# HOT KEY

## JANUARY 2019



At our December meeting we were pleased to welcome back Dennis Linzmaier who gave us a talk on his experiences with his new smart TV. He also gave us what is now the traditional pre-Christmas Quiz.

# 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 |
|------|---------|---------|
| 2 January | Ron in Wonderland | Ron Keeler |
| 6 February | AGM  followed by Q & A session | |
| 6 March | TBA | |
| 3 April | TBA | |

# ISLE OF WIGHT PC USER GROUP COMMITTEE

**Chairman :**  David Groom

**Treasurer :**  Phil Rogers

**Secretary :**  Susanne Bone

**Membership and Database Secretary :**  Roger Skidmore

**Committee Member :**  Steve Sutters

**Committee Member :**  Soren  Johanson

**Committee Member :**  Mike Hoar

Note: Contact details for committee members 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

Another year has drawn to a close and I would like to thank everyone who has made the continued running of the IWPCUG possible.

Many of you will already know that Mike Parsons passed away in early December. Mike, along with Sean Colson, were the main founders of the IW PC User Group in 1989.

Mike could always be relied upon to give interesting, and knowledgeable, presentations to us. For a long time he served on our committee in the role of "technical adviser", such was his knowledge of al things computing related. There was an article about Mike in the last issue of HotKey which gives more details about him.

Our calendar on page 2 may look a little empty, but the committee are working to fill it up as soon as possible, so keep a look out on the web site and the Yahoo email group.

**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.

# CSIRAC, The First Computer in Australia, 1949-1964

CSIRAC, designed and built by CSIR (Council for Scientific and Industrial Research) scientists, was the first stored-memory electronic computer in Australia.

In 1947 Maston Beard and Trevor Pearcey (a British radar scientist who had emigrated to Australia after World War II) led a research group at the CSIR (after 1949 called CSIRO) Radiophysics Laboratory which designed and built CSIR Mk1, the world's fourth stored-memory electronic computer. The first program was run in 1949 and the machine was in full operation by 1951. It embodied many features novel at the time and was able to operate more than 1,000 times faster than the best mechanical calculators.

In 1955 the computer was transferred to the University of Melbourne where renamed CSIRAC it continued to operate until November 1964.

**Background**

In the period immediately following World War II it was perceived that the scientific and industrial communities would require greatly increasing quantities of computing work in the future.

In 1948 Australia's Council for Scientific and Industrial Research (CSIR) established a Section of Mathematical Instruments at the National Standards Laboratory in the grounds of the University of Sydney. The section was established to research and develop mathematical methods, devices and instruments and to provide mathematical and computational assistance for researchers. At the same time a group within the Radiophysics Division of the CSIR, housed at the same location at the University of Sydney, was working to develop an electronic means of digital computation. The Chief of Radiophysics, EG Bowen, had been involved in the British work on radar and his deputy, JC Pawsey had worked on high definition television with EMI in Britain.

It was at the Division of Radiophysics that the CSIR Mark 1 computer was designed by Trevor Pearcey and Maston Beard. From 1940 to 1945, Pearcey had worked on the mathematical aspects of the development of short wave and microwave radar in Britain. This work required large scale computation and the use of analogue and digital aids. Maston Beard had worked in the Radiophysics Division at the University of Sydney and was experienced in practical vacuum tube-based pulse techniques. The Mark 1 came as a logical follow-on to experimental studies in design of electronic logic components.

Although ideas for the development of the Mark 1 computer were separate from the mainstream developments occurring at that time in Britain and the USA, it was the fourth stored memory or stored program computer in the world. The design was completed in 1947, construction of the computer was commenced in 1948 and the first program was run in 1949. The completed computer was referred to as the CSIR Mk1.

**The Machine**

The CSIR Mk1 was structured for engineering simplicity and flexibility. The objective was the development of programming techniques leading later to breadth of application. The machine was entirely serial in operation and contained 2000 valves or vacuum tubes. It had a speed of 500 instructions per second, which was raised by stages to 1000 operations per second, using a mercury acoustic delay store of 20 bits each up to 1024 words. Extensions included additional magnetic drum storage. Input and output, initially via punched cards, was changed to 12 hole and later standard 5 hole paper tape was introduced for programs run under Interprogram.. The Sydney 12 hole readers and punches had mechanical tractor sprockets, whereas in Melbourne, the movement was electromechanical. The machine consumed about 30 kw of power, the heat from which was removed by blowing cool air through the cabinets. The delay store and arithmetic/logic registers were thermally controlled at above the highest summer room temperature to keep the acoustic velocity of the mercury medium constant.

CSIR Mk1 was utilised by scientists within the CSIRO and later did calculations for the Snowy Mountains Hydro Electric Authority. It was used for programming studies, computations for radioastronomy and cloud physics for Radiophysics researchers and computations for CSIRO Divisions, engineering projects, various university and government departments and agencies.

**From Sydney to Melbourne**

As demand for computer work grew in quantity and complexity it was percieved that a more powerful and faster machine would be needed. Early in 1954 it was

decided to build a version of the ILLIAC (University of Illinois Automatic Computer) at the University of Sydney.

In 1956 it was proposed to send CSIRAC to Melbourne, initially to the Aeronautical Research Laboratories; later the University of Melbourne was settled upon. The computer was dismantled and trucked to Melbourne, to the University of Melbourne Computation Laboratory under Thomas Cherry (Department of Applied Mathematics), with its operations managed by Dr Frank Hirst. The CSIRO contributed to the cost of the transfer of the computer and to the establishment of the computer laboratory. The laboratory was formally opened by the Chairman of the CSIRO, Sir Ian Clunies-Ross, on 14 June 1956.

The computer, renamed CSIRAC, performed work for the CSIRO, government departments and private corporations as well as for the University of Melbourne until being decommissioned on 24 November 1964.

**Life After Decommissioning**

The machine was donated to the Applied Science Museum of Victoria by Frank Hirst, on behalf of the University of Melbourne. It was stored by the Museum at its Abbotsford warehouse until loaned to the Caulfield Institute of Technology (later Chisholm Institute of Technology) now Monash University, Caulfield Campus.

In 1996 CSIRAC was loaned to the Department of Computer Science at the University of Melbourne where it was reassembled and used at the centrepiece for a conference celebrating the fortieth anniversary of its recommissioning in Melbourne in June 1956, which brought together compuputing pioneers who had worked with CSIRAC. The machine was again displayed at the Moreland store of Museum Victoria in November 1999 at a celebration to mark its fiftieth anniversary.

Following several years of work by Museum staff and members of the CSIRAC history team, CSIRAC is now on display at the Melbourne Museum as part of a major exhibit which shows the computer as it was set up in the University of Melbourne Computation Laboratory in 1955.

# Adventures With Free Office Software

Many years ago I was given a copy of the 2003 Microsoft Office suite and installed it on my Windows 7 Home premium PC. It worked fine until a MS update deleted it. Can't complain as I had many years of free use from it. Could not find the installation disc for a re-install. I still had the files but could not open them. To start with I used the free word processing programs in Windows 7. These are Notepad and WordPad. They were OK for printing text from web pages and had the advantage of only printing text if I did not want pictures or diagrams but have very limited editing abilities. Also they would not open the many stranded Word docs I have.

Next tried to install Linux LibreOffice. It would not install. Even David Groom could not get it to work.

I do have Win 10 on a separate SSD with MS office on but did not want to let the same update delete it or face the security risk of using it without updates. Also Win 10 will not run old music recording software I have whereas Win 7 will. It is far more convenient for one op. sys. to run all my programs.

Back to Win 7 and I had read good reviews of Google Docs (part of Googles cloud based office suite) so installed it. Read my word docs but was a hassle to use as I had to upload it to the 'cloud' before I could edit. To save docs I had to send it to my email address then open it before I could use it. Free but a lot of faffing about plus the safety, privacy and reliability concerns of cloud based storage.

Spent an hour using product key finders to try to get the product key for MS 2003 and got nowhere fast. Magical Jellybean claimed to find the key for the Win 7 install but gave no mention of MS Office keys.

Next I searched for more free office software and read good reviews of Apache OpenOffice. This is from their website:

*"Apache OpenOffice is the leading open-source office software suite for word processing, spreadsheets, presentations, graphics, databases and more. It is available in many languages and works on all common computers. It stores all your data in an international open standard format*

*and can also read and write files from other common office software packages. It can be downloaded and used completely free of charge for any purpose."*

Installation was fast and easy on my Win 7 PC with most of the features of MS Word. Found it easy to use and opens up Word docs a treat. Tried Apache Calc (similar to Microsofts Excel) which also works fine. Seems like a dream come true so far. Nice to end 2018 on an office suite rave. Thanks Apache for your lovely Christmas present!

**By Stephen Sutters (electric bike's going great too)**

## What's the next programming language you want to learn?

In July, IEEE Spectrum (the magazine and website of the Institute of Electrical and Electronics Engineers) released their fifth annual interactive ranking of the top programming languages.

There was a fairly complex process for ranking 47 chosen programming languages because it's complicated to say really which is the most popular. They looked as such things as the number of searches for each language on Google, the number of time each language was mentioned on Twitter, how many new repositories were created on GitHub for each language, and a host of other factors.

The top six languages were

1. Python
2. C++
3. Java
4. C
5. C#
6. PHP

**David Groom**

# Fun with Linux

Have you tried Linux yet?  Maybe not necessary if you are happy with Windows etc. but it can be engaging to try something new.  Linux used to be a bit nerdy and command line oriented but modern incarnations can be completely managed with graphical user interface (GUI).  I think the new versions are easier than Windows and since Linux is free this is the operating system we put on all Computability installations (www.cfd-iw.org.uk).

If you have a spare/old computer and time on your hands then why not give it a whirl?   Installing Linux will either load alongside the existing operating system (OS) or by choice completely overwrite it.  Simplest is to use an old hard disk or if OK then overwrite your existing one (in an old/spare PC or laptop).  Linux is not demanding on resources, memory or speed.

All the advice is on www.iwlug.org.uk, but here goes anyway.  Linux is one OS but comes in many flavours.  I prefer "Mint" and even that has variations.  Most likely use the latest version in "Cinnamon" sub-flavour, 64bit.  Search for Linux Mint, download and then follow the instructions.  The latest version is 19.1 fondly called "Tessa".  It will download as an "ISO" file of about 2Gb size – it takes a number of minutes depending on your download speed.

Put a DVD in the drive then right click on this file and hopefully you will be offered the opportunity to burn, or write, the expanded ISO to disk.  Else load some proprietary software to do the job for you.

You will then have a bootable Linux disk to insert into your old/spare PC.  Do this and your system should boot into a temporary installation of Linux Mint - takes a few minutes.   One of the screen icons will be to install the full OS, but before you do that, enable your Wi-Fi (little icon bottom right hand corner), and via settings menu (Start button in usual bottom left hand corner), see if you can disable screensaver and power savings.  Entering SCR or POW will shortcut to these options.

Installation will require some fairly simple choices re language, opt for 3rd party software when invited, etc., and create a user name etc.  Advice - enter a very simple systems password when required as Linux is very keen on

asking for a system password.  Something like 1234 will make life easy...

Eventually Linux will say installation complete - restart - but don't take the DVD out until it tells you to.

Rebooting should then give you the installed home screen.   Linux gives you a whole set of get-up-and-go programs but you can add more.   Before that, find the Update menu (enter UPD in the menu search box) and follow that procedure.  After that find Administration - Software Manager for any extra programs you want.   Almost all Linux programs are held in on-line repositories and the software manager will guide you through.  The only one I get off the web is Foxit PDF Reader for Linux which is better than theirs.  Search, then download then right click to extract and left click to run the extracted executable.

Of the other repository accessible programs I tend to choose the following: XFE file manager; Dolphin file manager; K3B DVD burner; gThumb image viewer;  Xpad post-it notes;  Chromium web browser (same as Chrome); Audacious for useful codecs.  Not a lot of extras needed for general use.  Generally no anti-virus necessary beyond normal web and email precautions.  Libre Office is installed by default and is very Microsoft compatible. You can right-click on programs to make shortcuts on the desktop.

Further reading - "Linux made Simple", £12.99 from the publishers of Linux Format magazine.  I don't understand most of the stuff in "Linux Format",  but this one-off publication does what it says on the cover.  Otherwise look at the club's Linux website at www.iwlug.org.uk.   Huge amount of help via Google, of course.   Comments and suggestions welcome.

**Roger Skidmore**

## <u>Past Issues of HotKey</u>

The practce of placing each edition of HotKey on our web site only really started in 2005.  Over the years I managed to track down a few earlier editions in electronic form and addrd these to the web site as PDFs.  I recently started to scan paper copies of the older issues, and produce PDFs to place on the web site.  It's somehat time consuming, so it is taking a while to do.

**David Groom**

# <u>Windows 10 – October 18 Update</u>

Just after Christmas my Windows 10 laptop installed what is known as the October 2018 update. This is one of the six monthly updates to Windows 10 which gives the OS new features, and as the name suggests this update was due to be rolled out in October. However, fairly soon after the update started to be rolled out two months ago some major issues were reported with it and the rollout was stopped. I hope the reason that the rollout has now resumed is due to the bugs in it being fixed. The cynic in me however feels that Microsoft may have wanted the update to be installed in 2018, as that date was in the title of the update.

Irrespective of why the update was delayed, or why it is now being released what are the major new features we might expect to see? I won't go in to all the new features here, so if you want to know everything you'll have to do your own research, but below are the ones I think are most significant

**Cloud Clipboard**

In addition to Ctrl-X, Ctrl-C and Ctrl-V, you will need to work Windows key + V into your worklfow. That's because Windows 10 October 2018 Update supercharges the clipboard in two important ways. First, it can now save your cut and copied items so you can access more than just the most recent. This should be a really useful feature, many times I've wanted to access more than one thing from the clipboard. The second new feature is that you can sync your clipboard across your other Windows devices. I'm not sure how useful the sync feature will end up being, since at the moment I've only got one computer running with the update, so cant try it out.

To turn this on open the Start Menu and click on the Settings icon. Next type "clipboard" in the box for "find a setting", choose "Clipboard settings" and then turn clipboard history on. Having done this the clipboard history becomes available to you - or at least it should do. On my laptop however as soon as I rebooted it I could no longer get the clipboard history working - pressing Windows key + V did nothing! A search on the internet showed others had this problem, and the solution required editing the registry. I did this and the clipboard history feature was restored, but it's not good news that this fix was necessary.

**New Snipping tool**

If like me you find yourself taking screenshots within Windows you might appreciate the new screen clipping tool. You can use it to take a screenshot of a section of your screen, a single window, or your entire screen. Once you've taken a screenshot, the new Snip & Sketch tool lets you draw on it and add annotations, including arrows and highlights.

This clipping tool is quicker to access, it appears when you press Windows+Shift+S to open it. However, there's a setting under Settings > Ease of Access > Keyboard that makes the new tool appear when you press the Print Screen key on your keyboard.

**Predicting when to restart after updates**

Windows 10 now uses machine learning to avoid restarting your PC while you're using it.

In older versions of Windows 10, Windows Update won't restart your PC to install an update if you're actively using your PC. But if you step away for a short break Windows might decide you're not using your PC and initiate the restart.

Windows 10 now uses a machine learning model to predict the right time to restart your PC when you're not actively using it. In other words, Windows will try to predict whether you actually stepped away from your PC for a while, or if you just ran to get a coffee and you'll be right back.

**Your Phone App**
Windows 10 now includes a "Your Phone" app that will bring Windows 10's smartphone integration features together and make them easier to set up. Microsoft even put a shortcut to this app on the default desktop.

For Android phone users running Android 7.0 or newer, the Your Phone app lets you text (receive and send SMS Messages) from your PC and instantly access photos from your phone on your PC. In the future, Microsoft plans to add syncing notifications from your Android phone. This is already available in the Cortana app, but Microsoft wants to make them easier to discover.

Fewer features are available to iPhone users because of Apple's platform restrictions. However, the "Continue on PC" feature is available for both iPhone and Android users. This feature lets you use your smartphone's share sheet to send a link you're viewing on your phone to your PC, quickly going from the small screen to the big screen. This feature already existed on Windows 10, but the Your Phone app makes these features easier to discover and set up.

**Dark Mode**

In this mode your display should dispense with the mainly white backgrounds and instead employ the black one of Dark Mode. "Apps" like the settings app, windows explorer, even Firefox will now have a dark grey background with light text, instead of the traditional white background with dark text. (see outside back cover for an example)

To turn on the Dark Mode you need to open the Start Menu and click on the Settings icon. Next, select the Personalisation option then click on the Colours tab in the left hand column. Scroll down, past the grid of coloured squares, until you see the section entitled Choose your default app mode, and then choose "Dark".

**David Groom**


# Microsoft Releases Old Versions of MS-DOS as Open Source

In October Microsoft released the source code to MS-DOS 1.25 and 2.0 via a GitHub repository, under an open licence. This means that anyone can look at the code, modify it and experiment with it to create their own version.

In these days of bloated software it's interesting to note that the size of the zip file including both  MS-DOS 1.25 and 2.0 is only 890Kb.

Its also important to note this does only relates to versions 1.25 & 2.0. MS-DOS eventually reached version 8.0 realised in September 2000, while version 2.0 was released 17 years earlier in 1983!

**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 6th February 2019 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 7th February 2018,  (http://www.iwpcug.org/secure/minutes/AGM18.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.

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### 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 November meeting Andrew Collins gave us the second of his talks on photography
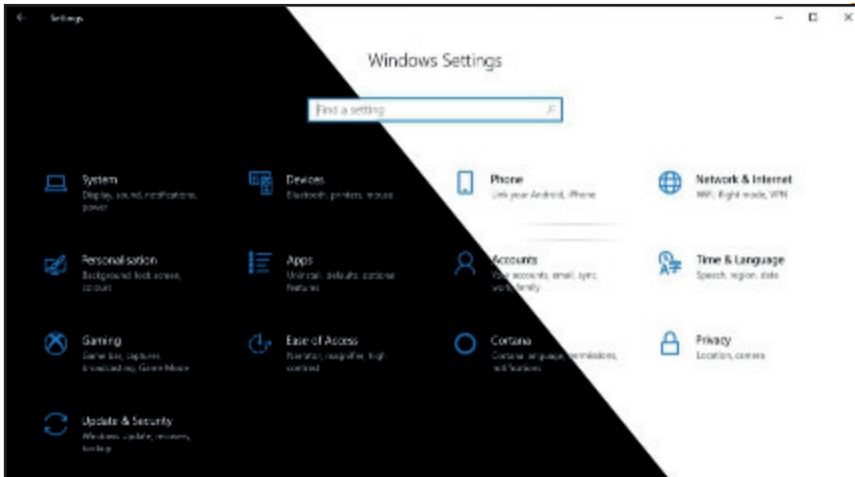


The new dark mode shown alongside the older light mode on the settings panel

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No responsibility can be accepted with respect to any advice or suggestions
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