

for users of Tatung TC01, E256, TPC & PC computers

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(opinions herein are not necessarily those of the publisher)

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ALL FORMATS SHOWS. Your vouchers are ALSO valid for:-
NORTH EAST: 24 Sept, 22 Oct. WEST MIDS: 30 Oct.
GLASGOW: 25 Sept, 23 Oct, 26 Nov. BELFAST: 16 Oct, 11 Dec.
HAYDOCK PARK: 29 Oct, 19 Nov, 03 Dec. TOLWORTH: 09 Oct.
STONELEIGH: 02 Oct, 20 Nov, 04 Dec. BRENTWOOD: 05 Nov.
BRISTOL: 06 Nov. CARDIFF: 13 Nov.

ALL GENUINE WHEELCHAIR USERS: FREE ENTRY

ALL MICRO SHOW #8 - originally an all-Einstein show!
Saturday 12 November 1994 - Bingley Hall, County Showground,
Stafford. (2 miles out on the main Uttoxeter road)
Bus shuttle from Stafford railway station
Good road access from M6 (J14), plenty of free parking
(overnight parking possible if required)

ALSO Spring All Micro Show (same place) Sat. 15 April 1995

WHEN DID YOU LAST ATTEND A USER GROUP MEETING?

It's been hard, hasn't it, when there haven't actually been any, because we are spread thinly across the country! At the Spring Show at Stafford we had a couple of very knowledgeable Einstein chaps from The Far North and The Far South on the stand, & lots of Einstein members & potential members turned up from all points in between, so the Einstein stand became very much an ad hoc meeting point for Einstein enthusiasts.

Your very own benevolent dictator and dogsboddy thanks this a truly excellent happening, and one much to be encouraged. If you agree, PLEASE LET US KNOW BY RETURN THAT YOU'LL BE COMING IN NOVEMBER, and we'll see if Ray at Sharward Services can find us an odd corner for our stand where you can sit and chat, exchange Einstein ideas, hints and tips, whilst giving your aching feet, arms and wallets a bit of a rest. Maybe even a cuppa, too? RSVP quickly.

(C) 1994, steam computer society and original author

NOTICE ANY CHANGES WITH THIS ISSUE?

Well, for a start, there's yet another slight change of title for the magazine. To some extent this is part of our desire to make us visible as an Einstein group again -- so that would-be members can actually find us! Are you playing your part in making us possible for Einstein owners to find?

Also it reflects the fact that at long last we may have found at least a temporary answer to our recurring nightmare of how to get the magazine printed at a cost that we can afford, since the unrepeatable opportunity occurred to obtain a very-nearly-working vintage photocopier at a rare moment when Steam Computer Society actually had a few quid in the coffers, and no bailiffs hammering at the door.

As a result we now have a 1982-vintage Canon NP-125 plain-paper photocopier, which we hope can be used to produce this and the next issue of the magazine, so saving us enough money on copying costs to pay for getting it properly serviced -- if we can find anyone who still remembers how!

We know the copy quality leaves much to be desired. Please bear with us for a couple of issues, until we have saved enough that can get this remedied. Alternatively, if you know what the servicing procedure is for these ancient beasts -- or know where we can get a service manual and/or parts and/or the correct toner -- or is the only difference between toners in the packaging? -- please do let us know.

OTHER CHANGES ARE IMMINENT TOO

Andrew McROBBIE and Clem COLE are both members who qualify for long-service medals, and they've volunteered to be our software librarians. There's a terrific amount of work for them to do, bringing the content -- and presentation -- up to modern standards, from those of the early single-sided single-density eight-inch-disk era where much of it started, and to allow them to concentrate on this for the present, the existing arrangements for ordering, adding to or enquiring about library software will continue to apply.

Andrew is a glutton for punishment, and he's also offered to help edit the magazine, so we can get publication back on schedule, and vastly improve its content -- WITH YOUR HELP! Long-service-medal member Ted CAWKWELL has also offered to help with the editing too. At least, we hope he has -- we've lost his letter! -- and we'll be making a start on implementing these improvements just as soon as this issue is safely handed over to Postman Pat.

A BEGINNERS'S GUIDE TO THE EINSTEIN, Part 3. (A.C. McROBBIE)ERASING A PROGRAM.

This can be done in BASIC or from DOS:-
In BASIC simply type

```
ERA "SPACESHP"
```

then press ENTER.

From DOS type

```
ERA SPACESHP.XBS
```

and press ENTER.

Note that in BASIC the computer expects the program to be a BASIC one, so you don't need to specify the FILE EXTENSION. The exception to this is where you want to save a BASIC program as an ASCII file :-

```
SAVE "HELLO.ASC"
```

This will be saved in ASCII format when ENTER is pressed.

IN DOS, however, the computer won't find a file unless any extension is also specified.

LOCKING A FILE

Once you have used DIR, you will see that on some programs an asterisk prefixes the FILENAME. This means that the file is LOCKED, so you won't erase it accidentally. Again from BASIC or DOS, the command is

```
LOCK FILENAME.EXTH
```

Use quotes in BASIC. Use the command UNLOCK to remove the protection.

HINTS

When copying or making a backup of a program, ALWAYS write protect the disk you are making a copy of, just in case something goes wrong.

Some programs differentiate between upper and lower case file names, and others don't.

If a program appears to hang up, press ENTER, or SHIFT/BREAK or even the ESC key, as the program may be waiting for your response at the keyboard.

If at any time you get a disc drive error with a

```
DISC NO SECTOR
```

message, panic not. The DOS has become corrupt as a result of a mains spike. To rewrite the system tracks without losing the information you already have on the disk, insert a good disc into the drive. Hold down the CTRL key and tap the BREAK key. This is a check to ensure that DOS will load from the 'good' disk.

Type MOS to get into the MACHINE OPERATING SYSTEM and press ENTER.

```
Type R 4000 6800
```

and press Enter.

Remove good disc. Insert bad disc with write protect removed.

```
Type W 4000 6800
```

and press ENTER.

```
Type Y
```

and press ENTER.

With luck DOS will be reloaded, & things will be as before.

Xtal BASIC 4.2 has a few bugs, one of which is the <> (NOT) command. Xtal BASIC ignores it.

BITS/BYTES/Kb/Mb

The Einstein is an 8 bit digital computer. With a digital switch, it is either on or off. A light switch is an example of a digital switch. A computer's circuitry is full of digital switches. To enable a computer to deal with numbers or letters, they too must be represented by on/off switches. Traditionally, ON is signified by 1 and OFF signified by 0. This is what is called Binary code. Instead of counting in tens as we (with 10 fingers) do, the computer counts in twos (with its equivalent of fingers!). Values like Kilobyte (or Kb) are 1024 bytes instead of 1000 (Kilo, after all, is 1000). A Megabyte (or Mb) is 1024x1024 bytes instead of 1000000. These are all based on the "base 2" system of calculation.

ie. 1024 equals 2 to the power of 10 (or $2*2*2*2*2*2*2*2*2*2$)

1048576 equals 2 to the power of 20

BINARY NUMBERS

0	is represented by	0
1	"	" 1
2	"	" 10 (NOT Ten)
3	"	" 11 (NOT Eleven)
4	"	" 100 (NOT One Hundred)

Using this system, the Americans came up with American Standard Code for Information Interchange (ASCII): a means of representing letters and numerals. One snag though, not ALL CHARACTERS are represented. They didn't consider letters outside their own alphabet. This has caused some annoying anomalies. Eg. The hash sign does not have its own ASCII code.

We use the ASCII code for the hash or sharp in music to identify it here.

Examples of ASCII code.

Number or Letter.	ASCII Code	Binary Number
0	48	00110000
1	49	00110001
A	65	01000001
a	97	11000001

In BASIC, if you PRINT ASC(65) you will see the letter 'A' appear on the screen.

A BIT is the smallest 'switch' in the computer. Each character is made up of 8 bits or one BYTE of information.

In an 8 bit computer, information in the form of data or commands to the processing unit is sent or returned 8 bits or 1 byte at a time (like an eight lane motorway). The only item which is not connected like this is the one to the

RAM, or Random Access Memory. In this case it is a 16 bit connection, like a 16 lane motorway. This is where the magic 65536 number is arrived at (2 to the power of 16 OR $65536/1024 = 64Kb$). It is sometimes claimed that the Einstein has 80K of memory, but 16K of this is used for Video RAM, to produce the on-screen layout.

HOW IS THE 188K FLIPPY DISK SPACE ARRIVED AT?

When you format one side of a disk, you format 40 tracks of 10 sectors. Each sector holds 512 bytes of information. This equates to 204800 bytes per side or 200Kb. As DOS and the directory take up approximately 2Kb, this leaves 188Kb or 188K for your programs.

UNERASE A FILE.

We all do it. Delete a file and utter oaths when we realise that we shouldn't have. Fortunately there is a way round this problem, providing that you haven't formatted the disk again, or saved anything to the disk, since you made your mistake.

When the computer erases a file, it does not physically remove that information from the disk. It changes the status or marker in the disk directory from 00 to E5. This indicates to the computer that this particular sector or more than one sector can be re-used. The next time that you save something to disk, your old program may then get overwritten.

To look at an example you have to go into MOS, the Machine Operating System. Take the backup copy of your master disk and put it into the drive. If you are at the DOS prompt, type MOS and press ENTER.

Type R 8000 8800 0002 and press ENTER
This loads the directory into memory. To look at this on screen, type

T 8000 8800 and press ENTER
Lots of numbers will scroll up the screen but what does it all stand for?

At the right hand side of the screen you should recognise some of your filenames, in particular XBAS.COM in the same line as 8000 & BACKUP.COM in line 8020 (see below).

Larger programs will have more than one entry. Press BREAK to pause, or ESC to stop the scrolling. If you have scrolled too far, stop the scrolling and use the T8000 8800 command again.

8000	00	58	42	41	53	20	20	20	XBAS
8008	20	C3	4F	4D	00	00	00	7A	COM
8010	01	00	02	00	03	00	04	00	
8018	05	00	06	00	07	00	08	00	
8020	00	42	41	43	4B	55	50	70	BACKUP
8028	20	C3	4F	4D	00	00	00	00	COM

At the left hand side of the screen in the first column are groups of four numbers, the value of which increases in number by eight in each line. This is a list of memory locations shown in hexadecimal (to the base 16).

00 in the 2nd column is memory location 8000.

58 in the 3rd column is memory location 8001.

42 in the 4th column is memory location 8002.

20 in the 9th column is memory location 8007.

Memory location 8008 is the second column in the second row (20) but things appear to go astray after 8009 (C3).

4F in the 4th column is memory location 800A.

4D in the 5th column is memory location 800B.

Letters of the alphabet are used up to the letter F to indicate what would normally be 11 to 15. Column 9 is memory location 800F (7A). The second column of the third row is memory location 8010 (Not eight thousand and ten) with a value of 01. A calculator with a hexadecimal mode is great for helping out with this.

As indicated earlier, the 2nd to 9th columns are the contents memory locations, in this case the filenames on the disk. Check for yourself and see. The second column in row 8000 displays 00 meaning it is used. The third column displays 58 which is hexadecimal for 88, the ASCII code for 'X'. Similarly the fourth column shows 42, hexadecimal for 66, the ASCII code for 'B' and so on.

If you had erased XBAS.COM, memory location 8000 would display ES. This would have to be modified to .00 to return the file and see it in the directory when using DIR.

To modify a memory location, the MOS command used is M and the memory location to be altered follows this command. eg. To restore XBAS.COM, type

M 8000 and press ENTER

The computer will list the memory location and its contents
8000 ES

The cursor will flash over the memory contents as it expects a change. You simply overtype this to read

00. and press ENTER

The modify command is terminated by a full stop. If you don't type the full stop, the next memory location and its contents is displayed. Additional presses of the ENTER button will list memory locations 8001, 8002, 8003 and their respective contents.

This has changed the computer contents. To keep this change, save it to disk with the W command.

W8000 8800 0002 and press ENTER

To get back to DOS type Y and press ENTER.

I hope this has given you a start with the EINSTEIN. It is a good machine even although it is 10+ years old. If you are stuck, why not ASK? We might well be able to solve your particular problem.

FEEDBACK RE THE DAVE ARTS CONSTRUCTION PROJECTS

We've hardly been overwhelmed by the response to my query sent out earlier, or to Dave's invitation at the close of his latest article. Two opposed viewpoints did emerge, however, as noted below:-

"I would like to add my support for a continuance of these practical projects. As one of the 'Have a go' fraternity of Einstein users, with a particular interest in 'GRAPHICS', these projects have always been of value to me. On the question of their format/content/presentation, they are quite comprehensive. However, for the benefit of those who do attempt them, but find difficulty in getting a program as listed to run properly, some notes on fault-finding and debugging would be a useful addition to the content."

John GOODFELLOW, Dorset.

(Member 0832)

"I have not tried the Graphic Art project. I believe it may be of interest to some members, but not very many. I suggest that a bi-monthly publication like ours is not the right vehicle in which projects of this length, and of limited appeal, should be conveyed. This type of project should be described only, complete details being made available to those who apply for them, with S.A.E. and copying charges. The space thus released can be far better used by including program listings for members to tap in and modify - this is what computing is all about. I look forward to a revival of the Readers' Letters page. These were a good source of ideas for producing new programs or modifying existing ones."

David WILLIAMS, Devon.

(Member 0448)

EDITOR:- I don't propose to choose between these two points of view, since in my opinion they are BOTH right!

The major problem with printing readers' letters is that so very few readers seem capable of the fundamentally simple task of putting a copy of their word-processed letter on a 3" disk, and enclosing it with the printout!

Clearly these Dave Arts projects are extremely valuable to a minute proportion of members, but equally clearly they scare the pants of those without knowledge or experience of their almost unique combination of mechanical construction, electronics projects, BASIC programming and machine code.

They are very valuable -- and much needed -- but they do need to be presented in a quite different way -- perhaps as Pick'N'Mix modular project packs, to suit all levels of knowledge, skill and experience, and to open them up to a much wider group of Einstein owners than at present.

Dave reacted badly when we suggested that there was a problem. We do need you Dave, & we do need your projects.

WE ARE USING WEIRD PAPER AGAIN because we have a vast stock of "warehouse and printing works clearances" paper of all sizes and substances which our sister Steam Printing Society obtained with their letterpress museum equipment, but had no use for. It represents a very considerable saving on paper costs if we can make sensible use of it -- and every penny so saved means subscription increases avoided and another penny available to spend on other more vital improvements -- but the only way we can find out whether our brand-new stone-age photocopier will run it happily is to try it!

Our printed SOFTWARE LIBRARY SUMMARY listing is free, send a stamped S.A.E., or ask us to pop one in with the next mag. Of more use to most members will be the full listing of volumes (up to volume 333) that is included in volume 334 as text files. That plus volume 101 - disk utilities - make a good choice for a sample library disk. The current non-member price is £8 for just one disk (but only £7 each for 2 or more disks). Don't forget that these prices include disk & p+p., AND THAT PAID-UP MEMBERS GET 50% OFF THE PRICE

COMMERCIAL-QUALITY SOFTWARE:- We made a start on introducing this at the Spring Stafford Show, & as soon as this issue of the magazine is in the mail and the new software library and magazine editing arrangements are set up we'll be giving top priority to getting more of it sorted out and available for you -- hopefully in time for the Stafford show in November.

Available now is the former Surrey Software wordprocessor with manual -- the best wordprocessor we've met for 80-column use -- with the original 40-column version on the other side of the disk. The non-member price for the set is £20 (inc.p+p), WITH THE USUAL 50% DISCOUNT TO MEMBERS

Also Alternative Einstein Games Of Skill (AEGOS) -- with the latest version of the famous GOLF game by Ted Cawkwell -- plus a user manual. Non-member price for this is £10 (inc.p+p), WITH THE USUAL 50% DISCOUNT TO MEMBERS

The Infocom classic text adventure SPELLBREAKER is unsold. It's brand new and still in its original shrink-wrap, and the first member who offers ten quid gets it, postfree.

BRITISH PRINTING SOCIETY (50 YEARS OLD THIS YEAR) OPEN DAYS:
Cornwall & Devon Branches - 01 Oct 94 - 10.30a to 3.30p
 at St. Pauls Church Hall, Yelverton, Devon (ample parking nearby). Bill Rundle 0752-655418.
Crawley Branch - 05 Oct 94 - 10a to 4p at St. Paul's Methodist Church Hall, Woodside Rd, Crawley, W. Sussex. (good parking, near town centre). Peter Scarratt 0293-522422

MY BOOT FAIR BARGAIN EINSTEIN

Des GURRY

I bought my Einstein at a car boot sale. That was the easy part and the cheapest part. It came with nothing but one single disk, which later turned out to contain text files from the previous owner -- an old folks' home -- full of details of bath times and other fascinating information.

When I got it home, my first surprise was that it seemed to work. I hooked it up to a TV, and switched on. Lights came on, a drive whirred, and the screen told me it was an Einstein. That's when the trouble and the expense started! "Insert disk and press control/break," it said. No disk, no manual, no idea what to do next.

My first computer had been an Acorn Electron. I'd had this a couple of years, and built it up into a useful word-processing system with disk drives and a printer. Then I moved to a BBC B, which I expanded to 64KB, added a 2nd processor, and 32Kb of sideways RAM. From there I moved up to the BBC Master, the ultimate 8-bit machine, with 128Kb, built-in sideways RAM, and more usable memory.

Compared with these machines, the Einstein was from another planet! For a start, it was empty. You actually had to load in its operating system and BASIC. CP/M was a complete mystery. In fact, without manuals and without any help, the whole machine was a total mystery.

Completely in the dark, I started hunting Einstein stuff in MicroComputer Mart, but it was pretty thin on the ground, and people took advantage of my ignorance to dump antique junk on me at the price they paid for it new. I did pick up a copy of the BASIC Manual, but this is little use to a total novice at Einsteining. Some people were helpful, like Les in Dorset, and Tony - now running the user group.

I'm still pretty much in the dark, with what feels like only the start of a system. I still haven't persuaded anyone to sell me an 80-column card on its own -- everyone seems to want to sell as a complete system -- so I'm stuck with the TV set. I can understand people wanting to sell the whole lot in one go to get the best price, but it really doesn't work like that with machines long out of production.

If you were starting computing with secondhand kit and £200 to spend, you wouldn't buy an Einstein, however upgraded it was. You could get much more for your money by buying obsolete IBM-compatible kit, for instance. When I sold my Electron I got far more for it by selling the basic system and all the add-on goodies separately. People will buy bits and pieces they need if the price is reasonable, but they won't pay extra for stuff they don't want or need.

I wish Tony well in his efforts to rebuild the user group, and I hope that I shall eventually be able to make fuller use of my Einstein, with the help of the group.

HELP OFFERED -- see previous issue

ITEMS FOR SALE

A.F. WILSON has a few copies of VDP Discovered/Power Graphics Manual for sale at just SIX POUNDS. Hard to come by, and full of essential detail if you want to tweak the video display processor on Einstein, MSX or Memotech, phone on 0324-562722 if you want a copy before they've gone.

WHAT DO WE WANT

Stuart EDWARDS

It seems to me that we are often forced to buy not what we require, but what will make most money for other people. I also seems that if I buy something, it is the kiss of death for that product's commercial success. I still think that Beta was a better video system than VHS, I still prefer to use my trusty old daisywheel printer for word-processing, and I still use an Einstein TC01. Need I say more!

With this as a preamble, you may well write me off as some kind of miserly crank. However, I have recently succumbed to the temptations of an IBM clone. Not, I hasten to add, a Power Pentium, but a humble XT clone. I was watching someone at work on a supercharged powerhouse machine the other day. He had watched the beast go through all of its self-test start-up routines, played with his mouse to navigate his way through a tortuous myriad of windows and menus, thoroughly confused himself as to which document he was working on, played about with fonts and borders -- and by the time he had finished I was completely convinced as to the merits of this wonderful new technology.

I was completely convinced that I could have done exactly the same job six times as fast, just by using the keyboard on a simple floppy-disk machine.

Most computers seem to be used for word-processing, database and spreadsheets. Windows is more often a hindrance than a help if you have any idea at all what you're doing, and it eats up memory by the Megabyte. The real threat is that soon it will be almost as impossible to buy new software for MS-DOS systems as it is now for the Einstein. The position is just as bad on the Apple Mac, though. Some people swear by the wonderful new System 7 operating system -- but far more curse it!

My real problem, though is that I can't work out how to make Tasword work on the TC01, using 3.5" drives and Flexidos. Can any other member help on this?

EDITOR: I'm sure there's something on this in one of the back numbers. If you can help, or say where the magazine item is to be found, phone Stuart on 021-357-7850 AND TELL US TOO!. A letter (copy on disk please) would be nice too.

EDITORIAL NOTE: All being well you will have the bulk of the next magazine issue put together by two dedicated new assistant editors, each of whom has far more knowledge, experience and skill at Einsteining in their little fingers than Yours Truly has in his whole body. Hence this issue is, in many ways, a "use up all the odds and ends" issue, to give the new brooms a bright new house to take charge of.

There's some really good stuff lined up for you in future issues, but we can't possibly keep up 20 pages, let alone increase it to 24 or more pages regularly, unless there is just as much coming in to be published as there is going out in print. Do please write that masterpiece you always intended for us, whether it's five words or five million. Upgrades, repairs, improvements, hints, tips and letters of all sorts are always very welcome -- from novices and experts alike -- but please DO remember to send a copy on 3" disk as well as on paper. You do get your disk back, by return if you enclose return postage, or with the next magazine otherwise. And you get credited with each magazine that you are published in!

Dear Editor, I have been given the colour monitor to a Amstrad CPC 464. On looking in the manual I found the monitor socket connections to be almost identical to Albies. Pins 1 to 5 are the same but whereas Pin 6 on Albie is not connected, on the 464 it is connected to LUMA. I have connected up Albie to the 464 monitor and get a very bright display, but adjusting the brightness control on the monitor makes little difference. Is it possible to use the CPC 464 monitor with Einstein and have a usable picture? If so, what has to be changed? Les STANLEY (Member 0406) (no phone?) 6 COTHERS COURT, BLOCKLEY, MORETON-IN-MARSH, GLOS. GL65 9EA.

If you can help, PLEASE SEND US A COPY (on disk too please!).

Dear Editor, I bought drive belts for my 255 from B&H, but they are the wrong ones for these drives, & kept flying off. I overcame this by fitting a piece of postcard over the belt, supported by the two pillars under the printed circuit board. Then I adjusted the drive motor speed by the rheostat under the right-hand rear side of the circuit board. I used the master disk, and varied the speed till the disk booted the 255 up. I moved the rheostat to the left, then to the right, and finally set it between the two extremes. It now boots up every time. R.W. BECKWITH (Member 1282)

ED:- B&H charge 25 quid plus post for this little job, so it could save you a penny or two. Where is the promised diagram though, Bob, to make it all clear to old duffers like me?

WHERE ARE WE HEADING?

Editor

The catastrophe of non-renewal of members of Ipswich days has been nearly contained since yours truly took over & realised that the magazine had no future without the user group being totally rebuilt & reorganised, but we are still at a completely non-viable level of membership and income by conventional reckoning, and it is only possible to sustain and rebuild the group into a viable operation once again by the most extraordinarily miserly system of running the group on other people's discarded shoe-strings, that has long been the trademark of yours truly's various clubs and societies.

In the past 15 months, by constant striving -- and the burning of vast amounts of midnight oil -- the foundations have been laid, on which to build a secure future for the group (and its favourite computer!) as well as a past, but yours truly can't do it all single-handed, and it comes as a great relief to have mature, experienced and skilled long-service Einstein users such as Clem Cole, Ted Cawkwell and Andrew McRobbie, sharing much of the responsibility in future for ensuring that you are provided with a first-class user-friendly magazine and software library.

A continuing cause of concern has been that there is still a residual trickle of lost members -- which yours truly has been unable to give adequate attention to by advertising the group's existence in a systematic and effective way -- and that the offers of members to help out in this area have only been sporadic and unsustainable, and have quickly fizzled out to nothing. Long-service Einstein user Frank Wadl will hopefully prove the answer to a maiden's prayer in this respect, by being responsible for ensuring that we do at least have a free ad in every issue of PC Mart and Micro Mart, but his time is necessarily limited, and we could do much more to reverse the group's (and thus the Einstein's) fortunes for the better, with a few more volunteers taking responsibility for keeping us visible in other areas as well.

We still don't have a volunteer for the simple but essential task of turning up at the Stafford show twice a year, getting in for free, and being responsible for ensuring that someone is behind the counter of our stand throughout the show to give out information and leaflets, answer questions, take any memberships or renewals, hopefully sell some of the group's software/manuals, ensure that nothing is left behind afterwards, & post the proceeds, etc., to "head office". It is a simple, enjoyable task, ideal for someone living within easy reach of Stafford, but it is essential in ensuring that we are visible, and that owners of Einsteins can find us.

Looking further into the future, we have to work out just how to ensure that the Einstein itself survives, since apart from the 256 machines that B&H are still stuck with, no-one has bought a brand-new Einstein for a decade now, and that is about the working life of an EPROM, before problems may start to arise from loss of data stored in some of them.

This is not, in itself, a serious problem, provided that we are aware of it and have a system worked out to check this possible cause of problems and to deal with it. Einstein RAM-checking software does exist. Do we have, or does any member have (or know how to write) ROM-checking software?

A far more serious problem is that apart from a small number of Einstein enthusiasts and existing users, the Einstein does not have any obvious reason for continued existence in a world awash with commercial IBM-compatible hardware and software, fully depreciated and discarded at scrap prices as obsolete since Windows 3.1 hype took the world by storm.

If it has not already happened, the inherent disadvantages of a 40-column 64Kb-RAM non-IBM-compatible non-MS-DOS 3"-disk machine being offered for sale at more than -- or even the same price as -- dirt cheap commercially-discarded IBM-compatible computer kit, most inevitably mean that each year that passes sees fifty percent of all remaining Einsteins go to electronic equipment scrapyards or to landfill sites -- HENCE NO EINSTEINS LEFT AT ALL IN A HANDFUL OF YEARS -- unless we become HIGHLY VISIBLE as a user group, so that every Einstein owner can find us without difficulty, unless we systematically develop simple and economical hardware and software upgrades that allow the Einstein to cope with the needs of users -- member Duncan Elvin has done extremely valuable prototype development work in this area, and is now working out how best to make the results available to the rest of us -- and unless we find a completely new role for the Einstein in a world awash with hype about Windows 3. Windows this, Windows that, and Windows everything else.

There are, in fact, two obvious areas where Einsteins could find a useful niche -- can you think of others? -- if we plan and devise strategies accordingly. One is in the hands of those who don't really need a computer at all, but to whom it offers enhanced opportunities. An obvious example is that of family historians. The peculiar assumption is made, at every possible opportunity, that you have to spend at least a thousand pounds on the very ultra-latest hardware and software -- and completely change your way of storing and accessing your family history to suit the machine's way of doing things -- if you are going to computerise at all.

This is a good way of conning family history people into thinking that you are some sort of "computer expert", and into spending vast amounts of money that would show a much better return for them if they spent it on Marriage Certificates, family history society subscriptions, and searches of parish registers, but in almost every case IT IS MONEY DOWN THE DRAIN, AND BUYING A CHEAP SECOND-HAND EINSTEIN WOULD BE JUST AS EFFECTIVE!

The essential point to grasp is that YOU DO NOT NEED A FAMILY HISTORY PROGRAM! A paper-based system wouldn't use one -- anyone who can explain to me how you COULD use a "family history program" on a paper-based system gets a free three-year extension on their subs! -- so the logical answer is to use an Einstein EXACTLY as though you were using a paper-based system. That will consist of one or more family trees, ancestor charts, and filing/index cards, plus record sheets or pages for people for whom you have detailed data. All you really need to computerise this is to spend well under a hundred pounds on a single-drive 40-column Einstein with a word-processor, plus a dot matrix printer, and 3 years membership of UKFUG. All the records you need can then be created, updated, indexed and printed out, with no effort at all. Given a few simple hardware and software upgrades to the Einstein, you could also exchange data with others either as hard copy, or on standard PC-format disks.

The second obvious niche for the Einstein -- given some simple hardware and software upgrades -- is as a short-term learning tool for complete computer novices wanting to acquire IBM-compatible modern equipment. At present, far too many of these are being taken advantage of and ripped-off good and proper, by sharks out to make money. Many don't actually need anything more than an Einstein, upgraded to be viably usable by non-computerists, but an upgraded Einstein could also have a very useful role to play in a hyped-up Windows world, if actively promoted as a short-term computer learning system.

An upgraded Einstein, with the ability to exchange text with MsDos PCs, would be an ideal low-cost short-term learning tool, enabling complete computer novices to gain sufficient hands-on practical computing experience in their own home, to then be able to make wise and informed choices about their genuine computing needs, when making their major long-term investment in the latest computer technology. With the Einstein being actively promoted for this purpose, there would then be an assured market for them, and very many Einsteins would be kept in use, whose only other future role is as scrap, tilling the bell on each and every one of us.

MARKET PLACE

Brian THEASBY in Middlesbrough, Cleveland, expects the council to knock his house down soon, as part of a clearance and redevelopment scheme. He doesn't think his twin-drive Einstein will work too well if it's full of brick dust, and he'd quite like to find it a good new home before this happens! He has a TMO colour monitor too, system disk, BBC BASIC, maddals, and mainly Kuma software. If you can place this Einstein in a good home, phone him on 0642-590-340.

Peter WOODCOCK in Bolton, has done the accounts for his wife's business on an Einstein for 10 years. The business is being sold, so he no longer needs the 2 just-in-case Einsteins he has -- or the large box of spares, including motherboards, 3" disk drives, keyboard assemblies, power packs and books. He's asking 50 pounds, buyer collects, and we'd be after this lot like a shot, but we're the wrong end of the country! Phone Peter on 01942-842-284 if you are interested, or can place his Einsteins in a good new home.

A useful reminder from Tom BOYD-MEANNEY that not only is WD40 very useful stuff for freeing off seized threads and hinges, and good for starting cars with condensation or spray from flooded roads on the ignition leads, but it's also excellent stuff for easing keys that are sticking on your keyboard, since it comes in a spray can with a push-on drinking-straw-like nozzle. It is also very useful for rejuvenating a dried-out printer ribbon, since it is an excellent lubricant for dot matrix heads too -- but use it very sparingly for such jobs, as it will lubricate the ink right through the thickness of the paper if you use it other than frugally! It is an insulant, so do be careful if using it around electrical contacts that you want to continue to act as such

IF WD40 doesn't do the trick, Andrew McRobbie has written a whole series of useful articles for you on a whole range of topics to go in the next few issues, which include FITTING A REPLACEMENT KEYBOARD, and fitting an additional 3" internal or 5.25" external drive to your Albert. Sid Dunn has more on using Pascal, and also on using "C" on your Einstein. Pascal is nearly as easy to understand as BASIC once you've got the feel of the logic, while C is much more powerful -- much of the MsDos operating system was written in it -- but is far more cryptic in its syntax, so that it sometimes appears to novice users to be a write-only language!

There's lots more for you to enjoy and be fascinated, encouraged and educated by in future issues, but we simply can't give you stuff worth reading if you don't write it and

send it in, for your wonderful new editors to sort, sift, assemble, polish, and turn into utter masterpieces that you'll want to frame and show off to all your friends.

At present you are due to get four pages of drivel written by yours truly in each issue -- if you include the front and back cover pages -- plus 16 pages of pure gold from you, after the new editors have brought out the utter genius that is latent in each and every one of you.

We'd like to increase the mag by another 4 pages if the input is there, but if YOU don't actually get round to sending YOUR hint, tip, letter, listing, article, moan, gripe or suggestion in -- COPY ON 3" DISK PLEASE -- yes it will be returned! -- all we'll have to fill the magazine with is blank pages -- or more drivel written by yours truly. You surely don't want anything that awful!

HELP OFFERED - additions to list printed in #70

Les FOSKETT (1578) says his first Olivetti computer was the size of an old-fashioned wardrobe (with a printer the size of an electric cooker) until he rebuilt it to fit inside his small cottage -- and that the Spectrum that replaced it was more powerful! He says he's more practical than theoretical, but must have learned something along the way, and hopes he can be of some use in helping with your problems. Contact him at 7 East 35 Denbury, Newton Abbot, Devon, TQ12 6DL.

HELP WANTED

Frank WADL (0923) 265 704, has a Prism modem, and bought Syntel and a cable from Sharward, but can't get it to do anything. He asks, is there anyone out there who knows about modems and could help him out? Could we start a bulletin board up again? -- there was one in the early years.

Frank also wants a cheap 3.5" drive, as he's fed up of filling up very-expensive 3" disks so quickly, but isn't clear on how the formatting of disks works with 3.5".

ED:- Come on you comms experts -- and tell us too!

Gadding new editor Andrew McRobbie has a 5.25" drive upgrade article in the pipeline for you, and is trying to father on the complications of 3.5" drives to tell you how to use those too. You can use Dos 1.11 or 1.31 "as is" to get the benefit of cheap disks, or an early Einstein User tells you how to patch it to 80 tracks -- is double-sided possible? -- or you can buy System 5 or Dos 80 from B&H. BEWARE though! ALWAYS label a 3.5" or 5.25" disk with the Dos it's formatted with, & NEVER write to it under the "wrong" Dos, as it won't "see" anything there already!

Dear Tony,

Sorry it's taken so long to reply to your letter, but I have finally had a new drive fitted to my 256, and had the new (Citizen 120D) printer sorted out at the same time. I have also just managed to copy files individually from one disk to another, so I am attempting to send you a copy of this on disk as well. The dealer who sorted out all these problems for me is finding a new home for my old Brother printer, so a lot of my queries have been solved, at last!

In general, I enjoy receiving the magazine, if only because it indicates that there are other Einsteins out there somewhere, but most of the content frightens me half to death. This is the first computer I have ever owned or used, except for "office type" wordprocessing, where everything was set up, and I only had to use it! Anything at all seems strange and difficult to me. I do have an Einstein manual, a BASIC manual and two large Wordstar manuals, but since I also suffer from M.E. it is honestly just too daunting to plod through the whole lot, or even to try to cope with bits at a time.

As I say, I have now got to grips with COPY, BACKUP and basic wordprocessing, but other than that, the computer is used only for the children (and me sometimes) to play games on. We do find that some of the software we buy has rather sketchy instructions. I know it's not just me and the children, because I have asked several computer experts used to other machines, and they all agree that this one is rather unfriendly.

One very trivial and specific query: My son has "The Attack of the Killer Tomatoes" and cannot find any way of instructing it to use the joystick. Does any Killer Tomato fan know please?

I have bought a lot of software, including "The Cracker" and "Grafdraw" but have not even unpacked a lot of it, having rather lost heart with all the problems we have been having. It would be interesting to read about people who have these and other programs and enjoy them, and any tips and wrinkles on software, including games. A lot of the users in the magazine seem very intelligent types. Don't any of them play games?

I can't remember when my subscription is due, but I enclose a bit more money anyway to encourage you to keep up the good work. I gave the spare membership form to my acquaintance in Portishead with a 256, but I haven't seen her for ages, so I hope it got returned, with some money!

Another minor hiccup of which I have just been reminded is that, every now and then, when I am in full flow with Wordstar, like this, my cursor disappears! There's another mystery for one of your boffin readers to solve!

All the best,

Sheena M. Woodley (UKBUG 1625)

DEAR A.E. ADAMS.

SORRY ABOUT THE DELAY IN REPLY TO YOUR INITIAL LETTER AND INTRODUCTION TO U.K.EINSTEIN USER GROUP. I MUST ADMIT THAT I FEEL I AM WORKING ON OUTDATED MODELS (THEN YOUR MAGAZINE ARRIVES AND LOW AND BEHOLD MY COMPUTER CAN DO WONDERS AGAIN).

I AM STILL VERY MUCH A NOVICE, AND I MUST ADMIT I FLOUNDER QUITE OFTEN. I BELIEVE I TICKED THE BOX FOR A HARD DISK DRIVE, AS I WAS UNDER THE IMPRESSION THAT THE INTERNAL DISK DRIVE WAS THE HARD DISK.

I AM SENDING YOU A LIST OF MY COMPUTER HARDWARE/SOFTWARE/MANUALS/DISKS, ALSO MY FAVOURITE GAME OF 'SNAKES' ARE YOU ALLOWED TO PUBLISH THIS, OR DOES EVERYONE GET THESE GAMES, ETC., WHEN PURCHASING AN EINSTEIN? A LIST ALSO OF THE 'DEMO' PROGRAM IS INCLUDED.

PLEASE CAN I HAVE A COPY OF SOFTWARE LIBRARY VOLUME 334 (FULL LISTING) AND 333 (XBAS FAMILY HISTORY), ALSO 128 (READ AMSTRAD DISCS ON EINSTEIN), AND VOLUME 255 (MELNIC OFFICE UTILS, LABELS, ETC)

QUEENIE FENDLEY

MEMBER NO UKEUG 1739

EDITOR: - Many thanks for your letter. I agree that "Snakes" is addictive. This and the "Demo" program should be on the system utilities disk supplied with every Einstein. They are intended to show what the machine is capable of, but are also intended as learning examples for budding programmers.

You've misread the prices of the software library disks, & forgotten to deduct the member's discount. To make up the difference I'm sending you a copy of our 88S 40-column and 80-column word processor, which I hope you'll find a useful and easy-to-use upgrade to WDPRO, as it is a WYSIWYG (What You See Is What You Get) word processor.

David Williams has been getting very, very frustrated -- and with good reason. Nearly five years ago he sent Graham a selection of his BASIC listings for the magazine, but Graham managed to lose them, and their replacements, not just once, but again and again. David submitted them all over again after yours truly took over, and has been patiently waiting for Dave Arts' construction project to be completed, so we could find him some space in the mag.

We were hoping to expand the magazine from 20 to 24 pages from the first issue next year, but we've decided instead to reward David for his patience by adding four extra pages to this issue, so we can give his listings some much-merited space. We hope to have many more of David's listings -- and yours -- to print in future -- and also to keep the magazine at this size -- but it does very much depend on what you send us to include in your magazine

ARITHMETIC - An Arithmetic Tutor in XBAS by David Williams

This tutor deals with the ADD, SUBTRACT, MULTIPLY and DIVIDE functions, with the instructions shown on-screen at all times. A particular feature is the scoring method, where marks are not lost for wrong answers. Marks are lost only if the sum is too hard, and another one is selected. However, the teacher can monitor how many times a wrong answer was given and the sum abandoned, by pressing the 'A' key.

The degree of

```

10 REM *****
20 REM * ARITHMETIC TUTOR *
30 REM * by David Williams *
40 REM * for UKEUG. - SEP '93 *
50 REM *****
60 A=3:REM (Degree of difficulty)
70 R=A*3:CS=MULS(" ",21)
80 BCQL7:TCOL1,0:CLS40:GCOL1,0
90 GOSUB880
100 PRINT@5,5;"Which one ?"
110 PRINT@12,8;"1. MULTIPLICATION"
120 PRINT@12,10;"2. DIVISION"
130 PRINT@12,12;"3. ADDITION"
140 PRINT@12,14;"4. SUBTRACTION"
150 PRINT@12,16;"5. FINISH"
160 PRINT@5,20;"Press the number key to select:"
170 A=INCH:IF A<49 OR A>53 THEN 160
180 Y$=CHR$(A):Y=VAL(Y$):CLS
190 IF Y=5 THEN BCQL4:TCOL1,0:RST:END
200 GOSUB880
210 PRINT@2,3;" Type the answer then press the ENTER"
220 PRINT@2,4;" key. Any typing errors can be erased"
230 PRINT@2,5;" by pressing the DEL key. If the sum"
240 PRINT@2,6;" is too hard, press the N key for the"
250 PRINT@2,7;" next sum. Press ESC key for the menu."
260 DR=55,23TO192,23TO192,32TO55,32TO55,23
270 GOSUB880
280 ON Y GOTO 540,450,590,640
290 REM ***** INPUT MODULE *****
300 A$="":PRINT@27,16;MULS(" ",12)
310 POKE64318,136:PRINT@13,16;"YOUR ANSWER IS ";A$;
320 BS=INCH:C=ASC(B$)
330 IF C=65 THEN CLS:PRINT@12,9;"Wrong answer = ";Q:ELSE 360
340 PRINT@12,11;"Sum too hard = ";N
350 FOR P=0 TO 3500:NEXT T:T=T-1:W=1:GOTO 200
360 IF C=13 AND A$<>" " THEN 440
370 IF C=78 THEN N=N+1:GOSUB810:GOTO 460
380 IF C=27 THEN RUN
390 IF C=25 THEN 300
400 IF C=44 OR C>57 THEN 310

```

```

410 AS=A$+B$:L=LEN(A$)
420 IFL=12THENL=0:GOTO300
430 GOTO310
440 V=VAL(A$).IFV<>DTHENQ=Q+1
450 RETURN
460 ON Y GOTO 540,490,590,640
470 REM
480 REM ***** DIVISION *****
490 GOSUB830:D=B/A
500 PRINT@14,13;"DIVIDE";B;"BY";A;C$
510 IFV=DTHEN GOSUB700:ELSE GOSUB300:GOTO510
520 GOTO490
530 REM ***** MULTIPLICATION *****
540 GOSUB830:D=B*A
550 PRINT@13,13;"MULTIPLY";B;"BY";A;C$
560 IFV=DTHEN GOSUB700:ELSE GOSUB300:GOTO560
570 GOTO540
580 REM ***** ADDITION *****
590 GOSUB830:D=B+A
600 PRINT@15,13;"ADD";B;"AND";A;C$
610 IFV=DTHEN GOSUB700:ELSE GOSUB300:GOTO610
620 GOTO590
630 REM ***** SUBTRACTION *****
640 GOSUB830:IFB=0THENB=A:A=0
650 D=B-A
660 PRINT@12,13;"SUBTRACT";A;"FROM";B;C$
670 IFV=DTHEN GOSUB700:ELSE GOSUB300:GOTO670
680 GOTO640
690 REM ***** SUBROUTINES *****
700 X=X+1:BEPP:GOSUB810
710 TCOL1,15:PRINT@17,10;"CORRECT "
720 IFB=0ORA=0THEN TCOL15,6:ELSE740
730 PRINT@10,20;" That was tricky. ":GOTO780
740 IFT=6ORT=10ANDT=XTHENB=0:ELSE760
750 PRINT@10,20;" Keep it up. ":GOTO780
760 IFT>25ANDT=XTHENB=0:ELSE780
770 PRINT@10,20;"A very high standard."
780 FORZ=1TO2000:NEXT
790 IFB=0ORA=0THEN800:ELSE810
800 TCOL1,10:PRINT@10,20;MUL$( " ",21)
810 TCOL1,10:PRINT@10,20;"SCORE "=:X;"out of";T
820 TCOL1,0:RETURN
830 T=T+1:IFW=0THEN A=RND(R)+1:B=A*RND(R)+A
840 W=0:IFB/A=2THENB=0
850 DRAW95,112TO153,112TO153,107TO95,103TO95,112
860 TCOL1,10:PRINT@17,10;"Try this"
870 TCOL1,0:V=-1:RETURN
880 CLS40:PRINT@13,0;"ARITHMETIC TUTOR"
890 DRAW79,183TO174,183:RETURN
900 IFB/A=2THENB=0:RETURN

```

"ENGLISH TUTOR", an XBAS listing, by David Williams

Like ARITHMETIC, this is an educational program, which tests your ability to recognise nouns, verbs and adjectives. If you get the answer wrong, the program will tell you the correct answer. A scoring method is included, to enable progress to be monitored.

```

50 BCOL2:TCOL1,0:CLS40:GCOL1,0
60 D$=MUL$( " ",13):E$=MUL$( " ",20)
70 DIMAS(16),B$(16),C$(16)
80 FORK=1TO16:READA$(K):NEXT
90 FORK=1TO16:READB$(K):NEXT
100 FORK=1TO16:READC$(K):NEXT
110 PRINT@0,0;"HOW GOOD IS YOUR ENGLISH"
120 DRAW54,183TO198,183
130 PRINT@4,4;"Is this:"
140 PRINT@13,6;"1. A Noun."
150 PRINT@13,8;"2. An Adjective."
160 PRINT@13,10;"3. A Verb."
170 REM ***** word selection *****
180 D=A
190 A=RND(16)+1:B=RND(3)+1
200 IFL=ATHEN190
210 ONB GOTO220,230,240
220 Z$=A$(A):GOTO250
230 Z$=E$(A):GOTO250
240 Z$=C$(A)
250 L=LEN(Z$):L=20-L/2:TCOL1,10
260 DRAWX+87,Y+88TOX1+168,Y+88TOX1+168,Y1+63
270 DRAWX1+168,Y1+63TOX+87,Y1+63TOX+87,Y+88
280 IFL=-24THEN300
290 X=-24:X1=24:Y=-49:Y1=-15:GOTO260
300 FORK=1TO3:PRINT@15,K+12;D$:NEXT
310 IFT=0THEN GOSUB610
320 PRINT@L+1,14;Z$:GOSUB590:T=T+1:TCOL1,0
330 PRINT@3,22;"Number key to select or Q to quit:"
340 Z$=INCH$:V=VAL(Z$):IFZ$="Q"ORZ$="q"THENBCOL4:RST:END
350 IFV<1ORV>3THEN330:ELSEPRINT@3,22;MUL$( " ",34)
360 IFV=BTHENB=S+1:TCOL1,14:ELSE400
370 FORK=1TO3:PRINT@15,12+K;D$:NEXT
380 PRINT@17,14;"Very good":GOSUB600
390 GOSUB590:BEPP:GOTO450
400 MUSIC"AR","CR","ER"
410 IFB=1THENZ$=" No, this is a Noun."
420 IFB=2THENZ$=" No, an Adjective."
430 IFB=3THENZ$=" No, this is a Verb."
440 TCOL15,6:PRINT@11,18;;Z$:GOSUB600:GOSUB610
450 GOTO180
460 DATA"WATER","ANIMAL","BOAT","PATH","FOOD"

```

```

470 DATA"INVENTOR", "TABLET", "ANIMAL"
480 DATA"MUSIC", "INSTRUMENT", "IMPROVEMENT"
490 DATA"FIGURE", "VERB", "FIBRE", "BOTTLE", "CAPTION"
500 DATA"DRINKABLE", "BLUNT", "WET", "BRIGHT"
510 DATA"LONG", "NARROW", "UNSTABLE", "MUSICAL"
520 DATA"CHEAP", "TOXIC", "HYGIENIC", "ADVENTUROUS"
530 DATA"ACTING", "QUIET", "FAST", "SHARP"
540 DATA"LOVE", "UNDERSTAND", "WEIGH", "KNOCK"
550 DATA"BROWSE", "TWIST", "FEAR", "PERFORM"
560 DATA"DROP", "EXERT", "GRASP", "HELP"
570 DATA"ASSIST", "RESCUE", "SHAKE", "RESTRAIN"
580 REM ***** SuE routines *****
590 TCOL1,10:PRINT@11,18;"SCORE:";S;"out of";T:RETURN
600 FORB=1TO2000:NEXT:RETURN
610 TCOL1,10:PRINT@11,18;ES:RETURN

```

DICING WITH STATISTICS - An XBAS listing by David Williams

This should prove to be of interest to those members who are looking for a realistic introduction to statistics, and also to those who are searching for a simple high-res Bar Chart. The higher the number of throws you make, the closer you will get to the theoretical answer. The dotted line on the chart indicates the maximum that should be obtained by the score of seven.

```

10 REM *****
20 REM * DICING WITH STATISTICS *
30 REM * by David Williams *
40 REM * Written for AMN - 1991 *
50 REM *****
60 BCOL7:TCOL1,0:GCOL1,0
70 DIMA(12):AQ=MUL$( " ",17)
80 GOSUB600
90 PRINT@3,5;"Statistics show that for every 36"
100 PRINT@3,6;"throws of 2 dice, you can expect"
110 PRINT@3,7;"the sum of their scores to happen"
120 PRINT@3,8;"(on average) as follows:"
130 PRINT@10,10;"2 and 12 occur once"
140 PRINT@10,11;"3 and 11 occur twice."
150 PRINT@10,12;"4 and 10 occur 3 times."
160 PRINT@10,13;"5 and 9 occur 4 times."
170 PRINT@10,14;"6 and 8 occur 5 times."
180 PRINT@10,15;"7 occurs 6 times."
190 PRINT@3,17;"Throw the dice yourself and see if"
200 PRINT@3,18;"you agree with the results. Press"
210 PRINT@3,19;"ENTER key to start or ESC to quit."
220 Z=INCH:IFZ=13THEN240
230 IFZ=27THEN650:ELSE210
240 GOSUB600:PRINT@10,8;

```

```

250 INPUT" How many throws:";N
260 IFN<25THEN GOSUB630:GOTO240:ELSEZ=500/N
270 GOSUB600:PRINT@1,3;N;"Throws"
280 DRAW95,160TO95,39TO207,39TO207,160TO95,160
290 FORB=1TO1
300 DRAW96+B*5,37TO96+B*9,39
310 NEXT:TCOL1,12
320 FORB=4TO10:PRINT@17,B;AS
330 NEXT:TCOL1,0:GCOL15,12
340 DRAW104,124TO199,124,2
350 FORB=2TO12:STEP2
360 PRINT@13+B*1.5,20;B
370 NEXT
380 PRINT@1,5;"Score ";
390 TCOL15:PRINT"No of"
400 PRINT@8,6;"times":TCOL1
410 FORB=2TO12:IFB>9THENX=-1
420 PRINT@3+X,6+B;B;"-- ";
430 TCOL15:PRINT"0":TCOL1
440 NEXT:GCOL15,12:TCOL15
450 FORB=1TON
460 D=RND(6)+RND(6)+2
470 A(D)=A(D)+1
480 IFA(D)>99THENW=0:GOTO500
490 IFA(D)<10THENW=2:ELSEW=1
500 PRINT@7+W,D+6;A(D)
510 X=87+D*9:Y=Z*A(D)
520 IFY>119THENY=119
530 DRAWX,40TOX,40+Y
540 NEXT:TCOL1*PRINT@35,8;"7 ?"
550 PRINT@2,22;"Again (Y/N):";
560 AS=INCH$
570 IFA$="Y"ORAS="y"THEN RUN60
580 IFA$="N"ORAS="n"THEN 650
590 GOTO550
600 CLS40:TCOL 5,1
610 PRINT@9,0; DICING WITH STATISTICS ":TCOL1,0-
620 RETURN
630 PRINT@2,8;"Less than about 25 throws are not very
meaningful."
640 FORZ=1TO3000:NEXT:RETURN
650 BCOL4:RST:END

```

Dear Tony, My Einstein broke down some time ago, but I have two now (against future breakdowns), and I have moved them from a damp and uninviting caravan at the bottom of the garden to a slightly less damp cellar under the house, where they are actually getting used. There is no room in the house for them, and the caravan was too creepy to visit late on a winter's night!

Norma Wrangham, UKEUG 114

BACKPAGE INFO

This magazine is available at £3 per copy, postfree, but one copy of each issue is mailed FREE OF CHARGE to each paid-up member of the U.K. EINSTEIN USER GROUP (UKEUG). All contributions, subscriptions and enquiries should be sent to Ivy Cottage, Church Road, New Romney, Kent.TN28 8TY. (Telephone or personal enquiries cannot be dealt with)

Membership of the user group is now down to £10 per year, or only £9 per year if you pay for two or more years. Members residing outside the UK pay slightly more to cover extra postage costs. Please make all BANK DRAFTS, CHEQUES, POSTAL ORDERS, etc., payable to EINSTEIN USER GROUP.

An information pack -- including details of our EINSTEIN SOFTWARE LIBRARY -- will be sent on receipt of large S.A.E.

The magazine and user group are run in their spare time by unpaid enthusiasts on a VERY tight budget. If you require a reply PLEASE INCLUDE A S.A.E. -- OR WE MAY NOT BE ABLE TO AFFORD TO PAY THE POSTAGE BEFORE MAILING YOUR REPLY!

MAGAZINE BACK NUMBERS are available at £2 each for single copies (or £10 for 6) incl.p+p. BUT 50% OFF TO MEMBERS!!!

The following are currently available:-

EINSTEIN MONTHLY volume 1: 5,6,7,8,9,10,11,12

EINSTEIN MONTHLY volume 2: 1,2,3,4,5,6,7,8,9,10,11,12

EINSTEIN MONTHLY volume 3: 1,2

ALTERNATIVE MICRO NEWS volume 1: 1,2,3,4,5

ALL MICRO-NEWS volume 1: 1,2,3,4,5,6,7,8,9,10,11,12

ALL MICRO NEWS volume 2: 1

ALL MICRO MAGAZINE: #65,#66,#67,#68,#69,#70

EINSTEIN USER MAGAZINE: B&H Computers of Halifax still claim to be intending to produce another issue of this quarterly magazine "any day now", but all the subscribers have got for several years is the feeble excuse "Our printer is poorly / retired / dead, and no one else can be bothered". Again and again we've offered to honour their commitment to their subscribers if it's too much trouble for them to do so, but every time we mention this to them they accuse us of wanting to steal their database! Just why do they imagine that we'd want 20,000 names and addresses of people who no longer own an Einstein? They used to produce "Einstein Flyer" with details of special offers several times a year, but we've only had one of those this year, so either we're blacklisted, or that's too much bother for them. If you're a subscriber, phone them on 0422-330408 and ask for a refund!