HOT KEY

Autumn Edition 2006

Note the blood line feeding in four units of blood and the computerised blood pressure-pulse, oximeter unit, now common in all hospitals in every ward. This enables student nurses to take readings not possible before.

How and where this edition of "Hotkey" was compiled.

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The Isle of Wight Personal Computer User Group

The Isle of Wight PC User Group WELCOMES all owners and users of IBM compatible Personal computers.

It is a group which seeks to exchange ideas and new information. Our meetings are held on the *first* Wednesday of each month at **The Riverside Centre, Newport** from **7.30 to 9.30pm**
Visitors are welcome. **Membership is £6 per annum**
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: **http://www.iwpcug.org**
We also have an e-group discussion area :-
Yahoo iwpcusers: **iwpcusers@yahoogroups.com**
See page 11 for how to join

FORTHCOMING EVENTS

Unless otherwise stated, meetings are held at the Riverside Centre in Newport starting at 7.30p.m. Some of the following are provisional. Keep a watch here and on the website

Date	Topic	Speaker
4th October	GPS (Global Positioning system)	David Broughton
1st November	Use of computers in schools	Ian Moth
6th December		

Details removed prior to publishing on the web site

Suggestions for new events, speakers or topics are always welcome.
Please contact any Committee member or the Editor with your ideas. If
necessary we may be able to find a speaker to match your subject.

Editorial

After a short (I hope) contretemps between my myself and my heart, not too serious perhaps, I have found myself taking a rest in St. Mary's Hospital in Newport.   Here, as well as being surrounded by medical staff and other patients, all of whom seem to have much better claim to be here than I have, I am surrounded by computers. It has been my fortune (or misfortune) to have spent a deal of time in my life in hospitals as I had TB as a child, spent much time in a bath chair and had a succession of operations thereafter. This positions me well to see how computers have changed the facilities of hospitals and the part that computers now play in them.

Let us for the moment leave aside the administration side of the discussion, enormous (and enormously expensive) as this has proved to be and look at a few of the day to day pieces of apparatus that the nurses and medical professionals have at their disposal. I am sitting, a not unusual patient in a pleasant airy ward with five others. (In earlier days the space would have contained at least ten beds!) Temperatures, pulses, blood pressures and oximeter readings are unobtrusively taken of all the patients routinely several times in the day. This simply would not have been possible before the computerised apparatus we see wheeled to each bedside by student nurses.   Electocardiograms are run of the mill. Drips of various types are now routinely given, but whereas they used to be only gravity fed, they are now often administered through computerised controlled pumps regulating the output exactly second by second. Yesterday one of the patients had a fall in the ward. Within minutes there was emergency resuscitation apparatus round him, every bit computer controlled and summoned by computerised communication.

The X-ray machine which was used to examine my chest in 1934 at the Yarrow Convalescent Home was considered state of the art then and was a huge humming device which had to be manually handled at every stage and the film wet developed.. On Monday I had an X-ray aimed on to me by laser, taking a digital picture (no wet developing) which was available in seconds and could be e-

In the operating theatre nearly every advance involves increasingly complex computerisation until the function of the surgeon and his team necessitates only the special expertise of their art, all the intermediate stages, some very intricate, often being handled by computer controlled lasers. All this is very expensive and needs constant up-dating.

None of this is of value without the direction of the doctors and the hands-on care of the nursing staff .   The nursing faculty is undoubtedly over-stretched and some resolution between this problem and the demands made by administration, in my opinion, needs to be made.   It is the dedication of those who come face to face with the patients that keeps the system afloat. Of course the increased cost of modern drugs and whether computerisation of the administrative side is, over time, actually improving its efficiency and lowering costs make the whole matter hugely complex.   It is not unknown for complexity to be an invitation for debate and a smokescreen to action.

In summary, and I am well positioned to make this comment, a stay in hospital today is greatly more comfortable, more positive better informed and shorter than it was in more distant days.   Certainly it is different from the days of "Matron's rounds" and Consultant unapproachablity. I hope to be home soon, but then, when in hospital, don't we all?

Please be sure to read the Chairman's report on pages 9,10. as it deeply concerns us all. My own opinion is that any Society is only as good as its youth and that we should make more effort to attract and cater for young members.

N.P.L.

Heard in the hospital ward

Nurse to patient: Would you like to have a wash now?
Patient: What, before Christmas?

Global Positioning System

David Broughton

GPS is a satellite navigation system in control of the USA Department of Defense. Although designed for military use, it is now used for civilian and commercial navigation world-wide.

It consists of an array of about 27 satellites spaced in orbits in such a way that at any place on earth there should be sufficient satellites above the horizon to enable a fix of position to be made to within about 10 metres. The satellites make two circuits of the earth every day at a height of about 20,000 km. The orbits are inclined so that the north and south poles are within line of sight by every satellite at some time during each day. The picture shows a GPS satellite in orbit.

Small hand-held receivers pick up the radio signals from the satellites. Each receiver has 12 channels to enable it to receive up to 12 satellites currently above the horizon. The signals received are decoded for both information about the satellite orbits and timing. Timing is crucial to the process for the system relies on distances being computed from timing signals based on the constancy of the speed of light. (Actually, the speed of light does vary slightly depending on atmospheric conditions. This gives rise to slight inaccuracies.)

All the satellites have very accurate on-board atomic clocks which are synchronised. Although the satellites are moving, their positions can be accurately computed by the receivers at any instant of time.

Signals from three satellites are sufficient to determine a two-dimensional position. A fourth satellite is required to provide an altitude measurement. The readout can be in any coordinate system, either latitude and longi-

tude or grid references that are local to the area.

Once a fix has been attained, a series of positions for a moving object enables a track to be plotted. A small hand-held receiver can be purchased for under £100 with a wide range of functions.

Functions include setting waypoints, guiding towards a waypoint, estimates of time of arrival at destinations, speed, average speed, distance travelled, and bearing. Although the receiver is not a compass as such, as soon as some movement is detected, the direction of that movement can be displayed. Devices can be used in cars and aircraft (though some airlines will prohibit their use). However, trees and buildings do interfere with the radio signals so it is sometimes difficult to get a fix inside buildings or in a wood.

The accuracy of around 10 metres can sometimes be reduced in open areas to about 5 or even 4 metres on occasion. Greater accuracy can be achieved for surveying work by using differential GPS which consists of an accurately located site that sends extra signals to specialised receivers. In this way, accuracies down to 3 centimetres can be achieved, or so they say. Personally, I think that this claim is exaggerated and what is meant is that *relative* accuracies of three centimetres can be achieved; the absolute accuracy in terms of latitude and longitude depending on the accuracy of the survey of the fixed site.

Other satellite navigation systems are being planned in the former USSR and in Europe, both claiming improved accuracy and performance. This is to avoid the dependence on the USA. In theory the USA could disable all their satellites or encrypt them for their own exclusive use. This is unlikely because ordinary receivers have become so ubiquitous that they would be shooting themselves in their own foot, disabling their own personnel.

When the GPS was first introduced back in 1993 they were designed with a built-in inaccuracy called Selective Availability (SA) that could be overridden by the US military and its allies. These errors could be as much as 100 metres. But it was decided to permanently switch off SA in 2000 for the reasons mentioned above.

GPS navigation is now available in new cars which have displayed maps of one's position and direction with audible instructions on how to reach one's destination.

(Continued from last page.)
Recreational applications include Geocaching where competitors have to locate some object hidden by others, walking or hiking over the country-side.

More detail will be given in my talk on 4th October 2006. when you should receive this copy of "Hotkey" if you are at the meeting.

McAfee SiteAdvisor

Touch wood, I have been relatively clear of spyware, adware and other nasties installed whilst visiting web sites. However I am very careful about what I allow to be installed, keep myself up to date with all security patches, and very rarely use Internet Explorer. Other Internet users I know have found themselves to have un-wanted programs on their machine as a result of visiting some web sites.

A service which I came across recently may help. SiteAdvisor is a company dedicated to protecting Internet users from all kinds of Web-based security threats and annoyances including spyware, ad-ware, unwanted software, spam, phishing, pop-ups, online fraud and identity theft.

They have built a system of automated testers which continu-ally patrol the web to browse sites, download files, and enter infor-mation on sign-up forms. They automatically test the most common things everybody does online, like browse Web sites, download files, and provide e-mail addresses to sign up for things like product registrations, services, community access, and newsletters. If you're thinking of browsing, downloading, or registering for something online, the chances are they've already been there and done it.

Web sites are tested for excessive pop-ups, "phishing" and other fraudulent practices, and browser exploits. So far they claim to have tested sites representing more than 95% of Web traffic.

Downloads are analysed by installing software on their test computers and checking for viruses and any bundled adware, spy-ware or other unwanted programs. They claim to have tested more

than 475,000 downloads to date.

Sign-up forms are completed using a one-time use e-mail address so any subsequent e-mail can be tracked. Then they track the volume and "spamminess" of e-mail from more than 1.3 million places already.

They have an easy to use download for Internet Explorer and Firefox which summarizes their safety results into intuitive red, yellow and green ratings to help Web users stay safe as they search, browse and transact online.

For instance when visiting a web site using the Firefox browser there is a little coloured button at the bottom of the screen showing the security rating of the site, you can click on this button to find out further information on what has been tested and what the results of the test were. This sort of detail is also included in searches on Google. When the Google search results page comes up, all the sites have a small button to the right, again colour coded, and moving the mouse over the button gives you further details.

It is certainly comforting to know that sites you visit are safe and I can recommend this free download available from http://www.siteadvisor.com.

Chairman's report

Even though as I write this, it is still only September, it is time to turn attention to the new year, rooms have to be booked, the AGM and election of the committee considered, and speakers for our monthly meetings arranged.

For the club to flourish and survive we need both new ideas and new members. The club has over seventy members, but for at least the past three years, and probably for some time before that, essentially the same five or six members have been largely responsible for every aspect of the club's activities. With the best

will in the world, if the same group of six people sit down each month and try and find speakers and subjects for our monthly meetings, at some stage they are going to run out of ideas, and I fear we are fast approaching that point.

We are a club of over seventy members. I am sure that within this membership many have something they can contribute:
Consider whether you would be able to join the committee;
Are you able to give a talk at one of our monthly meetings?
Can you suggest a specific topic which has not been covered recently?
Do you know of anyone outside the club who can give a talk to us?
If we are not able to get fresh ideas then sadly I think we will soon be unable to continue with our regular meetings and that, I fear, will call into question the very existence of our club.
I am writing this now, well in advance of next February's AGM, to give you all time to consider the issues raised.

On a lighter note, as this is the last issue before Christmas, I wish you all a Merry Christmas and a Happy New Year.

David Groom

Club web site

Members may be interested to learn that so far this year the club web site has received nearly 13,000 visits.

"Listen, dear" a man said to his wife as he sat watching the television. If ever I have a stroke or become a mere vegetable I don't want any of these life support systems. If ever that happens you have my full permission to pull the plug!
"Right, dear" sh said and disconnected the television!

<u>OpenStreetMap update</u>   D.Groom

I wrote in the last issue of HotKey about the OpenStreetMap project. Since then I have been visiting parts of the Island with my GPS unit, recording those roads which had previously not been mapped.

Its a bold statement to make, but I am not now aware of any road on the Island which is not included in the OpenStreetMap database, making the IOW the first county in the UK to reach this status.   I am sure that in places there may be an odd road missing, but I don't know where. I've also spent more time trying to include additional data to the maps. Rather than simply showing roads if you compare the image below (left hand page) of the central area of Ryde with that shown on the cover of the last HotKey, you will see car parks, pubs, churches and parks included, together with Ryde Pier, and better detailing of the Ice Rink / Ryde harbour area. There are of course many footpaths and bridleways left to do, so if you know of anyone with a GPS who might be interested then let them know! Isle of Wight details can be found at http://wiki.openstreetmap.org/ index.php/Isle_of_Wight, though I have to admit I may not have got round to updating all of the map images for towns and villages to show their finished status.

The project continues to grow, Bath and Chester have recently been mapped. By the time you read this article large parts of the New Forest should have been covered, and in the middle of October it is anticipated that a substantial part of Rutland will be mapped.

<u>HOW TO JOIN THE E-GROUP</u>
Send an e-mail to: **iwpusers-subscribe@yahoogroups.com**
All members are encouraged to join this e-group (which costs nothing and is private to all club members) in order to keep in touch with events and join in discussions. You can also keep in touch by regularly visiting **www.iwpcug.org**
It is particularly desirable that you should keep up with the latest details of meetings

Syncback

Now that we are having "My Documents" folders several gigabytes large it is becoming more of a problem to back up. Copying large volumes of data can take quite a while and where do we put it all? No more will floppy disks do, or even CD ROMs, and USB sticks aren't quite keeping up - and of course they do have a limited number of rewrite cycles.

The answer seems to be an external USB hard disk housing. But then do we want to re-copy everything each time? Not really - just the files we've changed or added. The easy way to do this is to use a dedicated backup programme such as Syncback. With Syncback you can copy only the files which have changed, and you can even delete automatically earlier copied files which are no longer in your source drive.

Syncback is a standalone copying programme with a host of options to totally customise your backup strategy. Visit http://www.2brightsparks.com/index.html for a basic free version or pay for additional options (which you will probably never use). The last free version is available on the club website at http://www.ipwcug.ord/downloads/

External hard disk enclosures are available at all PC shops and comprise a small aluminium case (which you normally buy empty) and a power lead with the usual transformer in and a USB connector lead. You can either make use of that old hard disk you had hanging around or buy a new one, or the shop can fit it for you.

Whatever else you do, do make sure you have some sort of backup strategy, but these days this way is the easiest. And all the easier for using Syncback.

Roger Skidmore

James Murdoch in war of words with BT
By Mr Saffron of ADSL News

The Guardian has some interesting comments on what James Murdoch who is the chief executive at BSkyB has said recently about its new rivals in the TV market place.

Mr Murdoch warns BT that it will end up "in a scary place" if it tries to compete by undercutting Sky's pay TV service. The comments were made at the Royal Television Society's London conference.

It is clear that the next couple of years are going to see an onslaught of marketing, already the distinction between free and paid for broadband is difficult to distinguish, and may be partially behind the recent spate of smaller providers closing. As for BT undercutting Sky's services, it appears most content is to be delivered via FreeView and nothing has been released to the public domain on the pricing of the video on demand content.

The biggest danger to the broadband market is that the big players enter into such heavy price competition that any slack to allow for network investment will disappear, and the UK will remain on exchange based ADSL & ADSL2+ for the next five to ten years.

Posted 15th September.

Vodafone has announced the signing of a deal with BT Wholesale that will allow the company to provide its mobile customers with fixed-line broadband services. The actual service is expected to launch by the end of this year.

The press release giving full details can be read at Vodafone.com.It appears Vodafone are not going down the LLU route, which will be expensive for any provider who wants to increase coverage beyond around 70% of households. The precise details of the deal are not known, but it looks like Vodafone are to use the standard BT Wholesale ADSL products with national coverage.   Ibid.

Answers to the July puzzle, the last shown in Hotkey.

I received 6 answers to the July puzzle, five of which were correct. They were from John Stafford, David Groom, Len Brett, John Rackett and Colin Row. The correct answer is D (see diagram). The one incorrect answer received was E. They say that this kind of spatial contortion for the brain is better done by men, but perhaps I had better not venture into a sexist discussion! Well done, anyway, all of you. Oh yes, the winner of the draw -- that was Colin Rowe who received a £5 book token.

David.
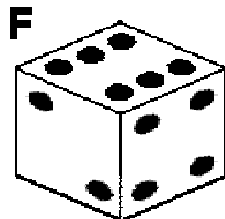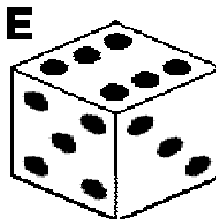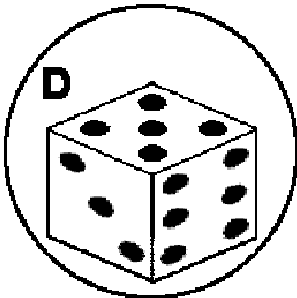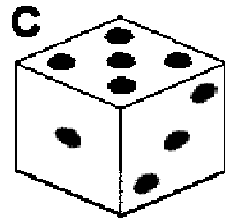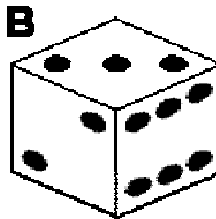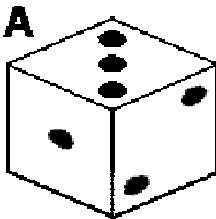
The MEAN FATHER Puzzle for OCTOBER 2006.

A father goes into a shop and buys four items (they are sweets for his four children but you don't need to know that). The total cost is a measly 89 pence. Being a mathematical (and mean) father he notices on the cash receipt the following four interesting facts:

* One of the items is exactly 20% more than one of the others.
* One of the items is exactly 25% more than one of the others.
* One of the items is exactly 50% more than one of the others.
* One of the items is exactly twice the cost of one of the others.

What was the cost of the items? (You don't have to identify them!)

Please send your answer to me, David Broughton, by 1st November. See page 3 for addresses.

Any Offers?

It is an adventurous suitor
Who looks for a suitable mate
But because it was born only neuter
Its chances, alas, hardly rate.
Infallible quite as a booter
And genius its natural state
So not a usual disputer
Its break-downs are fewer of late.
It is, of course a computer
And its future is said to be great
Could we not perhaps find a pursuitor
To give hope it could then contemplate?

Some pictures taken at the barbeque at Bembridge Lodge
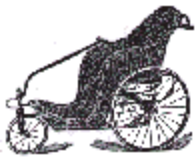

Mike Shepherd with his friend June

A corner of the marquee with guests in conversation

David Groom giving his OSM talk 6th Sept

The Editor talking with Roger Skidmore, Bob Groom, our host close by

A wicker bathchair, the sort to which the Editor as a child and many TB sufferers were confined in the 1930s

A modern invalid mobility scooter. The one shown has only some of the refinements that are now available. GPS is a useful addition. These mobility scooters give freedom to many of today 's incapacitated of every age. The Editor no longer has TB (thanks to penicillin) but suffers severe chronic arthritis as many elderly people.do Reference Editorial P.4..

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