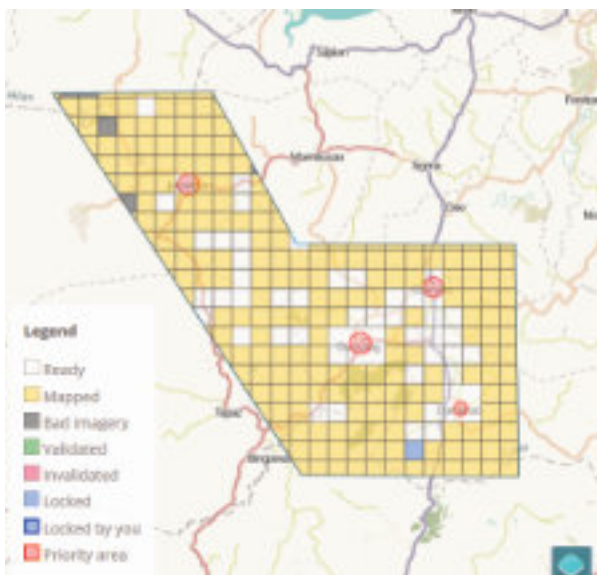
An image of a mapping task in the HOT Tasking Manager showing an area of Panay island in the Phillipines recent badly damaged by a typoon.

See article on pages 14 & 15 for more details.