

SIXTEEN BITS - ISSN 0817-0991

May 2004

PC Users Group: ABN 94 130 344 129

SIXTEEN BITS is published by the PC Users Group (ACT) Inc.

May Monthly Meeting

7:30 pm Monday 31st May. Manning Clark Theatre ANU

THE PCUG AIR SHOW

The PCUG Monthly Main Meeting on 31 May 2004 will be something very different. PCUG member Air Commodore (Ret'd) Roger Lowery will demonstrate Flight Simulator 2004. Roger has had 33 years experience flying many types of aircraft and, since his retirement, has used that experience to add impressive realism to Microsoft's Flight Simulator.

This is not a 'shoot em down' games package, but rather a serious tool for those wishing to experience the pleasures and problems of learning to fly an aircraft. It could even be considered a serious training aid for aspiring pilots. While earlier versions of Flight Simulator may have been less realistic, the latest version, FS2004, contains all the software to create functions and situations as they would occur when actually flying an aircraft.

Roger has taken the basic package and enhanced it by creating his own individual aircraft or modifying those available for download from the net. This has involved many months of work in using his aeronautical knowledge and "AFDS" or "gmax" to build each of the thousands of individual components to their authentic specifications.

And how does it perform? Come along and see! Dual monitors add to the effect: the first is driven by the flight simulator and concentrates on internal and external views of the selected aircraft or its cockpit; the second displays a real commercial GPS system that takes data from the flight simulator to superimpose the aircraft's position on a genuine GPS moving map display

Flight Simulator 2004 is also an excellent way to gain a working knowledge of meteorology, navigation, aerodynamics, global positioning, flight planning and other skills necessary to fly an aircraft successfully. But, in addition, it will enhance your computer knowledge in areas such as image and sound manipulation.

If you are interested in aviation, computer simulation or just plain fun, come and see Roger Lowery and the PCUG Air Crew show the state of the art in digital aviation on Monday 31 May at 7:30pm at the ANU Manning Clark Complex, Theatre 3.

It's FREE and OPEN TO THE PUBLIC. Bring your family, friends and workmates. See <http://www.pcug.org.au/mmm.htm> .

All Welcome

PCUG now offers members Broadband Access to the internet using the ADSL system

Of course this is in addition to the services we already provide to members in our Internet Service - dial-up and broadband through TransACT.

"The PCUG ADSL service is available anywhere in the ACT and NSW (and later anywhere in Australia), where the telephone lines are suitable for ADSL, that includes everywhere in the ACT and NSW that TransACT does not service.

Not the cheapest, but the best value for money! Do not be tricked by apparently cheaper offers that finish up costing you an arm and a leg in excess usage charges! Our charges are low and our download quotas the highest.

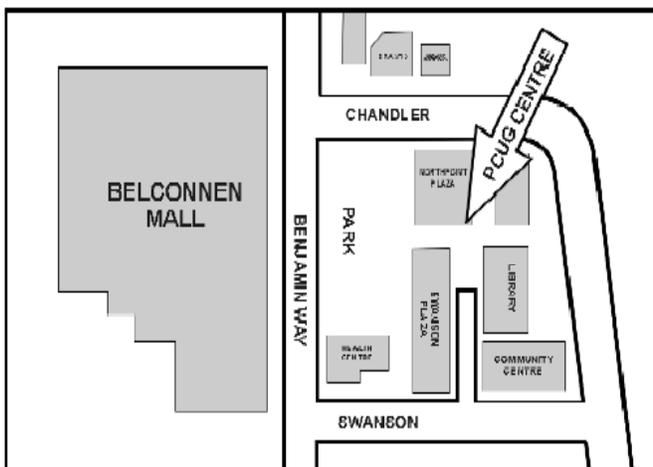
For more information and to apply for PCUG ADSL go to the web site at http://www.pcug.org.au/res-dsl/adsl_info.html.

Committee Meetings -Time 7pm

Monday	14 June
Monday	12 July
Monday	9 August
Monday	13 September
Monday	11 October
Monday	8 November
Monday	13 December

Committee meetings are always held at the PC Users Group (ACT) Centre, Northpoint Plaza, Belconnen.

All members welcome



PC USERS GROUP (ACT) Inc.
<http://www.pcug.org.au>

Main phone number: (02) 6253 4911
(answering machine when Centre unattended)

Fax number: (02) 6253 4922

Email: pcug@pcug.org.au

Postal address

P.O. Box 42 Belconnen ACT 2616

Executive Secretary: Madeline Mould
Email: pcug.execsec@pcug.org.au

PC Users Group Centre
Northpoint Plaza, Belconnen

Opening Hours:

Weekdays (Monday to Friday) 10 am-2 pm

Saturdays and Sundays 10 am-4 pm (closed long weekends)

**For Your Fridge Door
EVENTS 2003
PCUG Centre: 6353 4911**

PROGRAM Monthly Meetings: Time: 7.30 pm			
Monday	31 May 2004	The PCUG Air Show	Roger Lowery will demonstrate Flight Simulator 2004.
Monday	28 June 2004		
Monday	26 July 2004		
Monday	30 August 2004		
Monday	27 September 2004		(Annual Meeting)
Monday	25 October 2004		

SIGS- Special Interest Groups			
Coffee & Chat (North)	Western District Rugby Union Club	10:00am 11:30am Alternate Tuesdays	Jim Dick mobyj@pcug.org.au
Bytes	6pm Asian Bistro ANU Union	PCUG Meeting nights	Andrew Freeman 6258 7411 afreeman@pcug.org.au
Computers & Vegetarianism	Meets with Bytes SIG	PCUG Meeting nights	Andrew Freeman 6258 7411 afreeman@pcug.org.au
Investment	PCUG Centre Belconnen	7:30pm 4th Thursday	Roger Penhale 6290 0807 rpenhale@pcug.org.au
Networking	PCUG Centre Belconnen	7:30pm 1st Wednesday	Allan Hepworth allanh@pcug.org.au 0418 445 006
Internet Daytime Demo & Discussion	PCUG Centre Belconnen	10:00 am- Noon Every second Thursday	Allan Mikkelsen Amikkels@pcug.org.au
Linux User Group	Room N101 Computer Science Dept. ANU	7:00pm 4th Thursday	Stephen Rothwell sfr@canb.auug.org.au
Linux Learners	PCUG Centre Belconnen	10 until 12 Every second Thursday	Rodney Peters rpeters@pcug.org.au
Evening Internet	PCUG Centre Belconnen	7:00 pm Last Tuesday	Marion van Wely 6258 8750
Coffee & Chat (Southside)	Irish Club Weston	10:00-11:30 Alternate Tuesday	Jim Dick mobyj@pcug.org.au

FOR ALL ENQUIRIES AND PAYMENTS

regarding broadband, dial-up and other PC Users Group (ACT) services

Please contact THE PC USERS GROUP (ACT) Inc.
Email: pcug.execsec@pcug.org.au

Telephone: 02- 6253 4911
<http://www.pcug.org.au/pcug/>

TransACT Communications does not handle any PCUG internet accounts nor PCUG memberships.

2004 COMMITTEE

To reach all Committee members via email: pcug.committee@pcug.org.au

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Treasurer & Public Officer Noel Matthews	nomatthe@pcug.org.au	Tel: 02 6257 1962
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Ken Ford	kenford@pcug.org.au	Tel: 6259 0475

Renewing your PCUG Membership or Internet Service Subscription (Dial-up or Broadband)

Members are reminded that they must provide both their log-in id (part before @ of your basic e-mail address) and membership number when they renew membership for Internet Service Subscription or Broadband.

PCUG membership renewal in particular does require your number as there are quite a few people who not only have the same surname but also the same first name.

When renewing by mail or telephone please fill in the renewal form at the end of this newsletter, it is essential that you correctly identify yourself with both username and PCUG membership number.

Members who fail to provide correct information may find that their payments have not been credited to them or that their renewal is withheld until details can be checked.

Help us to keep you up to date.

Please ensure that all details regarding your membership is up-to-date.

"Please advise the Executive Secretary at email <pcug.execsec@pcug.org.au> of all changes of address, telephone or email address."

Please Note: *The web based facility to pay PCUG subscriptions is temporarily unavailable*

"The Linux Learners SIG has set up a Linux Demonstration PC in the PCUG Centre. Any member of PCUG may try this system. Please check with the Staffer before using the PC"

The LAN Manager and Exec Sec have been advised of the above.

Rod Peters - Linux Learner's SIG Convener (6251 2580)

EVENTS FOR MAY 04

MAY

Mon 24

Tue 25	Coffee & chat	West	9.30 to noon
	Internet evening	Centre	7.30pm

Wed 26

Thu 27	Linux learners	Centre	10 to noon
	Investment	Centre	7.30pm
	Linux users	Room 101	7.30 pm
		Computer science ANU	

Fri 28

Sat 29

Sun 30

Mon 31	General Meeting	Manning Clarke 3 ANU	7.30pm
	Bytes	Asian Bistro ANU	6pm
	Vegetarianism with Bytes		

EVENTS FOR JUNE 04

Tues 1

Wed 2

Thu 3

Fri 4

Sat 5	Internet clinic	Centre	11.30 to 1pm
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**PLEASE NOTE THE CENTRE IS OPEN EVERY DAY
FROM 10 TO 2PM MONDAY TO FRIDAY, 10 TO 4 WEEKENDS**

Thanks to John Saxon, you can view the PCUG connection Procedures:

<http://www.tip.net.au/connect>

Here are some procedures for setting up various operating systems to connect to the Canberra PC User's Group Internet system. The procedures include both dial-up (Modem) systems or Broadband (Via TransACT). ADSL is not covered. Each procedure is complete for easy printing. Procedure for Modem Installation and other items can be found in the trouble shooting procedures.

CHECK THE SECURITY OF YOUR INTERNET CONNECTED COMPUTER

Gibson Research Corporation offers a free service which will do a thorough check on which ports on your computer are vulnerable and also tells you what to do. The service is called "Shields UP" - Just browse to this web site and follow the instructions - <https://grc.com/x/ne.dll?bh0bkyd2>.

No More Give Away Table at PCUG Centre

The Centre Manager has decided to terminate the Give Away Table at the PCUG Centre. The reason is that far too much of the stuff put on the Give Away Table was old and useless equipment and books which members did not want and eventually the Manager had no choice but to take the stuff to the tip.

Members who have computer books or equipment that they no longer need are invited to put an offer of the stuff in the "tip.pcug" newsgroup or submit a short advertisement to the Editor of the Newsletter.

Report From the PCUG Committee - May 2004

The Committee met on Monday 10 May. The Committee was advised that the group of members who had volunteered to revise and update the PCUG web site had decided to call themselves the "SERF SIG". They had begun work, but acknowledged that they were had a long and complex task ahead of them.

There had been an increase in the number of days the Computer Skills Centre (previously the Training Room) had been hired to outside bodies.

The Committee received a report on discussions with the Belconnen Community Service (BCS) on the possibility of the BCS making use of the PCUG Centre and contributing to the cost of its operation. At this stage no agreement had been reached and the likelihood of a succesful outcome was unclear.

Paul Free reported on the analysis of the responses to the Survey of Members' views conducted earlier this year. Over 400 members had responded, so the analysis was a large job, but after he had completed the analysis of about half of the responses already some trends were apparent. Many members had never visited the Centre, many had never attended a Monthly Meeting, but almost all members regarded the PCUG Internet Service as very important.

The Committee agreed that the New Members' Information Session which had been held on Saturday 1 May had been successfull. The attendance of representatives from TransACT and from the Linux SIG had been very succesful. A further New Members' Information Session will be held on a Saturday in July.

The Treasurer reported that for fourth month in a row there had been a surplus of income over expenditure in April. The accumulated surplus for the first ten months of the current financial year was \$32,824. On present trends PCUG will finish the financial year with a healthy surplus for the first time in a number of years.

The ISSC reported that negotiations for the provision of the PCUG ADSL service had progressed and it was hoped that the first services would be provided before the end of the month. The ISSC sought advice from the Committee as to whether it should increase the download limits for broadband subscribers given that such an increase was likely to lead to congestion on the upstream link and a lowering of service standard to all Internet Service users during the busy periods late afternoons and evenings. The Committee agreed that ISSC should continue the current policy of giving all subscribers the best possible level of service.

The development of a fully automated payment system for both PCUG membership and subscriptions to the Internet Service to be installed in the web site was progressing well, and the fully operational system should be in place within a month or so.

The Membership Secretary reported that the issue of new membership cards had begun and that with the help of Gordon Urquhart and his team the new cards and reminders to members whose membership would fall due in the coming month would be posted in the second week of the month.

The Committee discussed beginnning the search for a new PCUG Centre, and agreed that unless the negotiations with BCS showed some real progress by July it would begin an active search for new premises.

Report on the April Monthly Meeting

The April 19 Main Monthly Meeting (MMM) entitled '*Beating computer viruses and other Internet nasties*' was very successful, with over 100 people attending. All the speakers were PCUG members.

John Hodge introduced the meeting by talking about the essential need to use the Internet these days, but this incurred risks. The risks could be managed by a layered defence, with:

- outer protection at the ISP level (e.g. main firewall and SpamAssassin) and with users products such as Mail-washer and Webmail;

- middle protection at the PC and home network level, which requires antivirus programs such as Avast, Symantec's Norton AV, Vet, AVG and My E-Trust and other products such as Adaware and Spybot. (Note also that a firewall is essential for everyone, including dial-up users.)
- inner protection, or developing the user's Internet sense, so that he or she can spot scams, avoid responses to phishing (seeking bank account details) and know not to respond at all to pop-ups or spam emails.

Gordon Urquhart spoke about the importance of keeping your operating system and anti-virus program up to date. CDs on magazines were a good source of program updates, but the Internet was needed to keep protection right up to date. The anti-virus program sites usually have a free scanner that you can download over the Internet and run. Once a virus gets a deep hold of the operating system it is very difficult to remove easily. He recommends that users run Spybot and Adaware weekly and Mailwasher or Webmail. Do not respond to Nigerian requests for your bank detail anything that looks like an extremely good return cannot be valid.

John Saxon covered the updating of Windows XP, the anti-virus programme Avast, and Mailwasher.

Gary McManus sought to plug all the other holes in a user's security, but backup and restore was essential because *everyone* can get caught.

John Telek spoke as a TIP Administrator about how email works and other ISP experiences. A lively Question and Answer session between audience and panel followed.

Each attendee was given an A4 handout printed on both sides which recommended 10 simple tactics to combat computer viruses and other Internet. The back of the handout also summarised a number of useful links. (This document and all the Powerpoint presentations will shortly be available on the PCUG web under the subdirectory <http://www.pcug.org.au/activities/mmm/2004-04-19/> .) The 10 simple rules follow.

10 simple rules for combating Internet nasties

1. Recognise the benefits and risks of the Internet to you, your computer system and to your computer community. Gain the benefits, but deal with your risks appropriately.
2. Get your computer operating system up to date and keep it that way. Keep your machine clean and lean.
3. Always run an appropriate anti-virus program such as Vet, Norton, Avast, My-eTrust or AVG and keep the program and its virus definitions up to date.
4. Regularly backup offsite your data, your settings, your programs and your updates, then validate your restoration process.
5. Use a software or hardware firewall. The Windows XP 'built in' one is only just adequate. Other examples include ZoneAlarm Pro (software) and Linux Smoothwall (hardware and software).
6. Preview your email with your ISP's webmail or other program such as Mailwasher.
7. Never, ever immediately open or double click on an email attachment. Even if you are sure of its provenance, save it to file and check it before opening.
8. Never, ever respond to junk email or browser pop-ups. Run Spybot or an equivalent anti-spyware program regularly. Use programs like Ad-Aware. Consider using browsers that are more secure than MSIE.
9. Advanced users and those at greatest risk should run a second compatible anti-virus program and keep it up to date as in 3 above.
10. Join the PC Users' Group (ACT) Inc. to stay abreast of our best combat practices as we improve them.

Video Recording of April Monthly Meeting

The PCUG also successfully recorded two hours of digital video, and two hours of MP3 digital sound from the ANU digital sound system, covering all five PCUG speakers. Current plans are to edit the video down to less than 80 minutes so that a Video CD (VCD) can be sold to members. Standard VCDs are playable in most computers and also on most DVD players. John Hodge seeks volunteers to help in the labour and computer-intensive tasks of video editing. (One Melbourne PCUG member recently spent 30 person hours on a video about assembling a new Pentium 4 computer system.) If you are interested, email him at pcug.mmm@pcug.org.au.

FOR THE INFORMATION OF MEMBERS INTERIM REPORT ON THE SURVEY

As at today, 30 April, 400 responses to the survey have been received. This is 25% of our current membership and a very good response.

I would like to thank all those members who took the time to read the questions and to reply. As well as the Yes/No answers requested, many members included their comments on aspects to the club's operations. Most were positive and helpful but some pointed to problems in our operations. The Committee will look closely at these. However, much as I would wish to, it is not possible to respond to each of the points raised. Please accept my apology for this.

In retrospect, the questionnaire could have been better designed. Putting several questions under one heading may have confused members and made the responses more difficult to record. Some better explanations might also have helped. For example, the question about a shop front should perhaps have explained that our centre is our shop front and was it a useful facility. The question asked, in effect, whether we needed to retain it or something like it.

So far the details from 200 responses have been recorded and assessed and a brief summary of these is given below. Several questions invited a Yes answer and in general this is what happened.

1. Object This was almost universally supported.
2. Centre This led to surprising responses. Many people said No to the first two 3 parts but then said it was good to have a phone contact which someone will answer. Clearly of an organisation of our size needs an office for some one to work in and store the relevant records. Only a small number of members have visited during the last year.
3. Location Surprisingly paid parking did not seem to worry most people they see it as part of the ACT today. There was some support for moving to a more central site though a great many said in Canberra it is easy to access a site anywhere.
4. Training facility A significant majority agreed that this should be dispensed with unless it could be made to pay its way (which so far has not been achieved). Nevertheless, a significant minority would like to see it maintained though perhaps on a smaller scale. Suggestions were also made about hiring it out (which has been done) or using the facilities of other organisations like CIT.
5. TIP There was strong support for maintaining TIP and for a large majority TIP is their main ISP. Part of the intent behind this question was whether, given the rapidly changing technology, should we as a club be involved in essentially commercial operations ,
6. Advisory services These received very strong support. Indeed many saw this as an example of users helping users.
7. Online newsletter This was well supported though there were comments on its format and content and some regretted the loss of 16 Bits.
8. SIGs These attracted good support as a concept even though only a small number of people actually attend but say they have done previously or hope to in the future.
9. General Meetings The responses revealed a very poor support and certainly almost no-one was prepared to help in arranging them. Part of the problem seemed to be that people found the level of discussion above them but said they would go if the topic interested them. Many people have difficulty going out at night and/or getting to the ANU.
10. General This question invited support for a TIP-less club or a club-less TIP. It might have been expected to yield a No plus Yes response. For the majority this is what happened. However the whole gamut of possibilities occurred from N + N to Y + Y and including Y + N

General comments It is more difficult to summarise the many general comments that have been received but they do reflect members keen interest in the club and their wish to see it succeed. Many have reported favourably on the support they have received from volunteers when they have had troubles. TIP is seen as a most reliable and spam free ISP. Many thought it was good value but some took the opposite view.

This brief note is intended to give members some idea of the general trend of the replies so far. They will

guide the Committee in framing proposals for submission to the next AGM. As promised a more formal and complete report will be ready by then.

Paul Free guide the Committee in framing proposals for submission to the next AGM. As promised a more formal and complete report will be ready by then.

Paul Free

CHEAPER INTERNET SERVICE

PCUG Internet Service charges for dial-up Full Service users are now -

- Pay in Advance for 12 Months or 360 hours on line (which ever comes first) - \$119.00 (\$9.92 per month)
- Pay in Advance for 6 Months (or 180 hours on line (which ever comes first) - \$69.00 (\$11.50 per month)
- Pay in Advance for 3 Months (or 90 hours on line (which ever comes first) - \$39.00 (\$13.00 per month).

Broadband service via TransACT charges are as follows -

- Pay in Advance for 12 months or 6,000 Mb downloaded (which ever comes first) - \$280.00 (\$23.33 per month)
- Pay in Advance for 6 Months or 3,000 Mb downloaded (which ever comes first) - \$145.00 (\$24.17 per month)
- Pay in Advance for 3 Months (or 1,500 Mb downloaded (which ever comes first) - \$75.00 (\$25.00 per month)

Members are encouraged to take advantage of these very competitive prices with the assurance that they will never pay excess charges and when internet prices come down further they will again benefit.

Problems Logging into the Internet Service?

If you ever find yourself failing to log in to TIP, STOP and don't waste any more money trying to dial in again. The two major reasons for failing to login are firstly, you have run out of TIP or PCUG membership, or secondly, your Username and or your Password have become corrupt. Paying more money fixes the first problem, re-typing your Username and Password into the Log In dialogue fixes the second problem 99% of the time. If neither of those fixes works for you then telephone the PCUG Centre and ask for help (unless you can access someone elses email, in which case send an email to <help@tip.net.au>.



now that's clever

Using TransACT for Broadband?
Connect through PCUG.

"Minimum payment \$75 for three months or 1500 MB."

UNDER ATTACK BY CYBER WORMS

By Ira Wilsker

If you use e-mail, as you most likely do, you may have noticed the recent increased onslaught of worms and viruses. Using a variety of techniques, the latest attacks are once again flooding our inboxes with dangerous content, as well as seeking out security holes in our systems and attacking us through our internet and network connections.

One insidious family of new pests is the group referred to as the "Bagel" or "Beagle" virus and worm family. Now spreading endemically, as I type this, are sixteen variants, referred to by the sequential letters "A" through "K". These nasties were explicitly designed to slip through most spam filters, and through many antivirus scanners by concealing their malicious payload in a password-protected ZIP (compressed) file, which can only be opened by opening the e-mail, and clicking on the attachment, and entering the password shown. The rapid appearance of the many variants also makes it easier to slip through our antivirus defenses, and more difficult to protect against. While most of us are reluctant to click on attachments from unknown senders, these creatures try to use "human engineering" to trick us into opening the e-mail and activating the attachment. This is accomplished by spoofing the "From:" line and making it falsely appear to be from the management, tech support, e-mail server, billing department, or other department of your ISP (Internet Service provider). They use an internal template to create a variety of subjects and messages incorporating the name of the ISP in order to appear to be authentic. Some of the common subject lines are "Email account security warning," "Warning about your e-mail account," "E-mail account utilization warning," "E-mail account disabling warning," and similar subjects. The body of the message typically starts with some variation of "Dear user of (the name of your ISP)," followed by text indicating that your e-mail account is about to be disabled, you have been sending out infected e-mails, the e-mail server will be shut down, and similar attention getters. The punch line may be of the type "For more information see the attached file" or "Please, read the attachment for further details." To make it look even more legitimate and secure (and to bypass spam and virus filtering) it may contain a closing line to the effect of "For security reasons attached file is password protected" or "The password is (password)." The infected e-mail is signed with "Sincerely," or "Best wishes," or some nicety, and often has a tagline "The team, [http://www.\(the name of your ISP\)](http://www.(the name of your ISP))."

Attached to the e-mail is an innocent looking file possibly with the filename (ending in ".zip") "Information" "Readme", "Document", "Message", or some other innocuous name. If this file is opened, and your antivirus software does not detect the payload, the computer will be instantly infected. Once infected, the worm will search your computer for any e-mail addresses, and use its built-in email utility to replicate itself to the e-mail addresses found on your computer, again spoofing the name of the recipient's ISP as the sender. If you think about it, this is both a clever way to entice even a suspicious victim into opening the attachment and infecting his computer, and an insidious thing to do to countless thousands of innocent victims. One of the common payloads in the Bagel/Beagle series is a utility that deactivates many of the popular antivirus programs, and prevents them from being updated, leaving the computer open to later attacks. Some versions also open a port through a firewall (ZoneAlarm is often targeted) allowing external "backdoor" access to the computer, and broadcasting the IP address of the vulnerable computer over the Internet. Fortunately, many of the Bagel/Beagle variants have code in them that will cease their propagation between March 14 and 25.

In another trick, some of the new virus and worm writers are trying to fool us into believing that their content is safe by including a falsehood either in its subject or as a closing tagline that the message has been scanned by a major antivirus program (most often Norton AntiVirus). Just because an e-mail is from someone you know, and contains a line indicating that it is certified as safe, do not believe it. The creator of the worm is lying to you by concealing the real sender by spoofing the "From:" line to appear that it is from an acquaintance, and including the "certified virus free" tag.

The massive recent attacks by the authors of the Netsky, MyDoom, and Bagel/Beagle viruses and worms have created a battle among themselves, indicated by messages encoded in their respective payloads. According to several antivirus companies, the code includes attacks on each other, such as when Netsky attacks a computer already infected with MyDoom or Bagel/Beagle, Netsky tries to deactivate them, while installing its own malicious code, and stating "We kill malware writers. They have no chance." The author of Bagel responded in a quickly released variant "Hey Netsky... Don't ruin our business. Wanna start a war?" Later variants of these three malicious products have continued the dispute.

Wouldn't it be nice if these virus authors spent more time and effort fighting each other, and less time trying to infect our computers?

FREE online virus scans are available at the following websites:

housecall.ant virus.com

www.pandasoftware.com

www.bitdefender.com

us.mcafee.com

There is no restriction against any nonprofit group using this article as long as it is kept in context, with proper credit given to the author. This article is brought to you by the Editorial Committee of the Association of Personal Computer User Groups (APCUG), an international organization of which this group is a member.

With thanks to the Capital PC User Group (USA) "Monitor" - April 2004

Surfing at speed: A conversation with an ADSL pioneer.

Surfing at speed: A conversation with an ADSL pioneer.

Q: You were the first TIP member to go to ADSL broadband. Why did you need it?

A: Well I have been a TIP dial-up Internet user since 1995, but there was a lot of contention between my wife, my son and myself over who could use TIP and when. We kept kicking each other off by mistake! It was also annoying having to connect up 5 to 8 times a day knowing that each dial up was adding to the phone bill. I also run a business from home, and people call me on my home number. If one of us was surfing the Internet, my customers could only reach me on my mobile number. That was an extra cost to them.

Q: Why didn't you just get an extra telephone line and a 56k modem?

A: We had two telephone lines but it didn't solve the demand.

Q: Now that you have ADSL, can you all surf at the same time if you want, and can your customers call you as well?

A: Yes, we have dropped the second line (saving rental) and my customers can reach me on my home phone even when we are all surfing.

Q: It sounds like you keep the one phone line running hot?

A: That's so true. We also have a teenager who knows how to use the phone but hasn't learnt how to hang up!

Q: So how much extra is it all costing you?

A: Its \$39 a month for TransACT 256kbit/sec 500 Mbytes download per month and this includes Trans Talk. My TIP costs are now \$25 per month. We calculated that we would actually save by going to TransACT as we could drop the second line rental and all the calls we used for dial-up.

Q: Was it easy to get connected to ADSL?

A: Not really. I asked Telstra and other service providers if I could be connected, but I was told that while my local exchange had ADSL, my home was 5.1km from my local exchange and that this was too far.

Q: Is that 5.1km as the crow flies, or as the carrier signal flows along the line?

A: Along the line.

Q: So it's not straightforward to find out if ADSL can reach a given home?

A: No, you need to know the length of the exact path of your connection to your local exchange. Anyway, I kept asking around and eventually found out that TransACT was using better ADSL equipment than Telstra, and that they could reach me at 5.1km.

Q: You applied to TransACT. What happened then?

A: I applied to TransACT in December 2003. Because it was essential that I keep my old telephone number, I had to apply to have it switched from Telstra to TransACT. Christmas and New Year got in the way, and I wasn't actually connected by TransACT until February 2004.

Q: What installation did you need in your home?

A: There was no need to change my line in. I bought an ADSL modem/router (D-link DSL 504) from TransACT because I didn't want to take the risk of buying something myself only to find that it wasn't compatible. This device is about 12cm by 6cm and we put it under the printer on our desk. A TransACT subcontractor from Ecowise came in February and connected the ADSL modem/router to my existing line in, and put some filters on my phone and extensions. The router has four Ethernet 10/100 ports so I used Ethernet Category 5 cable to connect together our three computers. One for me, one for my wife, and one for my son.

Q: As a side benefit you now have a home network?

A: Yes, that's right. It's a lot better than having separate machines as before. We all use Windows XP Home Edition as our operating system. My teenage son and I are 'bonding' (much to my wife's delight!) over *Age of Empires* all over again as we sit in separate rooms in the same house playing against each other.

Q: What's this about filters?

A: Well as I understand it, the filters separate the ADSL carrier frequency from the normal telephone carrier frequency. When we use the telephone, these filters stop me from hearing the very high-pitched signals that ADSL is using. Because I have two phone points at home and because I needed the ADSL modem/router to be physically connected to my phone line at a particular point, I actually needed two filters, one at each phone. The filters are only little things. There is nothing special about my existing phones, although one is a phone/fax.

Q: So in your case, all of your phones work as before?

A: Yes.

Q: How would you describe your family's feelings when each of you started surfing at speed?

A: It was great to have information quickly displayed, so much less frustrating than watching the screen for minutes at a time at peak times. My wife is actually looking more actively for information where before she would give up in disgust and declare it was easier to go the library in person than wait for me to give up my connection and then wait for that '7th wave' to come in!

Q: By February you were up and running without any problems?

A: Yes, I thought so at the time everything seemed fine. But it turned out that there was a big problem. Some of my customers began to call my mobile phone to say that my home phone number was disconnected. They were Telstra customers, and were getting a Telstra message to that effect. Other customers were calling my home number without any trouble, so I didn't realise the problem at first. It turned out that the callers who could get through were not Telstra customers. I called Telstra who said that someone (that they couldn't find the name of) had ordered my phone service to be disconnected. Telstra blamed TransACT, and vice versa. I was getting the usual run around. It was the Thursday before Easter, so I lost my cool and demanded they fix it as my business is 24/7 and I was losing business. With the extra long weekend looming TransACT promised to fix the problem before they closed down that evening at 10pm and they did. (Grins) Looking back I guess it was a side effect of keeping my number in the switch from one service provider to another.

Q: It's now May and everything is working fine?

A: Yes.

Q: Has your pattern of Internet use and downloads changed?

A: Yes. While we still use the Internet for banking, news, research etc, my son and I play a lot more Internet games. Online Internet gaming means big downloads I haven't been brave enough to check how many Megabytes we've used lately. But it's been worth it.

Q: And you stayed with TIP?

A: Yes, because we've been with TIP for around 9 years and they have been a really good service, always there to help out and give advice. We had been really happy with the service and didn't want to change.

Q: Have you put into place on your system the PCUG's 10 best practices for combating computer viruses and other Internet nasties?

A: Yes I run the Norton's antivirus program, the Microsoft XP firewall and I do turn off my ADSL modem/router to be safer from nasties like the Sasser virus.

Q: What have you done with your old 56k bits/sec modem?

A: I've kept it around just in case. I might still be able to use it to dial up TIP if my ADSL isn't working. [This modem was used during the recent TransACT outage.]

Glossary

- ADSL- Asynchronous Digital Subscriber Line. Asynchronous Faster downloading to your home computer compared to uploading from it.
- broadband ADSL - A digital phone line connection that can be on all the time and that has download speeds at least 4.5 times faster than 56Kilobits a second dial up. Download speeds range up to 15 times faster, but speed of course costs more.
- broadband cable - TransACT's cable service is even faster than ADSL, but the cable must run near your home.

- excess cap - A cap or limit on the excess costs that you pay if you exceed your monthly Megabyte quota. A good idea.
- excess fee - A charge for downloading (and in Telstra's case, uploading) data over your monthly Megabyte quota. Even if you are an experienced user, a service with an excess fee can become very expensive very quickly. See excess cap and speed limiting.
- speed limiting (throttling) - An alternative to paying an excess fee: When you exceed your monthly Megabyte quota you still have Internet access, but the speed of your connection is slowed, and may even drop to 28.8 Kilobits a second. Another good idea when compared to paying excess fees.

References and resources

- For independent reviews and advice about broadband see: <http://www.whirlpool.net.au>
- Improve your ADSL setup. <http://www.ozcableguy.com/>
- Is your local telephone exchange ADSL-enabled? <http://www.bigpond.com/internet-plans/broadband/adsl/availability>
- TransACT broadband: <http://www.transact.com.au/forhome/transweb.asp>
- PCUG broadband connection: <http://www.tip.net.au/connect/broadband.htm>
- Telstra broadband: <http://www.bigpond.com/internet-plans/broadband/adsl/>
- Other broadband ISPs in the ACT <http://bc.whirlpool.net.au/bc-plan.cfm>

Woody's WINDOWS Watch

Woody Leonhard keeps an eagle eye on Windows and beyond.

7 May 2004 - Vol 7 No.7

Sasser Sense

As usual the mainstream media has been getting plenty of angst ridden coverage of the latest worm to spread across the Internet. Some sensible advice was to be found buried among the portents of doom and silly advice, but how can you tell the difference?

As a result this issue of WWW is devoted to Sasser Sense – no hype – just advice on what to do, if you haven't already.

What's the Risk?

There's several versions of the Sasser worm around, the initial worm was followed by others that were better at spreading between computers.

Sasser spreads by looking for vulnerable computers across the Internet or local network. It can find computers on dial-up, wireless or broadband links. When it finds an unprotected computer it sends itself over the network and starts running on the new computer. The vulnerability is documented (in part) here

<<http://www.microsoft.com/technet/security/bulletin/MS04-011.msp>>.

Only Windows XP, Windows Server 2003, Windows NT or Windows 2000 machines can be infected. Other versions of Windows, plus Mac, Linux etc don't have the same vulnerability. However some versions of Sasser can run on Windows 95/98/ME machines and infect others.

There's NO email or attachment involved – just for once we can't blame Outlook <g>.

So far the Sasser worms don't do any direct damage, no deleting of files or sending of private information. However they do make great use of computer resources so the machine slows down or even appears to stop altogether.

The greatest risk is that a future version of Sasser will be more subtle in its apparent effects so that people won't know that they are infected. That combined with a more dangerous payload would be a real problem.

Thankfully the immediate fix is a simple one.

What should I do?

Microsoft has supplied a patch for the vulnerability that prevents Sasser type worms from infecting your computer. Chances are you've already downloaded the patch with the automatic update system.

To see if the patch is installed, go to Control Panel | Add or Remove Programs, scroll down the list and look for one labeled “Windows ??? Hotfix – KB835732 “ - the ??? depending on which version of Windows you have.

You can get the patch from here <<http://www.microsoft.com/downloads/details.aspx?FamilyId=3549EA9E-DA3F-43B9-A4F1-AF243B6168F3&displaylang=en>> or go to Windows Update (in Internet Explorer 6 Tools | Windows Update). If using Windows Update then grab all the Critical Updates available just to be sure.

Since this update was made available in mid-April the chances are good that many people will have already patched their computers.

However there’s a downside to this patch – about 2 weeks AFTER releasing this patch Microsoft fessed up to some problems resulting from the fix. Those are listed here <<http://woodyswatch.com/kb?835732>> - to our mind the most serious problem is the Oracle database one.

No wonder some companies decided NOT to apply the patch to their networked computers.

In this case the risks of NOT applying the patch outweigh the risks of putting it on – but that’s with the benefit of hindsight. As in past situations, the unreliability of the patches makes people rightly cautious about applying the updates automatically. Microsoft loves to ignore this in their sanctimonious public utterances.

As we type this we’ve seen another announcement from the company putting the responsibility for the Sasser problem on people who did not update their computers in time and totally ignoring their own responsibility to make the patch reliable. Yes they’ve issued a patch but few people bother to enquire about the reliability of the update. It’s amazing that the media publish this self-serving nonsense without any critical eye.

Out in the real world, IT managers know that the cure can be worse than the disease and have the unenviable choice of installing an untested patch or risking infection down the track.

To patch or not to patch?

It’s a tough call – do you install security patches (so-called critical updates) or not?

There’s no right answer, you have to assess the situation for yourself. The decision is not the simple one that Microsoft says it is. I can tell what the Woody’s Watch team does as a guide to making your own decisions. Generally we set our Windows XP computers to download but not install updates. This saves time but lets us make the final choice about installing the update or not. If nothing else we know exactly when the update is installed and can notice any immediate changes.

However there are times when fully automatic download and install is appropriate. The computers used by occasional users or those not interested in the machinations of their computers are probably best to setup as fully automatic updates. The computers of elderly people and kids are usually best updated in this manner as are the computers of senior executives.

On Windows XP computers you can change the automatic patching options by going to Control Panel | System | Automatic Updates. Make sure the top option ‘Keep my computer up to date’ is checked.

Then choose the download and install options. I usually choose the second option ‘Download the updates automatically ...’.

For a hands-off approach choose the third option ‘Automatically download the updates and install them ...’ The trick here is that you have to choose a time of day when the computer will be on. The ‘download only’ option works whenever the computer is on and there’s bandwidth available to the Internet but the fully automatic option only works at a specific time. This is a typically narrow minded set of options from Microsoft that users have to live with.

Absolutely the worst thing you can do is NOT download the updates – yes there’s a risk in the updates but we feel that risk is better than being infected by the next nasty and passing it on to others.

Getting around Firewalls

Microsoft and others have had much to say about people installing firewalls on their computers and networks – this is good advice but doesn’t tell the whole story.

Firewalls block incoming traffic that you haven’t authorized, they can be hardware (typically in your broadband router) or software (the Windows XP firewall or third-party software).

Either of these can block Sasser attacks reaching your computer but they can also block your Internet use since the port used by Sasser is also one that Microsoft networking uses.

Having a firewall on your router (home or business) is not foolproof, it is quite possible to be infected 'in house' or from a computer setup behind the firewall. For example: a notebook computer (that hasn't been patched and has no software firewall) is connected on the road, at home, on a wireless link or on a hotel internet connection and can get infected using such a link. That infected computer is then brought to the office and when linked to the network it can spread to other computers.

Even if your networked computers (home or office) are behind a firewall it's worth considering adding a software firewall on each computer, especially any portable machines. While you may have patched against Sasser, the firewall may help against the next worm.

To install the Windows XP firewall go to Control Panel | Network Connections and right-click on your LAN, direct broadband or modem connection. Choose Properties, if there's an Advanced tab make sure the 'Internet Connection Firewall' option is checked.

What if I'm infected?

If you're infected with Sasser or you want to double-check that you are not there's plenty of simple checking tools.

Microsoft has one at <http://www.microsoft.com/security/incident/sasser.asp> scroll down to Step 3 after installing the update.

If you don't trust Microsoft's word (and we know many WW readers wouldn't trust Microsoft for the time of day) then there's detection and removal tools from companies like Symantec

<http://securityresponse.symantec.com/avcenter/venc/data/w32.sasser.worm.html> and F-secure

<http://www.f-secure.com/v-descs/sasser.shtml>.

Utter nonsense

We've been reading and hearing some pretty silly Sasser stuff in the last few days. There's well meaning radio jocks who can barely run their computerized panel but feel qualified to tell their listeners that turning off broadband connections is a good idea. There's also been the usual scare tactics from security companies eager to drum up some fear and sales for their products, aided by a compliant media.

As a result the original predictions of widespread havoc are now proving not to be - sure there were problems at some companies but not to anything like the extent predicted.

As to suggestions about the vulnerability of broadband connections - it is true that the 'always on' nature of cable and ADSL links increases the possibility of infection but turning your net connection off is going to make your computing much slower and be of little real protection. An unpatched computer can be infected via modem or wireless link just as easily.

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FILE-NAMING TIPS for CDs by Robert Simanski

As I teach more and more of my clients how to back up their working files to CD-ROMs (as well as to tape), I often run into file and folder naming problems when the CD-ROM is created. Here are some tips for avoiding these problems.

There are two basic issues here:

1. The Joliet file format that I use to create CD-ROMs that will be compatible with most drives today has a limit to the number of characters in the filename. If the name of the file you are copying to a CD-ROM exceeds that limit, CD-ROM creation software such as Roxio Easy CD and DVD Creator will shorten the filename.
2. The CD-ROM file format cannot handle more than a certain number of levels of nested file folders. Folders nested beyond that level will not be copied to the CD.

To avoid the first problem, limit the names of your files to no more than 31 characters, including the extension to the filename. Here's an example of a filename that is 30 characters long: -"Untitled_Data_Disc_Project.rcl" The extension is the series of three letters following the last period in the filename. In most cases, it is automatically added by the software used to create the file. For example, the default extension for Word files is DOC,

while the default for Excel files is XLS. The RCL extension above tells Windows that it is a Roxio Easy CD and DVD Creator project file. Windows uses the extension to determine the application it uses to open the file. In an act of monumental stupidity, Microsoft has chosen to hide the extensions of certain file types by default, ever since the days of Windows 95. In order to see the extensions, open Control Panel or My Computer and select Tools>Folder Options. On the View page, uncheck the box that reads "Hide extensions for known file types." (The actual wording may differ slightly, depending on your version of Windows.)

To avoid the second problem, don't nest your folders too deeply.

Suppose that you want to copy everything in your "My Documents" folder to a CD-ROM. Depending on your version of Windows, this folder may be directly off the root folder of Drive C (earlier versions of Windows) or under "C:\Documents and Settings\<your user name>". If you are using Roxio's Easy CD Creator (version 5) or CD Creator Classic component (version 6), locate the "My Documents" folder in the folder tree at the top left of the screen and drag it to the layout window at the bottom right.

If you keep your filenames short and don't have any folders nested more than three or four levels deep, you should be able to copy everything to the CD (assuming it will all fit on one CD). If certain folders are nested too deeply or certain filenames are too long, you'll receive an error message. In the case of a file, Roxio will suggest a shorter filename that most people can live with. If you have a folder that's nested too deeply, however, Roxio will not be able to add it to the layout. You'll have to drill down to the folder and drag it to the layout window.

Here are some additional tips for naming files and folders:

When Windows passes a filename to a program in order to open the file, Windows sends the full pathname. This includes not only the name of the file, but also the names of the folders that lead to the file, starting with the root of the drive. For example, Roxio insists on storing the names of data projects that I create in my personal "My Documents" folder, which is several levels removed from the root of drive C. I could change it to something else, but I would have to do this every time I used the program. There is no option for setting a default folder. Instead, I've created a child folder under the "My Documents" folder to contain them.

Thus, the full pathname to one of my Roxio projects might look something like this: "C:\Documents and Settings\Robert E. Simanski\My Documents\Roxio\Untitled_Data_Disc_Project.rcl".

The point to keep in mind here is that, at least in certain versions of Windows, there is a limit to the total number of characters that can be in a full pathname. This one has 94 characters, which is not bad, but keep in mind that I have only gone one level beneath the default "My Documents" folder.

If you are the only user of your computer, and your default "My Documents" folder is buried under the "Documents and Settings" folder, ignore it and create your own folders for your working files. Keep them as close as possible to the root folder of the drive. For example, you might create a "MyDocs" folder directly off the root of drive C.

I have my working files on a separate partition, drive D. Directly under the root of drive D, I have folders for each of my clients as well as for certain types of files. Within these client folders, I have child folders for specific projects. My goal here is to keep the folder names short and avoid nesting the folders more than three or four levels deep, so that instead of the unnecessarily long full pathname shown above, the path to the Roxio project could instead be like this: - D:\Roxio_Projects\Untitled_Data_Disc_Project.rcl.

Here's another tip: You may have noticed that I put quote marks around the long first pathname but not around the shorter second one. The reason is this: The first one contains spaces while the second does not. In the old MS-DOS days, when filenames were limited to eight characters plus a three character extension, the space character was called a command-line separator. The first word in the command line was the name of the program to be run and the second word was the filename to be opened. The filename might be followed by command line "switches" that could be used to control the way that the command was executed.

The thing to remember here is that even Windows XP still has certain MS-DOS line underpinnings and that this space character is still a command-line separator. Therefore, in order to tell a program to ignore the spaces in a pathname, Windows has to put quotes around it. This adds two more characters to the length of the pathname.

It was a dumb idea for Microsoft to allow spaces in the name of a file or folder, because these spaces can still cause problems today. For example, let's say you have a Web site and you upload a file you want to make available for downloading, such as a price list. If the filename has spaces in it and your Web site is hosted on a UNIX-based server, as many of them are, visitors to your Web site may not be able to access the file, at least under certain circumstances. The reason is that UNIX does not recognize or allow spaces in filenames. I have run into this problem on my own Web site.

Instead of a space in the name of a file or folder, use an underscore (`_`) in its place, as I have done above in the name of the Roxio project file. This will avoid the problem and make the quote marks unnecessary.

Here's another tip that relates to Web sites hosted on UNIX servers: UNIX filenames are case sensitive, even though Windows filenames are not. For example, "filename.doc" and "Filename.doc" are two different filenames to UNIX but two variations of the same filename to Windows. I learned this the hard way when I decided to make all my filenames consistent and changed several that had an initial cap to all lower case. The links to the files continued to work fine on my local Windows system when I edited the pages, so I never changed the links to the files. However, the links no longer worked once I published the revised pages to the Web site, until I discovered the cause and fixed the links.

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Thanks to Capital PC User Group (Washington DC, USA) • "Monitor" • April 2004

Windows Security Update CD Free from Microsoft

Microsoft is offering a Windows Security Update CD-ROM that includes most of the critical updates for Windows 98 (first and second editions), Windows Millennium Edition (ME), Windows 2000, and Windows XP. The CD includes all of the critical updates released up to October 15, 2003. There is no charge for the CD - not even a shipping charge. You can order it by going to <http://www.microsoft.com/asia/default.asp>.

I recommend you order the CD if you are using any of the operating systems that it covers, even if you have regularly installed the updates. If you already have the updates, it will save you time and trouble if you ever have to reinstall Windows. If you have not kept pace with the updates, by all means get the CD and install the appropriate ones for your operating system.

Please note that the CD does not include any updates issued after October 15 of last year. There have been a number of them. Therefore, if you have been keeping up with the Windows critical updates, please continue to do so. If you have not installed any of the updates, I suggest that you wait until you get the CD, install the appropriate updates, then go to the Windows Update Web page and get the ones that you don't already have.

Editors Note: Thanks to Noel Matthews for providing this article

Transact Media Release

17 May 2004

System failure disrupts TransACT internet, video services

TransACT technicians are working to complete restoration of internet and video services, after a system failure led to widespread service disruption on Sunday morning (16 May).

Crews worked all day Sunday to restore services, reconnecting all customers by late on Sunday evening. However an isolated recurrence of the problem early on Monday morning has meant that about 500 customers, mostly in Kambah, are still without TransACT internet and video services.

TransACT telephone services were interrupted briefly at about 4am Sunday morning, but these were immediately restored and have been operating normally since.

The system failure occurred at TransACT's Lyons distribution point, causing instability in the network and preventing customer's set-top boxes and modems from logging in. The original failure has been fixed but there are still residual network issues that are taking some time to resolve.

TransACT anticipates that all services will be restored overnight tonight (Monday).

As broadband and television services are brought online, the TransACT set-top box will automatically reboot and return services to those customers affected.

Microsoft Security Bulletin Re-releases, May 2004

Microsoft has created a free monthly e-mail newsletter containing valuable information to help you protect your network. This newsletter provides practical security tips, topical security guidance, useful resources and links, pointers to helpful community resources, and a forum for you to provide feedback and ask security-related questions.

You can sign up for the newsletter at:

<http://www.microsoft.com/technet/security/secnews/default.aspx>

Protect your PC: Microsoft has provided information on how you can help protect your PC at the following locations:

<http://www.microsoft.com/security/protect/>

If you receive an e-mail that claims to be distributing a Microsoft security update, it is a hoax that may be distributing a virus. Microsoft does not distribute security updates via e-mail. You can learn more about Microsoft's software distribution policies here:

<http://www.microsoft.com/technet/security/topics/policy/swdist.aspx>

For security-related information about Microsoft products, please visit the Microsoft Security Advisor web site at <http://www.microsoft.com/security>.

PCUG Internet Service

PCUG has recently made more improvements to the PCUG Internet Service

Transparent proxying on our internet service has now implemented. This means that you no longer MUST specify a proxy server in your browser configuration. The proxy server will continue to be used for all standard world wide web traffic. Existing configurations will continue to work and there is no need to change them.

If a proxy server is configured, that will be used. If none is specified, the TIP system will automatically forward all standard web traffic to our proxy server.

The TIP servers are now protected by a firewall. The servers are set up so that any connections initiated from them are OK, but inbound connections are only allowed to certain standard ports.

Currently the following ports inbound to all our machines (including members) are blocked:

TCP: 69 sunrpc ldap ldaps 135-139 445

UDP: tftp sunrpc snmp snmp-trap 2049 ldap ldaps 135-139 445

And outbound TCP: 135-139 445

The 135-139 range and 445 are to prevent the spread of the recent MS viruses that seem to be still with us.

Please send any requests for ports to be "opened" and report any problems to <help@tip.net.au>.

Effective the beginning of February we have added six more modems for use by dial-up users, giving our dial-up users access to a total of ninety modems.

To subscribe to the PCUG Internet Service contact the PCUG Centre.

WEBSITE CREATION TIPS GETTING YOUR HANDS DIRTY.

by Andrew Purdam

Having just spent way too many late nights preparing a web page of our trip to Nepal (<http://www.pcug.org.au/~apurdam/ERDec03/>), there were aspects about building the pages which I thought might be useful to like-minded web authors. The site is mainly visual, featuring about 80 photos, 5 Quicktime Virtual Reality panoramas and some sound clips.

SOUND CLIPS

These were recorded on a JNC SFF9 MP3 player, which has a recorder mode. It uses a proprietary sound format, SHQ, which gives about 200kB per minute of reasonable quality stereo (compared to about 1Mb per minute for stereo MP3 at 128kbit). Of course, since few people can play this format, it had to be converted. This wasn't really an issue, since ends had to be trimmed, and other beautifying done. This was done using my old faithful, CoolEdit 96, a very simple to use free (or very cheap, I can't remember) program, whose big brother (Audition 1) is now marketed by Adobe for between \$200 (Academic) and \$445!!

Using CoolEdit to record the computer playing the SHQ file to itself, an easy trick on duplexing soundcards (can play and record at the same time), I could then edit the sound, before saving it in MP3 (because it is a universal format) at 32kBit. Not a huge loss of quality, and when using mono quite easily giving 200kB per minute.

Handy for those of us still on dial-up.

CoolEdit allows you to save files using ACM (Windows Audio Compression Manager), which gives access to MP3, even though the format was not even around when Cooledit was written! A big tick for Microsoft for getting something right!

Probably the biggest problem with the actual sound recordings was microphone noise and wind noise. Because of the ambient nature of the recordings, these were normally best dealt with by judicious cutting at a zero point, and ensuring that that CoolEdit was set to Smooth All Edit Boundaries.

PHOTOS

These were compiled from two sources. My wife, Helen, had taken about 830 pictures on about 256Mb of digital camera memory (five simcards of various sizes and ages), and I had taken about 200 film shots, developed in bulk by Kmart. I personally decided to save most shots as 1024x768 pixels, with highest quality compression (ie largest file). I had found in earlier times that lower quality compression led to artefacts being introduced to the picture. And 1024x768 still gives you about 100 lpi colour for a 10x8" print. Okay from a distance.

We burnt a CD of all our downloaded pics and sounds, just in case something bad happened to the hard drive, a sensible precaution for all projects working with mountains of raw data. I didn't resize my work down until the final step, so as to keep image quality as high as possible. When working with JPGs, one must take extreme care to not save and reopen the files, as picture quality is lost each time this is done. If a picture is to be revisited for editing several times, use a lossless picture format, like TIFF, or the editor's native format. Modern CPUs, lots of memory and large hard drives will all help this process.

I should have probably asked them to scan all of my stuff to disk, rather than print, but decided to simply scan the pics I wanted (only about a dozen!!). We found that the digital camera, a Canon Powershot A40, took better panoramic shots than the Nikon, but was poor on zoom. Fortunately, the Nikon had a telephoto, which gave very clear shots of for instance the summit of Mt Everest. The sifting through 1000 images took *ages*. We burnt onto CD the digital ones we wanted printed, and took them to Kmart. The panoramas, stitched together from up to seven photos using Canon Photostitch, we printed at home on a Canon S300, with results satisfactory for the photo album. We found that whilst Photostitch did a reasonable job of most stitching, hand tweaking of photo boundaries helped to give better results.

One thing that concerned me was releasing forty good quality shots onto the world and having them taken with no identity on them. Short of using Digimarc (a method for adding a digital watermark to a picture), the best I could do was simply set the Copyright and other IPTC information in the jpeg format files. This was easily done with Irfanview, which has a thumbnail view mode, from which you can set IPTC information. This doesn't prevent unscrupulous people from changing the copyright notice, but is sufficient to remind honest people about who took the photo. Irfanview became an invaluable tool for working with the pics, as it loads quickly, reads many file formats, goes forward and backwards through a folder of pictures at the press of a key. It does reasonable resizing of pictures, the right amount of sharpening, and has good and easy control of gamma, the main method I used for minor brightness adjustment. Previously, I had used Photoshop 4 to do this sort of work, but it was always slow, very mouse intensive, and tedious to work with. Photoshop editing of images (for instance,

to fill small gaps in on the stitched panoramas) was still only a mouse-click away, as Irfanview lets you configure an external editor.

When I started uploading the photos (using good old `ws_ftp` over an ISDN 128k connection to increase my upload speed), I soon discovered that I had left my photos at way too high a quality setting, and hence they were very large. Using Irfanview to do a batch change of their jpg compression quality to 80, I cut down the size of the pictures by nearly three quarters, from 7.5Mb to 2.2.

PANORAMAS

The Canon Powershot has a “Panorama Mode”, which aids you in taking multi-exposure mosaics, which you then stitch together on your computer. We probably should have used this mode more often, as it keeps exposure settings the same for the whole set.

I now use Photoshop Elements for the painting side of artwork, and this came in handy when touching up panoramas (mainly filling in white bits where distortion had left no picture). Any using Photostitch or similar will have come across the pincushion effect, where you end up with a sort of trapezoidal picture within a white square frame. I dealt with this in two ways: filling in small gaps, normally with the Cloning tool, or distorting the picture back out to fill the rectangle. Care needs to be taken when using a cloning tool for this as it can become pretty obvious when repeating patterns are created. Cloning from different parts of a picture can help to fill in. The other method simply takes a carefully selected trapezoid and uses Image | Transform | Distort to pull the corners of the selection out to the corner of the picture. This works okay for some panoramas with well defined, “clean” edges, where cropping would lose an important feature. (See examples 1 to 3). One technical problem with this was that distort would often leave a faint single pixel line right in the middle of the picture (see Ex 3). This would then need some careful painting over with the clone tool. Quite tedious! I'm sure there's a better way.

QTVR INTERACTIVE PANORAMAS

These were an unexpected bonus provided by Canon Photostitch, whereby any panorama can be saved as a QuickTime Virtual Reality panorama, which can then be viewed by the Quicktime plugin. They need to be seen to be believed. <http://www.pcug.org.au/~apurdam/ERDec03/2524-34QTVR.html> is a good example. There is very little that one can do to control the size of these little monsters, though, and they can easily blow out. Another problem was Photostitch randomly blowing up whilst saving panoramas, but patience won the day.

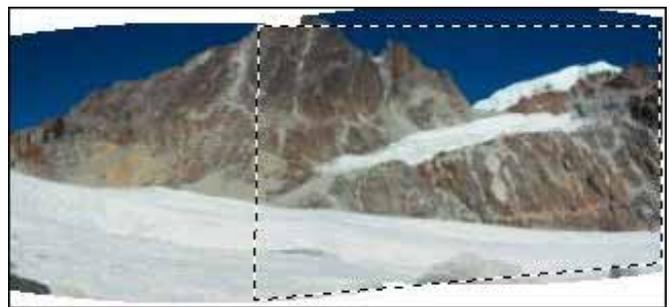


Distortion after Stitching



After distorting

Selection of trapezoid



Newsletter Feedback

Comments, suggestions, feedback or articles for the newsletter can be directed to editor@pcug.org.au



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