Issue 195

OCTOBER 2016

ISLE OF WIGHT PC USER GROUP

HOT KEY

AUTUMN 2016

In July Judy Thaxter and Steve Sutters gave a talk on selling on line.

In This Issue **Pages**

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 7.30 to 9.30 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 10.

FUTURE MEETINGS

Date	Subject	Speaker
5 October	All You Ever Wanted to Know about Networking	Jonathon Burt
2 November	Mini talks	various
7 December	Christmas Meeting	Denny Linzmaier

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

HotKey Editor : Bob Groom

Committee Member : Mike Hoar

Committee Member : Judy Thaxter

Note: Committee members 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

Steve Sutters writes below on the troubles in finding speakers for our monthly talks, and I have to say I find a similar problem in finding articles to fill HotKey. However eventually, with the addition of an odd random article or two, the pages get filled, I hope with some interesting content. I'm aware that sometimes we stray away from a strictly computing focus, the last article this month in many ways is not directly to do with computing, though it would be impossible for the systems described to operate without the processing power of computers.

On a positive note the Egroup continues to be a source of help for those members who use it. Only recently we were able to put a member in touch with someone who helped restore the network connectivity to his computer after a nearby lightning strike. The original post by our member asked for recommendations of who to contact in his local area, but a fellow member came to his assistance and solved the problem over the phone. Where else can you get service like that these days!

David Groom

I find it is getting increasingly hard to find speakers for our club. As well as asking several club members for our Septembers talk I also contacted 13 businesses I found from Wightbay and Yell.com involved with I.T. and audio / visual presentations. About half of them replied with reasons like too busy, can't make that date, and my days of giving talks are over. If it had not been for David stepping in at the last minute and giving us another of his excellent talks we would not have had a speaker and the topic would probably have been 'How do we find new speakers'.

So I ask all club members to ask people you know / not to underestimate how interesting a talk you could give. 20 minutes would be long enough. This could include work in computing, electronics, engineering and I.T. plus how technology has changed in our lifetimes!

Speaker finder, Stephen Sutters

Tips on Understanding the Dangers of Spyware and Adware

Money is the very crux of adware and spyware. These pose several problems and are a security risk.

Adware is a program that displays advertisements on the computer whether you want them or not. They are not just connected to particular websites or free software but are programmed to start up whenever your computer is switched on.

Programs like Eudora mail client display advertisements in lieu of charging registration fees for use of software. It helps developers recover program development costs. Kazaa, the file sharing application, comes bundled with at least three ad-ware programs. Two of them serve ads to the desktop while another redirects the user's browser to a search engine with advertiser sponsored web results. Well known ones are: BroadcastPC; Comet Cursor; GeoWhere; Network Essentials, 123 Messenger, Direct Revenue, and so on.

Unfortunately, other guises of adware are spyware and malware.

Spyware is a program code that relays information about you and your work without your permission or knowledge. Some just "spy" on you conveying your Internet habits to marketing companies, while others are "thieves" they access credit card information as well as other sensitive files. In plain terms, it is malicious software that can intercept or take control of a computer's operation without user knowledge or consent. Termed as "malware" the redefinition of spyware, the programs can:

- Steal personal information and the address book.
- Flood the browser with pop-ups.
- Spam the system.
- Slow down programs and connection.
- Hijack the browser and redirect the user to a "con" page.
- Use the computer as a server to broadcast porn.
- Can cause a crash.

Spyware reaches a computer through innocent web pages, game demos, MP3 players, search tool bars, and other downloads like free software. It installs itself and leaves a mark on the windows registry. It can hog the computer resources such as memory and hard drive and cause a crash or lock up. Keystroke-logging

spyware can steal passwords and credit card information for thieves.

To protect the files one has to:

• Use anti adware and spyware programs. Examples: Spybot, Search & destroy, Pest Patrol, and Lavasoft's Adware.

• Keep Windows as well as Internet explorer up-to-date by applying the latest security patches.

• Maintain the security level of the Internet Explorer at medium. Users must not lower the security level.

• Use firewalls and web proxies to block access to web sites known to carry spyware.

• Install layered protection.

• Update the antivirus program. An up-to-date program will stop spyware as well as Trojans.

• Install a startup monitor to protect your system.

• Never accept "free" as being free---check out free software and downloads, there will be a hidden surprise or catch.

• Never download software from warez sites. Pirated software is always distributed along with adware and spyware.

• Use Spy checker to determine if the download has spyware. This can be accessed from the free computer securities pages.

An anti-spyware coalition has been instituted by Microsoft, Earthlink, McAfee, and Hewlett-Packard. They are working towards anti-spyware legislation and putting protection systems in place. A survey shows that 87 percent of users know what spyware is and of this 40 percent through firsthand experience. Protect yourself and your work; keep your system free of adware and spyware.

Author Bio

Paul Wilson is a freelance writer for www.1888SoftwareDownloads.com, the premier website to find Free Software Downloads including free anti-virus software, free spyware detection software, free toolbars, free chat software and more. He also freelances for www.1888FreeOnlineGames.com.

The Linux Bash Shell Comes to Windows !!!!!!

In the last edition of HotKey I talked about the Anniversary Update for Windows 10, which would start being rolled out on 2 August. But there was something which I had not picked up from the pre release notes - The Linux Bash shell comes to Windows.

There is now a Windows Subsystem for Linux (WSL). The WSL was designed and built by the Windows Kernel Team and delivered in partnership with Canonical, the developers of Ubuntu. It's intended for developers who want to run Linux command-line utilities on Windows, so familiar commands to the Linux user such as ls, grep, vi, curl, wget will be available, you can also apt-get to install more utilities straight from the Ubuntu repository.

The WSL doesn't come installed as default, and is only available on 64bit versions of Windows 10. I won't go into detail on how to install WSL, so if you want it you'll have to search on your favourite search engine for details.

It's important to note that this is beta software at the moment, so not everything works, or works as expected.

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.

Hard Drives in Transformation

Hard drives made with spinning platters have been a fixture in personal computers since the late 1980s. But according to a new report by the market research firm TrendForce (www.trendforce.com), this will be changing over the next few years.

As early as 2018, more than half of PCs will store data on memory chips instead, says TrendForce. This is the same kind of long-term storage currently used in smartphones, tablets, USB thumb drives, and camera memory cards.

Currently, 33 percent of PCs sold come with this type of storage, called solid-state drives (SSDs). This is a type of "flash" memory that's fast like a PC's random-access memory (RAM) but retains data after the machine is turned off like traditional hard drives. In two years, predicts TrendForce, personal computers shipped with SSDs will grow to 56 percent of the market.

Because SSDs have no mechanical moving parts, laptops and desktops with SSDs are faster and quieter, use less power, and are more resistant to being bumped or dropped than those with traditional hard drives. But they're also more expensive and typically have less storage space. Though SSDs are expected to continue to shrink in price as they expand in capacity, PCs equipped with them will likely still be premium priced.

SSDs also “wear out” as the data in memory cells are overwritten again and again. But traditional hard drives have their own reliability and longevity concerns, with a finite life also. Because traditional drives consist of read-write heads close to platters that spin at high speed, their components when malfunctioning can literally crash into one another, trashing the drive and the data on it. But traditional hard drives have become more dependable, and their average projected life currently is longer than SSDs, though SSDs will continue to become more dependable as well.

The first hard drive was introduced in 1956 by IBM. It was made for use with large mainframe computers about one ton in size, and the hard drive itself was the size of two refrigerators. The drive's capacity was 5 megabytes, with 5 million bytes being the equivalent of 5 million letters, a million words, or four medium-size books.

Hard drives became the primary form of long-term storage for mainframe

computers by the early 1960s. Before that, computers for storage used punch cards, literally pieces of stiff paper with holes punched into them at specific locations to digitally represent the data on them.

The first personal computer with an internal hard drive was the IBM PC XT, introduced in 1983, two years after IBM introduced its first PC. Its hard drive was 10 megabytes in size. A budget desktop PC or a laptop PC today can have a hard drive with a capacity of 1 terabyte, a trillion bytes, which is about 100,000 times more. The largest manufacturers of hard drives today include Seagate, Toshiba, and Western Digital.

Before PCs had hard drives, they had floppy drives, which used removable discs, first 8- inch, then 5-1/4-inch, and then 3-1/2-inch, though the 3-1/2-inch discs were stiff, not flexible like previous ones. Many earlier PCs, introduced in the late 1970s, used tape cassettes for storage. Later, Apple was the first major personal computer company to ship PCs without a floppy drive, and by 2007 just about all PCs were shipped without them.

Local removable storage was, and still is, handled mostly by USB thumb drives. The "cloud" is another other major form of storage today, where you keep the results of your document editing, photo sharing, and online backups. Low-priced Chromebooks use the cloud has their primary form of long-term storage. Cloud storage consists of many banks of traditional high-storage hard drives that are reachable over the Internet.

Along with the cloud, SSDs are a game changer. With SSDs, things started slowly. Toshiba was the first to introduce flash memory, in 1984. In 1991 SanDisk made a 20-megabyte SSD that sold for $1,000. It wasn't until around 2007 that SSDs started becoming mainstream. Apple's MacBook Air laptops have come with SSDs as standard since 2010. The largest manufacturers of SSDs today include Samsung, SanDisk, and Lite-On.

A random survey provides an idea about pricing today. From Newegg 250-gigabyte internal SSDs, used for upgrading your current PC, sell starting around $100, 500-gigabyte for around $160, and 1-terabyte for around $240. Best Buy sells a new Lenovo laptop with a 256-gigabyte SSD drive, 8 gigabytes of RAM, and a 15.6-inch screen for $730 and a Lenovo laptop with similar specs but a 1-terabyte hard drive for $560.

First published in Purrchase Area Family Magazine

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 (which costs nothing and is private to club members) in order to keep in touch with events and to join in with the discussions.

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

Choosing battery drills and the Internet

It was about 30 years ago and I had bought my first Bosch 9.6 volt battery drill. Into the garage I went, put a sharp drill bit in, found a softwood offcut and pulled the trigger. The drill spun like mad but despite pushing hard into the wood for a about 10 seconds it had made hardly a dent in the wood. Looked at the drill bit and that was still sharp so I tried again. Lots of pressure, maximum rpm from the drill but the same result. I thought maybe these new battery drills have hardly any power. Had I just wasted £106?

Then I found a lever above the trigger, pushed it the other way and tried again. What a difference! The drill bit drove into the wood at speed with me only pressing lightly on the drill. Of course it had been in reverse.

Next came a key less quick change chuck and it gave superb service for about 10 years till the battery (Ni Cad) would only hold its charge for a few minutes of use. New batteries were about £57 which I considered a rip off so went to B&Q and bought another from their value range of Performance Power tools. More powerful at 14.4 volts, heavier and with a built in hammer action for masonry. This still works perfectly and the battery still holds its charge well. Not bad for around £35!

Fast fwd. to last summer and I had a large number of holes to drill in masonry to hold bitterns for outdoor flight netting. I could have used a massively powerful 710 watt Ryobi mains drill but that would have been a real chore

lugging around 3Kg of drill plus having a mains lead where ever I went. Now with help from the internet and no longer confined to shops around Newport I looked at cordless SDS drills (the best type for masonry drilling and discovered a big advancement in electric motor design.

How Brushless Motors Work

A brushless motor loses the brushes and the commutator. Also the locations of the magnets and windings are reversed: The magnets are on the conventional motor shaft and the copper windings of the armature are fixed and surround the shaft. Instead of brushes and a commutator, a small circuit board coordinates the energy delivery to the windings.

Because the electronics communicate directly with the stationary windings, the tool adjusts according to the task—which is why the companies market these as "smarter" tools. For example, if you're using a brushless drill to drive screws into Styrofoam, it more readily senses the lack of resistance (compared with a brushed motor) and begins to pull only what little charge it needs from the battery. If the tool then starts putting 3-inch screws into mahogany, it will adjust accordingly and draw more current. By contrast, a brushed motor will always run as fast as it can while in use.

In addition, brushless motors can be more powerful overall. Because the copper windings are on the outside of the motor configuration, there is room to make them larger. Brushless motors also don't have the friction and voltage drop that brushes create by dragging against the spinning commutator. This physical contact results in a continuous energy loss during the operating process.

Also there are no brushes to wear out.

My eyes went all Toad of Toad Hall ish and I thought brilliant, I'll get a brushless SDS drill. The problem was cost! Milwaukee made the only one I wanted but at £220 was far too expensive for a tool I would only use occasionally. Plus Judy my partner considered the purchase total insanity. So back to ebay and I saw a CEL 144HD SDS Plus Hammer Drill for £53 inc. postage. Too cheap to be any good? Checked user reviews (mainly by Amazon) which were generally good for CEL power tools so bought one. Result was fantastic! Lighter than most at 1.5 Kg. plenty of power for holes

up to about 10mm in concrete and a long battery life due to having the latest battery technology.

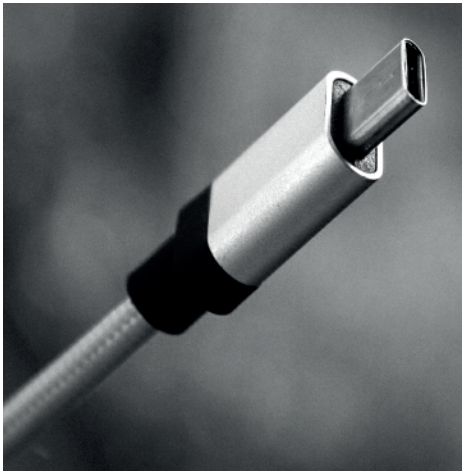
Back to my old Bosch drill and after putting in the model number on the search bar I found I could get a compatible battery for £21. You could say why not get a new one for the same money but I've used ultra cheap battery drills and normally found them horrible to use with chucks that can barely hold a drill bit, triggers and switches that are stiff and unreliable and motors that smell of burning after a few seconds use. As with most things you tend to get what you pay for but it is possible to get excellent value for money and the best way to sift the wheat from the chaff? **Check User Reviews On The Internet**

Happy drilling / DIYing to all members and don't forget the safety gear. Please contact me for advice regarding breathing masks (respirators). I use SAFIR masks which have specialist filters for most gases and particles.

Stephen Sutters

3 Benefits of Using the USB Type 3 Cable

By [http://EzineArticles.com/expert/Leo_Eigenberg/1776992]Leo Eigenberg



Many of the latest items of tech come ready to accept the USB type C cable as standard. It first started to appear in 2015 on a few new releases such as the Apple MacBook. It is now becoming more readily available and is appreciated for plenty of reasons, including its ability to operate faster when transferring data or charging smart phones or laptops. Here are three of the most appealing features of this USB cable:

Reversible connector

The USB type C cable is designed to be reversible, so it is much easier to plug-in to the laptop or other devices. It does not matter which way round or which end of the connector is plugged-in; this cable is still able to fully function as intended. A great benefit of this is the ability to use these cables on the widest range of devices in the market. All the latest operating systems (Chrome, Android, Windows, and OS X) are progressively changing over to this technology, which will soon mean the replacement of the USB type A and B cables.

It is much faster

The latest USB type C cable has the ability to operate at a very fast rate The fastest speed rates are achieved when the USB-C and USB 3.1 sockets are able to work in combination. A major reason for this is the ability to push up to 100W of power compared to the earlier standards that were limited to about 10W, and therefore charge up external devices like smart phones or e-readers quickly. A further benefit of the improved speed is the ability to complete file transfers from an external hard drive more quickly.

Greater versatility

The USB type C cable is extremely versatile and practical in many different situations. There is no need to use different plug and cable sizes for device like the laptop, smart phone or printer. Plus, it has the ability to take on several roles and complete multiple jobs at once. For instance, it has the ability to transfer data and charge a device at the same time. Other practical uses include the ability to hook up a laptop to an external screen.

A great plus of this connector having multiple functions is less need for multiple sockets on the laptop, which makes it possible to continue to build to lightweight and slim devices.

Finally, a further improvement on the older USB cables is the ability to include smart technology that helps to detect the intended use, and determines whether the cable is being used for video, power, or transfer data.

Article Source: [http://EzineArticles.com/?3-Benefits-of-Using-the-USB-Type-3-Cable&id=9463709] 3 Benefits of Using the USB Type 3 Cable

seahorses.persuade.ceilings (Location Encoding Systems)

How do we define a point on earth? One can imagine that almost from the moment man began to speak we felt a need to be able to describe the location of something. For millennia our location description may have been no more complex than “by river”, “near mountain”, “a days walk in the direction of the setting sun”. As our language and measurement systems improved, so would our location descriptions, so we might say “20 feet from the river”, “round the corner from Mrs Smiths house”. Later on we gave addresses to places, so we could describe them as say “20 High Street”, or “the corner of High Street and East Street”.

Scientific understanding on the nature of the world developed, and the latitude and longitude system came into use, so we could define a position as set of coordinates such as 35° 51' 9.5” N, 74° 44' 8” E (35.852635, 74.735580). Then in the twentieth century postal services developed their own coding systems, the Post Code in the UK, the ZIP code in the USA, and so an area could be identified as say PO23 2QR, though to narrow down the location a building number or name would also need to be used.

Of all these addressing systems the only truly global one is latitude and longitude (“lat/lon”). However, to accurately describe a location it requires a reasonable degree of precision. For instance I looked at a street of terraced houses in Newport. In order to be able to locate an individual house the latitude and longitude have to be given to four decimal places (i.e. 50.6952, -1.2941). It is probably impractical for anyone to be able to easily remember this degree of accuracy. But why would you want to when a simple address like 2 High Street suffices?

It is estimated that more than half the world's urban population lack street addresses, and many rural places lack any form of addressing entirely. In India alone, well over half a billion people live in houses that have no street name. How do you identify the location of an isolated one room farmhouse halfway up a side of a Himalayan mountain? It would seem a lat/lon is the only choice.

To help solve this issue a number of different schemes have been developed. The one which first got my attention is **What3Words**. Here a unique

combination of just 3 words identifies a 3m x 3m square, anywhere on the planet. The globe has been divided into 57 trillion 3m x 3m squares, and each one given a unique three word address. So “seahorses.persuade.ceilings”, the words in the title of this article, actually denotes the location of a building (the “farmshed”) located in a meadow on the northern bank of the Indus River, 1.2km NNE of the village of Sassi, in the Gilgit District of Pakistan. The buildings' location is 35.852635N, 74.735580E.

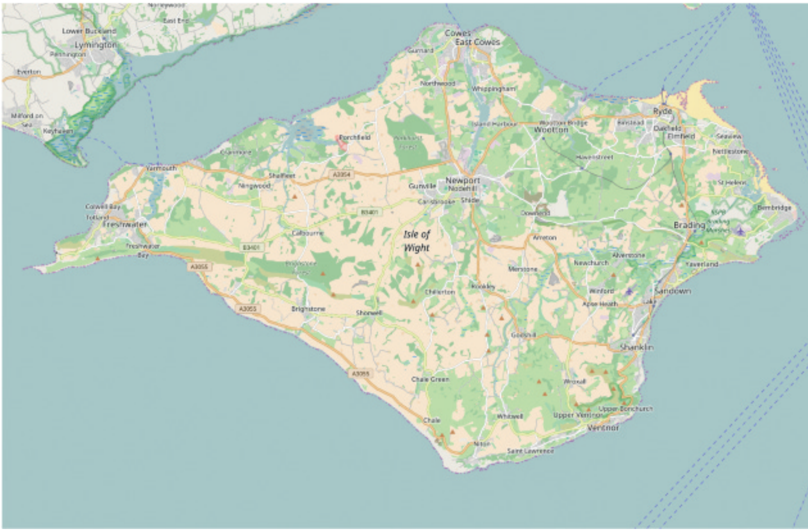
An alternative system is the **Open Location Code (“OLC”)** developed by Google. This again breaks the world down into squares, this time approximately 14m x 14m, each with a 10 digit code. However rather than a random set of words, the Open Location Code is based on a conversion of latitude and longitude. In places where there is a high building density, a further digit is added to the 10 digit code to subdivide the square into a grip with an approximate size of 3m x3m. The farmshed has an OLC address of 8J7PVP3P+36 (note the + is not counted as part of the code, so this is a ten digit code). All squares in the vicinity start with 8J7P, so you could just give a neighbour the last part of the code. Furthermore if you don’t need much accuracy you can drop the last part of the code, so 8J7PVP3P+ denotes an area approximately 300m by 200m.

A third alternative system is **MapCode** developed by two TomTom employees, and released into the public domain in 2008. Under this system any location on the surface of the earth can be addressed by a short, easy to remember "code", usually consisting of between 4 and 7 letters and digits, together with an identifier for the country. The farmshed's MapCode is PAK 0X11.SKW. It's important to include the country identfier, in this case “PAK” (for Pakistan), as the same “code” identifies other locations on the planet, for instance TUR 0X11.SKW, identifies a spot in the Agean, NE of Izmir in Turkey. However in addition to the national MapCode which a location may have, it also always has a 9-letter, context-less MapCode, so the farmshed has a unique international mapcode of RPXWN.XVLG.

When I first thought about writing this article I liked the idea of What3Words, but I believe it has shortcomings. I cant decide which of the other two I favour. It should also be mentioned that there are more alternative location encoding systems to the three I have described above.

David Groom

At our September meeting David Groom talked about OpenStreetMap, here is is shown holding a tablet computer with the OpenStreetMap editor on it.



The Isle of Wight as seen on the OpenStreetMap webpage
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