

All Micro News



Volume 1,9

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Editorial

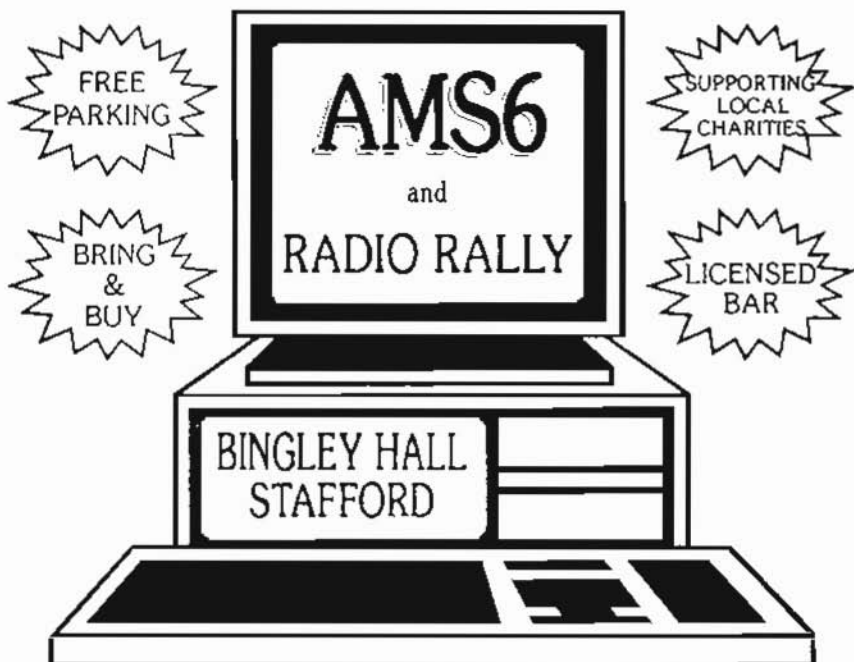
Another year and another All Micro Show arriving fast, AMS6 will be at Stafford as in the previous years, and Albert will be represented by B+H and ourselves along with the many and varied suppliers of electronics and computers. A point worth noting if you are considering coming along this year is that we are putting up a rather superb Bull 4/64 printer, (480cps!), as a free prize in a draw for all advance ticket holders, worth a 24p stamp I would say!

There is a leaflet advertising the show inside the mag, if you can place this on any suitable notice board, pub, works, school etc., we would be very grateful.

We intend to start covering the IBM PC from the next issue, so do write in if you have any comments questions etc. There have been a few updates to the Einstein PD library as below;

PD 345 Digitised music progs, Einstein piano	40 cols - 188k
PD 346 Selection of XBAS progs from EM vol 1	40 cols - 188k
PD 347 Selection of XBAS progs from EM vol 2	40 cols - 184k
PD 348 Income Tax programs for Cracker Spreadsheet	40/80 cols - 106k
PD 349 E256 Alien Find demo & Silicon Dream	E256 - 184k
PD 350 LISTIT Mini WP/Datadbse write/sort/print lists	40/80 cols - 28k
PD 351 E256 Optic demo & chequebook	E256 - 108k
PD 352 System 5 configurator	40 cols - 20k
PD 353 XBAS Educational games	40 cols - 38k

THE ALL MICRO SHOW



Saturday 14 November 1992
10.00 am - 4.00 pm

- ★ All Formats Supported including - ★ Atari ★ Commodore ★ IBM PC ★
- ★ Atari 8 Bit ★ Einstein ★ Dragon ★ etc etc ★
- ★ Computers ★ Accessories ★ Electronic Components ★ TV & Video ★ Books ★
- ★ Radio ★ Media ★ Disks ★ Printers ★
- ★ Bargains galore for the Electronic & Computer Enthusiast ★

AA SIGNPOSTED FROM J14 OF M6 MOTORWAY

Avoid the queue and enter the **FREE DRAW** to win a 480cps Top Quality Dot Matrix Printer worth £1,700!! with every advance ticket from the organisers

Sharward Services, Upland Centre, 2 Upland Road, Ipswich, Suffolk IP4 5BT
Telephone 0473 272002 Fax - 0473 272008

★ ADULT £2 ★ CHILD £1 ★

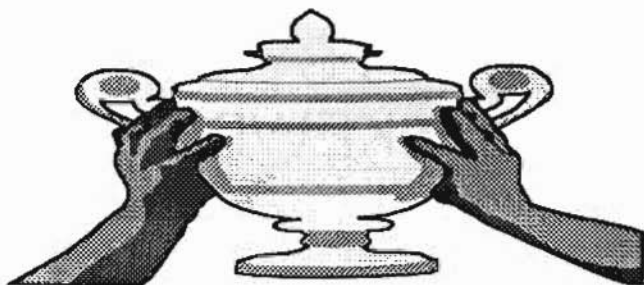
Competition Page

The competition to see how many ways you could copy XBAS from one disk to another actually received some replies!! - shock horror.

Here are all the ways combined from the letters received; capital letters denote a command typed in at the DOS prompt 0: and <e> represents the *Enter* key being pressed.

1. COPY 0:XBAS.COM TO 0:<e>
2. BACKUP, then erase all files except XBAS.COM
3. LOAD XBAS.COM<e>, change disks, SAVE 61 XBAS.COM<e>
4. XBAS<e>, change disks, DOS<e>, SAVE 61 XBAS.COM<e>
5. Use another machine via the serial port, (not tested!)
COPY<e>
*XBAS.COM TO SRL:<e>
*EOF: TO SRL:<e> Change disks
*SRL: TO XBAS.COM<e>
6. If on an E256 with a RAM Disk
COPY<e>
*XBAS.COM TO 3:<e> Change disks
*3:XBAS>COM TO 0:<e>
7. This is one of the simpler methods; Under MOS examine the directory bytes for XBAS.COM, use the *Read* command to read into memory and then use the *Write* command to save to the blank disc!
8. Here is a slightly more complicated and stupid version version!!!
LOAD XBAS.COM<e> MOS<e> either dump to printer or write down the contents of memory, re-set machine, insert blank disk and re-type the lot in under MOS and *Write* back to disk!
8. XBAS, change disk and write the following little program to do the job;
10 CREATE "XBAS.COM",x\$
20 FOR AD=&100 TO &3E00
30 PRINT X\$,CHR\$(PEEK(AD));
40 NEXT AD
50 CLOSE X\$

9. This is my favourite! Get someone else to do the job for you.



The winner of the competition is Andrew Fay and he gets a £10 voucher, Andrew McRobbie gets the consolation prize of a miscellaneous Einstein Disk!

COMPETITION

Come on guys and gals I need some decent competitions to set, you will get a £10 voucher for your efforts !! As your input is lacking we have reverted to an old favourite ;

As usual the winner will receive a £10 voucher,

Based on a rather topical forthcoming event where we hope we will find most of you on the day, the winner will be the one who can find the most 4 or more, (that's nearly poetic!) letter words from the following;

ALL MICRO SHOW SATURDAY 14 NOVEMBER

OPERATING SYSTEMS :- MOS, DOS, SKEWDOS, C/PM and other mysteries!

The following article came from the EUDB, (Einstein Users Data Base - now no longer running), found during a ruthless clearout of bulging paperwork and although somewhat dated it still contains some useful information with some notes where applicable on the current state of affairs.

I am by no means an expert but I hope these notes will assist folk who know even less than I do about the mysterious 'operating systems'. Computers being unlike any other machine it is difficult to draw comparisons but I will use the little known example of the RAMSDALE TRAM.

The Ramsdale Tram is a unique vehicle which is now preserved for posterity in the Little Worston Transport Museum at Picklingham in Cwyclyd in North Wales. The tram was built in a hurry during the Suez crisis of 1956 when it was feared that oil might disappear and we'd have to rely on alternative fuels. Like almost any other tram it was designed to run on tracks and it could go backwards and forwards with equal ease - like all trams it had a steering wheel and controls at either end. Unlike most other trams the two ends were different; one set of controls drives an ordinary diesel engine, as used by most trams and lorries and the other end drove a petrol engine as used in most cars. For extra good measure in the centre of the tram is a tower which can be fitted into place to reach up to overhead electricity power lines and thus obtain electric power to drive a huge electric transmission situated in the centre. The RAMSDALE TRAM never caught on and certainly never went into production ... so how does this help us in our understanding of Einstein?

Turn Einey on without a disc in the drive and you'll get the screen message 'MOS Version 1.1' or 'MOS Version 1.2'. (See the note later about whether or not it is important to you to have a particular version number). You can also get into the MOS system in other ways but no matter just yet.

'MOS' stands for 'Machine Operating System' and it appears that the machine is pretty dumb because it is difficult to get any sense out of Albert whilst he is in MOS - it's easy to get error messages but harder to get something useful done. That is because at this level of operating Albert is capable of accepting different types of orders but few of them are short and sweet. The short and sweet commands which will work in MOS are detailed in the 'DOS/MOS INTRODUCTION MANUAL' particularly on pages 1 to 21. Not particularly riveting reading and especially poorly written in that it doesn't explain the reasons why you would want to dabble in those pages.

A little later we'll be making particular use of the R (Read), T (Tabulate) and W (Write) commands detailed on pages 12, 13 and 14 but don't worry, by the time we get there in three pages you'll be quite comfortable about them. The rest of the stuff is gibberish to me, except the B for BAUD instructions on page 18 but I have found recently that it is starting to make sense and I hope to help you to learn a little quicker (all experts can go and make tea and then write their own articles which I shall be pleased to publish for everybodys benefit).

When you have got Albert running under MOS it is a bit like being given a key to the tramshed and allowed to get onto the tram - 'great tram this' the museum-guide will tell you and he'll explain all about how it can go forward or backward using diesel oil or petrol or electricity. When you ask him how, he will tell you you can tackle the job in two ways, either you can get a key from the Owner or you can get a screwdriver ... with a screwdriver you can remove the control panels, reconnect the diesel controls with the electric gearbox and connect a pipe across to the petrol carburettor so that when you short circuit the two ignition wires you can get the tram to move forwards ... YES, well Einstein MOS is a bit like that, you can do useful work with Einey when in MOS but it is hard going, needs a lot of tinkering, a high level of skills and generally most of us can forget it. BUT the museum-guide will explain there is another way to tackle it - go and ask the owner for a key. Once you've got a key you just shove it in the diesel ignition and turn on and bingo - the tram will immediately move off. Or if you fancy driving it the other way just shove the key into the petrol and turn and BINGO.

The equivalent of the ignition key for the tram is your EINSTEIN DOS or DISC OPERATING SYSTEM. Actually the name is misleading

because the DOS operates the machine itself (not just the disc) and the reason it is called DOS (DISC OPERATING SYSTEM) is because the system is located in the software on the disc itself. Put a disc into Einey and power up (or press Control+Break) and you'll get the message 'EINSTEIN DOS Version 1.11' or 'V1.31' or possibly 'Version 2.01'. Great, we'll talk about these in a second. Occasionally you'll get the error message 'DISC NO SECTOR' and this can be infuriating. Once again the language is a bit poor - the disc has got plenty of sectors but what the boffins are trying to tell you is that the particular disc doesn't have any DOS software written onto the special sectors which are reserved for it. The SYSTEM TRACKS as they are called are always in the same place on the disc - otherwise where the devil would Einey start looking for a system? (You brighter ones will immediately spot that part of the basic MOS built into every Einey will be an instruction to search for system tracks on discs at a certain location). (By the way the DIRECTORY tracks are also always in the same spot for the same reasons, all the other files on a disc can be scattered anywhere and Einey can look for them 'at leisure').

If you get a DISC NO SECTOR error message there are two ways of getting out of the problem. One way is just to get you going again and what you do is you load another disc which does have a DOS track on it, press control and break and you'll get the DOS Heading version display ... now you can take the disc out, put the other 'broken' disc in and proceed to call for a DIRECTORY listing or run a program or whatever - but don't press Control+Break otherwise you'll get back to the DISC NO SECTOR ERROR. But the proper solution to the problem is to put a disc operating track onto the 'broken' disc so that you'll get no more problems with it. It's not difficult and separate instructions are given later.

So you've got DOS up and running and now you can look again at the 'DOS/MOS INTRODUCTION MANUAL' pages 21 onwards and you'll see all the commands available at this level. The Dos language is easier to use, basic programmers will feel more comfortable with some of the words and their functions and on the whole the DOS system is less intimidating. Nevertheless there is no reason for you to use DOS if you don't wish to ... many folks will merely use DOS to load XBAS BASIC or BBCBASIC or some other language and then they'll get on with it. You don't even have to load another language, when in DOS you can just use .COM files by typing

the file name and pressing enter ... this is how most folk use 'WDPRO' or 'SIMPLEX' or their other files. DOS is of course the 'official' operating system, written by Crystal Research of Torquay and that is the system that software writers expect you to be using when they write software for Einstein ... unless of course they specify otherwise which would be rare. For example, WORDSTAR is available for Einstein (at over £100) and WORDSTAR expects you to be running under DOS Version 1.31 so all the software has been written to take the basic 1.31 operating system into account. If you run through your various discs you may find that some come up in DOS V1.11 and others in DOS V1.31. There are minor differences and generally you'll not get any trouble but sometimes a program won't run under a particular DOS or you get problems when you come out of one program and it expects to be in a different DOS ... usually these are problems which arise when you've been changing discs in the drive. Any serious matters should be discussed with your supplier or with Crystal Research who are most helpful in these matters. You won't come across DOS V2.0 unless you've paid for it separately. It is a £60 upgrade from Crystal which runs things quicker (amongst other things) and if you run DOS 2.0 you may need to keep a tighter rein on changing discs around because you do get more 'BOOT ERROR' messages. I keep DOS 2.0 only on those WDPRO discs which I am currently using for my guidebook - it runs much quicker than the original DOS - and if you're considering using it with particular software you should ask Crystal what advantages it would offer with that package.

Really the DOS system is all the average user needs to use and enjoy Einey. It will give you a complete key to one end of the tram so that you can drive it, steer it etc. One trouble with the RAMSDALE TRAM was that the drivers had a bit of bother when they changed from end to end. You see the ignition keys LOOKED the same and you did the same thing with them, ie you pushed it into a lock and turned it. This is just like the various operating systems for Einstein, all the disc based software systems LOOK the same, they come on a three inch disc and you bung 'em in the drive, press Control+Break and up comes the system. The problem with the RAMSDALE TRAM is that it is a different technique driving a diesel engine to driving a petrol; you start a diesel in an entirely different way (by pre-heating) and you close it down by decompressing whereas a petrol engine is started via electrical ignition. With Einey the changes are more subtle but

just as vital. It mainly boils down to language ... syntax to you programmers ... if you want EINSTEIN DOS V1.31 to do a certain job you say to it 'Drive 0 look for the file called LETTER3.UFT and change its name to ESSAY9.XYZ' (ie REN LETTER1.UFT to ESSAY9.XYZ) whereas with the Skewdos operating system you say to it 'Drive A make a new file called ESSAY9.XYZ out of an old file called LETTER1.UFT' (ie REN ESSAY9.XYZ=LETTER1.UFT). Now these seem very minor differences to thee and me, but then thee and me is human (I am) and as you know Einney has to be spoken to in exactly the right words otherwise he just doesn't understand.

So let's look at to other operating systems. The first is C/PM and is interesting because Tatung advertised Einstein as being a C/PM machine. Certainly when Einney comes up in MOS you can load a C/PM system onto him (hence getting a C/PM machine) but it is misleading to think that the Crystal DOS itself is a C/PM system. Crystal Research claim a high degree of compatibility between their DOS and C/PM but the small differences are irritating and seem pointless (I shall probably get my head between my hands from Crystal for this). C/PM was devised years ago to enable transportability between machines, it predates the micro computer, C/PM exists in several versions but the compatibility we are seeking is with the widest used version of C/PM 2.2. Crystal DOS is not one hundred percent C/PM 2.2 compatible. Tatung do sell a C/PM system for I believe £99.00 - all enquiries to them please as I know nothing about it. Also available is an operating system called SKEWDOS Version 1.0 which calls itself a 'C/PM type operating system for the Tatung Einstein Computer'. It appears that it is fully compatible, the problem being that Crystal Research of Torquay argue that SKEWDOS infringes their copyright. The SKEWDOS system may therefore be off the market for some time, or all time, pending the settlement of this issue. So what? Well, if you can afford to go to Tatung and buy a £99 C/PM system then there is no problem. If you can afford the time and effort and money to acquire C/PM programs and then test them yourself under Crystal DOS and cheerfully write off the lost time and money if they don't run then there is no problem. But if you want to tap into the vast potential of C/PM software you'll need a C/PM type operating system and SKEWDOS at less than £25 seemed to be the answer.

Users sometimes ask me which is the BEST operating system? I haven't a clue and I don't think there is an answer. If the tram moves in the direction you want at a reasonable speed does it matter whether you are moving under diesel, electricity or petrol power? If you know how to use Crystal DOS Operating System then I think you should stick with it but if you need some other system for some reason then you'll have to learn the minor variations in language and syntax and use them when necessary. I hope this little discourse has probed of interest, now we'll look at three matters -

- 1 A warning about your MOS version
- 2 How to 'repair' a disc which gives 'no sector' errors and
- 3 How to recover an erased file

If your MOS SCREEN DISPLAY announces that you have version 1.1 installed then you need to be aware that should you ever desire to upgrade to an 80 column card then you will need a chip fitted to give you version 1.2. I have heard of one chap who made his own 80 column card, beyond most of us of course but it underlines the fact that the 80 column card itself is just a bit of hardware all soldered together.

If you do need a replacement MOS chip they are available for £10 inc P+P & VAT from Sharward Services. If only 80 column were so plentyful! It may be worth noting that some games, (Hyperball), will only work with MOS 1.2.

When you have an 80 column card fitted your dealer will usually replace the chip for you at no cost. (One huge dealer assured me that fitting the card was 'an idiots job' and they seemed reluctant to do the job for me although they finally said they would. Actually I went to Brian Thomas at Blagborough & Hebblethwaite who cheerfully fitted the card for free of cost and charged a very competitive price for the card anyway). It is easy to remove the outer case off Einey (two screws at the back) and it is easy to fit the 80 column card itself. What isn't plain sailing is to exchange the V1.1 chip for the MOS version 1.2 chip. The thing sits in the centre of the beast, perfectly visible, perfectly assessable to get the old one out but a bit fiddly getting the new replacement back in, the legs are easily pushed out of true and you only need one gummy leg out of the sixteen (?) and the thing won't go in. I'm a great believer in getting the pros to do the job - then you know who to blame if the thing doesn't work.

DISC NO SECTOR ERRORS and what to do about it.

If you've read the preceding pages you'll now fully understand why you get these errors. I am told that the system tracks themselves are particularly prone to being wiped clean by electrical interferences etc - I don't know why (nor do I care). I have had several frantic phone calls from folk who thought their whole investment had gone down the plug. In one case a very nervous newish user sat at his Einstein and followed telephone instructions to 'repair' his disc so I am sure that YOU with your understanding of the preceding article will have no problems.

So you have got a 'damaged disc - one which keeps giving the error message. You can get the system tracks onto the damaged disc by making a backup copy of any good disc onto the damaged disc - **BUT if you do this you will lose any data on your damaged disc so don't do it unless the disc is empty.** In any case it is probably quicker to do it the proper way as follows -

When you get the 'disc no sector' error message take the 'damaged' disc out of the drive and set it carefully to one side. Get hold of a good disc from your collection, ideally your copy of the master system disc which came with the machine, (you do have a copy don't you!!) but almost any disc will do EXCEPT those from games or programs which 'autoboot'. Put this good disc into the drive and press Control+Break, the screen displays Einstein DOS Version 1.11 or Version 1.31. If you have picked a disc which contains some other system then put it away and get another disc until you do get the DOS Version 1.11 or 1.31 message. (Unless of course you are seeking to repair a disc which contains some other system - see end paragraph).

It doesn't matter what other programs are on the good disc they will not be affected by the following. Type MOS and press enter. This will have the effect of taking the Einstein OUT of the Disc Operating System (which you entered when you did the control+break and you know you entered it because you saw the DOS screen heading) and it will place you by intention into the MOS mode ... all those 'orrible commands in the first part of the 'DOS/MOS INTRODUCTION MANUAL' now apply ... but we only want two of them.

Now that you're in MOS you'll notice the prompt is a chevron instead of a zero. Type the command R8000 99FF and press enter (that is R8000 99FF, no spaces except between the 8000 and 99 and no quotation marks and upper or lower case for the letters). Einstein now loads into his memory the contents of the disc to memory locations 8000 to 99FF. If you want to check it you'll find the R for READ command is mentioned on page 12 of the manual, you don't need the 'zz' bits of the numbers because DOS starts at track 00 and sector 00. Now, take this disc out of the drive, it has done its job by providing a good version of the DOS tracks for Einy to read and load into his memory. Now put your 'damaged' disc into the drive. We need to get Einy to write the contents of his memory onto the 'damaged' disc in the place reserved for the system tracks. The command is W8000 99FF and enter (as before no quotes etc).

Your damaged disc is now repaired. If you have many damaged discs you can put the next bad one in and perform W8000 99FF to that one as well. When all the repairs are done remove the disc. Turn the power OFF. Power up from scratch and your disc should be as good as new. Easy wasn't it? Turning power off and on again is just my extreme caution - it may not be strictly necessary. You'll find the manual page 14 explains the WRITE command but it doesn't give the magic numbers 8000 and 99FF nor do you need (in this instance) any of the other 'sstt and d' numbers. In case you are wondering about OTHER systems, yet, they always live in the same place on the disc ... C/PM, Skewdos, Crystal DOS V2.0 etc etc, and of course they can all be read from one disc and written to any other in exactly the same way.

Finally a word about transferring operating systems to other people. These disk operating systems are copyright in exactly the same way as programs and the reason for giving you this information is to enable you to carry out your own repairs. When you purchase a game which contains 'system tracks' the publishers have paid the system owners in order to reproduce the tracks on that disc.

A few final notes, System 5 is still available from Sharward Services at £40 and it does include a Basic compiler. Skewdos is not available but there are several CP/M type operating systems in the PD library, see back page for details.

System 5 Drive Selector

Ted Cawkwell has responded to a previous plea for a simple way to set the drive options under DOS 2.

Setting the drives under Crystal System 5 is fairly easy if you understand Hex and are familiar with using MOS but if you are not then it can be a fun game!! The program on the following page takes away the hassle and does it for you, is that not what computers are for??

Just for my mate Ken at Loughton I have made a special effort to write down absolutely everything involved to make this work as he tells me he never gets any listings to run. The listing on the following page came direct from an Einstein on which I had just ran it to prove it worked. There is one feature of the program that is worth noting. Line 120 uses the IOM command, this line inhibits output to the screen, so this means even though you have pressed a key it looks like you haven't! I presume Ted did it this way to preserve the screen layout easily. When running the program follow the on screen instructions and press 0 or 1 followed by enter, only after the second enter will the selections be displayed, (have faith in your fingers not the screen!)

O.K. Ken,

1. Insert COPY of System 5 press CTRL+BREAK
2. XBAS<enter>
3. Start typing in listing, each line begins with a line number and ends with the enter key being pressed. Type each line as it is printed, lines with REM at the beginning are remarks and are not essential.
4. When all the listing is typed in save the program by typing;
SAVE "5DRIVES"<enter>
5. You can check your input at any time by typing LIST<enter> You can save at any point as well, it is a good idea to save regularly as if the machine hangs for any reason you will only loose a portion of your typing.
6. To use the program type; RUN "5DRIVES"<enter>

When running the program make sure you are working with a copy of your disc, it is easy to get it wrong!!


```

10 REM ****5DRIVES****
FOR XBAS5 DOS2
20 REM Ted Cawkwell UKEUG 984
30 CLEAR &8000
40 POKE &8000,&3E,&00,&21,&00,&81,&11,&00,&9B
,&01,&00,&00,&CF,&A4,&C9
50 CALL &8000
60 CLS:PRINT@9,0;"SYSTEM 5 DRIVE SETTER";@9,1
;"-----"
70 PRINT :PRINT "    BEWARE!! This routine writes to the disc DOS tracks. NEVER use it on an original, always use a";
80 PRINT" working copy.Makesure the write protect is OFF before youproceed.It ONLY WORKS with DOS 2."
90 PRINT:PRINT"For each drive <ENTER> successively as follows:-"
100 PRINTTAB(7)"1st input  0 for 40 track
                    1 for 80 track"
110 PRINTTAB(7)"2nd input  0 for single sided
                    1 for double sided"
120 IOM 1,0:A=0:PRINT
130 FOR J=0 TO 3
140 PRINT "Drive ";J;" ";
150 INPUT"";T,S:GOSUB 250
160 T=T*16*2^J:S=S*2^J:A=A+T+S
170 NEXT
180 PRINT TAB(7)"Is the above correct? (Y/N)"
190 Y$=INCH$
200 IF Y$="Y" OR Y$="y" THEN 220
210 GOTO 60
220 POKE &8106,A:POKE &800C,&A5
230 CALL &8000
240 PRINT:PRINTTAB(9)"DRIVE SETTING COMPLETE."
:END
250 IFT=0 THEN PRINT "40 track ";:ELSEPRINT "80 track ";
260 IF S=0 THEN PRINT "single sided.":ELSEPRINT "double sided."
270 RETURN

```

Post Bag



Dear AMN, I have a TCO1 with a silicon RAM disk. When not in use the RAM disk ROM is removed (it makes the machine boot up quicker). Unfortunately due to an accident the ROM has been damaged, can you tell me if I can get a replacement? Just out of curiosity can the silicon disk be initialised via software?

Michael Palmer, 30 Ramsey Grove, Bury, Lancashire, BL8 2RE.

ED .. Yes you can get a replacement ROM from Stuart Marshall, 25 Carlcroft, Stonydelph, Tamworth, Staffordshire, B77 4DL for £10. This covers P+P and the replacement chip. No you cannot use the RAM disk without the ROM. I am a bit bemused as to why you feel you need to save the boot time and therefore do not have the use of the RAM disk when processing, which considerably speeds things up!!

For Sale, Einstein TCO1 + manuals, Spectrum Emulator, Joystick, Joystick adapter, Paddle, 5 Speculator disks, Tasword, Total Business Package, BBCBASIC, Infobase, WP40 + SSSPELL, Diskmate, DiscTool. Books - Compendium, The Einstein Speculator, Beyond the Spectrum Emulator. Games - 256 Pack, Agrovator, Le Mans, Pinball, Chuckie Egg, Cursed Chambers, Disco Dan, Fu-Kung, Gronks, Lazy Jones, Les Flics, Maxima, Mayhem, Monopoly, Norseman, Oh Mummy, Punchy, Quest, Qogo 2, Starbase, Tycoon, Eliminator, Hyperball, Sprog, Southern Belle, Zexl, Cardsharp +, SS Twin. Best offers on all or any!

Stephen Hayward, Ward 1, Edenfield Unit, Prestwich Hospital, Bury New Road, Prestwich, Manchester 25. Tel 061 773 4480 after 6pm.

For Sale, Twin drive Einstein with green screen monitor, with manuals and some disks including Tasword..£90. **J. E. Humberstone**, 8 Palmers Way, Cheshunt, Waltham Cross, Herts, EN8 9HT. Tel: 0992 20958.

For Sale: Twin drive TC01 with 80 column card, 256k RAM disk and Philips mono monitor. Complete with master disc and manuals BBCbasic, M Basic, Wordstar, WDPro, Dbase II, PD and magazines. Offers to G. H. Turner, 36 Brabourne Rise, Beckenham, Kent, BR3 2SG. Tel: 081 658 6685.

Dear AMN, is it possible to buy printer ribbon for fitting into cases from used ribbons?? Also is there a program similar to DIOSCMOD that will work on 80 track disk drives 3.5" or 5.25"?

V. Hamill, 45 Ledger Lane, Outwood, Wakefield, Yorkshire, WF1 2PQ.

ED .. Not sure on the ribbon, anyone out there know of a supplier?? but DSCONE will do a lot more than DISCMOD and it works on all densities of disk, 40/80 track 3.5"/5.25". (£15 from Sharward Services)

Dear AMN, please find enclosed a suite of educational programs unfortunately I did not get round to perfecting them but feel free to use them as you wish. I still have a number of other programs and utilities developed for my own use which I will try and forward to you when I have time to collect all the bits of info' that go with them. For example I did build a simple circuit to interface with the Einstein to enable the frequency response of a room or car to be instantly displayed, this could be used for setting up a graphic equaliser and was very good at demonstrating acoustics to my children. I have also built a circuit to get my MIDI system up and running. I can plug my Casio keyboard into the Einstein and play any of 30 songs far faster and better than with my fingers. However because of the limited memory of the TC01 I have to convert the manuscripts painfully note by note into machine code unlike some of the more sophisticated machines where you can just play the keyboard and the information goes directly into the computer. I do have all the machine code routines perfected so perhaps someone better than myself at programming could put them to better use?

B.N. Thompson, 40 Elkin Road, Morcambe, Lancashire, LA4 5RN.

ED .. The educational suite is now on PD disk 355 We will add the MIDI software and info to the library as soon as it arrives.

Dear AMN, I have a TC01 and would like to increase the RAM available for programming. I understand that a silicon disk was available that gave an extra 256k bytes. Is it still available? If not I would be interested in buying one second hand.

Bill Gardener, 24 Cloverhill Drive, Meadowfield Park, Crawcrook, Tyne & Wear, NE40 4TG.

ED .. Unfortunately the RAM disk is no longer available, it is not in fact a memory expansion but as it is stated a RAM Disk, i.e. it is 256k bytes of Random Access Memory being used as a disk drive. When you have finished using the RAM Disk you must copy its contents to a conventional floppy disk otherwise the contents are lost when the Einstein is powered off.

For Sale; Speculator + disks + leads. 4 Games disks, 6 original Spectrum tapes including Spitfire 40 and 20 Chartbusters. A snip at £30 the lot.

Barry Stokes, 77 Eider Avenue, Lyneham, Chippenham, Wiltshire, SN15 4QG. Tel: 0249 891932.

For Sale; TC01 single drive complete with colour monitor and Silver Reed X400 daisywheel printer. All manuals, some games, Tasword, Invoicing programs etc, £150.

Steven Millar, The Laurels, Berks Hill, Chorleywood, Herts, WD3 5AG. Tel: 0923 282368.

For Sale; 80 Column card £55. 80 track 800k 5.25" disc drive complete with external case and PSU including apprx. 30 discs with various software, £70.

Mike Pugh, Tel: 0564 823966.



Dear AMN, I note in your last issue Sharward Services were offering a Tandy DMP printer for sale. I have recently been informed by my local Tandy store that no further printer ribbons are available. Their head office do not answer my request for information. Could recommend a suitable supplier?

Ernest Hodgson.

ED .. Of course, or need you ask? Sharward Services can supply virtually any ribbon for any machine, Tandy DMP ribbons are £4.50 each, (minimum order 2 ribbons).

Dear AMN, When using WDPRO (Version 2.62) on my Einstein with a Panasonic KX-P1124 printer, can anyone tell me why it will not support the code X27,67,0,"n" to determine page length. This is a gross inconvenience particularly when line spacing is not an integer over 11 inches of page size.

Further how can one print the actual program including codes? I have had to this for some inexplicable reason but only after one or two lines of text have been printed correctly.

ED .. I think your problem with the page length is due to the control code you are using. 27,67,0,n is used to set page length to inches as determined by n, (1-22), if you have an odd size page length you need to use 27,67,n where n sets the page length to the number of line feeds in n (1-127). On the second point I take it that you mean how do you print a WDPRO file including the control codes in it? (That's nearly another competition!) One way that should work is to go into DOS and use the LOAD command then do CTRL+R to make the printer follow the screen and tabulate the file in MOS, i.e.

CTRL+BREAK

LOAD LETTER.UFT<enter>

CTRL+R

MOS<enter>

T 0100 FFFF<enter>

The entire contents of memory will now be displayed and printed, your file will not be as long as this so as soon as you have enough information press ESCAPE and use CTRL+S to turn off the printer.

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