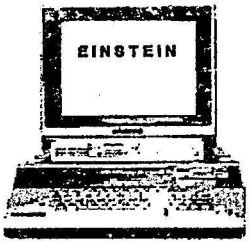

Einstein Magazine

& ALL MICRO NEWS

Number 102

Published for users of Einstein (and other) computers

By RPM Society

Publisher and Secretary:
A E Adams, Ivy Cottage, Church road, New Romney, Kent TN28 8TY

****

Editor: Bob Deeley
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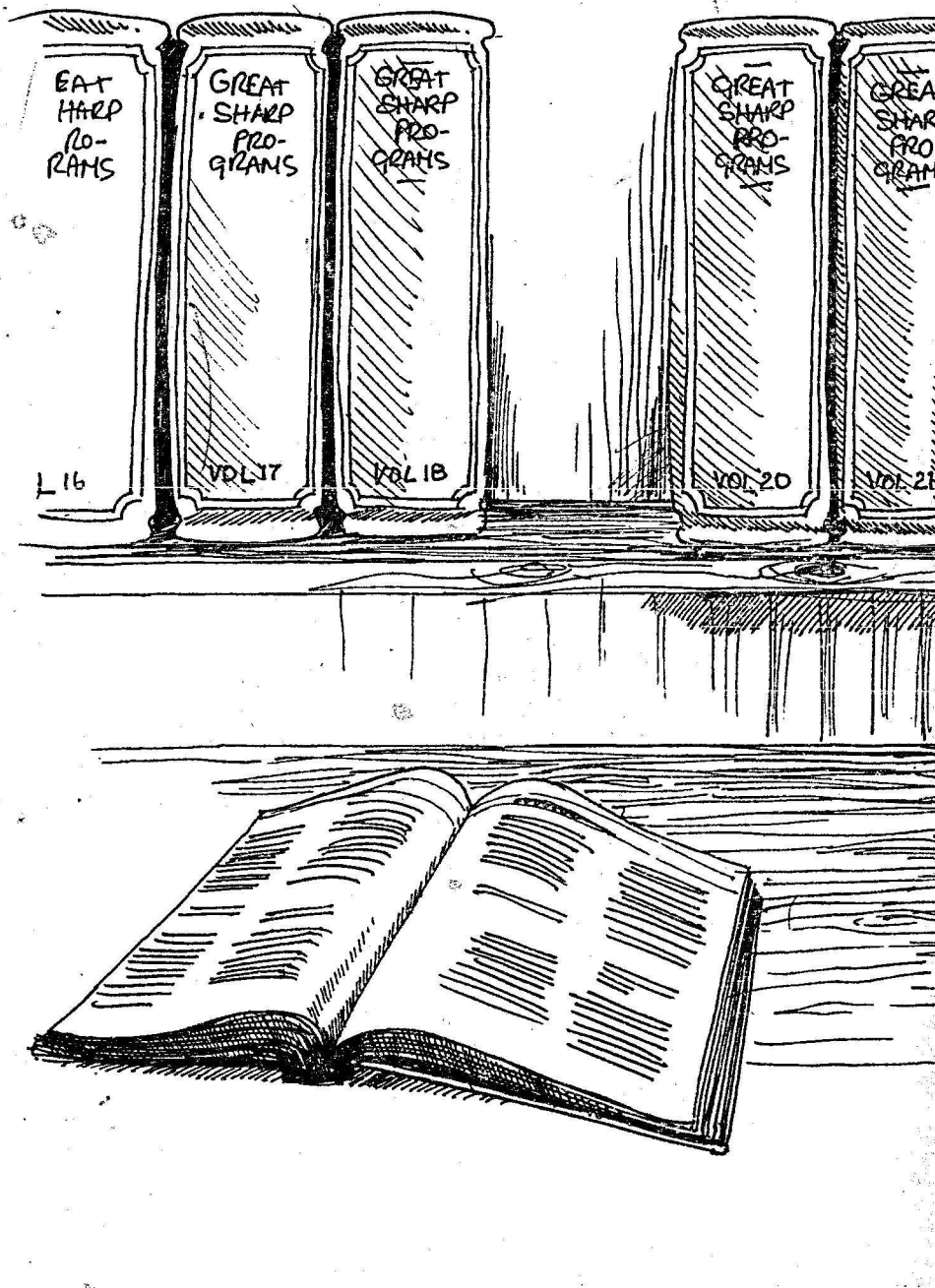
EAT HARP PRO- GRAMS
GREAT SHARP PRO- GRAMS
GREAT SHARP PRO- GRAMS
GREAT SHARP PRO- GRAMS
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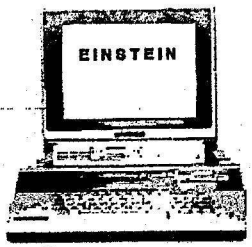

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Trouble with Word

I know it shouldn't have, but, Tony's word2000 problems offered reassurance, a sense of mild requital crept over, as I mused over his curses, "Lost this * * five times!" - I hope it wasn't smug satisfaction. Rather, I should have been disturbed. Another person that can't be enquired of... 'How does one do this/that?' Reading between the lines, Tony had struggled – I think it's fair to say - to produce a one-page note. Must be a first! 'Wasted enough time get this out' was the gist... I believe. *Apology about the exposure.*

Yes this journal is a produced on Word2000 not a DTP app., with just a little hair pulling, foot stamping, head burying in hands while hopping about in a crouched position - you know the sort of John Cleese Fawlty Towers kind of thing - just to complete the ritual.

At one point I thought I had lost ten hours work, on the front page - 'but it's the same as it always was', you say. Emulation is often more difficult. To explain... I had created a new style sheet from a document file, changing the extension from doc to dot, whereupon the little cretin - sorry, helper - said my style sheet had changed, "would you like to save it?" I thought I just had, but one can't backup too often, can one. Don't you believe it! The little blighter wiped off all the graphic and text. Leaving only named font and paragraph styles with a blank page – ready to start afresh, I guess.

Fortunately earlier on I had saved under a different name, 'temp test', while trying something I thought was a bit tricky, and was able to retrieve from that. However, I only remembered I'd done this after a couple of hours ensuing dejection had lapsed, I then felt chuffed; but chastened - it was more by accident than through understanding I had made any recovery. But all this is part of the emotional roller coaster ride of bloatware, isn't it?

So what's the solution, or... functionality without the pain?

It would be nice to have the type setting done on Albert but I think Willy Wizzy Wiggins is still working on that project. It's no real shame to be written about on another type of machine, for years MSDOS and PC app. manuals have been contrived on Apple Macs, ah! Now one of those would make life easier - dream on.

For years I have passed behind desks displaying Word for Win, presumably providing all that the junior clerk, receptionist, dictation typist, report writer... required. I had dabbled with it a couple of

times - along with Lotus123 ect, you know, the usual office tools - but never really took a shine to it. Once I had to present an inventory and thought it would be nice for the boss to be able to read it from AmiPro, which I knew he used. A German colleague was visiting that day, leaning over my shoulder he said "It is very good for to send the fax, if you have one day for nothing, Ja...!" Point made.

So, what is this humiliation of using Word all about? Well I do view things differently now. I notice identical layouts on Memos from different departments or even sides of the globe, strange choice of fonts, odd lines indented. The other day I received a Word file on disk, not from an Einsteiners I hasten to add, that was a revelation in complexity. The actual appearance was just fine, but alighting upon different parts whilst viewing the settings revealed... 'Heading styles' were used within the body text, some parts were in text boxes, others positioned by blank paragraphs, and section breaks for no reason and more... All evidence the author had had one merry humdinger of a time, knitting it all together and holding it in place, to what was required. To wrap this up then...

The automation is there to help you but ultimately it will trip you up. At some stage you will need to get in control, and that requires understanding, and to begin understanding you must simplify, and to simplify you must de-automate the tasks, and then when you finally get a handle on it all; introduce merely the automation you require - not that which supposedly suits the majority.

In endeavouring to typeset the magazine I reached that stage where 'you need to get in control' very quickly, because of the sheer technical content. What bothers me is that for the memo, fax, letter or story writer, perhaps that stage is never realised, or more insidiously is prevented; by confinement to; the supplied templates, 'what works for them', the fear to expand upon and lack of training - the right sort, at any rate.

Will the wide spread adoption of these powerful word processors and their simplified tutorials - to help them sell - ultimately stifle ability of self-expression, in similar mode to television, mobile phones and e-mails?

----@@@----

Wanted:

Steve Potts has recently acquired a 256 Tatung Computer, but without boot disk or manual. Can anyone help provide these? His address, of course, is on the first page.

Virus Hits Einstein

By Steven Potts

Well it has finally happened but don't panic, as it is not a glitch on your disks, but a real virus in the form of FOOT & MOUTH.

The Stafford Show spring AMS has had to be called off as the Showground is in quarantine worst luck.

As the last November AMS was hit by floods and caused a stinging loss to the organisers, I was looking for a good turn out to support the long-term future of this point of contact.

So I suggest that the November show will be a good time to make an effort and show support by turning up and saying Hello to me and John and use the Einstein stand as a focal point and put some faces to the names you see in regard to the Einstein.

We have an arrangement with the Einsteiners who respect the origins of the AMS and they give us a pack of vouchers to distribute allowing a reduction in the admission price. All you do is ask so drop me a line with an SAE and the number of vouchers required.

So I hope that will be enough to get you to move.

----@@@----

Not More Drives - update!

By John Marriott

As that strange French Detective is fond of saying "...all in the little grey cells..." - which aptly describes my addled, or lack of! It's easy enough to make assumptions - you know, pressing <CTRL><BREAK> or the 'reset button' puts the TC01 back to the same 'condition' as switching on its power without a disk in... wrong!

Looking at memory from the MOS prompt will show you what I mean, for on switch on &0000 contains &CF, meaning RST8 (ReStarT from &0008) which says JUMP to &FC22, which then goes on to toggle out the RAM from &0000 to &3FFF and in the MOS ROM - and a disk accessing program! Now, to those wanting sight of the MOS ROM - switch on your TC01 with no disk(s) in and with the M prompt type in 8000<e> then the following

D32421000011004001004OEDBOD324 .<e>

Now enter G8000<e> and that small program switches out the lower RAM, brings in the MOS ROM which is copied up to RAM block &4000 to &7FFF then reverts to ROM/RAM setting - but leaves you with a copy of MOS where you can get at it. Whilst the MOS ROM is a 16K device, in fact the MOS system is in there twice - so MOS is only 8K long! I find a hard copy print out is the easiest to work on, so whilst I found out the hard way (dumping 40 screen displays - 20 A4 pages!), you're only interested in the RAM contents &4000 to &5FFF.

There's 3 ways, depending on your printer capabilities - wide carriage fan fold paper loaded but switched off, enter T40005FFF20 (turn on printer, let initialise/show 'on line') press <CTRL><R> and <e> keys and away the screen display and printer should go. If things seem to 'freeze' part way through, press your printer's 'on line' button twice, should (?) work - but there's printers and printers. If your printer has a 'font select', try and choose one which gives clear 'B' and '8' differentiation's - don't pick a 'proportional' font? For the 'standard' carriage fan fold enter T40005FFF12 & etc. Cancel printer with <CTRL><8> keys. If you're stuck with putting one sheet of A4 paper in at a time, then it's the 'screen dump' routine of T4000419D12 then the <CTRL><A> & etc.

To help, the start of each 'page' follows on with (&4 in front) 33C, 4DA, 678, 816, 9B4. B52, CFO, E8E, (&5 IN FRONT) 02C, 1CA, 368, 506, 6A4, 842, 9EO, B7E, DIG and finally T5EBA5FFF12.

There is a big chunk of 'character definition' from &517A to &5879 with other bits and pieces of messages scattered around, so allowing for all the MCALS in that MOS ROM probably the drive section'll be less than 1K of programming. Perhaps somebody out there has already disassembled that section and then run out of time, would save the wheel being reinvented. One thing to note, easily forgotten (been there, done it) is the need to understand your ROM MOS copy has got to have &4000 offset allowance if you start looking at it with a 'disassembler/step tracer' - this is where it can be more long winded but safer to do it by hand. Back to those "...three Hail Mary's..." for those with that turn of mind!

Anyway, at &FC3B there's a little bit of code which toggles the RAM/ROM again and CALLS &OFD7 which looks like it could be checking for a key(s) press (disk 'in'?), don't know - lots of work to

do and no time to do it. A 'slight help' when disassembling listings/dumps by hand - Like BASIC there are lines', except there's no line numbers'. Wrong! What about RAM/ROM memory numbers? Take the simple GOTO and RETURN - in Code this is CALL<memory location> and RTN<back to the memory following the CALL>, so there's going to be &CD<memory> and &C9. Scan through the listing and place a 'bar' after each &C9. As that's an 'end of line', write the following <memory location> in the margin which is the start of a 'new line', probably a 'block of code' - or a 'define function' as in BASIC, which'll be used by other parts of the Code. Highlight any &CD<memory> and probably any &D324 as this is the ROM/RAM toggle command i.e. accessing MCALS. I think(?) there is an attempt to access the drive 3 times before the "insert disk" message comes up on the screen - so there may be a 'suggestion' of 3 of the above 'commands' being close together. Like any program, BASIC or Code - scan it, get the feel of it - then go deeper into it. Most important, try not to succumb to getting side tracked from your real objective!

Whilst probably well out of print, may be in your local library's 'dead section', 8080/Z80 Assembly Language Techniques For Improved Programming by Alan R. Miller - ISBN 0 471 08124-8 and Z80 Assembly Language Programming by Lance A. Leventhal - ISBN 0-931988-21-7 are two good books, with an authoress called Toni Baker and of course Dr. Ian Logan (these tend to be more Spectrum oriented, but...). Incidentally, I mentioned in the earlier section of this article (pre-update!) about the chance of there being 'further look-up tables' in RAM when DOS has loaded - well, there is? Unfortunately, seeing as Christmas is well over my workbench has filled up so I can't check back on those 'assumptions' I made, especially that 'side select line' because of that dreaded message of 'sector not found', i.e. is MOS looking for the next track on an 'expected' 40T/SS disk when on an 80T/DS disk the 'next track' ain't one step in but 'same track number, other side' - don't know for sure, not now!

Whilst there isn't much 'spare space' in the 'half MOS ROM, only about &21 cells at the end of each 'section', some of the 'graphic character' tables could be used at a pinch should a rewrite/re-blown EPROM be the answer. Come off it, how many of you use the in-built graphic characters in your programming...

...what programming!

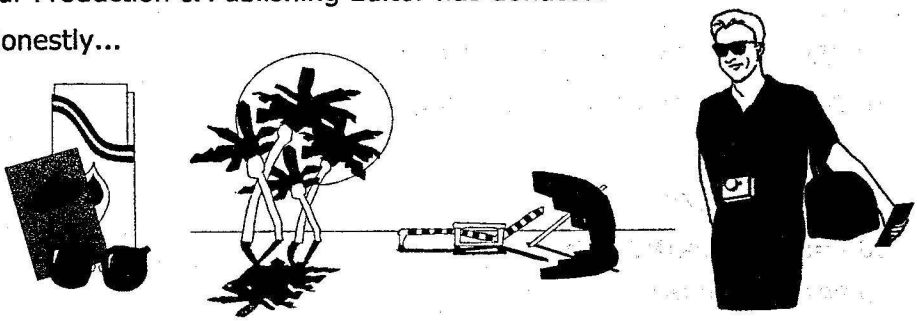
Incidentally, there is 8K spare - but there was a tendency 'back then' to use 'off spec' components and 'toggle a line' to use the 'good bit', so don't assume that the MOS EPROM in your TC01 can be re-blown with extra goodies in the 'unused half.

----@@@----

Drives - Side Select Switching

Slight update as 'suck it and see' experience crowds in - being lazy, I decided to 'short' Line 32 to Line 33 on an exterior drive IDC ribbon cable as a means of ease/access - and then found that my other 80T/DS drives all behaved as an (upper surface) single sided drive (except DO: which ain't got a PCB signal track [...okay, you've told us this all before, before...] so went on its merry way like 'he's invoking Murphy's Flaw' yet again!) - and as I've lent those EUG mags. which had the article on 'side switching' so I couldn't refer back, I found that cutting Line 32 and putting a 'change-over* switch with the Line 32 from the drive as 'common' and Line 32 to the computer as 'normally closed* with the 'normally open' point to, say, Line 33 (signal return lead)... ...so, with the switch in its 'normally closed' position and the boot disk with the correct drive configuration information on, a normal 80T/DS drive, then with a re-boot of drive configuration as an 80T/SS drive in 'NC' position the lower surface of the disk is accessed, in 'NO' the upper. EM94 refers to an 'electronic' switch of AABBBBAA drives, and there's no reason why a similar set-up couldn't be used here, although a little machine code program boot loaded into VRAM/RAM programming the Function Keys could be a project, come magazine competition ...honestly, I've not written one already so that I can win that holiday in the West Indies which our Production & Publishing Editor has donated!

Honestly...



TC01/PC File Exchange

SAVING AND LOADING EINSTEIN FILES TO PC WINDOWS TERMINAL

BY CHRIS COXALL

Tel: 01322 346102 - email chris@coxa.fsnet.co.uk

I have put together two Bbbcbasic programs to send and load back Einstein COM files from a PC terminal. The first is "READCOUT.BBC" which will open a COM or binary file on a TC01 disk and send an ASCII hex dump to the serial port. It can there be captured by Windows 3.1 terminal or Win 95/98 HyperTerminal as a text file. For the second I used the BBCBASIC assembler to create the COM files SRLRUN & SRLLOAD. These are used to receive and load back files from the PC into Albert. The transfer files need a null modem with hardware handshaking.

READCOUT.BBC doesn't take long to type in. To use it, first open win3.1 terminal or win95/98 HyperTerminal on the PC. For the settings choose COM1: or COM2: if that is what you are using. Then set to the Einstein's defaults: baud rate 9600, no parity, 8 bits, 2 stop bits and hardware. On the PC terminal toolbar click transfers then "receive text file" win3.1 or "capture text" win95/98 you will then be prompted to choose a directory and a name for the file to be received. Type the file name then OK. Click the start button. Now run READCOUT.BBC on Albert. AT the "?" type the COM file for transfer then "ENTER". The PC terminal screen will fill up with hexadecimal characters and scroll. After READCOUT has run the PC terminal will stop scrolling and at the end the name and size of the file sent will be displayed after an "=" sign. Use the mouse to click the terminals stop button in win3.1 or in win95/98, HyperTerminal click transfers, capture text then stop. The file should now be saved on the PC.

```
10 REM READCOUT.BBC FOR EINSTEIN
20 PRINT"TYPE FILE NAME TO READ"

40 X=OPENIN(A$)
50 L=EXT#X:PRINT,"LENGTH ";L
60 PRINT"FILE NUMBER ";X
```

```
 70 *OPT 1
 80 PRINT A$,"BLOCKS ";L/256
 81 REM delete rem from line 82 to send bbcbasic files as hex
dumps for srlrun.
 82 REM PRINT "LOAD BBC FILE AT HEX ö4000"
 90 PRINT "hex dump for comfile «"
100 FOR I=1 TO L
110   Y=BGET# X
120   IF Y<&10 THEN PRINT"0";
130   PRINT;~Y;
140 NEXT I
150 PRINT"="
160 *OPT 0
170 CLOSE# X
180 PRINT:PRINT"FILE ";A$,"FILE NUMBER ";X,"LENGTH ";L
190 *OPT 1
200 PRINT:PRINT"FILE ";A$'"LENGTH ";L,"BLOCKS ";L/256
210 *OPT 0
```

To receive back COM files SRLRUN & SRLLOAD need to be created on an Einstein disk. The quickest way is to use the MOS editor in Albert and type in the listing below.

From Xtal dos type MOS <ENTER>. Then M 0100. Copy the listing. Press <ENTER> at each lines end. After the last line press full stop <ENTER> to go back to MOS. Return to Xtaldos I use the <CTRL> & <BREAK> keys. At the DOS prompt type "SAVE 2 SRLRUN.COM" <ENTER>. Before trying SRLRUN go back into MOS . Type M 0204 then change the 01 to 00, press <ENTER> and then a full stop. Back to XTALDOS Type "SAVE 2 SRLLOAD.COM" <ENTER>

Hex dump for SRLRUN.

```
0100 01 32 01 11 12 E9 21 12 01 ED B0 C3 16 E9 00 00
0110 00 C9 00 01 FE E8 2A 14 E9 ED 5B 12 E9 CD 40 E9
0120 CD E2 E9 CD D9 E9 DB 10 ED 5B 12 E9 CD E9 E9 FE
0130 7E CC 4E E9 FE 5C ED 5B 12 E9 CC 63 E9 18 E1 C9
0140 F5 CD E2 E9 DB 10 DB 11 CB 4F 20 F8 F1 C9 F5 CD
0150 7B E9 57 CD 06 EA CD 7B E9 5F CD 06 EA ED 53 12
0160 E9 F1 C9 C6 00 3D 3D E5 D5 ED 52 28 0D D1 E1 CD
0170 7B E9 12 CD CC E9 13 18 EA C9 C9 E5 D5 CD E2 E9
0180 CD D9 E9 DB 10 FE 47 30 F7 FE 30 38 F3 CD E9 E9
0190 FE 3D 28 5D FE 40 38 04 E6 DF D6 07 87 87 87 87
01A0 E5 2E 00 26 00 67 CD E2 E9 CD D9 E9 DB 10 FE 47
01B0 30 F7 FE 30 38 F3 CD E9 E9 FE 3D 28 34 FE 40 38
01C0 04 E6 DF D6 07 E6 0F B4 E1 D1 E1 C9 D5 E5 62 6B
01D0 F5 7E CD 06 EA F1 E1 D1 C9 F5 DB 11 CB 4F 28 FA
01E0 F1 C9 F5 3E 27 D3 11 F1 C9 F5 3E 07 D3 11 F1 C9
01F0 E1 CD 40 E9 E1 D1 F1 3E 40 CD 28 EA 21 00 01 22
0200 12 E9 C3 00 01 C9 F5 E6 F0 1F 1F 1F 1F C6 30 FE
0210 3A 38 02 C6 07 CD 28 EA F1 E6 0F C6 30 FE 3A 38
0220 02 C6 07 CD 28 EA C9 C9 F5 DB 11 CB 47 28 FA F1
0230 D3 10 C9 .
```

Change 0204 (encircled) to 00 then SAVE 2 SRLLOAD.COM

Now you can type SRLRUN at the dos prompt. Wait a few seconds for it to complete loading. The typed SRLRUN will just sit at the DOS prompt. From the PC terminal toolbar, click transfers choose SEND TEXT FILE then select a file sent by READCOUT.BBC. Press OK. The terminal screen will fill up with hex characters as it is loaded into Albert. When it has finished the down loaded program will automatically run on Albert.

SRLLOAD.COM will load the program the same as SRLRUN.COM but will return to boot Xtal Dos from the drive. The down loaded code can then be put on an Einstein disk by the Xtaldos command "SAVE <number for blocks> <filename.extension>". Or it can be run by the "GO" command.

To be continued

Next time: More about SRLRUN & SRLLOAD and the BBCBASIC ASSEMBLY LISTING.

Ed: We may well sit back and admire Chris's work, but he's not satisfied, and requests help in order to develop it further. He writes:

The only assembler I know is in BBCBASIC. What I have learned has been through self-discovery, manual bashing and any book or magazine I could find with a useful hint or tip.

I haven't tried down loading another operating system yet, so if any one has a hex dump of CP/M+ or ZDOS and has some idea where to load it into Albert's memory please Email it to

chris@coxa.fsnet.co.uk

For faster down loading it should be possible to wire the standard PC printer port to Albert's user port. If anyone has already done this, I would be grateful for the wiring details.

----@@@----

Schools Get Technical

We have received a request from Nigel Stapple (especially needed is anyone with particular knowledge and information on the history of Tatung Company and the Einstien computer). He writes:

I run a small non-profit company called Tekpromo. Our aim is to promote engineering and science in schools and colleges in the UK. One of its services is a free mobile technology exhibition that includes a section on the history of home computing. We are currently looking for contributors to the exhibition who are willing to produce and supply information sheets on various machines. Specifically we require A4

size printable documents containing information such as specifications, history, pictures, and trivia and of course, any relevant information you would like to include (your web address!). All contribution would be gratefully received.

Our own collection stands at 30+ machines, including a TRS80 Model 1, a ZX81with thermal printer, an Amiga 1000, a z88, an Apple Mac+ (US version) and a Tatung Einstein. We have the usual mix of Sinclairs, Atari's, Amigas, Amstrads and some early PC's.

We are continually looking for more models for the exhibition and would very grateful for hardware/software contributions. We require Acorns, Orics, Commodores (8 bit machines), MSX's, and any other home computer familiar in the UK during the late 70's to the 90's.

tomstapple@tomstapple.eurobell.co.uk
N T Stapple, 10 Bondfield Close, Southbourough, Tunbridge Wells, Kent, TN4 0BS

----@@@----

BKGND.BAS

QBASIC PROGRAM

By Dave Williams

This is a demonstration program for members who, like me, use Screen 9 on the PC (with its excellent graphics capability) but would like to select additional background colours to further improve the presentation of their text. To assist with the understanding of the principles used in the program, consider the following sequence of events:

```
REM ***********************************
REM *       TRY SEVERAL BACKGROUND    *
REM *        COLOURS WITH SCREEN 9    *
REM *        Written for PC (QBAS)    *
REM *    by D. Williams - Updated Jan 00  *
REM ***********************************
1 CLS : CLEAR : SCREEN 9: COLOR 15, 2: A$ =
"ABCDEFGHIJKLMNOPQRSTUVWXYZ"
LOCATE 3, 19: PRINT " ENHANCED SCREEN 9 USING BACKGROUND
COLOURS "
DRAW "C15BM136, 27 R364 D16 L364 U16": COLOR 8
REM White:
```

```
5 LINE (160, 70)-(480, 112), 8, B: LOCATE 7, 28: PRINT A$
Y = 84: C = 15: C1 = 8: IF K = 1 THEN GOSUB fill
REM Yellow:
LINE (160, 126)-(480, 168), 8, B: LOCATE 11, 28: PRINT A$
Y = 140: C = 14: IF K = 1 THEN GOSUB fill
REM Blue:
LINE (160, 182)-(480, 224), 8, B: LOCATE 15, 28: PRINT A$
Y = 196: C = 11: IF K = 1 THEN GOSUB fill
REM Red:
LINE (160, 238)-(480, 280), 15, B: COLOR 15: LOCATE 19, 28:
PRINT A$
Y = 252: C = 12: C1 = 15: IF K = 1 THEN GOSUB fill
LOCATE 23, 25: PRINT CHR$(34); " Press SPACEBAR for colours.";
CHR$(34)
IF K = 1 THEN LOCATE 23, 26: PRINT " Press ENTER  key to repeat."
10 A$ = INKEY$: IF A$ = "" THEN 10
Z = ASC(A$)
IF Z = 32 THEN CLEAR : K = 1: GOTO 5
IF Z = 27 THEN CLS : COLOR 7, 1: END
IF Z = 13 AND K = 1 THEN 1 ELSE 10
REM *** SCAN TEXT - PAINT COLOUR & FILL HOLES ***
fill:
FOR Y = Y + 5 TO Y + 9 STEP 2
FOR X = 219 TO 419 STEP 8: PAINT (X, Y), C, C1: NEXT X, Y
RETURN:     REM ********** END **********
```

Archived Backup?

By John Marriott

Back when the Moon was made of cream cheese and CP/M was King and any simple disk operation was mind numbing, a certain gentleman called Dave Rand came up with a nifty 12K program called NSWEEP - which replaced about 120K of various programs which CP/M needed to do the same? And of course, his was simpler and quicker - released as a Shareware, regularly updated by him,

yet I've the feeling that everybody uses it, but nobody ever sends him a nickel, dime or cent... ...which includes me!

Figure 1 (under) is a screen dump of its simple 'Help Screen'.

```
NSWEEP  - Version 2.07    07/17/1984
(c) Dave Rand,  1983,  1984
Edmonton, Alberta

 A - Retag files            | Q - Squeeze/Unsqueeze tagged files
 B - Back one file          | R - Rename file(s)
 C - Copy file              | S - Check remaining space
 D - Delete file            | T-Tag file for mass
 E - Erase T/U files        | U-Untagfile
 F - Find file              | V-View file
 L - Log new disk/user      | W - Wildcard tag of files
 M - Mass file copy         | Y-Set file status
 P - Print file             | ? - Display this help
 X - Exit to CP/M           | cr, sp - Forward one file

 164K in 28 files.    24K free
 Tagged files ==  OK ( OK).
 1.  AO.-AUTO    .COM      2K :  L  New drive/user/mask? B*:
NSWEEP  - Version 2.07    07/17/1984
(c) Dave Rand,  1983,  1984
Edmonton, Alberta
Drive B*:????????.???    630K in  120 files     156K free.
 1.  B3:-DISC        .10A    0K
 2.  B4:-DISC        .20A    0K
 3.  B5:-DISK        .50B    0K
 4.  B4:ABCSORT  .COM    2K
 5.  B3: ADDRESS .DTA    0K
 6.  B2: AMSDOS .    .COM    2K
 7.  B3: ANIMAL  .C      4K
    &etc.                          (Fig. 1 example)
```

Why the interest all of a sudden? Well, with a 3.5" 80T/DS drive with 786K of formatted space that's 4 sides of our fast failing 3" disks, but - how often do you find 'duplicate named' files, like 'Readme' or 'Tutor' so if you just happen to have that on those 4 sides with 'renaming' them causing problems due to their parent program expecting to find them under their name, just what can you do? Why not save each disk side off with a different USER number; Simple -

3" disk you want to copy off in D0; and 3.5" 786K disk in D1: and type in at the 0: prompt NSWEEP<e> (or as on my disk NS<e> and you have got a copy?) and <e> key until you come to the NSWEEP file, do <C><e> and B0:<e> (some versions don't seem to require a <e> action, so don't start screaming 'wrong!'), now either <e> or <B> on the AO: file list (remember, CP/M drives are alphabetic NOT numeric) and <T> all the files and then <M> and B1 :<e> and those files will be saved across to User 1. Similarly with the 'B' side of your 3" disk, except after the <T> and <M> it's B2:<e>. Most 3.5" disks I can 'archive' 6-7 sides as very rarely are they more than 60-70% full, but part of the problem in doing that is it leaves you no room to use that 'archived' disk normally, as well as running out of 'directory entries'. To make it clearer, under DOS do a DIR on it - only 1 file, rubbish! Is there a DOS USER function on the TC01 - perhaps, as a relatively newcomer still ploughing through manuals and EUG's magazines from its inception, there is - but I've not found it? So, this is why NSWEEP was copied across into its 'roof Directory - for you can use it to 'download' from 'user' Directories into the 'roof, use them under DOS and then erase them from the 'roof when finished - simple! A few little sneaky points, if you want to look' at the A: drive after, say, being in 'User5' on the B: drive, the command after <L> (log on to new drive/disk) should be followed by A0:<e> and I'd suggest that you do that before <X> exiting NSWEEP - your choice, try it and see.

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Silicon Disk Ramblings

By Stephen Potts

After the last couple of issues, I think I had better fill you Einsteiners in on what I have been doing apart from the personal stuff. Until this, I was in correspondence with Ted regarding his silicon disk investigations. As I do not have this particular item, I was translating my experiences of the Amstrad 6128 silicon disk. The bits and bobs were of interest and use however. Ted was not granted time to follow up on one of my brain waves as mentioned previously, but these are of such major benefit I cannot see why they were not thought of years ago.

If we think about what we would like - how about an instant boot-up, or, at least, instant access to our top programs.

This can be achieved by using Ted's MOS fiddles, which I don't follow, but I have two points to make to allow a useful MOD for those with a drop of know-how to follow up on.

Firstly, the Amstrad can use the silicon disk as a RAM extension but not as a drive - so a changeover switch needs to be set prior to switch-on. The extra space can hold screens or data, making them instantly usable in main programs by bank switching the memory as in CP/M.

The second, and my favourite type of MOD, involves a computer back up battery and a diode to stop feedback.

The idea is to provide a 5-volt feed to the memory chips whilst the computer is switched off, for say, a week or so. The program or data will be held in memory by the battery back-up power.

As CMOS chips take very little power to hold station, the battery I have in mind costs around £3 + VAT for 4.5 volt 1150 milliamp hours AM3-AT/844 (BT00188) and a diode, that I will leave to others to specify. Ted favoured a capacitor to hold the charge, but with specific computer batteries costing so little, I feel we should use the special parts.

If we look at the Tatung Pipe 60-way IDC connector M003, we can see that pins 1 and 3 carry +5 volts to any add-on. If we can cut into these lines and fit a diode to stop the voltage going into the computer we can power up the add-on, and recharge the battery during the time the computer is switched on, allowing the battery to hold station, whilst switched off.

As most of the top line are ground +0 volts, we can use pins 5 and 7. When constructing, I would use a 60-way connector (30 x 2 row IDC), one plug ± one socket - and a length of cable and a box to hold it all - but do beware of the connections as sometimes it can reverse them. So, apart from the diodes that act as one-way valves, this is a very simple MOD with major benefits.

Good luck, and note that the silicon ROM chip can be duplicated by any EPROM programmer - we can get this done if required.

As an Amstrad man, I like the Rombo Rom box that fits on the equivalent to the pipe and allows eight 128 EPROM chips to be mounted and called up at any time. If we can de-code the start address of any program, we can put it on ROM. This will be a good project for someone, and as usual, I will assist as much as I can.

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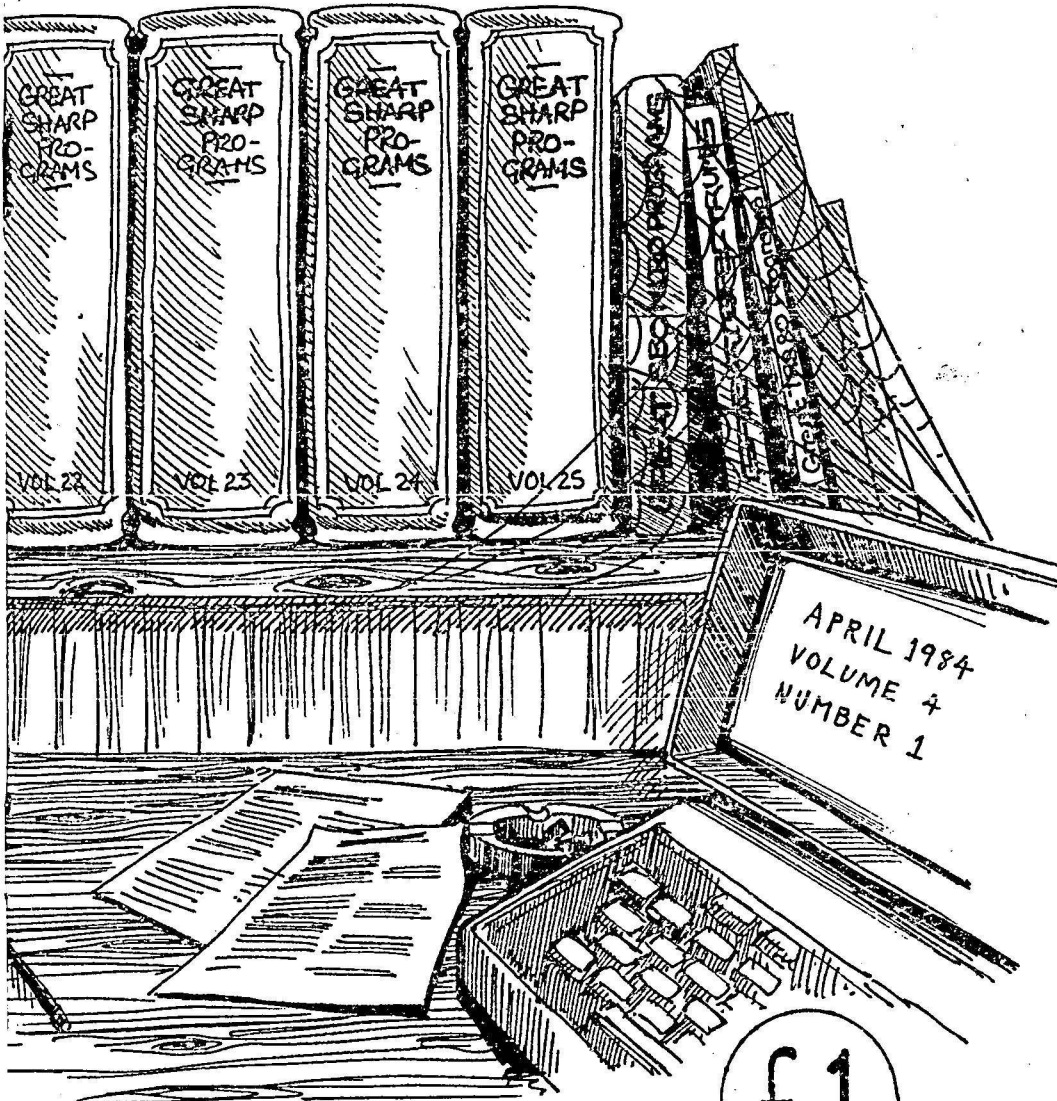
SHARP USERS CLUB



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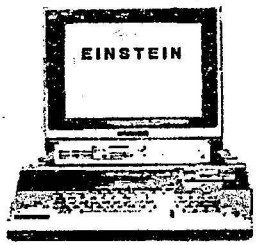

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