



# Einstein Magazine

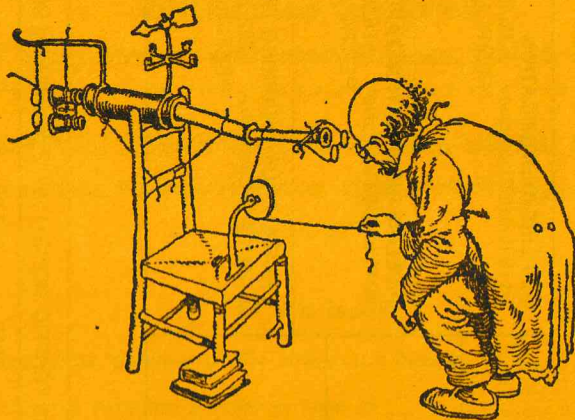
**& ALL MICRO NEWS      number 93**

**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**

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## **Great Moments in Computing History**

**No.2** The Einstein Boffin uses the very latest and most sophisticated hi-tech equipment that the user group owns in the hunt for the elusive Millennium Bug.



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**SHOWS, SOFTWARE LIBRARY and USEFUL BITS**

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NG34 8DS**

## **In this issue**

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## Y2K by Bob Deeley

Y2K (Two thousand 2000 compliant) my gripe is not about the bug or more correctly 'misteature' itself, rather the response and reaction to it of the powers that be, and the world in general.

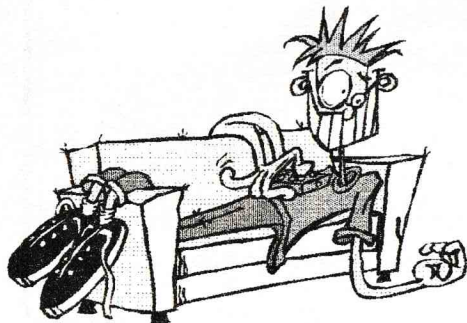
Y2K is surely the duller most mundane matter that could have ever been concocted. Impinging upon ones valuable time that might otherwise have been employed creatively. This must go down as one of the greatest achievements of 'The Suits', their finest 'crock' and hour, their most successful conversation stopper, the longest yawn of the century or possibly even of this millennium! The misunderstandings propagated by media coverage and exacerbated by people with nothing better to do, or unable and unskilled to be capable of taking corrective measures themselves.

"Better than any virus this has permeated all stratus of society, its effect has now become egregious within the technical domain, and the chagrin of sane, productive, thinking people." -RJD 8-4-99.

This piece had been inspired or should I say was born out of my frustration, when presented with 'elaborate forms' to fill in concerning many pieces of equipment on site, one for each, sticky labels to be attached and a ledger to be kept.

This must be carried out upon all equipment even though some pieces are obviously devoid of microprocessors or clocks. I remonstrated that I knew that nothing would be affected come the turn of the year, but my assurance was not sufficient and along with the forms a paper trail back to the manufacturers was also required to give them validity. Needless to say the task remains outstanding.

---@@@---



Do you feel better now, Bob? You speak for many people. I shall be sitting in front of my TV, with torch, matches and candle, waiting to see who has screwed up, and how badly. At least - until the power goes OFF. Ed.

## SCREENMAKER

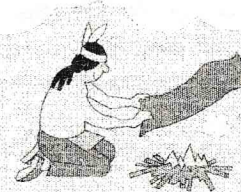
This program, by H. Langshaw, was dredged out of an old EM and shows an amazing versatility when examined closely. It shows an extraordinary use of sprites (every letter on the screen is a sprite) and by judicious changing of a couple of variables some excellent results can be obtained - and all in three lines of basic.

```
1  RST:D=2:BCOL1:Y=96:FORR=3TO1STEP-1:ORIGIN
128,Y:READT$:T=LEN(T$):MAG1:C=R*30:FORK=1TO500:NEXTK
2  FORN=1TOT:B=N*PI/(T+1):SPRITEA,C*COS(B),C*SIN(B),D,
ASC(MID$(T$,T+1-N,1)):A=A+1:NEXTN:Y=Y-C/2:D=D+3:NEXTR
3  DATA EINSTEIN, SCREEN, MAKER,
```

The first obvious change is the data in line 3. Virtually any three words can be used but when you run the program you will see that the last word should be 5 letters or less because the words are displayed in 3 arcs down the screen, the bottom one being the smallest. I have added two other variables, both in line 1. The BCOL1 can be changed to any colour between 1 and 15 to get the background wanted. I find 7 (cyan) is pleasant and restful.

The other changeable is the variable D. This controls the text colour. The first arc is in the colour D, the second is D+3 and the third is D+6, so, if D is 2 the first word is green, the second light blue and the last word red. Try values of D between 2 and 11 for different combinations.

*Only Einstein can do this.*



This is a nice program to play around with and I expect there are other variations that I haven't thought of. Did I mention that the letters are enlarged as well?

---@@@---



## WHAT'S WRONG WITH BASIC?

JOHN MARRIOTT

So, last month we'd got as far as semi-personalising a BASIC database program with it running about 130% faster without any COMPILER or MACHINE CODE coming anywhere in sight - just by thinking about WHAT and WHY. To me, databases are a minor form of SPREADSHEET - a lot of number moving and memory hungry DIMensioned calls...

....and this was to be the major decision in looking at the SORT mechanism and the decision to make THAT a MACHINE CODE OPERATION. As the FIND mechanism is closely linked to the SORT as well as DELETE, it was realised that there were now about 1800 Records in the database ALL IN THE WRONG FORMAT!

This wasn't patently obvious on the outset - but more of that later! As stated earlier, the 3 Fields were numerical and of 6, 2 & 4 characters in length, maximum. If I'd "asked" for a "Find a Record", selecting the Second Field and the Value "2", the following screen displays could have come up

- |                   |                    |
|-------------------|--------------------|
| 1. Book No. 1.101 | 1. Book No. 17.102 |
| 2. Group No. 2    | 2. Group No. 2     |
| 3. Serial No. 17  | 3. Serial No. 303  |

Seems OK? Well, as far as it goes - yes. But do the following displays appear any better when viewed from a display/sort sense

- |                    |                    |
|--------------------|--------------------|
| 1. Book No. *1.101 | 1. Book No. 17.102 |
| 2. Group No. *2    | 2. Group No. *2    |
| 3. Serial No. **17 | 3. Serial No. *303 |

Other than you can instantly see the length of each Field, it actually makes a Field SORT easier in Machine Code as in the CHARACTER TABLE the value of "\*" is less than "1" so a simple SWAP/NO SWAP can come on the FIRST Character check with no worry about WHERE the DECIMAL POINT is - as would be the problem in the first display - and was!

Its was funny, and not too HA! HA! like, to realise that 1800 Records MAY have to be re-entered, BUT that MULTIFACE+3 came to my rescue by letting me know where those Records started AND ended AS I didn't want a BLANK Record to foul things up - the Spectrum does not like DIVIDE BY ZERO problems! I programmed a small CODE program - which I called "SHUFFLE" as I have a rather original turn of mind, and my sons' friends

STILL think I'm STRANGE!

The Database when up and running at a point where a NEW RECORD was to be added could land up with the inputs of :

1.101

1

248

and would appear in the VARIABLES section of RAM as 1.10 1\*1\*248\* (the \* being a SPACE value of &20/32), where in fact I really could do with it appearing as \*1.101\*1\*248 and when I tried a dummy run with the aid of the MULTIFACE+3, I reckoned that with the simple BUBBLE SORT contained within the Database Program, that the SORT time for 2500 Records could be brought down to just over 3 days! Alright, I can hear you sniggering - but REMEMBER, this had been brought down from an estimated 11 days! The program was still fully in BASIC, yet again by chance I'd discovered that by the way the information was presented, real time savings could be made!

In order for US to "understand" Machine Code, there is a Psuedo Language called ASSEMBLY LANGUAGE which gives a MNEMONIC to a specific Machine Code Operation. This idea may be difficult to grasp UNTIL you remember how many times you use words such as "thingy-me-bob", "what's-his-name", "what-cha-may-call-it" and the person you're speaking to UNDERSTANDS what you mean! You have no trouble in a BASIC Program to accept that after a GOTO Command there has to be a RETURN Command to balance it - Machine Code has the same with &CD and &C9.

I've no apologies for only using HEXADECIMAL, trying to "work" Machine Code with DECIMAL notation is hard work, soul destroying, useless. Anyway, the "values" &CD and &C9 are meaningless - at the outset, so in ASSEMBLY LANGUAGE we'd use CALL (with a number value in ROM or RAM) and RTN. There is also a portion of RAM set aside for the computer's use, an arbitrary name of REGISTERS is used, with more arbitrary names for those REGISTERS of A, B, C, D, E, F with a "shadow" set of A1 & etc. There are others, but at this level not to be our concern. These tend to be "paired" as AF, BC and DE. Why the strange looking choice of AF? Another arbitrary thing we humans get up to BUT the F REGISTER is used as a MARKER, but the word FLAGS is used - rather like the London Taxi-cab meter "flag" showing if the cab is carrying a passenger or free for hire.

Incidentally, why no screams when I used the mnemonics of ROM and RAM?



That's right, it's because we "know" what they stand for - and the more you use Machine Code the more you'll tend to feel at home with HEXADECIMAL and direct number coding RATHER than using the longer route of ASSEMBLY LANGUAGE.

At this point, a WARNING! There is no SYNTAX checking by the computer once your ASSEMBLER Program has converted your ASSEMBLY LANGUAGE Program into Machine Code so ALWAYS save off your ASSEMBLY and CODE programs BEFORE attempting to RUN it! DEVPAC and the CODE MACHINE have a portion of program called STEP TRACING where you can PSEUDO RUN a CODE Program ... BUT ... MURPHY'S LAW thrives on IDIOTS who think they've created a fool-proof CODE and try STEP TRACING it ... only to find that a &C9 (ReTurN!) pops up, pulls the last value it finds off the STACK - and as quick as a key-press you've disappeared into heavens knows where, usually the OPERATING ROM ... and panic! You've never read the manual, most likely just got the "borrowed" program so you've no idea how to break out of it - and there's a good 3 hours work gone phut!

OK - commercial over! Seeing as how you're so smart, write a BASIC Program that will convert the previously given RECORD of "1.101\*1\*248\*" into "\*\*1.101\*1\*248" ... AND I don't mean with a simple:

```
10 LET a$="1.101*1*248*": REM character * symbolises SPACE
```

```
20 LET b$="**1.101*1*240"
```

```
30 let a$=b$
```

because we're talking about 1800 Records prettily sitting in a machine code file which has been SLICED out of the VARIABLES area of RAM ... AND if you've forgot, that is a Record made up of 3 Fields of 6, 2 and 4 characters. I'll give you a clue, or two? LOAD the file into RAM where you know it STARTS, take "out" the first 12 characters and start from the LAST of those characters with 4, 2 and 6 loops COMPARING the characters with a SPACE (&20/32) and etc...

...in the meantime, here's a little something I prepared earlier SHUFFLE - to rejuggle 1800 existing database records to convert trailing spaces in 3 fields of 6, 2 & 4 characters to leading spaces. Assembled to run on the SPECTRUM/Z80 chip at &601F. &6000/C is a temporary STRING store, &600D/E preloaded with LAST byte value of RECORDS in RAM,

&600F/10 preloaded with number of RECORDS. This CODE is CALLED from a BASIC Program, hence the &C9 (ReTurN) Command at &6076.

(Copyright John Marriott 1989)

```
&6017 060C LD B,0C : loop counter
```

```
&6021 110060 LD DE,6000 : start of temporary store area
```

```
&6024 3E2A LD A,2A : load A REGISTER with &2A (* character!)
```

```
&6026 12 LD (DE),A : load * into RAM value of DE REGISTER
```

```
&6027 13 INC DE : DE=DE+1!
```

```
&6028 10FA DJNZ 6024 : if B REGISTER >0 then loop back
```

```
&602A 1B DEC DE : DE=DE-1 adjustment for "outside" loop
```

```
&602B 2A0F60 LD HL,(600F): last RAM byte of Record being worked on
```

```
&602E 0604 LD B,04 : loop counter of 3rd. Field
```

```
&6030 7E LD A,(HL) : HL points at RAM position, load that!
```

```
&6031 FE20 CP 20 : is it a SPACE character?
```

```
&6033 2802 JR Z,6037 : JUMP to &6037 if it is
```

```
&6035 12 LD (DE),A : merge it in the String *****
```

```
&6036 1B DEC DE : DE=DE-1 move back in String
```

```
&6037 2B DEC HL : HL=HL-1 move back in Record
```

```
&6038 10F6 DJNZ 6030 : if B>0 then loop back
```

```
&603A 110760 LD DE,6007 : 2nd. Field loop
```

```
&603D 0602 LD B,2 : loop counter
```

```
&603F 7E LD A,(HL) :
```

```
&6040 FE20 CP 20 :
```

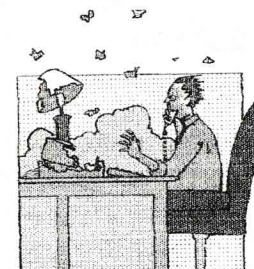
```
&6042 2802 JR Z,6046 :
```

```
&6044 12 LD (DE),A :
```

```
&6045 1B DEC DE :
```

```
&6046 2B DEC HL :
```

```
&6047 10F6 DJNZ 603F :
```





&6049 110560 LD DE,6005 : 1st. Field

&604C 0606 LD B,06 : loop counter

&604E 7E LD A,(HL) :

&604F FE20 CP 20 :

&6051 2802 JR z,6055 :

&6053 12 LD (DE),A :

&6054 1B DEC DE :

&6055 2B DEC HL :

&6056 10F6 DJNZ 604E :

&6058 220F60 LD (600F),HL: reset pointer to next Record end

&605B 23 INC HL : setting a value for memory action

&605C 110060 LD DE,6000 : as above

&605F EB EX DE,HL : catching up with some Z80 Code limitation

&6060 010C00 LD BC,000C : loop counter with LDIR which has a DJNZ!

&6063 EDB0 LDIR : MAGIC! the "built up" String \*1.101\*1\*248 :  
replaces 1.101\*1\*248\* in memory!

&6065 ED4B0D60 LD BC,(600D): get back the number of Records

&6069 0B DEC BC : BC=BC-1 one Record less

&606A 78 LD A,B : checking to see if BC=0000 no more Records

&606B B1 OR C :

&606C CA7660 JP Z,6076 : if no more Records then JUMP to &6076

&606F ED430D60 LD (6000),BC: put back Records left number

&6073 C31F60 JP 601F : yet another Record, so loop back to &601F

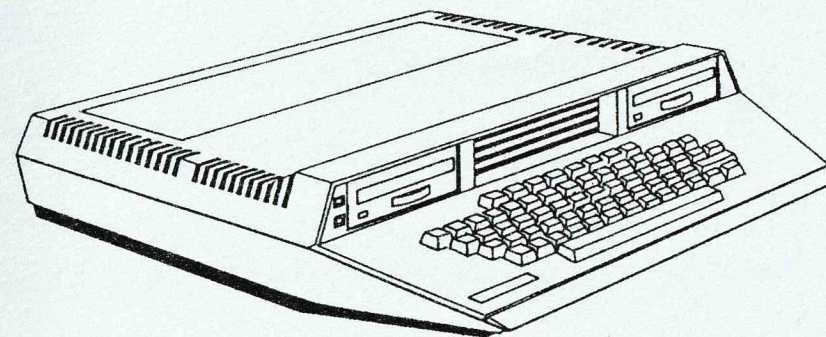
&6076 C9 RTN : SHUFFLE done, so let's get back to BASIC

I make no apologies for any mistakes OR that you can think of CLEVERER ways of doing it - I can ALWAYS improve another Programmer's work, or should that be I can ALWAYS change it to my ideas and taste? A bit longer this month AND a jump forward, so I'll say "Cheers for now"

*More to come in next issue. Ed.*



# TATUNG Einstein



## BASIC

## Reference Manual

\*\*\*\*\*  
REVISED AND ADDITIONAL INFORMATION  
TO UPGRADE 1ST EDITION TO 2ND EDITION  
\*\*\*\*\*  
also amends the syntax for ELLIPSE  
as incorrectly shown in 2nd edition

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# ELLIPSE

## ELLIPSE

**Syntax:** ELLIPSE *x,y,R,T,z,a,b*

**Purpose:** This command draws an ellipse or a circle depending on the values of the parameters given.

*x,y* are the co-ordinates of the centre for the ellipse and can have values in the range -32768 to +32767.

*R* is the value of half the horizontal axis of the required ellipse.

*T* is a qualifier and is given by the ratio of the two axes as follows:-

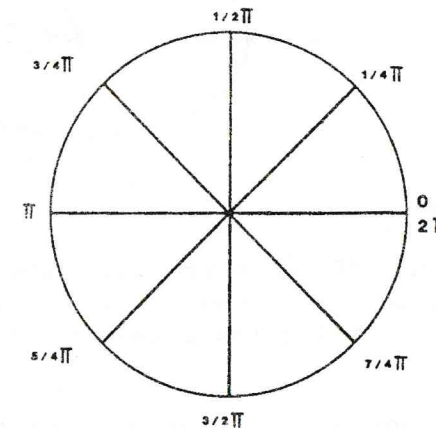
$$T = \frac{\text{VERTICAL AXIS}}{\text{HORIZONTAL AXIS}}$$

If *T* is omitted it defaults to 4/3 and a circle of radius *R* is drawn (owing to the aspect ratio of the VDU screen being 4:3).

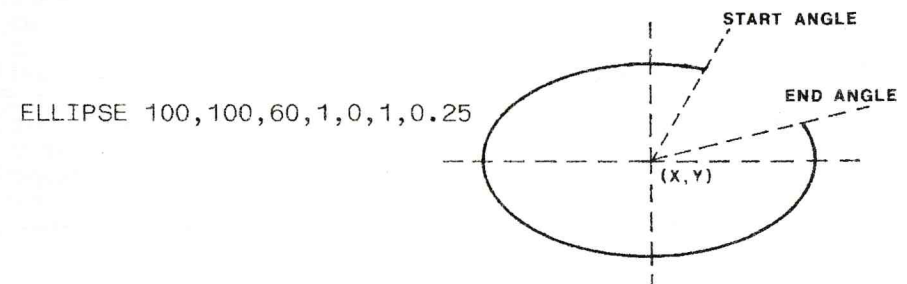
The value of *z* is a number in the range 0 to 5 which indicates the type of line in accordance with the table given below. (If omitted *z* will default to 0).

- 0 - Continuous line.
- 1 - Continuous unplot (i.e. line drawn in background colour).
- 2 - Dotted line, 2 dots on 2 dots off.
- 3 - Dashed line, 4 dots on, 4 dots off.
- 4 - Dotted-dashed line, 10 dots on, 2 dots off, 2 dots on, 2 dots off
- 5 - Dashed-dotted line, 2 dots on, 2 dots off, 2 dots on, 10 dots off.

*a* and *b* are **start** and **end** angles which indicate where the drawing of the ellipse should begin and end. These are optional. The start and end angles are specified in radians and are numbered in an anticlockwise direction from 0 to the right hand horizontal axis up to  $2\pi$  radians for one complete revolution. The values may be specified as numbers or an expression in terms of  $\pi$ .

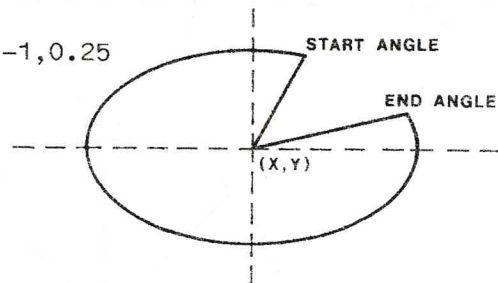


Specifying a start angle of 1 and an end angle of 0.25, for example, would result in an ellipse similar to the one shown below (solid outline only).



If **a** or **b** are given as **negative** values the start and end points will be joined to the 'x,y' point (centre) with a line.

ELLIPSE 100,100,60,1,0,-1,0.25



#### EXAMPLE:

ELLIPSE 100,100,50

A circle of radius 50 is drawn with its centre at co-ordinates 100,100 ( T defaults to 4/3 and z to a continuous line, a and b being omitted to produce a full circle).

**Related Keywords:** DRAW ORIGIN PLOT POLY UNPLOT

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## AMS STAFFORD SHOW APRIL 1999

By Stephen Potts

Hello Fellow EINSTEINERS it's time for my de-briefing of the Stafford Show of April 18th. The new arrangements mean I had Saturday to load up the stand equipment into the big estate car. The down side of this is that I have to have Monday off and lose a days pay to allow for unloading. The real pain is the five am start to allow us to arrive in time to drive into the hall for unloading. We drove from my home near Sleaford towards Nottingham then headed towards Uttoxeter and then Stafford stopping short of the town on the A 518 at the show ground. When we arrived we were greeted by Ray Gamble with the usual clip board but missing Grayham Bettany who was away on business. I must be getting an old hand at this as we were up and running well before time. I had remembered the kettle so tea was the order of the day. The initial start was slow then after the rush around to spot the bargains then we came into our own with a flow of questions and enquires. Some I can answer some are open questions to you the readers to respond to in the magazine. Do send your solutions or tips in to the mag via Ted the Ed at the address on the cover. Talking of Ted, his new Sketch is available now and was on the stand along with DOS 3 ((Ted dos)) sample printouts Ted has made into a book form so we can see the results. As the day progressed several familiar faces called in to our stand using it as a focal point for forays into the far reaches of the halls. One of our far flung members who comes all the way up from the south coast asked about southern shows with 8bit stuff and three inch disks etc. I have made enquiries and the best bet for eight bit stuff is CPC South west. The contact I believe to be Dave Stitson 4 Connought Ave Mutly Plymouth PL4 7BY. I believe they hold annual conventions with plenty of three inch disks. Some of the CPC software is runnable on the Einstein but not videogames, also keep an eye out for PCW stuff as this is also CP/M and will run after copying to an Einstein format disk..Note usually 80 column. I have the tool to convert in the PD library. "EINSTRAD.COM" will be available as you read this. The next is a bit of a rush we have three different members asking questions on a similar subject all to do with the user port I will dig out some details as and when I can but I am very busy with the PD copying and the computer shows I stand. So the tips and help page is over due for a return if you can let us know your tips or snippets of knowledge that we may not be able to see due to the "wood for the trees" syndrome, please send them in for inclusion in the mag.



NUMBER ONE TRAFFIC SIGNAL MONITOR. Whilst paying his subs a member asked about a project he had been working on, this involves the "user port" and looking for a change in condition. I can remember doing this at collage some years ago with a BBC for a project. I recall you scan the port and compare the result with the last result then either branch off or scan again. There is something about masking but that is all I can recall.

NUMBER TWO MOUSE INTERFACING. The user port is the point were the mouse is plugged in as used in art packages or point and click menus so there must be a section of control program to add to your own programs or work. I believe I have seen this somewhere but I'm so hectic at the moment I cannot hunt for it. If it comes to light I will try to add something to the new Tech PD I hope to start building. The listing polls the port I believe. If I can spot it in "mouse art" I will let you know.

NUMBER THREE 80 COLUMN TERMINAL. This enquiry about the recent article on using a dumb terminal connected to the user port so as to avoid the use of an 80 column card. I can see the logic of this and wonder if the mythical colour 80 columns could be found by this route. Another thought just hit me as I copy this from my hand written scrawl; how useful an index of the magazine articles would be especially in a database form so it can be searched for relevant items.

Well, those are the questions. I look forward to some of your interactive replies in the EINSTEIN mag.

Back to the plot .... The Stafford show was very good with lots to see, bargains the like of which I have never seen. I got two language tutors for my children French and German for only a few pounds and a lot of other bits and bobs. I did get stung buying a modem though the two I bought were a Jet Media Labs rockwell 56, this has a chip blown off the circuit board. The other is a GVC internal rockwell 56 R19 and I require the driver disk and the jumper settings. So you can see non of us are foolproof. Another thing has happened I can mention at this point. I have acquired a hard disk for my PCW this is similar to the EINSTEIN one, made by ASD but as it was a clear out item there was no setup disk. So if you go car booting and see a three inch disk with ASD or PCWHD20 written on it do please drop me a line and we will de-sect it to reveal its secrets.

Well all went well and yet again we were busy all day long so I didn't get all around the halls. The attendance was OK and the ailes wide enough to take double the number of visitors. As the show clashed with some other local events Ray was slightly disappointed. The halls are huge as large as a aircraft hangar but heated and with a restaurant on the balcony to boot. Disabled access is the best I have

ever seen especially after lunch when things calm down a bit. So if you only make it to one show per year this is the one not to miss. The next AMS Stafford show is on NOVEMBER the 13th so make a date in your diary and use the EINSTEIN pound off voucher, you can mark it Einstein User Group to show your support. Well that is about it time to pack away our stand and help by putting a few tables away. Head home very tired. The next day I booked off work to unload my EINSTEINs now to get back to copying PD disks ready for the re-launch, however if you require any PD do drop me a line. Best wishes

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## UK 8BIT CONVENTION

The above computer fair will be held on Sunday, 26th. September starting at 10 o'clock and ending at 4 o'clock. Admission is £2 and tickets may be prebooked by phoning 01922 449730. Steve Potts will be there to represent us and sell Software Library disks plus his famous 'bits and bobs', as well as live demonstrations of the Einstein's capabilities.

The Venue is:-

BESCOT FOOTBALL STADIUM

WALSALL

-@@@-

## Incidentally...

Since the piece in the last issue Eincomber has been inundated with queries from owners who think they may have used one of the GM disks - and what can they do about it?

Firstly, if the disk has its original label, look for the mandatory GM mark. As laid down it will be 'prominently displayed' in an obscure corner in letters all of one mm. high.

Failing this assume the worst, but **do not** open your Ein and spray Dettol all over the innards! **DO NOT PANIC.** Bear in mind that, although ONE copper-eating bacterium is enough to start the rot, it does take time to get an overwhelming infection.

A bacterium typically divides (i.e. doubles itself) in 20 minutes, so even after 4 hours there will only be 4096 of them and the colony so formed will be invisible to the naked eye.

Remedial action;

1. Write a nasty letter on the disk and send it to the DOE.
2. Make sure your Ein gets plenty of fresh air, THEY do not like Oxygen.
3. Try Pasteurisation (see your milkman), or:-
4. Place in an oven at 75deg C for four hours. This should sterilise your micro. Then resolder all the joints, and replace any melted plastic.
5. Try not to worry. **EINCOMBER**



**NOTES FROM NEW ROMNEY****by Tony Adams**

I hope you won't be too badly shocked next time you meet Ted, but there's not a lot of joy in being the editor of a magazine that has to be sent out with most of the pages completely blank, or so thin that you can see daylight through it, and I understand that Ted has been tearing his hair out in frustration over recent months, trying to get enough input to match the output of the magazine when the vast majority of you out there clearly are either no longer using your Einstein, or else you can't think of a single thing to share with the rest of us – on any subject at all? – that hasn't already been said, many times over.

So don't be at all surprised if, the next time you meet Ted, either he is wearing a wig or is completely bald, because he simply doesn't have any hair left to tear out in frustration. (I have compromised with a bald wig. Ed.)

Admittedly, the people running the Dragon user group are in just the same position, and are threatening to give up trying if no-one else is really interested any more, though the Sharp club doesn't seem to have this problem – perhaps because it covers a much wider range of computer models, including Sharp's current output, so maybe their success is due to a lot of sub-editors systematically expanding whatever users send in to a respectable length.

I do have a confession to make myself, though. How can I honestly come round to each of your doors with a big stick in my hand to beat you with, when the master copy for EM-92 has just landed on my doormat with a thud for me to start cloning it in quantity and mailing it out to you – and I still haven't got round to keying in the article that I promised Ted for that issue, let alone sending it off to him!

However, even this article won't do more than delay matters by a fraction of a magazine issue, so you really do have to make up your minds as Einstein users whether you want to receive a magazine full of interesting news, views, chat, comment, ideas and facts, or one whose pages are nearly all completely blank, or which is so thin that you can see daylight through it, or no magazine at all.

With a little bit of thought it is obvious that this is an ongoing problem, and "Well, I sent a letter in and got it published ten years ago" is no real help at all to you or to Ted or to anyone else. If you really can't think of anything at

all to say about using your Einstein – and this will interest everyone, even if you think it's so obvious that it will bore everyone stiff or even if you (mistakenly) think that you will only make yourself look a right Wally – then how about sharing your thoughts or experiences with us on other areas of computing or technology.

Failing all else, in a couple of months or so you can tell us all about the devastation of most of civilisation in your part of the world when the Millenium Bug hit and all the aeroplanes fell out of the sky straight down your chimney, and all about how although the ambulance system worked a treat in your area, they couldn't get any petrol or diesel out of the fuel pumps, and had to borrow all the horses from your local riding school to pull the ambulances with in order to get anywhere at all.

Come to that, the Dragon group big chief regularly does his best to expand the Dragon newsletter to a respectable size by including a page or more of his own comment on the devastating political consequences of the Duke of Wellington, Disraeli, Chancellor of the Exchequer Mr Churchill, Harold Wilson and his "The Pound In Your Pocket Will Not Be Devalued (so long as you don't take it out and try to spend it)", The Right Honourable "You've never had it so good", Mrs "Sod the coalminers, let's shut down the coalmines and have all the electricity generated at twice the cost from the North Sea gas that is due to run out in 2012. I get a fat pension for life, & anyone in hardship is being punished by God for being ever so wicked, so sod the lot of them", and the antics of the "Head Boy" and "The School Prefect With The Rictus Grin" who have been mucking everything up ever since her demise by carrying on just as though they were still in the school playground and still in short trousers.

Now in the Einstein User Group we are genteel and aloof and above that sort of thing, of course, because we have our standards to keep up. However, if we really have got to the stage that we are now longer at the cutting edge of the white heat of technology – as Harold Wilson so very appropriately described us back in the days when horses pulled trams and milk floats on our city streets, and works foremen aspired to being able to afford to buy a second-hand motorbike and sidecar as a status symbol to show that they had made it in the world – then maybe we have reached the stage that we are no longer a group of Einstein computer users, and what we really are is a jolly band of people who have in common that Once Upon A Time, Long Long Ago, When The World Was Young And Dragons And Faeries Roamed The Land we did use Einstein computers – and maybe



our magazine needs to change accordingly?

Anyway, if that doesn't provoke a goodly proportion of you into writing in with very rude comments about us, alleging rather unpleasant things about our parentage, then there probably isn't any real point in our bothering, and instead of trying to edit and print and circulate the magazine for you all, we might as well do just whatever it is that you are all doing out there instead of writing something interesting for us to edit and print and circulate to you.

As a temporary measure, Ted and I have agreed to use some of these completely blank pages that you haven't sent us anything at all to put on, to issue amendment/update pages to the Einstein BASIC Manual "on the instalment principle". This manual was revised and re-issued - we think this probably coincided with the second major batch of Einsteins being produced and marketed, with the "A" suffix to the model number - but the cover is identical on both versions, and the revision isn't at all obvious unless you compare the two versions, page by page.

There seem to have been changes in the ROM chip contents and the Version 1 DOS too, probably at the same time, which you can't tell exist from looking at the version number, but which sometimes produce unexpected results in using programs and utilities such as Duncan Elvin's "Read and write PC disks on your Einstein" TRANSFER.COM.

All these minor upgrades should have been available free of charge (or maybe if you paid the post and packing) if you returned the original copy, but we can't trace any effort on the part of Tatung or the main distributor to tell you that they existed, or how to get your upgrade.

As a result, there's quite a lot about using Einstein BASIC that you ought to know about, and have the right to know about, but most of you don't, because your copy of the BASIC Manual is incomplete or faulty. We can't reprint and re-issue the revised Manual as such for legal copyright reasons - though we do have a few spare copies for the cost of postage if you don't have one at all - but what we can do is issue the amendment pages that you ought to have been provided with long ago by Tatung or the main dealer, and we intend to make a start on this either in this issue or as soon as we'd otherwise have to start sending the magazine out with blank pages in it, by issuing these pages as magazine centrefold pull-out insert pages, probably one or two sheets in each issue.

The idea is to print the sheets so that they will nest inside each other as a booklet, and you can sew, staple or glue-bind them down the spine. If you

prefer to bind them paperback-style, or use some other binding method that needs the pages printed A5 in consecutive number order, simply use a sharp knife to separate the pages.

If you prefer to use a plastic comb binder, an Acco binder or a 2-hole or 4-hole looseleaf binder, but don't have a punch yourself, simply send a note to Tony at New Romney, making it clear what you need. He'll then put a code on your membership record, so he can read it off your address label when enveloping the magazine, and do the necessary.

If this experiment is successful, we intend to expand it and return to the methods of the very earliest days of commercial software, when there were no shops to buy it from, and you paid a nominal sum to buy a stencil duplicated user manual from a computer magazine advert, and if you understood this well enough to use the program, and thought it would do what you wanted, you bought a copy of the program itself, on whatever format disk your computer needed.

Most of you have programs which you never use, because you (or the previous owner) have lost the manuals, or the dog chewed them up, or something. We have distribution rights on a lot of these, so if the experiment is successful, and if you are absolutely determined not to send in anything else for us to publish in the magazine, we'll re-issue the manuals for these programs, one at a time, in the same way as the BASIC Manual revision pages, at no extra cost to you. At the same time we'll make sure that Steve Potts has a master copy of the program, so you can get a copy from the software library at nominal cost.

Steve is now getting well ahead with making a duplicate master set of the software library disks, and he should now be able to supply your needs - even if I have just doubled his task by suggesting that he makes an extra set and lets me have the master set back on 3.5" disk, and then keeps the original 3" master set as a stock of disks to supply you with software library software on.

Incidentally, please note that we do have an Einstein software library, but what we DON'T have - no-one else in the UK has one either, whatever they may claim - is a PD library. No matter where it originated or when, under UK law all computer programs are copyright, and someone, somewhere, owns that copyright. It is OK to copy it with the copyright owner's consent, or under a few very other clearly defined circumstances, but to do so without the copyright owner's consent and then get caught at it will result in

fines, imprisonment, and a criminal record.

SO DON'T SAY OR THINK PD - unless you live in Yankee-Land and are one of "We, The People Of These Here United States". Remember, here in the Yukkies Queendom, you are a subject and not a citizen, and in law you are nothing more than a mere chattel, owned lock stock and barrel by that family of German immigrants who we imported a couple of centuries ago to take over The Crown Jewels and anything else in sight that they fancied the look of.

Well, all being well that lot will have filled up a few magazine pages - now how about YOU having a go at filling some up too? If you can't think of anything else to say, then BE CONTROVERSIAL and see if we can manage to get the whole shebang shut down by Her Majesty's Official Censor under the 1694 Act For The Prevention Of Sedition, before we simply give up trying in the unequal struggle to make something out of nothing, to print and circulate among you.

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# **PRETTY1 to TYPE IN**

by Bob Deeley

This little gem is well worth trying if you have a colour monitor.

SAVE as "PRETTY1", there are more of them! On my TM01 I get a wierd 3D effect that looks like embroidery. It runs for a LONG time - I have not yet got to the natural end, but there must be one.

30 BCOL1

40 CLS

50 A=3

60 F=0:G=1

70 FORQ=1TO14

80 IFA\*G=QTHENF=F-1

90IFF<0THENF=30:GOSUB200

110 IFF>14THENK=1

120 GCOLQ,K

130 A=A+1

140 IFA>11THENA=3

150 G=G+1

160 IFG>5THENG=0

170POLYA,120,100,80+Q-A\*G,1,G

180 NEXT

190 GOTO70

200 GCOL15,1

205 FORR=9TO13

210 POLYR,120,100,80+14,1,0

215 NEXT

220 RETURN



## Einstein Magazine - Tony's BackPage RoundUp

In case you are still unsure what we have done in this issue, we face a situation of inexorably dwindling membership as the Einstein becomes an elderly gentleman – rather like the elderly steam gentlemen that the railway companies used to pension off and put on a siding with a few trucks to biff along to another elderly gentleman, who would then biff them back again! This produces a problem of dwindling magazine input at the same time as our efforts to update and upgrade the Einstein computer have eased off the hardware and are now more concentrated on the software side of things, in the hands of our enthusiastic new Software Manager, Steve Potts. As a result we have introduced a centrefold insert to the magazine, which builds up over several issues to make a Software User Manual. The first such manual, starting in this issue, is a booklet containing additional information and revisions to the Einstein BASIC Programming Manual.

We recently discovered that there are two quite different versions of this, with identical covers and title pages. All Einstein users should have been provided with the revised version either by Tatung or by the Einstein main distributor, free or at a purely nominal cost, but we can't trace that they ever told anyone that an upgrade was available. Even the revised version of the BASIC Manual still has errors in it, so we are issuing update pages that bring you up to date, whichever version of the Manual you may have. Many of you will have had no experience at all of writing your own programs, using BASIC (Beginners' All-purpose Symbolic Instruction Code) or any other programming language, and previous BASIC articles and listings have usually assumed a degree of knowledge that may well be far beyond most of you, so we would like to run a series of simple very-basic "How to" articles in E.M. on the theme of "How To Get Started In BASIC If You Haven't A Clue What It's All About". Any advice / comments / suggestions / ideas / offers / hints / tips / requests / pleas on this?

Following on from the BASIC alterations/revisions booklet we intend to reprint User Manuals for other Einstein software that we have or can negotiate distribution rights or copyright waivers on. **PLEASE WRITE IN – and WRITE WRITE NOW** – to let us know which Einstein software you need user manuals for, and in what order of priority you need them. Hopefully we can co-ordinate this with making the software available too, through the library.

One thing we do badly need is a comprehensive index to the magazine content. Various people have tackled this task in various ways, and we **do** badly need copies of them. **Please respond!**

### Einstein Boot Fair, Recycling Centre and Exchange/Mart

Where former Einstein users have redundant Einstein kit to pass on, they often have to clear it out at short notice, and it takes far too long to do this by a notice mailed out with EM. Steve Potts (details on title page) is now acting as a clearing house to match up "sellers" and "buyers" of Einstein kit. Please let him have a detailed list of any redundant Einstein kit that you wish to clear out, and also your wish list if you are on the hunt for Einstein kit, so he can match these up.