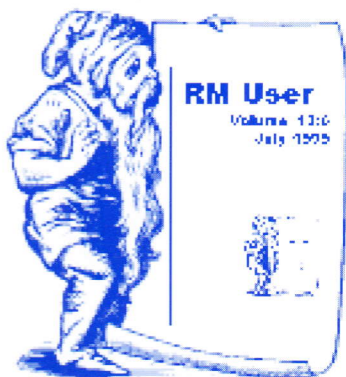


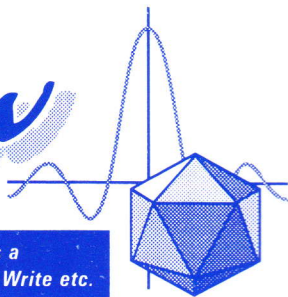
# **RM User**

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**Volume 13:6**  
**July 1999**



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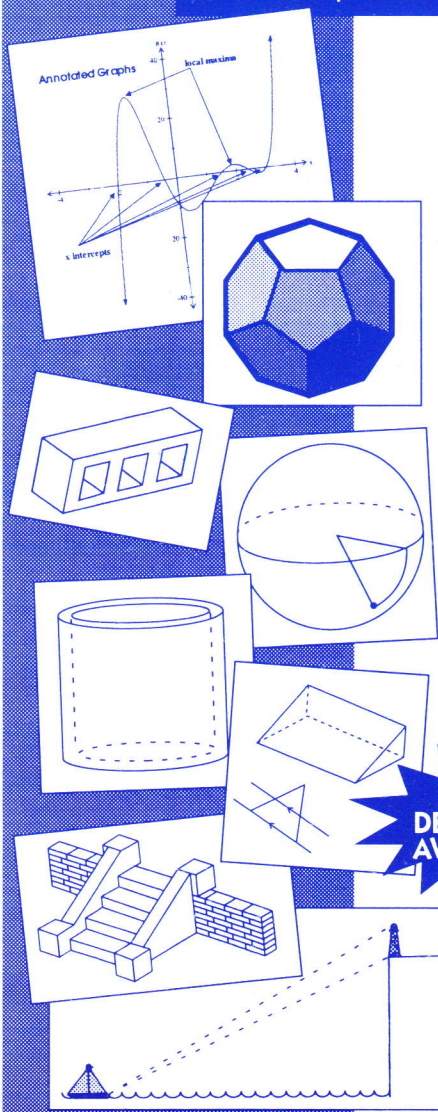
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## Deadlines for the next issues

Newsletter 14.1 .....	20 September 1999
RM User 14.2 .....	30 October 1999

The date shown above is the **latest** date for copy for the magazine. You will normally receive the magazine about 2-3 weeks after the date shown.

## Missing a Magazine?

Back issues of the magazine are available from the editor - please contact me for more details. I am delighted that through the kind assistance of Tim Clark, we now have the URL [www.rmug.org.uk](http://www.rmug.org.uk). Diana Rolf has been helping to re-organise the site and I am sure she will be grateful for any feedback. There is a list of phone numbers of the suppliers who have been reviewed in the past, contents pages and a few articles.

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## Advertising in the Magazine

Full and half page advertisements can be placed in the magazine and details can be obtained from the Advertising Manager. We also take classified ads and members may place free ads for surplus equipment in MicroMart.

### Rates

Back Cover **£60**    Inside Cover **£50**    Full Page **£30** Half Page **£20**

These rates assume black-on-white, camera ready copy. Please avoid dot-matrix output. Typesetting is charged at cost and is additional to the above rates. Please make cheques payable to *RM User Group*

## News & Editorial

### Good News!

Those of you who were lucky enough to hear Peter Cochrane speak to us a few years ago will be delighted to hear that he is likely to do it again this year! As for the rest of you, if you only know of him as Head of Research at BT Labs, or a Chair of Science at Bristol University or as a prolific columnist or globe-trotting techno-prophet or recently awarded OBE you may still appreciate for other reasons that this is a keynote speaker worth travelling to hear and enjoy!! There is one of his articles printed in this issue and by an interesting coincidence, I have been allowed to print an article by Bruce Sterling on phone hacking!

### Safety First

Do you feel safe being attached to the Internet? As well as all the possibilities of where our little darlings can get too while they are connected, who they might be exchanging email with - or should that be who they **think** they are exchanging email with? - and the viruses that might be flowing into your site there is now a very real danger of being attacked if you are using an NT server attached to the Internet. There is an outfit know as eEye who recently published a program designed to exploit a flaw in NT4. They say that they asked Microsoft to do something about it - and when (allegedly) some weeks had passed without what they felt was a satisfactory result, they posted the program and instructions on the Internet. It certainly makes fascinating reading. I must confess that I haven't actually tried to use it -

but it is certainly something worth knowing about. Check their website and/or let me know if you'd like to know more. I have mentioned before now that is is well worth signing up for Microsoft's free security bulletins. There are also a number of sites offering links to patches that seek to close up some of the security holes in Exchange. Perhaps we should have a page on the RM User website ([www.rmug.org.uk](http://www.rmug.org.uk)) to post details of the latest viruses as they pop up and also the details of which bulletins are most likely to affect us. I am not sure how many of us are using Exchange - or Outlook - or Information Server or what versions are in use. If anyone thinks it is worthwhile, please drop me a line (or an email, just don't put "Good Times" in the header) and I will (a) make a page for this subject and (b) try to collect the data about who uses what.

### EXCHANGE SERVER 4.0 SERVICE PACK 5 FIXES

Microsoft has identified and fixed quite a few bugs since releasing its Exchange Server product. To help you review and understand the fixes, Microsoft has assembled a list of the article numbers for bugs fixed in Microsoft Exchange Server 4.0 Service Pack 5. For more details and to browse the list, visit the Microsoft Support site at <http://support.microsoft.com/support/kb/articles/q174/1/89.asp>

### I am NOT making this up

Prof. Bill Ditto of GIT (that's the Georgia Institute of Technology) says leeches are

going to be PC again. No, not for sucking our blood, but because he thinks they can use the neural circuitry of the creature to store data.

## Your Committee

There is a constant debate in the committee about how we can improve the functionality of the Group. We have debated the advantages of circulating the magazine via email against the possibility that you prefer to have hard copy because of the different ways you can use it . . . (no, I won't pursue that . . .) We have been looking recently at the interfaces created at [www.schoolmaster.co.uk](http://www.schoolmaster.co.uk) and would be delighted if any of you cared to let us know if that was a good direction to move the RM User Group website. Just in case you don't know - there are already areas where you can download files and software that members have either asked for or recommended as useful. There are also areas where you can

post messages expressing your opinions on RM-related matters and/or curriculum-related matters. If more traffic starts to go through any of these areas then (a) they may become better developed and (b) worth re-visiting. In connection with this issue, I plan to put the zipped version of The Hacker Crackdown in the archive. If you download and unzip it you should find a .hlp file that you can open in any version of Windows and browse through the story. It is a fascinating read although I would find it easier to read if it was a .pdf file. I wonder if someone has invented a .hlp>.pdf converter? As always we would be pleased to hear your views on this (website development) or any other concern that relates to the User Group.

## This Issue's Typefaces

The headlines and sub-headings are Helvetica Black, and the body text is Times Roman.

# CarboSilico Man - Soul Catcher

*by Peter Cochrane*

I used to think that my decreasing ability to remember details of the past, coupled with an increasing recall time were a function of age. However, recent evidence points towards memory overload brought on by a new and increasingly chaotic lifestyle. Many people in their mid-twenties are now suffering from information overload brought on by increased communication and travel. The evolution of our species saw a rapid encephalisation through hunting, throwing projectiles, making tools and language. Living in small groups and meeting a few thousands of people in a lifetime saw us with adequate brain capacity.

Today we can exceed our basic specification in the first three decades of life. Only sleep, Hebian decay, books and disc storage mechanisms, with computers becoming our third lobe, allow us to cope with a world of accelerating travel, and electronic communication. But these extensions to the human brain capacity will ultimately become inadequate, and so we might consider the prospect of the implanted third lobe.

Commander Data on the Starship Enterprise has an estimated 100Tip/s processing and 100TBytes storage capacity, plus a desire to

become human. He falls about an order of magnitude short of our abilities and his forebear already exists as a super computer today of 1Tip/s capability. So, at the present rate of progress we are less than a decade away from creating Data in the form of a mainframe machine. Of course the subtle difference between Data and the supercomputer are those vital sensory and ambulatory abilities, plus the technology to realise intelligence. As far as we can tell, high intelligence involves the ability to absorb information far exceeding the ability to output. In our case we take in over 1Gbit/s through our visual system, and less than 13Mbit/s through our remaining senses combined. Our output in terms of speech or typing is only around 100bit/s when we discount the emotional content that still escapes machines - including Data.

To date, there have been over 1700 successful cochlea implants, thousands of pacemakers and respiratory stimulators, a few partially successful attempts at electronic bridging of the spinal chord, and just one attempt at an artificial retina. An initial engineering view might suggest that the coupling between any electronic prosthetic and our nervous system would take great knowledge and precision to select the correct connections. Fortunately, this appears not to be the case as our neural network has the ability to redirect and sort the signals. So it seems we may soon realise the ability to fundamentally extend and enhance our wetware. The first attempts will most likely be prompted by the desire to repair deficiencies or damage, and probably a direct migration from other electronic prostheses developments. But the advantages of such silico-enhancements of memory and processing abilities will rapidly become

evident and probably a prized modification.

Among the desirable features of a silicon extension - PC in your head - would be; high speed data processing and memory, no distortion or decay, but with a delete function. More tantalising is the prospect of silicon, with a degree of analogue processing, and dedicated functions that could be applied on demand. Business, finance, medicine and gambling spring to mind for starters. With such an ability we would forget nothing, process everything, and if we so desired be adapted to a wider range sensory systems extending into the InfraRed, UltraViolet, ultrasonic, electrostatic and electromagnetic. Most importantly we could always be on-line, and ultimately, or even inevitably, be part of a new collective consciousness.

Who could resist this extension of our basic and ultimately limited humanity. Well, no doubt Homo-Ludditus would, but then this sub-species resisted everything from the bow and arrow to the PC - for a while. But at the point of death, even they find it hard to resist the artificial heart, lungs, kidneys or pancreas. Moreover, being a member of the have-not brigade gets serious when you are excommunicated by your inability to communicate, store and process information.

Looking backwards, all our technologies have improved our lot, and it has been the misuse by people that has caused major problems. And so it will be in the future with chip implants. There will be those who will seek to control and exploit the people and the technology. However, when we are all on-line it might just be that the good really do overpower the evil - bit by bit.

# Making interactive graphs with Excel 97

by Keith Burnett

*I asked for tips from the Insite List and the UK-Schools list (see also Diana's article). This came from the latter.*

You can download the sheet from <http://www.xylem.demon.co.uk/excel.htm>.

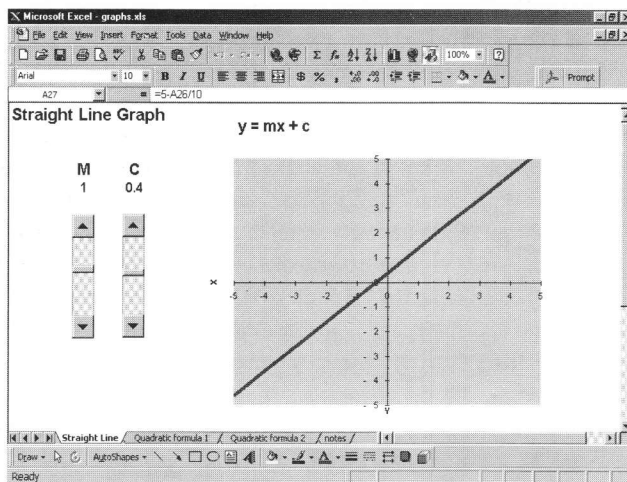
Straight line and Quadratic graph sheets - these two sheets are designed to allow students to explore the changes in the shape of a graph which occur when you change the parameters in the formulas. By dragging the scroll bars up and down, you can alter the values of the parameters in the general formula. I find altering the value of B in the Quadratic graph especially revealing! The graphs and labels have been 'protected' - so as to avoid accidental clicking resulting in changes of formatting. Just go to Tools -> Protection -> Unprotect to change the graph display. A27 is =m, B27 is =c, D27 to D37 is -5 to 5 and E27 to E37 is =\$A\$27\*D27 + \$B\$27. Excel has a toolbar called 'forms' (View | Toolbars | Forms). On this toolbar you will find a 'scroll bar' tool.

Click on the scroll bar tool and then drag a long thin box on your (empty) spreadsheet. You now have a scroll bar sitting on a spreadsheet. Right click with the mouse pointer over the scroll bar and pick 'Format Control' from the menu that appears. Make sure the Control tab is uppermost. Type a cell reference into the 'Cell

Link' text box towards the bottom of the 'Control' tab. Now click elsewhere in the spreadsheet to 'unselect' the scroll bar so its handles disappear. Hold your mouse pointer over the slide bar itself - the pointer should turn into a finger. Drag the scroll bar up and down - you should see the number in the cell you gave as the 'cell link' change as you slide the bar. One limitation of the scroll bar link is that it will only give a whole number between 0 and 999 as the value. You have to transform the number to make it useful as a parameter for a graph. Keith also passed on the tip that you can make Adobe acrobat files for free - using GhostScript to save your Word files in PDF format. He works in an FE College that is getting involved in ICT skills training for school teachers - here are his Web address, e-mail and phone number.

North Birmingham College.

kburnett@northbham.ac.uk 0121-360-3543





# IT in two German Schools

by Gisela Legg

Having been in contact with German friends recently, I found the website of my old school, showing the following information on their hardware/software provision. This is a mixed Grammar School (10 to 18) with approximately 1200 students. I also visited another school (also mixed Grammar) in my old neighbourhood where I was given the syllabus shown below. I thought you might be interested in this.

## Hardware

Fast direct line (10Mb) via Technical University to access the Internet using LWL (optical fibre cables)

12 pupil work stations (PII 266 MHz, 64 MB RAM,...)

1 teacher station (PII 266 MHz, 128 MB RAM, ...)

1 INTRANET Server

1 INTERNET Server for use with Internet services such as WWW

The following departments are – or will be – connected to the LWL direct line with at least one station each:

Biology, Chemistry, History, Geography, Art, Physics, Library

## Operating System:

All stations are – or will be – networked using MICROSOFT WINDOWS NT 4.0. The operating system as well as the other software in use was supplied free of charge to the school - the school being an EXPO school 2000 - by MICROSOFT.

## Software:

All stations have access to:

WinWord, Excel, Access, Publisher, FrontPage and more

## IT provision:

All pupils in Year 8 receive an introduction into getting used to and using standard

programs such as Word-processing, INTERNET access, ...

Completion of the course results in: Computer passport

In Year 11 Information Technology may be chosen as an option. Content: Building and operation of a computer, programming

In Year 12 and 13 the IT subject content can be extended and IT can be added as a fourth subject for the 'Abitur' (A-Levels).

There are clubs with the following content:

Internet, Programming, HTML (Building of Homepages), Music using the Computer, Games in the Network Club

Visiting a different Grammar School in the same town, I was shown the following Syllabus (school based only, there is no National Curriculum in Germany):

Syllabus Year 9

Using Software, Principles of Software, a.Database, Elementary operations (insert, delete, edit, etc.), Sorting of files, Planning and structuring databases based on specific user problems, Data types, Selecting records, Data protection and data security, Word Processing, Input and editing texts, Searching, Saving and Printing parts of texts, Formatting text, Importing data into text (serial letters), Change of work procedures at the work place (social aspects?), Spreadsheets, Design of Spreadsheets based on the analysis of user problems, Linking of cells, Conditional links, Importing data into tables and vice versa, Simulation of growth problems using Spreadsheets, Graphical representation of tables and their interpretation, Importing graphics into texts, Programming, The difference between user systems and programming systems, Solution of simple problems (graphic art) using

elementary instructions in LOGO, Combining LOGO instructions into procedures, The parameter concept, Introduction of recursion, Using conditional branches, Top down design, Testing of program sections, Project: Mini-Cad

The school also runs a compulsory Mathematics course using TI-57 calculators for Year 9 and Year 10.

Content:

Programming calculators, Developing simple algorithms for algebra problems using flow diagrams and BASIC programming, BASIC programs containing PRINT, LET, INPUT and simple mathematical operators as used for programming calculators, Commands such as LIST, RUN, NEW, DELETE, CLS, SAVE, LOAD, KILL, RENUM, Data types such as integers, floating point accuracy, Logic decisions, branches, repeats using IF THEN, GOTO, FOR-NEXT loops to develop recursive algorithms (calculating prime numbers, solving quadratic equations, etc.), Evaluation and building tables using DIM, DATA, READ, RESTORE, PRINT TAB

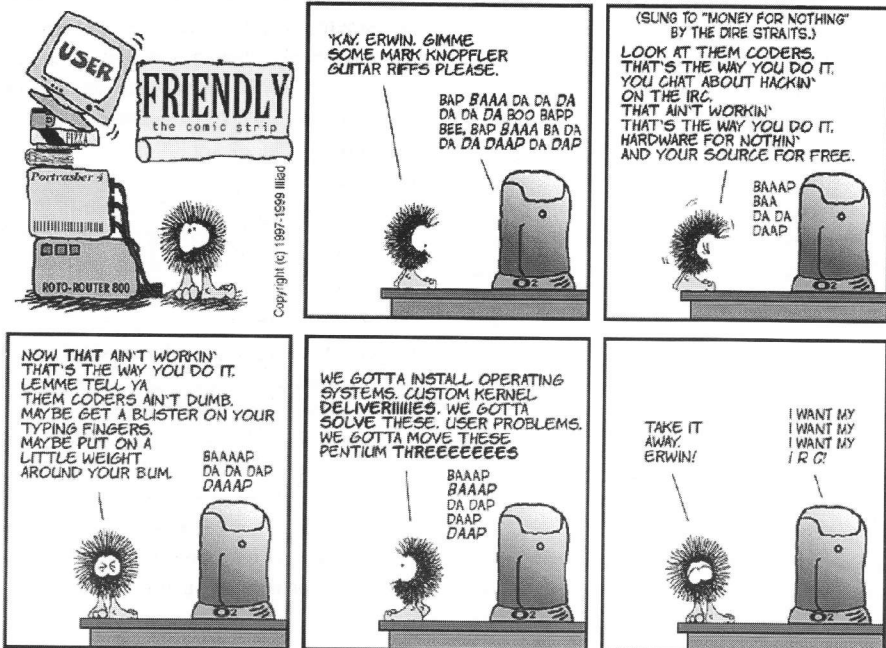
(interest tables, function graphs, statistical evaluation, evaluation of physics experiments, etc.), Structuring programs using REM, GOSUB – RETURN, Straight line graphics (graphic mode, screen format), using DRAW"U-D-R-L-E-F-G-N-Mx,y,B",LINE,PAINT, Curves using PSET, CIRCLE such as circle diagrams for statistical evaluations, etc.

Moving graphics such as stop watch, moving caricatures

Scale graphics using DRAW"A-TA" such as geometric figures drawn to scale, calculation and construction of triangles, ornaments drawn from basic geometric figures

Sound using SOUND, PLAY such as songs, sounds for games

Projects as team work producing a complete program starting with analysis and finishing with testing, such as an election program containing the following parts: screen polling card for ticking candidates, counting votes, statistical evaluation of votes, production of results in table format and graphical display of results.



# Reviews

## **Chefren's Pyramid**

As the game begins, there are few initial instructions and it becomes very much a case of trial and error.

Initially, I completely missed the excellent introductory video by selecting the right hand face instead of the other one. I am sure that this is a sign of my age because a lower stream year 8 maths set had no such difficulty.

The pyramid has a superb mixture of mathematical problems, ranging from easy sums, problems on shape and space as well as a little general knowledge. It was good to see pupils using the Internet to find the nationality of a particular flag before they could carry on to the next room.

Between some rooms there is the option to see a short video depicting life in modern Egypt, there even seems to be a bit of PSE thrown in here.

In general, pupils found the program to be engrossing and challenging. The fact that the complete pyramid had to be solved in a given time added a certain urgency to the problems. At the end of a session a given position in the pyramid was easily saved so that pupils could continue from where they left off. In fact some pupils preferred to start at the beginning again in order to achieve a faster time on the second attempt.

Bob Hall, maths dept., Ackworth School

## **Knowhow Gold**

This is a training CD-ROM from Office Associates. I get a lot of mailshots from companies selling this stuff - and I have had a few trial packages and downloaded some

samples. This one stands out from the rest as far as price is concerned with a £100 site licence for schools! Remember that this is for 50 CBT titles including the currently most popular Office applications and operating systems. There is the facility to track users' progress and there is provision for pre- & post-training testing. They are also running a scheme whereby you can offer discs to parents & children and get a credit for each disk. Call 01507 313501 or visit [www.trainingwarehouse.co.uk](http://www.trainingwarehouse.co.uk).

## **Chalkface Worksheets**

This set, entitled "Assessing ICT in context at KS3" consists of over 60 worksheets with accompanying teachers' notes that show in detail how they can be used to help with assessments. They are clearly presented in a ringbound book allowing easy copying. Given the way I work, I would have been even happier to get a disk with the masters on and I think that might be an option with some of their titles. Each title is around £25. The range (currently 32 titles) is growing all the time so if you haven't checked them out recently, have a look. Call 01908 340318 or check their fliers in most school IT mags.

## **The Castle under Siege**

This is a CD-ROM aimed at the younger ages, 5-9. It has the usual mix of a story that can be read and/or listened to and a variety of activities. Overall graphic style was appealing - but the pace at which things happened was probably a bit slow for our high-speed kids! Visit [www.ransom.co.uk](http://www.ransom.co.uk) for availability & latest prices.

## Poor Richard's Website

I think the thing I am asked about most often is starting up a website. Many people in different areas are interested but are put off at the thought of jumping in. This book might

be a good way to get started. It presents a wide variety of data in a very straightforward manner. It can be ordered via the Internet for around \$35 (about £20). Check PoorRichard.com.

## A Statement of Principles

by Bruce Sterling

*Reprinted from SCIENCE FICTION EYE with permission of the author. As a fan of Sterling and Gibson, I am delighted to be allowed to print this. You can download The Hacker Crackdown from a number of sites - including [www.rmug.org.uk](http://www.rmug.org.uk) - it is in the form of a Windows Help File.*

I just wrote my first nonfiction book. It's called THE HACKER CRACKDOWN: LAW AND DISORDER ON THE ELECTRONIC FRONTIER. Writing this book has required me to spend much of the past year and a half in the company of hackers, cops, and civil libertarians.

I've spent much time listening to arguments over what's legal, what's illegal, what's right and wrong, what's decent and what's despicable, what's moral and immoral, in the world of computers and civil liberties. My various informants were knowledgeable people who cared passionately about these issues, and most of them seemed well-intentioned. Considered as a whole, however, their opinions were a baffling mess of contradictions.

When I started this project, my ignorance of the issues involved was genuine and profound. I'd never knowingly met anyone from the computer underground. I'd never

logged-on to an underground bulletin-board or read a semi-legal hacker magazine. Although I did care a great deal about the issue of freedom of expression, I knew sadly little about the history of civil rights in America or the legal doctrines that surround freedom of the press, freedom of speech, and freedom of association. My relations with the police were firmly based on the stratagem of avoiding personal contact with police to the greatest extent possible.

I didn't go looking for this project. This project came looking for me. I became inextricably involved when agents of the United States Secret Service, acting under the guidance of federal attorneys from Chicago, came to my home town of Austin on March 1, 1990, and confiscated the computers of a local science fiction gaming publisher. Steve Jackson Games, Inc., of Austin, was about to publish a gaming-book called GURPS Cyberpunk.

When the federal law-enforcement agents discovered the electronic manuscript of CYBERPUNK on the computers they had seized from Mr. Jackson's offices, they expressed grave shock and alarm. They declared that CYBERPUNK was "a manual for computer crime."

It's not my intention to reprise the story of

the Jackson case in this column. I've done that to the best of my ability in THE HACKER CRACKDOWN; and in any case the ramifications of March 1 are far from over. Mr. Jackson was never charged with any crime. His civil suit against the raiders is still in federal court as I write this.

I don't want to repeat here what some cops believe, what some hackers believe, or what some civil libertarians believe. Instead, I want to discuss my own moral beliefs as a science fiction writer — such as they are. As an SF writer, I want to attempt a personal statement of principle.

It has not escaped my attention that there are many people who believe that anyone called a "cyberpunk" must be, almost by definition, entirely devoid of principle. I offer as evidence an excerpt from Buck BloomBecker's 1990 book, SPECTACULAR COMPUTER CRIMES. On page 53, in a chapter titled "Who Are The Computer Criminals?", Mr. BloomBecker introduces the formal classification of "cyberpunk" criminality.

"In the last few years, a new genre of science fiction has arisen under the evocative name of 'cyberpunk.' Introduced in the work of William Gibson, particularly in his prize-winning novel NEUROMANCER, cyberpunk takes an apocalyptic view of the technological future. In NEUROMANCER, the protagonist is a futuristic hacker who must use the most sophisticated computer strategies to commit crimes for people who offer him enough money to buy the biological creations he needs to survive. His life is one of cynical despair, fueled by the desire to avoid death. Though none of the virus cases actually seen so far have been so devastating, this book certainly represents an attitude that should be watched for when we find new cases of

computer virus and try to understand the motivations behind them."

"The New York Times's John Markoff, one of the more perceptive and accomplished writers in the field, has written that a number of computer criminals demonstrate new levels of meanness. He characterizes them, as do I, as cyberpunks."

Those of us who have read Gibson's NEUROMANCER closely will be aware of certain factual inaccuracies in Mr. BloomBecker's brief review. NEUROMANCER is not "apocalyptic." The chief conspirator in NEUROMANCER forces Case's loyalty, not by buying his services, but by planting poison-sacs in his brain. Case is "fueled" not by his greed for money or "biological creations," or even by the cynical "desire to avoid death," but rather by his burning desire to hack cyberspace. And so forth.

However, I don't think this misreading of NEUROMANCER is based on carelessness or malice. The rest of Mr. BloomBecker's book generally is informative, well-organized, and thoughtful. Instead, I feel that Mr. BloomBecker manfully absorbed as much of NEUROMANCER as he could without suffering a mental toxic reaction. This report of his is what he actually saw when reading the novel.

NEUROMANCER has won quite a following in the world of computer crime investigation. A prominent law enforcement official once told me that police unfailingly conclude the worst when they find a teenager with a computer and a copy of NEUROMANCER. When I declared that I too was a "cyberpunk" writer, she asked me if I would print the recipe for a pipe-bomb in my works. I was astonished by this question, which struck me as bizarre rhetorical excess at the time. That

was before I had actually examined bulletin-boards in the computer underground, which I found to be chock-a-block with recipes for pipe-bombs, and worse. (I didn't have the heart to tell her that my friend and colleague Walter Jon Williams had once written and published an SF story closely describing explosives derived from simple household chemicals.)

Cyberpunk SF (along with SF in general) has, in fact, permeated the computer underground. I have met young underground hackers who use the aliases "Neuromancer," "Wintermute" and "Count Zero." The Legion of Doom, the absolute bete noire of computer law-enforcement, used to congregate on a bulletin-board called "Black Ice."

In the past, I didn't know much about anyone in the underground, but they certainly knew about me. Since that time, I've had people express sincere admiration for my novels, and then, in almost the same breath, brag to me about breaking into hospital computers to chortle over confidential medical reports about herpes victims.

The single most stinging example of this syndrome is "Pengo," a member of the German hacker-group that broke into Internet computers while in the pay of the KGB. He told German police, and the judge at the trial of his co-conspirators, that he was inspired by NEUROMANCER and John Brunner's SHOCKWAVE RIDER.

I didn't write NEUROMANCER. I did, however, read it in manuscript and offered many purportedly helpful comments. I praised the book publicly and repeatedly and at length. I've done everything I can to get people to read this book.

I don't recall cautioning Gibson that his novel might lead to anarchist hackers selling their expertise to the ferocious and repulsive

apparat that gave the world the Lubyanka and the Gulag Archipelago. I don't think I could have issued any such caution, even if I'd felt the danger of such a possibility, which I didn't. I still don't know in what fashion Gibson might have changed his book to avoid inciting evildoers, while still retaining the integrity of his vision — the very quality about the book that makes it compelling and worthwhile.

This leads me to my first statements of moral principle.

As a "cyberpunk" SF writer, I am not responsible for every act committed by a Bohemian with a computer. I don't own the word "cyberpunk" and cannot help where it is bestowed, or who uses it, or to what ends. As a science fiction writer, it is not my business to make people behave. It is my business to make people imagine. I cannot control other people's imaginations — any more than I would allow them to control mine. I am, however, morally obliged to speak out when acts of evil are committed that use my ideas or my rhetoric, however distantly, as a justification.

Pengo and his friends committed a grave crime that was worthy of condemnation and punishment. They were clever, but treacherously clever. They were imaginative, but it was imagination in a bad cause. They were technically accomplished, but they abused their expertise for illicit profit and to feed their egos. They may be "cyberpunks" — according to many, they may deserve that title far more than I do — but they're no friends of mine.

What is "crime"? What is a moral offense? What actions are evil and dishonorable? I find these extraordinarily difficult questions. I have no special status that should allow me to speak with authority on such subjects.

Quite the contrary. As a writer in a scorned popular literature and a self-professed eccentric Bohemian, I have next to no authority of any kind. I'm not a moralist, philosopher, or prophet. I've always considered my "moral role," such as it is, to be that of a court jester — a person sometimes allowed to speak the unspeakable, to explore ideas and issues in a format where they can be treated as games, thought-experiments, or metaphors, not as prescriptions, laws, or sermons.

I have no religion, no sacred scripture to guide my actions and provide an infallible moral bedrock. I'm not seeking political responsibilities or the power of public office. I habitually question any pronouncement of authority, and entertain the liveliest skepticism about the processes of law and justice. I feel no urge to conform to the behavior of the majority of my fellow citizens. I'm a pain in the neck.

My behavior is far from flawless. I lived and thrived in Austin, Texas in the 1970s and 1980s, in a festering milieu of arty crypto-intellectual hippies. I've committed countless "crimes," like millions of other people in my generation. These crimes were of the glamorous "victimless" variety, but they would surely have served to put me in prison had I done them, say, in front of the State Legislature.

Had I lived a hundred years ago as I live today, I would probably have been lynched by outraged fellow Texans as a moral abomination. If I lived in Iran today and wrote and thought as I do, I would probably be tried and executed.

As far as I can tell, moral relativism is a fact of life. I think it might be possible to outwardly conform to every jot and tittle of the taboos of one's society, while feeling no

emotional or intellectual commitment to them. I understand that certain philosophers have argued that this is morally proper behavior for a good citizen. But I can't live that life. I feel, sincerely, that my society is engaged in many actions which are foolish and shortsighted and likely to lead to our destruction. I feel that our society must change, and change radically, in a process that will cause great damage to our present system of values. This doesn't excuse my own failings, which I regret, but it does explain, I hope, why my lifestyle and my actions are not likely to make authority feel entirely comfortable.

Knowledge is power. The rise of computer networking, of the Information Society, is doing strange and disruptive things to the processes by which power and knowledge are currently distributed. Knowledge and information, supplied through these new conduits, are highly corrosive to the status quo. People living in the midst of technological revolution are living outside the law: not necessarily because they mean to break laws, but because the laws are vague, obsolete, overbroad, draconian, or unenforceable. Hackers break laws as a matter of course, and some have been punished unduly for relatively minor infractions not motivated by malice. Even computer police, seeking earnestly to apprehend and punish wrongdoers, have been accused of abuse of their offices, and of violation of the Constitution and the civil statutes. These police may indeed have committed these "crimes." Some officials have already suffered grave damage to their reputations and careers — all the time convinced that they were morally in the right; and, like the hackers they pursued, never feeling any genuine sense of shame, remorse, or guilt.

I have lived, and still live, in a counterculture, with its own system of values. Counterculture — Bohemia — is never far from criminality. “To live outside the law you must be honest” was Bob Dylan’s classic hippie motto. A Bohemian finds romance in the notion that “his clothes are dirty but his hands are clean.” But there’s danger in setting aside the strictures of the law to lynchpin one’s honor on one’s personal integrity. If you throw away the rulebook to rely on your individual conscience you will be put in the way of temptation.

And temptation is a burden. It hurts. It is grotesquely easy to justify, to rationalize, an action of which one should properly be ashamed. In investigating the milieu of computer-crime I have come into contact with a world of temptation formerly closed to me. Nowadays, it would take no great effort on my part to break into computers, to steal long-distance telephone service, to ingratiate myself with people who would merrily supply me with huge amounts of illicitly copied software. I could even build pipe-bombs. I haven’t done these things, and disapprove of them; in fact, having come to know these practices better than I cared to, I feel sincere revulsion for them now. But this knowledge is a kind of power, and power is tempting. Journalistic objectivity, or the urge to play with ideas, cannot entirely protect you. Temptation clings to the mind like a series of small but nagging weights. Carrying these weights may make you stronger. Or they may drag you down.

“His clothes are dirty but his hands are clean.” It’s a fine ideal, when you can live up to it. Like a lot of Bohemians, I’ve gazed with a fine disdain on certain people in power whose clothes were clean but their hands conspicuously dirty. But I’ve also met a few

people eager to pat me on the back, whose clothes were dirty and their hands as well. They’re not pleasant company.

Somehow one must draw a line. I’m not very good at drawing lines. When other people have drawn me a line, I’ve generally been quite anxious to have a good long contemplative look at the other side. I don’t feel much confidence in my ability to draw these lines. But I feel that I should. The world won’t wait. It only took a few guys with pool cues and switchblades to turn Woodstock Nation into Altamont. Haight-Ashbury was once full of people who could trust anyone they’d smoked grass with and love anyone they’d dropped acid with — for about six months. Soon the place was aswarm with speed-freaks and junkies, and heaven help us if they didn’t look just like the love-bead dudes from the League of Spiritual Discovery. Corruption exists, temptation exists. Some people fall. And the temptation is there for all of us, all the time.

I’ve come to draw a line at money. It’s not a good line, but it’s something. There are certain activities that are unorthodox, dubious, illegal or quasi-legal, but they might perhaps be justified by an honest person with unconventional standards. But in my opinion, when you’re making a commercial living from breaking the law, you’re beyond the pale. I find it hard to accept your countercultural sincerity when you’re grinning and pocketing the cash, compadre. I can understand a kid swiping phone service when he’s broke, powerless, and dying to explore the new world of the networks. I don’t approve of this, but I can understand it. I scorn to do this myself, and I never have; but I don’t find it so heinous that it deserves pitiless repression. But if you’re stealing phone service and selling it — if you’ve made



yourself a miniature phone company and you're pimping off the energy of others just to line your own pockets — you're a thief. When the heat comes to put you away, don't come crying "brother" to me.

If you're creating software and giving it away, you're a fine human being. If you're writing software and letting other people copy it and try it out as shareware, I appreciate your sense of trust, and if I like your work, I'll pay you. If you're copying other people's software and giving it away, you're damaging other people's interests, and should be ashamed, even if you're posing as a glamorous info-liberating subversive. But if you're copying other people's software and selling it, you're a crook and I despise you.

Writing and spreading viruses is a vile, hurtful, and shameful activity that I unreservedly condemn.

There's something wrong with the Information Society. There's something wrong with the idea that "information" is a commodity like a desk or a chair. There's something wrong with patenting software algorithms. There's something direly mean spirited and ungenerous about inventing a language and then renting it out to other people to speak. There's something unprecedented and sinister in this process of creeping commodification of data and knowledge. A computer is something too close to the human brain for me to rest entirely content with someone patenting or copyrighting the process of its thought. There's something sick and unworkable about an economic system which has already spewed forth such a vast black market. I don't think democracy will thrive in a milieu where vast empires of data are encrypted, restricted, proprietary, confidential, top secret, and sensitive. I fear for the stability of a society

that builds sand castles out of databits and tries to stop a real-world tide with royal commands.

Whole societies can fall. In Eastern Europe we have seen whole nations collapse in a slough of corruption. In pursuit of their unworkable economic doctrine, the Marxists doubled and redoubled their efforts at social control, while losing all sight of the values that make life worth living. At last the entire power structure was so discredited that the last remaining shred of moral integrity could only be found in Bohemia: in dissidents and dramatists and their illegal samizdat underground fanzines. Their clothes were dirty but their hands were clean. The only agitprop poster Vaclav Havel needed was a sign saying Vaclav Havel Guarantees Free Elections. He'd never held power, but people believed him, and they believed his Velvet Revolution friends.

I wish there were people in the Computer Revolution who could inspire, and deserved to inspire, that level of trust. I wish there were people in the Electronic Frontier whose moral integrity unquestionably matched the unleashed power of those digital machines. A society is in dire straits when it puts its Bohemia in power. I tremble for my country when I contemplate this prospect. And yet it's possible. If dire straits come, it can even be the last best hope.

The issues that enmeshed me in 1990 are not going to go away. I became involved as a writer and journalist, because I felt it was right. Having made that decision, I intend to stand by my commitment. I expect to stay involved in these issues, in this debate, for the rest of my life. These are timeless issues: civil rights, knowledge, power, freedom and privacy, the necessary steps that a civilized society must take to protect itself from

criminals. There is no finality in politics; it creates itself anew, it must be dealt with every day.

The future is a dark road and our speed is headlong. I didn't ask for power or responsibility. I'm a science fiction writer, I only wanted to play with Big Ideas in my cheerfully lunatic sandbox. What little benefit I myself can contribute to society would likely be best employed in writing better SF novels. I intend to write those better novels, if I can. But in the meantime I seem to have accumulated a few odd shreds of influence. It's a very minor kind of power, and doubtless more than I deserve; but power without responsibility is a monstrous thing.

In writing HACKER CRACKDOWN, I tried to describe the truth as other people saw it. I see it too, with my own eyes, but I can't yet pretend to understand what I'm seeing. The best I can do, it seems to me, is to try to

approach the situation as an open-minded person of goodwill. I therefore offer the following final set of principles, which I hope will guide me in the days to come.

I'll listen to anybody, and I'll try to imagine myself in their situation.

I'll assume goodwill on the part of others until they fully earn my distrust. I won't cherish grudges. I'll forgive those who change their minds and actions, just as I reserve the right to change my own mind and actions.

I'll look hard for the disadvantages to others, in the things that give me advantage. I won't assume that the way I live today is the natural order of the universe, just because I happen to be benefiting from it at the moment.

And while I don't plan to give up making money from my ethically dubious cyberpunk activities, I hope to temper my impropriety by giving more work away for no money at all.

## Training Weekend Notes

The 22nd Annual RM User Group Training Weekend will provide an ideal opportunity to obtain IT INSET in a most productive, cost-effective and enjoyable way.

Location Courses will be held at The Kirk Hallam Community School close to Junction 25/26 of the M1 motorway, near Derby and Nottingham. This is a very well equipped school with over 70 computers. The accommodation will be at The Swallow Hotel, South Normanton, on junction 28. This hotel has a very good Leisure complex, including a swimming pool, that is all available for guests' use.

We would appreciate if you will send the FULL amount on applying, as we have to pay a very large deposit by July. If there are problems with this please send £50 deposit and negotiate with Maureen explaining any problems.

**Session Structure** The sessions on Saturday and Sunday will include workshops and hands-on experience wherever possible. Training will take place in small rooms with limited numbers. In addition to the formal programme of sessions there will be opportunities for discussion with both other delegates and RM staff. Throughout the weekend RM staff have volunteered to be on hand to answer both technical questions and provide advice on future strategies for using ICT for school improvement and learning gains. The provisional timetable is given here and delegates are requested to select a first choice and a reserve for each of the three main sessions. Whilst every effort is made to provide delegates with their first choices it should be noted that some sessions are very popular and are filled quickly (first come first served basis).

## Tips from a Helpdesk Course

by Robert Moir, Microsoft MVP

*Rob sent me this when I asked for tips from the Insite List. He says - and I agree - that by considering these points we may be able to either help ourselves, or at least be more likely to say the right things when we escalate our requests for help.*

ALWAYS get the basic information you need from a caller to complete the call.

- Who are they.
- What computer they are using
- Where are they.
- What they are trying to do.
- What error messages they get.
- What they have done to fix the problem themselves.

**ALWAYS work from the absolute basics up, Never start trouble shooting with the most complex solution for a problem.**

Caller : - "My computer isn't working"

You : - "Is it powered up? Can you see a power light on the computer CPU box?"

Caller : - "Yes..."

You : - "Is the monitor switched on?"

Caller : - "Oh. OK.. (CLICK) thanks"

**NEVER assume that because something is obvious to you, that is is also obvious to the user. They may not have your experience and knowledge of computing.**

Caller : - "I can't get my email"

You : - "Have you got email before?"

Caller : - "Yes"

You : - "Are you logged into the network now when you try to get your email?"

Caller : - "Do I need to be?"

**When someone reports that they cannot get something to work, always ask them "What happens when you try?"**

Caller: - "I can't access the work on my shared area"

You : - "What happens when you try?"

Caller : - "The computer tells me that I haven't logged on, and asks if I want to. I click cancel because I don't wanna log on now, I just want to access the network"

**Next ask how they are going about doing the thing they are having trouble with.**

Caller : - "I cannot print to my local printer. It keeps appearing on the network printer"

You : - "How are you printing? What exactly do you do?"

Caller : - "I keep clicking the print icon in excel..."

You : - "Try going into the file menu, then print.. change the printer in there to your local printer then click OK"

Caller : - "oh that's it, thanks!"

**Try repeating what the caller says back to them in a slightly different manner... This allows you to confirm that you've understood what they've said, and usually leads the caller to supply more information. If you spend more than 5 minutes on the phone trying to understand what a problem is, give up and visit the user.**

Caller : - "I can't print! I hit print but the computer just sits there."

You : - "So you go to the toolbar and select the print button, but nothing happens at all?"

Caller : - "Well yes, except this error message,

I just click it off... Do you want me to read it to you?"

**Try doing the same thing on your computer that the caller is attempting on theirs. This gives you a better idea of what the user is doing, and seeing, and helps you guide them better over the phone. Focus on the problem. You don't need to know about how the computers were so much easier to use 5 years ago in order to fix their problem today.**

Caller : - "... and then we tried the new SVGA monitors and they gave me headaches..."

You : - "What is the EXACT problem you are having right now?"

Caller : - "Oh. I need to know if you have a toner cartridge for my printer."

**If you are asking them to try something for you on the phone think of as many ways as possible of explaining it. One of them will usually work.**

You : - "Click on the START menu, then on Run, please"

Caller : - "Um.. It just asked if I wanna shut the computer down."

You : - "No. Cancel that. Click on the START menu, then move the mouse over "Run" then hit ENTER"

Caller : - "um.. Now its asking about finding a file or a computer..."

You : - "OK, Cancel that too.. Hit the CTRL & ESC keys together, then press the R key."

Caller : - "Its asking me to type in a program for it to run for me"

You : - " Good, now type in..."

**Listen carefully to background sounds when on the phone. They can give you valuable clues.**

You : - "OK, double clicking doesn't work

on your computer? Try double clicking something for me right now"

Caller : - ( *CLICK...5-second pause.. CLICK*)

You : - "Try clicking a little faster."

**If checking the settings for a program with a user and they are okay, always tell the user to click cancel. Don't give them the chance to screw up good settings.**

You : - "OK, all your settings appear fine here.. lets go back to the main screen..."

Caller : - *Clickitty, clickitty.. type type clickitty*

You : - "Umm Click on CANCEL to exit the screen."

Caller : - "Oh. It says I will lose my settings if I do"

You : - "No problem.. Click on OK"

**Never believe a user. Never Assume.. Always CHECK!!!!**

Caller : - "I can't print from Word"

You : - "Is this just affecting Word? Do other programs have the same trouble?"

Caller : - "Its just Word"

You : - "OK, open up Notepad for me, type in your name and click FILE then PRINT"

Caller : - "Does not print..."

You : - "OK, the problem is not with Word"

Caller : - "But that's the only program I use"

**NEVER ask leading questions, unless you know the answer.**

You : - "Do you have 32Mb of RAM in your system?"

Caller : - "Yes."

*40 minutes later*

You : - "Why did you say you had 32Mb of RAM in that system when you only have 16?"

Caller : - "What's RAM?"

<b>Saturday</b> Arrive at Kirk Hallam School, register and have Tea/Coffee 9.30 a.m. onwards						
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>
10.30 - 12.00 Session 1 (i)	Databases	Web Authoring	Word	Power- Point	Internet Access	Proxy Server
12 noon - 1.00 Buffet Lunch						
1.0 - 2.30 Session 1 (ii)	Databases Continued	Web Authoring Continued	Word Continued	Power- Point Continued	Internet Access Continued	Laptops in Schools
2.30 - 3.00 Coffee/Tea						
3.00 - 3.45 Guest Speaker						
3.45 - 4.45 User Group A.G.M.						
4.45 Leave Kirk Hallam for The Swallow Hotel						
Until 7.45 Free Time / Leisure Facilities						
8.00 RM User Group Dinner						
////////////////////////////////////						
///// <b>Sunday</b>						
7.30 onwards Breakfast						
9.00 onwards Sign out of Hotel and leave for Kirk Hallam to arrive for 9.45						
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>
9.45 - 11.15 Session 2 (i)	Publisher	Excel as a Spread- sheet	Data -logging	Voice Recognit- -ion	Internet Access	Success- Maker
11.15 - 11.30 Coffee/ Tea						
11.30 - 1.00 Session 2 (ii)	Publisher Continued	Excel Continued	Data- logging Continued	Practice Time	Internet Access Continued	Success- Maker Continued
1.00 - 2.00 Buffet Lunch						
2.00 - 3.30 Session 3 (i)	Power-Point (Repeat of Saturday)	Designing a Web Site	Word (Repeat of Saturday)	Lego Robotics	Internet Access	CAD/ CAM
3.30 - 3.45 Tea/Coffee						
3.45 - 5.15 Session 3 (ii)	Power- Point Continued	Designing a Web Site Continued	Word Continued	Lego Robotics Continued	Internet Access Continued	CAD/ CAM Continued
5.15 Go Home						

**INVOICE**  
necessary)

**Application Form for Training** (please photocopy as

**Research Machines User Group**  
**22nd Annual Training Weekend**  
**October 23rd - 24th 1999**

Please indicate your session choices below using the session letters **A** to **F** and on the reverse side of this form **please write** about your level of experience and what **you** hope for from the courses chosen.

	<b>Saturday Session 1</b> 10.30- noon 1.00 - 2.30	<b>Sunday Morning Session 2</b> 9.45 - 1.00	<b>Sunday Afternoon Session 3</b> 2.00 - 5.15
First Choice			
Second Choice			

Please indicate any special dietary requirements e.g. vegetarian, vegan etc.

Delegate Rates    Members    Non-members\*

Full Weekend #    £230 1<sup>st</sup> del.                    £255 1<sup>st</sup> del.  
                           After 1<sup>st</sup>    £220 pp                    £230 pp  
 Sunday Only    £100 pp                    £125 pp  
 All the above prices include meals as appropriate.

Partners (no training)    £20 extra to cover B & B.  
 Other meals to be paid for as taken. Children free B&B sharing parents room or £30 in separate room.  
 Friday night accommodation at £35 B&B.  
 If any other combination is required, please telephone number below or email.

# Inclusive of accommodation with en-suite bathroom

\* Inclusive of 1 year's membership of RM User Group

There are some non-smoking bedrooms.

Please tick here if one is preferred .....  
(There is **No** guarantee that one will be available)

Please return your completed forms to:  
Maureen Wernham, RMUG Training Weekend,  
FREEPOST, Esher, Surrey. KT10 0BR Telephone:  
0208 398 1948. Or Email mwernham@rmpc.co.uk

I am a RMUG member/non-member\* and I apply for registration for the complete Weekend/Sunday only\* at a fee of £ .....

(\* please delete as appropriate)

I enclose a cheque payable to RMUG TRAINING WEEKEND for the FULL amount (if this is impossible then a deposit of £50 is required).

Name: \_\_\_\_\_

Establishment: \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Daytime telephone \_\_\_\_\_

Evening telephone \_\_\_\_\_

e-mail address \_\_\_\_\_

**Maureen Wernham,  
RMUG Training  
Weekend,  
FREEPOST,  
Esher,  
Surrey. KT10 0BR**

## *Protocol cures the millennium headache with Prove it 2000*

**The Protocol Corporation** is ensuring their clients' full Y2K compliance through its partnership with Proven Software Technology Ltd., who market the Prove it 2000 range of Y2K auditing and fixing products.

As one of the world's market leaders, Prove it 2000 is a complete hardware solution for your PC providing testing, auditing, reporting and fixing standalone and networked PC's.

**Prove it 2000** is widely regarded as performing the most comprehensive tests for PC Hardware. By running eight tests for PC hardware – including a test for the real time clock – the products will check if your PC hardware will function in the next century and will provide an instant fix if failure is reported.

### ***THE IMPORTANCE OF THE REAL TIME CLOCK***

**The Real Time Clock (RTC)** is the ultimate date keeper in any PC and as such, must be checked.

There are no dates used in the BIOS or operating system that do not ultimately come from the RTC (CMOS). The RTC is the most accurate method of reading the time on a PC. The time collected through the operating system or the BIOS will always be delayed. Reading the RTC through processor ports is faster and more accurate as a result.





*The BSI Standard clause 3 states: "In all interfaces and date storage, the century in any date must be specified."*

## ***Why the RTC must be tested***

**Failing** to test the RTC directly presents an important technical problem as RTC tests carried out through a compliant BIOS will be distorted. In order for a PC to be Millennium compliant it must return the correct Century date. If the RTC has not been corrected it will report the year as 00 and the Century as 1900 – not 2000. Any PC functioning by returning a date of 1900 instead of 2000 cannot ever be considered Year 2000 compliant – a clear indication that the RTC is an important issue.

**Regardless** of the technical and moral debate surrounding the RTC compliance issue, one fact is indisputable – there are software applications on the market that access the hardware clock directly. The applications that read the RTC, such as Real Time sales and accounting software and Real Time Manufacturing software, are normally vital to the organisations by which they are used.

A point to take into consideration is that many companies will not know how a given PC will be used and what operating system and applications will be run when the year 2000 comes. In a situation where the RTC is accessed in the Year 2000 and beyond the problem will simply reappear.

## ***PROVE IT 2000's SOLUTION***

**The** simple solution is to carry out every possible test for every PC including the RTC using our testing and fixing software. Prove it 2000's products perform the most comprehensive tests for a PC and correct the RTC as a matter of course. Our customers do not have to consider the risks of testing or not testing the RTC, as our products do it for them. By using our products you can rest assured that your PC's hardware will function correctly in the Year 2000.



## The Protocol Corporation

The Protocol Corporation is a Bespoke Solutions House specialising in the provision of leading edge IT/Network Solutions. Focused on understanding the true requirements of its clients, Protocol are able to deliver exacting, budget sensitive projects from the “ground up” whatever the scale of the enterprise.

Protocol realised long ago that its own future is heavily dependent on its ability to help the client run its own business successfully. Its aim is to make the technology challenges of both today and tomorrow as simple as possible. Our affiliation with Intel and its uniform architecture are a vital key to this goal.

Historically and currently very active in the educational and corporate hospitality market places, the Protocol Corporations have now focused their attentions firmly onto the small and medium business client, in particular those with “Zero IT” or those requiring a complete “IT Refresh”. The products and services we can offer, fall mainly into the following categories:

- ☐ Bespoke Desktop, Server, Workstation system builders
- ☐ Desktop, Server Integration
- ☐ Network Design and Build
- ☐ IT Project Consultants
- ☐ Support / Maintenance Services
- ☐ Year 2000 Compliance Services

*The Protocol Corporation are an approved Ministry of Defence Contractor.*

## The Intel Alliance

The Protocol Corporation recognises the importance of strategic alliance with the leading vendors of computing technology and the benefits it can offer to both itself and its clients. The Intel Corporation, are one of the worlds foremost suppliers of processors, desktop/server and networking technologies and are the driving force behind many of today’s initiatives to simplify the ownership and management of IT solutions, thereby lowering the total cost of ownership (TCO).

Would you like your PC system tested for  
Year 2000 compliance  
**Free of charge?**

Position .....

Number of PC's .....

Operating System(s) .....

Full Company or School Address

.....  
.....  
.....

Email Address .....

Do you require additional information

- Desktop Server Products
- Networking Products
- Network Installation
- Internet - Email Access
- Support Services

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Return to:  
Jon Diamond  
The Protocol Corporation  
277 Cranbrook Road  
Ilford IG1 4TP  
Tel 0181 554 9100 Fax 0181 554 9435

# NEVER ALONE WITH A LIST

by Diana Rolf

Like other people's children, e-mail Lists are always mildly entertaining, but life changes when you're in charge yourself. Recently an acquaintance who manages the Mailbase List *lis-educ* asked me to mind her List while she popped out to have a baby. Being a long-serving customer of Mailbase I agreed, and off she went (when I last heard, both Mum and Baby were both doing fine!).

Luckily for me Mailbase, at the University of Newcastle, and home to both *lis-educ* and *uk-schools*, is expertly managed and its Lists are all beautifully behaved. This is just as well, because baby-sitting isn't all swings and lollipops - at the end of the day there are noses to wipe. The List Owners get all the routine housekeeping mail which List members are spared. It's a shock when you realise that instead of dipping into your mailbox at random you must read it all in case anything goes amiss - and worse, that problems may brew up if you ignore them. The Freddy Kruger in the mailbox is definitely the MAILER-DAEMON, which slashes into the calm of your morning with automatically-generated error messages - each one means I might have to actually *do* something, like change an address or unsubscribe someone. And worst of all, those irritating headers, often longer than the message itself, take on a startling new significance, because their routing information gives real, as opposed to virtual, addresses and are essential to soothe minor ailments, like bouncing mail or misdirections.

The Newcastle Mailbase handles most problems for us. Their web site, at [\[www.mailbase.ac.uk/\]\(http://www.mailbase.ac.uk/\) is clear and informative. I always thought Listservs were just a row of buttons, but while routine activity is automatic the Helpline is manned by real people, and occasionally startles us with a real message. In March one of the Mailbase staff moved on to greater things as a Helpline Developer, and sent us all a tearful good-bye. Amazingly, she felt she was "leaving a million friends" - in five years she'd handled 45,000 queries! At Mailbase the human element is fostered deliberately to avoid the resentment generated by automation, and the staff stress that "all messages received are read and answered by a person ... a personal service is an important part of a successful service".<sup>1</sup>](http://</a></p></div><div data-bbox=)

As Lists go *lis-educ* is fairly small and quiet - it's for 'Librarians in Education', so the discussions rarely rise above a whisper - there are only 120 members. *Uk-schools* is much larger, with some 506 members, and discussions can get quite rowdy. Unruly Lists can be hard work - as anyone who has experienced a dreaded 'loop' knows to their cost. A 'loop' is where a faulty address combines with a poorly configured e-mail system to generate thousands of error messages to each individual user - a terrible nuisance, and a source of extreme embarrassment for the unfortunate List Owner, who will stay up all night to raise the Helpline to clear the messages then get double or treble the number of mails afterwards in the form of complaints! Mailbase now has loop detection software, so for us this is very rare.

Good watering holes for Listies are the American *Liszt*<sup>2</sup>, at <http://www.liszt.com/>, which has 90,095 Lists, including 11 on K-12 (Kindergarten through to Year 12 - *aka* schools). Another American source is *OneList*<sup>3</sup>, at <http://www.onelist.com/>, also with a search facility. Under the term *education* it has 142 Lists on Computer Science, 122 Lists on Distance Learning, 381 on Education, and 220 on Teacher Groups. Lists can be very specific. *SL\_NET* at Queen Margaret University College, Edinburgh, at [http://jimmy.qmced.ac.uk/~jimmlists/sl\\_net/](http://jimmy.qmced.ac.uk/~jimmlists/sl_net/) is for School Librarians.<sup>4</sup> There are other lists useful to Librarians on Mailbase, like *lis-infoskills* and *lis-elise* (Librarians in Institutes and Schools of Education)<sup>5</sup> - the keyword *education* brings up 100 relevant Lists - but most of them are for users in higher, not secondary or primary education, although *mac-supporters* is useful for Mac users at all levels.<sup>6</sup> *LM\_NET* is for US and International Librarians, and more general information on US education is disseminated on *WWW-EDU*<sup>7</sup>. Reviews of educational resources are occasionally available on the Californian List *ED-RES* (Educational Resources on the Internet)<sup>8</sup>. Some Lists even serve the curriculum: Felsted School in Essex has a List for GCSE Maths Teachers called *maths-gcse-a*<sup>9</sup>; there is an Australian List devoted to Macbeth at *Macbeth Online* at <http://www.scopus.vic.edu.au/students/lit.htm>; SENCOs can swap Special Needs information on *NASENICT*; while *NATO* is a popular source of recent news.<sup>10</sup> Syntax is usually simple and explained at the relevant sites. You join with the command 'join [Listname][Yourname]' but you put the name of the List you want to join instead of [Listname] and your own real name instead of [Yourname]. Other commands are just as

easy - 'suspend' (so it won't clog your mailbox over the holidays), 'review' (to see who else is on it) and 'leave' (when you finally get a life) are the most common. Even these simple commands are too technical for some - for months I tried to contact someone on my List called '[Listname][Yourname]' who responded to my pleas to identify themselves only with paralysed silence.

One of the messages to the retiring Mailbase Helpliner read "How strange e-mail is, we speak to people all over the world, who we very rarely get to meet, yet we see each other as good friends and colleagues" (the Helpliner was in tears all the way to the pub!). Most Lists are free. Most are chatty and welcoming, though "it's hard to find that balance between a group of informed people carrying on their own informed discussions against newbies who fail to read the faq [frequently asked questions]"<sup>7</sup>, and they give a rough ride to salesmen or spam (mailshots). They generate enough messages to fill your mailbox when you're new or when you're down. Best of all, they can provide an almost instant response to an enquiry or an opinion. Whatever your field, after you've joined one, life's never going to be quite the same again!

### Acknowledgements:

I'm very grateful to everybody who helped me with this article by mailing in comments and favourites:

1. The Team at the Mailbase Helpline sent me a statement about their policy  
[mailbase-helpline@mailbase.ac.uk](mailto:mailbase-helpline@mailbase.ac.uk)
2. Recommended by Alan Quicke, University of Huddersfield  
[a.QUICKE@HUD.AC.UK](mailto:a.QUICKE@HUD.AC.UK)
3. Bruce Jackson [BruceyJ@aol.com](mailto:BruceyJ@aol.com)
4. Moderated by James Herring. To join,

just send the message 'subscribe SL\_NET' to listserv@jimmy.qmced.ac.uk - your e-mail address is added to the List.

5. John Makin, Nottingham Trent University, Editor of *Education Libraries Journal* john.makin@ntu.ac.uk

6. David Riddle, Senior Micro Officer (Macintosh Systems), Goldsmith's College, London, runs *mac-supporters* and also recommended *Liszt* dpr@gold.ac.uk

7. Duncan Grey, Head of Resources, Hinchingsbrooke School, Cambs.

Duncan.Grey@a4503.camcnty.gov.uk

8. This List has been quiet for a while. Contact the moderator Lynn Thomas

lthomas@cythera.unb.ca The List e-mail is EDRES-L@hermes.csd.unb.ca

9. Contact Paul Statter, Mathematics Department, Felsted School, Essex pgs@felsted.essex.sch.uk

10. Stephen Smith recommends *NASENICT*, and also the *NATO* Listserv stephensmith@linlade73.freeserve.co.uk

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### STUDY: KIDS LACK NET SUPERVISION

The Roper polling organization conducted a study of 500 households with children between the ages of 8 and 18 and found that parental supervision of children's Internet activities is seriously lacking. The survey, conducted for the National Center for Missing and Exploited Children, finds that 20 percent of parents do not monitor their children's Internet usage, and 52 percent monitor it only moderately. More alarming, the survey also finds that 18 percent of the children surveyed intend to physically meet someone they met on the Internet. Forty-eight percent of parents allow their children to go online every day or as often as they want, and 24 percent of parents do not place restrictions on the length of time their children stay on the Internet. In addition, 71 percent of parents with children age 14 or older no longer supervise their children's Internet use. Ruben Rodriguez of the National Center's exploited child division calls the Internet-equipped home PC the "baby sitter of the 90s." (USA Today Online 05/27/99)

*With apologies to any "cowboys" out there. The following to be sung to the tune of "Rawhide"....*

Loading, Loading, Loading...  
Loading, Loading, Loading...  
Loading, Loading, Loading...  
My server's overloading...  
Keep them users movin'...  
Then Hide!

Space is at premium,  
Year 12 I've gotta move 'em  
So I can free up six gigabytes!

Move 'em out, PDC  
Move 'em in, BDC  
Then avoid the hue 'n' cry  
Move 'em out, PDC  
Move 'em in, BDC  
Re-set per-miss-ions then hide!

Tom Edmunds, Network Manager  
Haberdashers' Monmouth School  
for Girls, Hereford Road,  
Monmouth, Gwent, United  
Kingdom, NP25 5XT

# TRAINING WEEKEND – SESSIONS

## **Saturday, Session 1A**

### **Databases by Vanessa North**

#### **Excel vs Access as a Database**

#### **When to use Excel?**

#### **When to use Access?**

This course is designed to demonstrate the benefits and limitations of Excel and Access for creating databases. It will start with a look at the database features in Excel and move on to the more powerful features of Access. The main aim is to assist teachers in making a decision as to which package is best for a particular task.

## **Saturday Session 1B**

### **Web Authoring by Lyndon Evans**

This is a hands-on session designed to 'get you up and running' in FrontPage.

## **Saturday Session 1C (Repeat Sunday 3C)**

### **Word by Peter Richards**

This is a hands-on session covering: - mailmerge, inserting and using tables, inserting graphics including wrapping, using the inbuilt templates, with emphasis on exercises to use with pupils to teach them the main functions within WORD.

## **Saturday Session 1D (Repeat Sunday 3A)**

### **PowerPoint by Sian Burt**

This is a 'hands-on' course that will show you what PowerPoint has to offer. If you have a specific aspect that you would like covered please write this on your application form.

## **Saturday Session 1E**

### **Internet Access**

The Internet will be available all weekend with somebody in the room to help if needed.

## **Saturday Session 1F**

### **Part 1 - Proxy Server by**

#### **Howard Kirkman**

Microsoft Proxy Server 2 developed in order to improve security with Internet connections. This course will provide an outline of the function and use of this server. There will be an opportunity to see directly how MSProxy can be used to restrict access to inappropriate sites and other security issues.

### **Part 2 - Laptops in Schools by John Fothergill & Richard Bird**

This is a chance to hear some reasons for implementing a school laptop programme. As well as explaining the important issues to do with cost, technical specifications, software, warranty and insurance, John and Richard can answer questions drawing on the experiences in their own schools.

John Fothergill is Head of ICT and laptop coordinator at Bedales School, a coeducational boarding school in Hampshire. Richard Bird is the laptop coordinator at King Edward's School, Witley, a coeducational boarding school in Surrey. King Edward's is one of the 28 pilot schools in the Microsoft 'Anytime, Anywhere Learning' laptop programme.

## **Sunday a.m. Session 2A**

### **Introduction to DTP using MS Publisher by Lyndon Evans**

This session will provide a hands-on opportunity for those who have little experience in Publisher to construct a multi-page newsletter. Lyndon will identify the differences between a DTP package and using a word processor for DTP.

**Sunday a.m. Session 2B**  
**Spreadsheets by Brian Turner, Head of Mathematics at King Edward's School, Witley.**

The sessions will look at different ways in which Excel can be used with groups of pupils at different levels to include:

Basic use to produce charts and graphs.

Inserting formulae to undertake investigations or solve problems.

Using statistical functions to analyse data.

There will be opportunity for hands-on experience and the sessions should be of some interest to teachers of subjects like Science and Geography as well as Mathematics. If time permits it may be possible to demonstrate the specialist graphing package Omnigraph.

**Sunday a.m. Session 2C**  
**Datalogging by Andy Monk**

This course looks at using computers to collect data using Logit Hardware system and Logit software. The nature of the course makes it suitable for both beginners and those of some experience.

**Sunday a.m. Session 2D (i)**  
**Voice Recognition by Peter Hamer of Kirk Hallam Community School**

Peter has been experimenting with Voice recognition at the school and will be able to discuss the subject, give a demonstration and delegates can have some hands-on experience. (Only available on 6 machines so may have to share)

**Sunday a.m. Session 2E**  
**Internet Access - see Saturday 1E**

**Sunday a.m. Session 2F**  
**SuccessMaker by Howard Kirkman**  
There will be an opportunity to use RM's SuccessMaker, their flagship ILS. It will be

available for individual supported use. There will be someone on hand to answer any questions you may wish to raise.

**Sunday p.m. Session 3A**  
**PowerPoint - repeat of Saturday's session - see 1D.**

**Sunday p.m. Session 3B**  
**Designing a Web site by David Palmer**  
This session will discuss possible structures and demonstrate FrontPage templates, which can include search engines, discussion areas and navigation bars. It will also discuss and show how to add multimedia and streaming files.

**Sunday p.m. Session 3C**  
**Word - repeat of Saturday's session - see 1C**

**Sunday p.m. Session 3D**  
**RoboLab - LEGO Mindstorms for schools by a Lego representative.**

In this LEGO will demonstrate their Mindstorms for schools equipment, featuring the RCX. The RCX is an easily programmable 'LEGO brick' that allows the development of systems and control devices. Participants will have the opportunity to construct devices that use the RCX and then to program them from the icon driven software that is used on a PC.

**Sunday p.m. Session 3E**  
**Internet Access - see Saturday 1E**

**Sunday p.m. Session 3F**  
**CAD/CAM by Peter Hamer & Andy Monk**  
This course will be looking at the new CAD/CAM system recently installed at Kirk Hallam. It is an opportunity to see demonstrated how the system can be incorporated in CDT. Depending on numbers there may be hands-on experience.



# PRINTER'S PIE

by Peter Harris

## HOW WE PRODUCE RM USER NEWSLETTER

A Case Study showing how The Editor and Mr. Printer use Microsoft Publisher 98 as a Professional Desktop Publishing Program

### Those were the Days

The Amateur Musical and Dramatic Societies of former times were quite happy to perform "Rose Marie" or "The New Moon" in the local church hall and donate any spare proceeds of their week-long productions to a local worthy charity. Today they perform a West End Show as soon as it is released for the amateur societies and they perform it at the local professional theatre using professional costumes and scenery – and at a loss! So for the rest of the year many money-raising efforts are made – coffee mornings, car boot sales, Christmas concerts, etc.

In a similar way many organisations are seeking to produce professional-quality printed matter. Unfortunately the usual method is to set the job on a PC and then bring a disk to the commercial printer and ask him to produce a catalogue, booklet or newsletter. It is much better to seek his advice before you begin.

### Colour Splitting

We recently were presented with a disk of a twenty-page beautifully-produced catalogue with full-colour clip art set in Microsoft Excel. The twenty pages looked very impressive when printed on an inkjet printer, but the customer was very upset when we

explained that although an inkjet printer can produce a composite full-colour output the commercial printer has to print a colour at a time – and Microsoft Excel has no facilities in the Print Dialogue window to colour-split. It took me on-and-off during three weekends to change the keystrokes from Microsoft Excel (a spreadsheet) to Adobe PageMaker (a desktop publishing program), which can colour-split four-colour images.

### Setting Up

Our Editor produces the Newsletter in Microsoft Publisher 98 – which has roughly three-quarters of the desktop publishing software market – and fortunately this program has colour-separating built in – if you know where to look!

If you wish to produce a newsletter that is to be printed on a printing machine and not on an inkjet printer or a colour laser printer, when you have used a "wizard" to set up your publication (or started with a blank publication), you go to the File menu and choose "Prepare File for Printing Service – Set Up Publication." The wizard then takes you through various choices including using one or two spot colours in the publication (which you choose from Publisher's colour palette). Henceforth your colour choices are

restricted to these one or two colours or tints of them. As the "Set Up Publication" dialogue box states: "Any colors in your publication other than the one(s) you choose here will appear as black or gray, on your screen and when you print."

It is very important to realise that Mr. Printer is not concerned with what the colours are that you pick, only that the colours can be separated when the file is sent down to an imagesetter. When Mr. Printer puts separate plates on his printing machine to produce the final job the spot colours are the colour of the ink that he puts on his machine and not necessarily those that Publisher has used.

This means, for example, that if you produce your Newsletter in Publisher and choose your spot colour as blue, if you change your mind, when the program colour-splits the file Mr. Printer can make the spot colour green by using green ink. All that matters to him is that a colour-split has taken place.

If you click the "Options" button in "Step 1" you may wonder what "Overprint black text under 35 pts" means. The technical term that we use in the printing industry is "to knock-out".

When we print black ink on top of another ink it is usually strong enough to still print as black, but ink-on-ink takes longer to dry so sometimes we ask the program to "knock-out" what is to be printed in black so that, in effect, the black is printing on white paper not on top of a coloured ink.



**GREY**



**GREY**

**Step 2 What printer will you use?** This is the next window in the Set Up Publication wizard and the default "Use Publisher's commercial printer driver" is the one to use. The printer is then set to MS Publisher Imagesetter, not to the one that you have attached to your PC (Canon or Epson or Hewlett Packard etc.).

**Step 3 What printing options do you want?** The defaults "Automatically choose 'Extra' paper sizes" and "Show all printer marks (crop marks, registration marks, spot color name)" again are fine. If you intend to produce a lot of work that will go to a commercial printer you would be well advised to buy an A3 inkjet printer (we use the Canon BJC 4650, which costs under £200) as this prints out an A4 job on an A3 sheet and shows the registration marks etc.

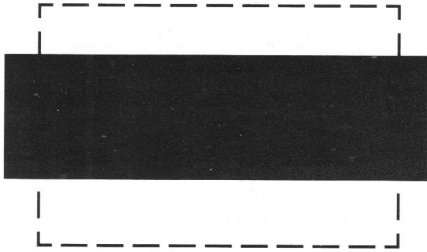
When we print a two-colour A4 job we use paper which is larger than A4 and then trim down to 210mm to 297mm. In the extra margins we print the registration marks that enable us to make sure a printed straight line is perfectly parallel to the top of the sheet. For our A3 work proofing we use an Epson Stylus Pro XL which outputs on a Super A3 sheet, again enabling us to see the registration marks.

If you print out "The Printing Service Checklist" you will find it useful. Then click "Done."

## **What does Mr. Printer expect to receive?**

As you work in this special mode in Microsoft Publisher, when you wish to check your work you simply choose "Print Proof" and produce a composite output using the printer attached to your PC. It is advisable to use "Design Checker" in case you have unknowingly made any errors.

When you are satisfied that the Newsletter is ready for commercial printing you again use “Prepare File For Printing Service” but this time you click on “Create File in Postscript.” In the “Create Postscript File” dialogue window click on “Print Color Separations,” “Show all print marks” and “Allow Bleeds” (a Bleed to a commercial printer is when a shape such as a rectangle or a circle runs off the edge of the sheet; it is printed past the edge of the sheet and then guillotine-trimmed so that no white is showing).



You then click on “Print To File.” In this dialogue window you name your file with a .pm extension and navigate to where you wish to place it. When you click on OK and the file has been printed a message appears: “Remember to bring a copy of your final proof and InfoSheet to your printing service. Would you like to print these documents now?” If you click on yes the program produces black-on-white outputs of what Mr. Printer is going to use to produce a composite finished job, and a sheet containing information of what fonts and logos have been used. For example, if the job is an A4 four-page Newsletter to be printed in black and two spot colours the printer attached to your PC will output twelve A4 sheets in black and white.

It is important to bring to your printing service copies of the fonts you have used

(especially if they are not very popular ones) and copies of all the logos and clipart used. Although a picture of the logos or clipart can appear on screen, unless a link is established to an original file the imagesetter cannot output the job.

## Using the Internet

Although our Editor lives less than three miles away from our printing works, we usually communicate via the Internet and the Newsletter arrives as an attached file in Outlook Express.

The postscript file that arrives cannot be edited unless we buy very expensive software programs that we wouldn't use very often; so using Distiller in Adobe Acrobat 4 we turn the postscript file into a .pdf (Portable Document Format) file that we can edit to some extent. For example it is possible to highlight text and change a telephone number or the colour used. It is not possible to change more than a line at a time.

The .pdf file is then transferred to our Apple Mac and sent down to our Imagesetter.

## Limitations of Microsoft Publisher 98

In my younger days, because our grammar school had half-days on Wednesdays and Saturdays, on Wednesday afternoons and Saturday afternoons I used to go watch Yorkshire County Cricket Club play at Headingley, Leeds, or Bramall Lane, Sheffield, or Park Avenue, Bradford. In those days the captains were still amateurs, and there was an annual Gentlemen v. Players match. When my grandfather played cricket for Northamptonshire, there were separate dressing-rooms for the professionals and the non-professionals. Gradually, with the change in social circumstances the distinction was

abolished; rugby union has recently turned professional. Desktop Publishing has shown similar progress; there is now little distinction between what we as commercial printers use and what our customers (as “amateurs”) use. So what are the main differences between Microsoft Publisher, which as mentioned above has three-quarters of the Desktop Publishing market, and Quark XPress, which has 90% of the Web Offset work produced in America and which is used by most professional designers.

We recently received a file to produce 30 A4 full-colour posters on our inkjet printer (which was no problem), and also to produce 20 A3 full-colour posters using the same file – which was a problem. Publisher has no facility in the Print Dialogue window for enlarging or reducing. If you open the A4 document and go to Page Setup / Special Size / Custom / 29.7 cm x 42 cm the A4 then appears in the middle of the A3 page. If you go to Select All / Arrange / Group Objects and then enlarge in proportion with the shift key held down only the logos or clipart are changed; the type stays the same.

In Quark XPress or Adobe PageMaker, if you set an A4 leaflet you can output it at 71% (A5) or 141% (A3).

Other limitations are linked to precision control of colour and of such things as trapping and kerning.

Publisher has a very good colour palette but it is not precise or device-independent. The professional DTP programmes use, among others, the Pantone Colour Library for specifying colours. This means, for example, that if they specify Pantone 185 the commercial printer knows which shade of red to use as he refers to his Pantone Colour Swatch.

In Publisher’s “Prepare File for Printing

Service / Set Up Publication / Step 1 / Options” if you remove the check mark against “Overprint Black Objects” this means that if you superimpose a black object on top of, say, a coloured rectangle, it is “knocked out” of the rectangle enabling the black to be printed on white paper. However, when this occurs, the commercial printer does not want to print an exact version of the black object to be used, as if his printing is the slightest bit out of register some white will show. Accordingly, using the “Trapping” preferences in the professional programs the black object is enlarged ever so slightly so that it overlaps the white space left for it. The default is set at 0.1 mm but is adjustable.

**KERNING:** When large capital letters are used in headlines the commercial printer adjusts the space between the letters so that they are optically equal. If a capital “T” is placed next to a capital “N” it needs some space adding so that it looks the same as when a capital “A” is placed next to a capital “Y”.



The opposite option can be used: the capital “Y” can be moved closer to the capital “A” – the professional programs have an accuracy of one-thousandth of a point.

## **The Future of DTP**

This summer the professional designers are eagerly looking forward to a new rival to the supremacy of Quark XPress, which costs over £650 street-price (Microsoft Publisher is available from mail order at about £70):

Adobe is repositioning PageMaker as a rival to Publisher and calling it “Adobe PageMaker 6.5 Plus” and pricing it at under £300, and introducing a new program called Adobe In-Design. This program will be able to open PageMaker files and also save files as .pdf. This is very important nowadays as more and more work is being designed and then used in different ways – as printed matter, on a CD-ROM, or on the Web – and .pdf is very flexible in this regard.

## **PUBLISHER 2000**

### **Many Improvements for the Commercial Printer**

“Documents created in Microsoft Publisher have long caused output headaches at printers and pre-press houses through a lack of professional separation features” – so writes a journalist in one of our trade journals. But this is set to change with the introduction of Publisher 2000, which Microsoft hopes is so good that professionals will use it in preference to Quark XPress or Adobe PageMaker.

“Microsoft Publisher 2000 Companion” – a very comprehensive and well-written book – has a Chapter 6 entitled “Commercial Printing” and this addresses most of the concerns I mentioned above. It still does not seem possible to output a job set in A4 format as either A5 or A3. The other main problem we still have is that if the customer has sent an A3 newsletter as four A4 pages we cannot go into the file and change the format to two A3 pages (as we can in Adobe PageMaker or Quark Xpress). In the Print Dialogue box there is an option to print four A4 pages as two A3 pages, but, on our machine, text and clipart were misplaced.

The other day, when I was talking with one of our friends who runs a film-setting bureau, he told me that the top of his wish-list was

not for some new software or for some improvements to existing software, but rather for “a means of educating my customers in what I need.” In our own experience as printers we find that when quoting for a job and the customer says “I shall be bringing it in on disk” it is as well to assume that we shall be setting the job as it sometimes takes us longer to correct the job than if we had started it from scratch and done all the setting ourselves!

Microsoft have tackled this problem head-on and come up with great improvements to Publisher so that it now supports:

- Black-and-white printing, spot-colour printing, and full-colour printing
- The use of the Pantone Colour Library
- Automatic and manual colour trapping
- Linking of photographs, clip-art etc.
- Collection of files to take to the commercial printer using a brilliant feature called “Pack and Go.”

### **Pack and Go**

You can take your job to the commercial printer on disk or send it via the Internet in two file formats: as a Publisher file or as a Postscript file. If you use the latter you have to make certain that you have all the files you need, that you have linked all the graphics, and that you have included all the fonts used in the publication.

If, on the other hand, you use the “Pack and Go Wizard” this makes it very easy for you to deliver complete and correctly-prepared Publisher files for commercial printing. You just set your job as you would normally, use Design Checker, and then Pack and Go.

The commercial printer, on receipt of Pack and Go, simply opens his copy of Publisher 2000, double-clicks on **Unpack.exe** and types the path to the folder where he wants the unpacked files to go. *Terrific!*

# The Mighty Mouseover

by Heidi Pollack

So there you are, surfing the net, scrolling across a web page, only half interested in the content, when suddenly out of nowhere a bland, black bullet point turns bright red and without thinking you click on it. Another victory for the tiny but mighty mouseover!

“Mouseover” is the term used to describe an image that changes whenever your cursor glides over it. A mouseover is wordless shout-out. A “hey, look at me!” The show-off of graphical web design. While I’ve seen plenty of mouseovers that add nothing more than a cheap bells+whistles effect to a site, there are certainly a number of great uses for them. As a visual indicator they are incredibly useful when used in conjunction with small image text. How many times have you loaded a page you didn’t want simply because you miss-clicked on some minuscule piece of gif text? If you’re going to bother designing your pages with navigational text images instead of using straight forward text you might as well consider taking the extra step and take advantage of mouseovers to communicate even more dynamically with your audience. Another use of mouseovers that meets my persnickety design standards is when they’re used to provide more information about the object underneath the cursor. For instance, a product picture might transform into a price on a mouseover, communicating the cost only to interested viewers and keeping the overall page design more streamlined and less cluttered. Ultimately the mouseover is one of the most common dynamic imaging tricks because it’s small, fast and easy to write. How easy? Just keep reading.

Before you can include a mouseover effect on your web page you’ll need two images: one image for the regular display (the “Off” image) and one

image for the mouseover (the “On” image). Most mouseovers are used in conjunction with small images. Since you want the effect to be immediate you won’t want to use large images that force your audience to wait. For this reason mouseovers tend to be written for small .gif images of text or buttons. It’s important to use images that are the same size because the image that appears on the mouseover will size itself to the image that appears normally. The final caveat that bears mentioning is that a mouseover won’t work with an imagemap. To write a mouseover, you begin by inserting the image you want displayed under normal circumstance (what I think of as the “Off” image) with a basic image tag. In the following example I’m going to describe how to make a blue happy face (“blueface.gif”) turn into a red happy face (“redface.gif”) whenever someone puts their cursor over the face. Since I want the blue happy face to be the “Off” image I’ll begin by writing: `<IMG SRC="blueface.gif" ALT="[Happy Face]">` The first step in transforming the standard image tag like the one above into a mouseover tag is to give it a name. You need to name the image so that when you write the code for the mouseover you’ll have some way of referring to it without confusion. To do this, insert the NAME attribute into the IMG tag using a simple name (i.e., avoid using spaces or punctuation in your names). I’ll call my happy face image by the name “face”:

```
<IMG SRC="blueface.gif" NAME="face"
ALT="[Happy Face]">
```

Next you’ll need to put the image inside a normal `<A HREF>` tag just as you would for any other kind of image link. Might as well link my happy face to with its smilie brethren at the EFF:

```
<A HREF="http://www.eff.org/papers/eegtti/
```

eeg\_286.html">  
<IMG SRC="blueface.gif" NAME="face"  
ALT="[Happy Face]"></A> So far it's pretty  
simple isn't it? In fact, I'd be surprised if you're  
not falling asleep from all the familiarity.  
Truthfully, the rest isn't really that complicated  
either. The only thing left to do is to add two  
attribute phrases to the <A HREF> tag and the  
static image becomes a changeling. The two  
attributes you'll need are OnMouseOver and  
OnMouseOut. Set the OnMouseOver to point at  
the image you want to use when a mouse goes  
over it and set OnMouseOut to the image users  
see normally. For my example the code would  
be:

```
<A HREF="http://www.eff.org/papers/eegtti/  
eeg_286.html"  
OnMouseOver="document.face.src='redface.gif';"  
OnMouseOut="document.face.src='blueface.gif';">  
<IMG SRC="blueface.gif" NAME="face"  
ALT="[Happy Face]"></A>
```

The first thing you should notice about the above code is that the image's name (as specified by the IMG tag NAME attribute) goes in between the "document." and the ".src". If I'd named my image "my\_face\_image" then my OnMouseOver attribute would have been: OnMouseOver=

```
"document.my_face_image.src='redface.gif';"
```

The other two things to note are that you absolutely have to use single quotations around the image file names and you absolutely have to include the semicolon at the very end just before the closing double quotation. This formatting isn't arbitrary. The number one cause of broken mouseovers is faulty syntax so always triple check your code. (By the way, you can see this example in action at: <http://sites.netscape.net/heidipollock/mouseover.html>) That's it. You're all done. In case you're wondering, the mouseover code is Javascript. The downside with using Javascript is that a small but persistent percentage of web surfers won't be able to see your mouseovers because their browsers don't understand the language. But the upside is that now you can tell all your friends and colleagues that, sure, you've worked with Javascript.

*This article is reprinted from [www.cnet.com](http://www.cnet.com) with the permission of the Author - Heidi Pollock who is a frequent contributor to Web Site Journal and can also be found dispensing her Web site knowledge to the masses on HotWired and iVillage. In her spare time she likes to conjure up images of baklava and wreak havoc on her netizen friends.*

## Shoptalk

by David Palmer

Sorry this is a bit squashed - but I had a lot to fit into the issue. I have been busy kicking the tyres on Citrix & Linux servers. I have been on at RM for ages to get into Citrix before it overtakes them!! My first impressions of Citrix Winframe have all been good. Linux is very impressive too, albeit harder work to set up than Citrix. You can run trial Citrix sessions on their server at [www.citrix.com](http://www.citrix.com) and I suspect that you will find it quicker to open Word that way (even over a modem) than on your local machines! If you are

worried about having to re-format a machine to try Linux, have a look at Skygate. Other Linux distributions require users to repartition their hard drives if they want Linux to coexist with Windows 3.x, Windows 95, Windows 98 or Windows NT. By contrast, Skygate Linux can be installed into a DOS partition and started from another operating system; suitable operating systems are DOS, Windows 95 and Windows 98. Check [www.skygate.co.uk](http://www.skygate.co.uk)

## GOT A PROBLEM?

One of the main functions of the RM User Group is to assist members who are having problems with either hardware or software, no matter how trivial or complex that problem seems to be. Members of the committee have a wide range of experience in the use of RM equipment, including systems no longer in production, and can be contacted in the evenings or at weekends...times when you are most likely to be mulling problems over and when RM's own Customer Support lines are unavailable.

RM themselves do not claim to have extensive knowledge of products which they don't produce themselves (such as Excel or Page Plus), and although they can tell you how to install such packages on their equipment and how to get started, they cannot be expected to give you in-depth support in using them. On the other hand, the RM User Group has a membership drawn almost exclusively from teachers using these products on a daily basis and consequently have probably "been there, done that, bought the T-shirt" and most likely even "made the jigsaw" too.

So do get in touch with a member of the Committee (see elsewhere in the magazine for contact details) if you are experiencing some difficulty or other or want some advice. If we can't solve the problem ourselves then we probably know someone who can, and if even that fails we can publicise the problem in the RMUG Magazine.

### GOT ANY HINTS AND TIPS? GOT ANY GOOD TEACHING IDEAS INVOLVING IT?

If so, your magazine needs you! Look...it's like this: the RMUG magazine is entirely dependent upon contributions from members to fill its pages. This means you! We know for a fact that some members shy away from contributing articles because they feel themselves not to be experts. Don't kid yourselves: if you've done an interesting lesson in your subject from an IT point of view, then you're an expert and we'd like to hear about what you did. What you write doesn't have to have high "nerd appeal"...in fact, forget the "anoraks" completely because most members are normal people like you. Honest.

The editor welcomes all manner of items from "one-liners" to classroom ideas and software reviews, so get writing and make his day (he'll even pay £5 per printed page if he likes it.....Just think: two two-page articles and you've got your annual membership fee back.....).

If (If? When, surely?) you do write an article then the best thing is to submit it to the editor as a disk file in Word for Windows or Windows Write format. He's a reasonable chap so other word processor formats are probably OK too, but it would be worth checking first in case he hasn't got a copy of Edlin Lite for Windows 95. Alternatively you can e-mail it to him or sharpen a few goose quills (but please **not** carrier pigeons: they just make too much mess).



# Membership Form

Please use capitals

Mr/Mrs/Miss/Ms .....

Job title (if appropriate) .....

Address .....

.....

Postcode ..... Telephone .....

I enclose a cheque payable to RMUG/order for £25. If you are not enclosing a cheque then please send an official order, indicating clearly to whom the invoice should be sent.

In order to serve our members better we like to know something about them and what they do with their computers. The information you give is confidential .

Are you involved in education?

Yes  No

If yes, with what age range do you work:

below 11  11-18  18+

Do you use a computer at home?

Yes  No

If you object to your details being passed on to other members of the user group, please check this box

Please send your form and payment to:

**RMUG, FREEPOST, Esher, Surrey, KT10 0BR**

You may photocopy this form if you do not wish to cut your magazine.

# **A2Z Computing**

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