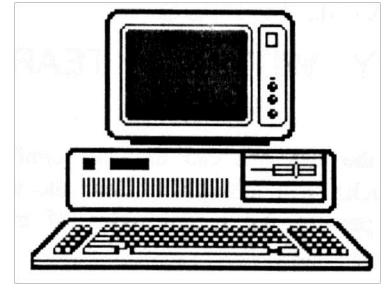


# HOT KEY

Journal of the IW PCUSER GROUP - (IBM COMPATIBLE)

December 1991 - Issue 3

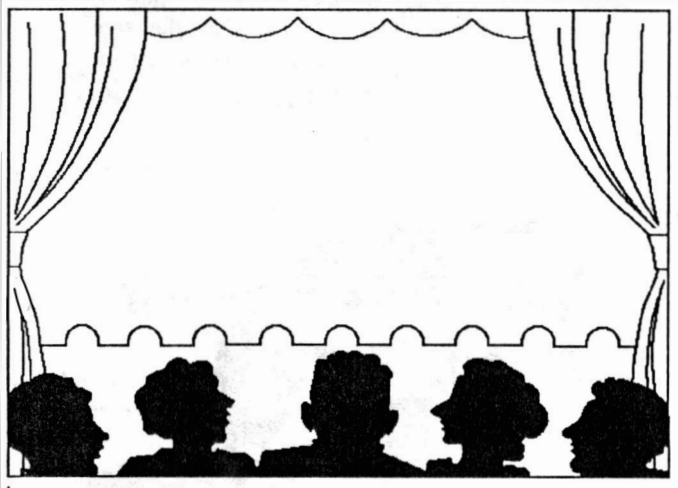


## SHOW DRAWS CROWDS

600 persons attended the Annual Show, held on Sunday 24th November. The Royal York Hotel, Ryde was the venue this year for the first time and seemed to be a successful location, according to a report from the organisers. Stand holders are keen to repeat the event next year.

Summarising the event at the AGM, Jonathan Burt thanked his co-organisers, Denny Linzmaier, Brenda Bogacz and Steven Belcher for the success of the event which made a profit of £380 for the club. The sale of

raffle tickets just covered the cost of the first prize: an Amstrad PC1640 with colour VGA. Many other prizes were donated by stand holders and there were a few prizes of free club membership. (See also IW County Press, 6th December, page 5).



## AGM REPORT

At the Annual General Meeting, held on 4 December 1991, the following committee was elected:

President: Norman Echlin; Chairman: Gary Early; Secretary: Brenda Bogacz; Mem Secretary: Denny Linzmaier; Treasurer: Denny Linzmaier; Speaker Organiser: Sean Colson; Advertising: John Broad; Resident Guru: Mike Parsons; Journal Editor: David Broughton, assisted by DTP Advisor: Roger Skidmore.

The show organisers were congratulated on their magnificent success. Discussions were held regarding a suitable location for next year's show as well as a better location for our own regular meetings. After the general business, Mike Parsons gave part two of his talk on the more obscure parts of CONFIG.SYS and AUTOEXEC.BAT, dealing also with the role of the Environment Space.

## EDITORIAL

Many thanks to Jan Moth and John Broad in responding to my appeal for articles. Only part of both their contributions appear in this month's edition. Please keep them coming. Items for publication are wanted on: Software and Book Reviews; Technical Tips; Small Ads; Technical articles; Puzzles. Please send all contributions on floppy disk to: HOT KEY Editorial, ## \*\*\*\*\* \*\*\*, Freshwater, IOW, PO40 #\*\*. Telephone #####.

## VIRUS ALERT

It was nice to read in December's issue of Shopper the article and evaluation of some of the Anti Virus programs available, and also of the mention of the Tequila Virus. I write this short article for information to members as I personally do not think the article goes far enough.

I first encountered this little sod (Tequila) in the early part of this year whilst engaged as a Consultant on the mainland. A customer was having problems with his hard drive (330 Mb & networked!). Previously well behaved programs were crashing and refusing to load again.

Upon examination I found his partition table trashed!. Now repairing a hard disk is not too bad (especially as he had backups). The art is discovering why it went bad in the first place. He was a distributor of programs on floppies and used this main machine to test out returns from his client base. This alerted me to the fact that it puts him in a high risk category of infection.

Most if not all miscreants who write these viruses have to stick a message somewhere. This seems to please them in some disordered way, but it does give one the chance to hunt the code for some asinine statement!.

I will not bore you with the time it took, only to say eventually up came the message "Tequila Sunrise etc etc ... Switzerland!!!" (shortened form). Now the first thing good computer folk do when they find a new strain is pass the word quickly and believe it or not my machine code guru mate! the other side of the country had experienced the same the week before on one of his client's machines.

He had already assembled a little COM program to hunt for contaminated files and one was winging its way to me. Meanwhile, the only way I could get my customer's drive back to ship shape was to perform a low level format and re-install from a backup of some months previous. Within a couple of days Find\_T.exe arrived (Ok so he is not original in file names) and I was able to locate the offending files and dispose of them. Fortunately they were not on his backups.

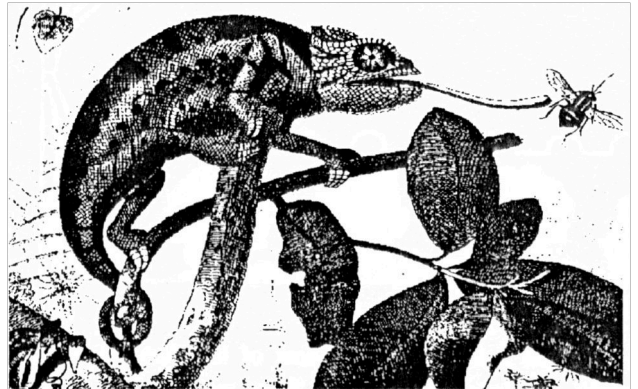
I am not a virus or computer expert. The good Doctor Soloman IS. His program now in version 5.18 is the only one I would recommend. This is the only aspect that I agree with in Paul Mullen's article. What I disagree with is the fact that this virus is not destructive!. It trashes the partition table and spreads like wildfire. None of the Antivirus programs found this at the time although Doc's Toolkit has been upgraded and subsequently does. To the best of my knowledge it's still the only one that does apart from my mate's little EXE file but that just searches for the Tequila.

***John Broad.***

P.S. Yes I did, along with others, alert the Computer press but sadly no response. I know they are very sensitive in this area and I agree they shouldn't be alarmist but after all they do reach the greater numbers. Who knows, they may even read this!!

## BUG OF THE MONTH

The worst of several bugs discovered this month was in Microsoft's XCOPY (the version which you get with MS-DOS 4.01: I was unable to test the 3.3 version). I use XCOPY when backing up my hard disk, and I therefore use the /M and /S switches. The /M switch tells XCOPY to copy only files with the archive attribute set and to reset it after copying. This avoids copying the same file more than once if it hasn't been changed. The /S switch tells XCOPY to copy all files which match the file specification given in all subdirectories and to copy them to the destination in the same subdirectories. This ensures that the tree structure on the archive floppy is the same as that on the hard disk. That is what it is supposed to do, anyway.



Recently I began to discover files on my backup disk in their wrong subdirectories. Not only that, but the archive bits had not been reset so that on the next run of the backup batch file I got another copy of the file, and in a different subdirectory!

It appears that XCOPY is getting confused about the path names of files it is copying. This is likely to happen when there is an extra subdirectory in the path which does not exist on the destination disk. For example, I have a subdirectory HK for all HOT KEY articles sent to me which is divided into subdirectories for each issue. This file, for example, is in \HK\DEC91. Now if subdirectory HK does not exist on the destination floppy when I do a backup, XCOPY will copy this file to a subdirectory DEC91 sprouting from the root or some other subdirectory it has copied some other file to. The precise rules of how it goes wrong are not easy to fathom, but it can be made consistently to create the wrong subdirectories into which it copies files. It is when it gets these subdirectory names wrong that it also fails to clear the archive bits, so the two problems are related.

I managed to borrow a copy of Digital Research's version of XCOPY and I can tell you that it does not have the same bugs (I nearly wrote that it does not have any bugs!).

***David Broughton.***

## PUZZLE CORNER

Last month's puzzle was to find the dates of birth of Mary, Ann and Julia who were born in that order each on Thursday 24th August, six years apart. I should have added an extra sister because there are four dates like that which are 6 years apart which occurred in 1893, 1899, 1905 and 1911. So there are two answers: Mary could have been born in 1893 or 1899.

Ian Moth used the algorithm given at the BASIC class to help him solve the problem and found that there are many answers like the above, all 400 years apart. But all the other answers are excluded because that algorithm only applies for the Gregorian Calendar which started in 1582 (though it wasn't adopted in Great Britain until 1752). Previously to that the Julian Calendar was in use where the cycle of Thursdays 24 August (or any other date except 29 February) repeat every 28 years in steps of 6,5,6 and 11 years.

## THIS MONTH'S PUZZLE

Alfred has managed to produce widgets at £5.99 each whereas Brian makes a better product but has to charge £6.99 for his. Their total sales of widgets one quarter comes to £3000 exactly. How many widgets were sold by Alfred and Brian?

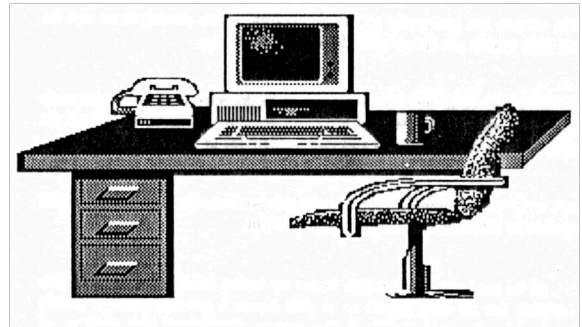
## WHY I HAVE GOT A PC.

It is official: I have no aptitude for Computers. I know this because one of my very first job interviews was at the IBM factory at Greenock. It was in 1970 or 71, and amongst the vast battery of forms and interviews they gave me was an aptitude test. This, they informed me later, I failed, so the only thing I got out of Big Blue was my train fare. Was I disheartened? You bet I was, it took me ages to get a job, but it did provide me with some minor satisfaction that when I did eventually find employment, it was programming. Why am I telling you all this? No reason at all really, but older PC Users may smile with recognition and nod, "yes, that's how it was. I remember it well" and younger members will gasp with astonishment at the way things were before PCs were invented.

As a school pupil, I was red hot with log tables and slide rule (I won't describe log tables - you young' uns would die laughing) and as a special treat our class was taken on a visit to the local Tech', which incidentally was Paisley College of Technology, to see "Mathematics in action". In this fairly large room were several dozen women of varying ages rattling away like billy-o on mechanical counting machines; right arms whirling away on the handles and lips mouthing the number of turns, forwards for multiply, backwards for divide. Carry overs were punctuated by little bells so the noise in the room was terrific. All of them were engaged on one calculation - part of a stress analysis. Think about

it the next time you drive over a bridge which was built around 1968. One of the most amazing things about this memory, is the fact that Burroughs Machines Ltd, who made these comptometers in a factory not far from that very place, went on manufacturing them for years after electronic desktop, and then pocket, calculators came on the market, in a futile attempt to shrug off the inevitable. They may as well have made wing collars and oil lamps.

It would be hard to overstate the sense of awe which greeted the arrival of the first Pocket Calculator to the Shock, Noise and Vibration dept of YARD Ltd



(Yarrow Admiralty Research Dept) in Glasgow in the early 70s. It had an incredible array of built in functions, produced an answer (to ten figures!!!) instantly and did all this on a pair of nicads. It cost an absolute bomb but what do you expect in space age technology? Hewlett Packard calculators still cost a bomb even now but they are the only ones that still do reverse polish logic - the only way for a mathematician's calculator in my opinion (Algebraic notation is for housewives). I can remember staggering away in a state of technological shock back to my "big" computer terminal room to crunch some really heavy numbers, wondering how long it would be before the job I was doing could be done on my desk.

I was at that moment analysing the effect of depth charge attack on Nuclear Submarines. The computer crunching the numbers was actually in Cleveland, Ohio, and belonged, I seem to remember, to General Electric Inc (that's the American GE, not Amie Wienstock's outfit). We communicated via telephone lines, various telephone exchanges in USA and Scotland, and a satellite in Geostationary orbit over the Atlantic. All the faults that ever occurred turned out on the Scotstoun (Glasgow) exchange. The terminal was an ordinary teletypewriter which consumed paper by the roll and ran up the most enormous phone bill you can imagine. The MoD paid the lot without demur, accepted the reports, plans and recommendations, and then scrapped the project.

I left YARD fairly soon after that and did not touch a computer again for over five years.

**Ian Moth** (Part 2 of Ian's "biography"? will be printed next month. Ed.)

## SOFTWARE REVIEW - 4DOS

4DOS is a Shareware program that substitutes for COMMAND.COM and gives the ordinary DOS user a vast number of additional operational facilities. The registered version costs £29 + delivery and VAT, and comes with a printed manual. The Shareware version has a manual on disk.

I have been using 4DOS for about a month and would not like to go back to COMMAND.COM again. To list all the features would take up too much space so I will mention only those that I like using.

The DIR command is one of the main improvements, the default options being to display the subdirectories first in upper case with files in lower case with the dot between the file name and extension and in alphabetical order. But one can choose any of several sorting orders including date or size or reverse normal.

Because file names are generally not long enough, extra descriptions can be added to all files which are listed with the directory listing.

A lot of thought has gone into the software to make sure that the commands are as compatible as possible with normal DOS commands, though they do not apologise for removing some of the inconsistencies of DOS.

4DOS needs only 4K of memory for its resident portion, the non-resident part being swappable in XMS or EMS memory, if present.

Batch files can be made to work much faster by being RAM resident. On line help is available for all commands so if you haven't got the manual handy you have a quick reference guide on the screen. Command line editing, of course, is available like DOSEDIT except that there is a much larger command history store. The command history is also selective so that you can type DEL, for example, and then when you press uparrow you get the last use of the DELETE command. Multiple commands can be given on the same line. Alias's permit one to make up one's own operating system commands, with own defaults.

The EXCEPT command prevents another command from operating on certain named files; thus you can delete all EXCEPT certain files. This is very useful I find.

The SELECT command is a powerful feature which enables another command to be applied selectively. A list of the selected files is presented where one can "point-and-shoot" at those where the command is to be applied to delete, for example.

As I said at the start, there are far too many features of 4DOS to review in such a short space, but the Shareware copy can be easily obtained to enable anyone who is interested and who works at the DOS level to try it.

**David Broughton.**

### ERRATA

Re page one - the show organiser was Steve Bogacz, not Steve Belcher (although Steve Belcher is a very nice chap). Jonathan Burt is also a member of the new committee - in fact he is the show organiser.



**MEMBERSHIP RECRUITMENT!** Please tell your friends about our group! There must be 1,000's of PC's on the Island and we only have 0.032 thousand members. Where are all the others? Our group has a duty to bring the fun of PC use to the thousands of users out there. Please help spread the word!

### THE EDITOR'S PROGRAM OF THE MONTH

This month's program is named CRC, which computes a "cyclic redundancy check code" or crc on any file or a group of files. A crc is simply a number which is associated with a file of data (usually used in communication systems) which has the property that if any one single bit of data has changed or has been copied in error, the crc will change. By keeping a record of crc's associated with each file, any change can be detected by recomputing the crc. More usefully, it can tell you if two files are identical in all respects. If their crc's are the same, then the files are (with very high probability, though without absolute certainty) identical.

There are two popular methods of computing crc's. Digital Research uses one method for use in their XDIR command with the /C switch. The data compression program LHA uses another.

The program CRC computes both of these and presents the result in eight hex digits. It is available free from your editor.

**David Broughton.**

**STOP PRESS!** Next month the two meetings of the group are on Wednesdays 8th and 22nd. This is because the first Wednesday falls on New Year's Day, and we suspect everyone will be enjoying themselves too much to think about coming.

For Wednesday 8th January we have a talk/demonstration on an Acorn 5000. The less formal meeting will be on Wednesday 22nd January starting with David Broughton's BASIC chat.

In February the meetings will be as normal - 1st and 3rd Wednesdays. In 1991 all meetings are booked for the Hunnyhill room, Riverside Centre so we hope you find this an improvement.