

Issue 173

APRIL 2011

ISLE OF WIGHT PC USER GROUP



HOT KEY

SPRING 2011



At the IOW Observatory, Brian Curd was giving a talk about the work of the Vectis Astronomical Society. On the right side of the picture is a telescope constructed by one of the members

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The Isle of Wight Personal computer User Group

We welcome all owners and users of IBM compatible Personal Computers.

We are a group which seeks to exchange ideas and new information.

Membership is £10 per annum

Our meetings are held on the first Wednesday of each month at

The Riverside Centre, Newport from 7.30 to 9.30 pm

Visitors are welcome.

**A charge of £1 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 Website address is **www.iwpcug.org**

We also have an e-group discussion area on Yahoo groups:
iwpcusers@yahoogroups.com

FORTHCOMING EVENTS

<u>Date</u>	<u>Subject</u>	<u>Speaker</u>
April 6	Internet Freebies	Neil Prangnell
May 4	Home Networking Vectis Radio	Carl Griffiths Steve Ray
June 1	The impact of the PC on the Amateur Astronomer	Dr.J.Whitehurst
July 6	The Wight Squirrel Project	Helen Butler and Michael Hodge
August 3	Summer BBQ	

ISLE OF WIGHT PC USER GROUP COMMITTEE

Chairman : David Groom

Treasurer : Phil Rogers

Secretary : Susanne Bone

Membership & Database Secretary : Ray Boote

Committee Member : Roger Skidmore

Committee Member : Steve Sutters

Committee Member : Soren Johanson

HotKey Editor : Bob Groom

Note: contact details have been removed
prior to publishing on the internet

Suggestions for new events, topics or speakers for talks are always welcome.

Please contact any committee member with your ideas.

If necessary we may be able to find a speaker for your subject.

Chairman's Report

The AGM was held in February, the committee was re-elected, and the Treasurer presented accounts showing a loss for the year of £393, with club funds standing at £541. The loss was not unexpected, in fact it was deliberate result of the decision taken a few years ago to cut subscriptions, and reduce club funds. It was now felt an appropriate time to recommend an increase in the subscription to £12, to take effect in 2012.

At the AGM, I asked for members to consider whether they would like to join the committee, and I'm grateful to Soren who came forward, has attended one committee meeting as an observer, and has duly been co-opted to the committee.

At the AGM the members expressed a desire to see the photo competition continue, and there is more news of this on page 10.

We had a very interesting visit to the Isle of Wight Astronomical Society observatory in March, luckily the skies were clear that evening.

The E-Group continues to help members. There is only a low number of questions asked, does this mean that we are all content and have no computing problems, or is it simply we are afraid to ask others for help?

Lastly I can report that we now have a full calendar of meetings arranged through to the BBQ in August, so hopefully we will see as many of you as possible over the coming months.

Joining the Email Group

Send an e-mail 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.ipcug.org**

Cover Disk

AVG Free – this returns to the cover disk this month. After a lot of searching on the internet I found a link to download the complete installation file from the AVG site, rather than the small installer file which AVG first prompt you to download.

Firefox – version 4 of Firefox was released on 22 March. It is supposed to be faster than previous versions, with some new features as well.

LibreOffice – The LibreOffice is a fork of the popular OpenOffice “productivity suite”, it has word-processor, spreadsheet, presentation, database, and drawing applications all of which attempt to be compatible with Microsoft Office.

CrystalDiskInfo – This is a hard drive / solid state drive utility which monitors and reports upon the health status of your hard drives, possibly giving advance notice of impending failure.

Also included are the latest versions of SpyBot, AdAware, CCCleaner, ImgBurn etc. Full details are included on the cover disk.

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.

David Groom

Who Invented the Computer?

The recent death at age 86 of Jean Bartik, last of the original ENIAC programmers, shines light once again on the thorny but fascinating question of who invented the computer.

What defines our times more than computers? That's a debate in itself, but you would think that the inventor of the computer would be as historical a figure as the inventor of the light bulb, Thomas Edison, or the discover of electricity, Benjamin Franklin. But history is never this simple, with Edison much more accurately characterized as the light bulb's popularizer and Franklin as the inventor of the lightning rod. Things, as you might expect, get even more complicated with computers.

Much here depends on how you define "computer." Does it need to be programmable, carrying out computations automatically? If not, the earliest computer might be the abacus, which was used first around 2700 BC in Mesopotamia, several centuries after the first civilizations arose there and in Egypt.

The earliest programmable computer, which carried out addition, subtraction, multiplication, and division without human intervention, was arguably a mechanical calculator invented during the late Renaissance in 1642 by the Frenchman Blaise Pascal, sometimes called Pascal's Calculator.

Both of these devices, however, were analog, meaning they represented values continuously, such as moving a central strip along a slide rule. Computers today for the most part are digital, meaning they represent values incrementally, typically as either a zero or a one. This simplicity, ironically, allows for far greater range and speed.

It's digital computers, which at their essence just add zeros and ones very, very quickly, that put man on the Moon, that sit on desktops and laptops, and that power devices ranging from talking dolls and smartphones to industrial robots and CT scanners.

Many regard the first general-purpose digital computer to be the ENIAC, an acronym for Electronic Numerical Integrator And Computer. Like the Internet that came after it, the ENIAC was designed initially for military purposes, in its case to calculate the ideal trajectories for artillery and mortars to maximize the chances of hitting their target.

Design and construction of the ENIAC was secretly begun during World War II in 1943 at the University of Pennsylvania, financed by the U.S. Army. It played no part, alas, in the Allies' victory, since the first machine was completed in 1946. But the press at the time heralded it as a "Giant Brain" since it boasted speeds a thousand times faster than previous analog computers.

The leaders of the team developing the ENIAC were Penn's John Mauchly and J. Presper Eckert. Jean Bartik was one of those who helped develop the first programs. The ENIAC and its improved versions were purchased four years later, in 1950, by Remington Rand and became UNIVAC, with its descendents in turn made and marketed by Unisys of Blue Bell, Pa.

Not all, however, regard Mauchly and Eckert as inventors of the modern computer. Last year, in an interesting book titled *The Man Who Invented the Computer: The Biography of John Atanasoff, Digital Pioneer*, published by Doubleday, author Jane Smiley argues that this honour rightfully belongs to another braniac, Iowa State College professor John Atanasoff, who built an earlier computer with the assistance of graduate student Clifford Berry. Though the machine, completed in 1942 and dubbed the Atanasoff-Berry Computer, was digital, it wasn't programmable. It was only able to solve systems of linear equations.

The ENIAC was nearly universally regarded as the first modern computer until Atanasoff and Berry's work was rediscovered in the 1960s. Eventually, in 1973, a U.S. District Court concluded, in short, that the ENIAC was derived from the earlier Atanasoff-Berry Computer.

In her book, Smiley agreed with the conclusions of Alice Burks in her earlier 2003 book "Who Invented the Computer?" who also felt that Atanasoff deserved the lion's share of the credit. Far from the corridors of East Coast power in Ames, Iowa, Atanasoff received little notice except from Mauchly, who borrowed from his work and, to be fair, greatly advanced it.

Not everybody, therefore, feels that the ENIAC doesn't deserve to be called the first modern computer, despite the court ruling. And the thinking of others during this period also played an important part in the development of today's computers, perhaps most notable Alan Turing, who from his work in the 1930s is widely regarded as the father of modern computer science.

So next time you think of a four- or five-year old personal computer running Windows XP as ancient, consider its predecessors.

Karen Hammond

Protecting Yourself from Malware, for Free

Anybody who has been around the block with personal computers, or even-halfway around the block, knows about computer viruses, spyware, and other malicious software. This doesn't apply to everyone, perhaps a friend or family member.

More and more Internet service providers (ISPs) offer subscribers good protection against malware as part of their subscriptions. But not all do.

All of this was hammered home recently when an uncle of mine asked me for suggestions about anti-virus software. He's an older guy but not unsophisticated, an engineer. His request: He wanted protection for his Windows PC, but he didn't want to pay for it, if possible. Sounds like my uncle.

The best and most convenient protection against malware comes from the fee-based security suites of the top security companies, such as Symantec (www.symantec.com) with its Norton 360 or McAfee (www.mcafee.com), recently acquired by microprocessor giant Intel, with its Total Protection.

Such products come with annual subscriptions ranging from about \$30 to \$100 per year for home or home office users, with other options available for small and large businesses, nonprofit organizations, schools, and other organizations. They protect not only against viruses but also worms, trojan horses, spyware, zombie attacks, and other maliciousness.

If your ISP doesn't provide security services through such a vendor, here are some free Windows options. In general, however, it's not a good idea to use more than one anti-virus program at a time because they can conflict with one another.

* Microsoft Security Essentials (www.microsoft.com/security_essentials). This free security suite was released by Microsoft for Windows XP, Windows Vista, and Windows 7 in September 2009, with Version 2 released in December 2010. Its licensing permits use on an unlimited number of home computers and on up to ten computers in a business setting.

The product has generally received positive reviews in the computer press and among independent virus-testing labs. If you're looking for a free all-in-one package, Microsoft Security Essentials may be all you need.

Testing by various parties, however, has indicated that other free security programs do a better job at detecting both known and unknown malware. This falls in line with what has been Microsoft's strategy for years. It provides basic utility software that's competent, but it leaves room for independent companies to find a market with higher-quality offerings.

* AVG Free (free.avg.com). This is the most popular of the free anti-virus programs, but it has gotten a bit long in the tooth lately, not earning the top reviews it used to.

Further, the free version of the program, compared with the fee-based AVG Internet Security, doesn't include firewall protection, provides less frequent updates of virus signatures, and subjects users to pop-up ads promoting the more comprehensive fee-based version

* Avast Free (www.avast.com). This is the hottest of the free anti-virus programs these days, garnering lots of positive reviews in the computer press as well as positive word-of-mouth among computer geeks. It's a product of a company from the Czech Republic and is available in versions written in English and ten other languages.

The independent site AV-Comparatives.org (av-comparatives.org) recently

gave Avast its top score for on-demand malware detection and ranked it as the fastest-running anti-virus product for Windows PCs. PC World recently ranked the free version highest among the free anti-virus programs it tested.

The free version, however, doesn't come with a firewall. And it's available only for non-commercial use. It does, however, provide free anti-spyware protection along with free anti-virus protection.

One option in using a free program such as Avast Free that's stellar in performance but lacking in some capabilities is to pair it with other free programs.

ZoneAlarm Free Firewall (www.zonealarm.com) is the most popular product of its kind, and its latest version has earned good reviews, with new features added after a long stretch of time in which the company focused on its fee-based offerings. ZoneAlarm created the free personal firewall market with its first release back in 1999.

As with most other free software, fee-based versions also exist. A "pro" version offers additional protection as well as 24/7 technical support.

Nonetheless, pairing Avast Free with ZoneAlarm Free Firewall provides pretty potent protection. There's still no such thing, however, as a free lunch.

You can't beat Symantec's Norton 360, in my view and those of others, for the best protection combined with the most comprehensive offerings, including identity theft protection, online backup, parental controls, and a number of other utilities that keep your computer running smoothly. You get what you pay for.

Karen Hammond

Photo Competition

The top three entries were from Barry Cant, Vic Shears, and Rob Webb. The winning entry is shown on the back cover, and is from Rob.

Entries for the next competition should be sent to me by 7 June, and should be on the theme "Wildlife".

David Groom

CD Ripping

I recently undertook to copy some of my CD collection onto my PC so that I could play selected tracks easily and quickly through my PC sound system and also copy them to my portable media player. The process of doing this is called CD Ripping.

When I started to look at this process I first of all had to find some suitable software to take the CD contents and create media files on the PC. On the face of it this seemed easy. I own a Sony Walkman portable device and Sony has it's own software to import a CD into a library. The music could then be played on the PC and could also be copied to my Sony portable device – job done. However, what if I wanted to copy the music to an iPod or a simple MP3 player in future? The Sony software only imports to a Sony format (ATRAC) and cannot be converted to other formats such as MP3. Also, Sony have basically now discontinued the software and so it may become redundant in the future as technology advances. I would then need some other suitable library to hold the music. I needed to be able to store, play and copy my music to a number of formats depending on what I wanted at the time. My investigations then began into some of the audio formats that are available. These are many and varied and I'll now briefly describe the most common and useful ones.

The one format that everyone has probably heard of is MP3. This is getting a bit long in the tooth nowadays and has been superseded by other formats. However it remains popular and is used by many portable devices. The downside of MP3 is that it uses what is known as lossy compression of the data. In order to reduce the size of the resulting music file the encoders used reduce the amount of the data that is sampled so that it should still faithfully reproduce the source sound but the quality is nowhere near that of the original CD. The quality of MP3 (and some other formats) also varies depending on the bitrate used. The bitrate is the amount of information that is stored per unit of time. Common settings are 256Kbps or the lower 128Kbps. The highest for MP3 is 320Kbps. A CD has a bitrate of approx. 1400Kbps so if a bitrate of 128Kbps is used for encoding this results in the file being compressed to approximately a eleventh of its original size.

A very popular format today is AAC (Advanced Audio Coding). Like MP3 it still uses lossy compression but being newer technology it generally achieves better sound quality than MP3 with a smaller file size. It is also the format chosen by Apple among others for use with iTunes, iPod etc. If you look at a file stored by iTunes it will have a .m4a extension. This has been adopted by Apple to denote an audio only AAC file.

WMA (Windows Media Audio) is the format developed by Microsoft for use with Windows Media Player. The file size is similar to AAC. If you wanted to hold all of your music collection in Windows Media Player's library then this is the format that they will be held in by default. CD's can be ripped directly by Media Player and can be then copied to a portable device. The quality (and filesize) will vary depending on which codec you choose. A codec is simply a program that does the actual conversion. With WMA there are 4 to choose from giving different quality results. One of them is WMA Lossless which unlike those mentioned so far gives the same quality as the original audio CD.

Moving completely away from lossy compression we have two other formats, WAV (Waveform Audio File) and FLAC (Free Lossless Audio Codec). Both of these result in very large files, FLAC files are some 4 times the size of an MP3 file. The advantage is that there is no loss of quality from that of the input CD. FLAC is more popular than WAV nowadays and is used for maintaining an exact copy of the audio data in case the original is lost. Files held in FLAC format can also subsequently be copied into another format eg MP3.

As for software used for ripping, the choices were either to use existing programs such as Windows Media Player, a free program available on the internet or some specialist software. The quality of the ripping is obviously very important, some codecs being better than others at converting. I thought I would go for a professional approach and actually spend some money. I decided to purchase a suite called Roxio Music Lab 10 Premier. This is a complete suite that not only rips CD's but will also burn audio and data CD's, play DVD's and generally capture/play/edit audio files on the PC.

With this suite it is easy to take a CD and rip its contents to a chosen folder on the PC in any of the formats mentioned as well as others not mentioned.

The software uses the internet to look up the contents of the CD on a database run by a licensed provider known as Gracenote. This returns comprehensive data such as the Artist, Album, Track, Genre and other associated information. Using this information, the program creates a folder with the Artist Name and a sub folder for the album which then contains an appropriately named file for each track. Depending on the format used, each file has the song information encoded within it. This is called metadata (data about data) and can be edited by the program. Editing is sometimes required to correct errors and also add any relevant details. I also found a comprehensive and free metadata editor on the internet called MP3TAG and have used this where fine tuning is required. AAC, WMA and MP3 make good use of the metadata but others such as WAV do not hold any information within the music files. iTunes and other media library software will make use of the metadata to display details of the music files so accuracy is important. Some allow album art to be displayed with the entry and this can be found and inserted by the editors.

As for which media library software to use, this depends on what portable media player you have. If you have an iPod or other Apple device then you have to use iTunes as your library. I actually like iTunes and if you just wanted to play music from your PC then I would use this. It is easy to rip the CD to AAC format and then iTunes can import directly. If you have another portable device other than an Apple then it may have its own library software. For generic MP3 devices then you can drag and drop directly from Windows or use Windows Media Player

Keith Burberry

LAN's using Power Line Transmission PLT

Some of you may remember the article that I wrote for the Autumn 2010 edition of HotKey concerning the interference that these PLT devices are causing to radio reception and I indicated that the problem was likely to get worse with the new devices that are coming onto the market.

There is now a great deal of concern from Broadcast Organisations, the Civil Aviation Authority and DAB Radio users. It is worth looking at the website <http://mikeandsniffy.co.uk/UKQRM/> to see the official report concerning these devices, and the apparent lack of control to prevent disaster ! Ed.

Doing Background Checks on the Web

You may have seen the TV commercials. A nervous looking young woman has a date with a man she met over the Internet. She wants to make sure that he's not an axe murderer. To learn more about him, all she has to do is sign up with a service that provides background checks, for a fee.

There are good services out there that do just this, but there are also free Internet services as well that let you uncover information about people. If you want to learn more about a date, a baby sitter, a job applicant, or a contractor working on your house, or if you want learn what information others can see about you, these sites are worth checking out.

Google, as the most popular general search site, is the place to start. Just type in the person's name. If the person has a common name, resulting in too many irrelevant results, you can try including a word or phrase connected with that person. Afterward, click on "News" to see if the person has appeared on a news Web site aggregated by Google over the past 30 days. Google News Archive (news.google.com/archivesearch) goes back further.

You can also try the popular social networking sites, including Facebook, Twitter, and LinkedIn. Facebook is by far the most popular, and it has done a better job recently of helping those who want to keep their information private. But workarounds exist. If you go to Google's Advanced Search page, type the person's name in the "this exact wording or phrase" field, and type facebook.com in the "Search within a site or domain" field, you can find comments the person has left on Facebook.

A possible portal is pipl (pipl.com), which bills itself as "the most comprehensive people search on the Web" because of its ability to search through online databases. It finds phone numbers, addresses, age, birth date, Web sites, blogs, reviews written at Amazon.com, and other information. Some is free teaser information, with more in-depth information requiring payment.

Interestingly, pipl also lets you search for information about someone using their online handle, or nickname. But since handles are rarely unique, you

may turn up information about more than one individual, and this may not even include the person you're looking for.

Similarly, you can search through pipi and a number of other people search sites by email and phone number. Don't forget Google also for this. Despite privacy concerns, many people leave email addresses or phone numbers in Facebook comments and elsewhere on the Web.

If you want to know who's behind a particular Web site, and this information isn't included as part of the site, you can often find this out as well. Whois.net (www.whois.net) and Whois Source (www.whois.sc) are two of a number of sites that can provide the name, address, and phone number of a Web site owner, provided that the owner didn't elect to make this information private when registering the site's domain.

Karen Hammond

Editors Comments

The articles on pages 6 and 8 were written by my niece in Kentucky and the one about the invention of the computer has a very American flavour. I'm sure that an English version of it would read somewhat differently. Alan Turing, for instance, would have more importance.

However, I certainly appreciate her efforts on my behalf !

For instance, I am in fairly regular email contact with an old friend and business colleague who now lives in Portland, Oregon, and I was recently worried that I had not heard from him for a couple of months. I am also in regular Webcam video contact with my niece and in a recent meeting with her I mentioned this problem and explained that I had lost his address and phone number. “ Leave it with me and I'm sure I can find it for you ” she said.

We finished our video “chat ” and I went downstairs. About 15 minutes later the phone rang and a voice said “ Hello Uncle Bob, I've just finished talking to your friend Lionel, and he is sorry not to have been in touch and will phone you tomorrow ”. She had also found out a few things about him that I did not know, including the fact that he was on the committee of the local library ! My enquiring as to how she did this resulted in the article on the previous page. I have taken out the specific USA references.

Editor



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