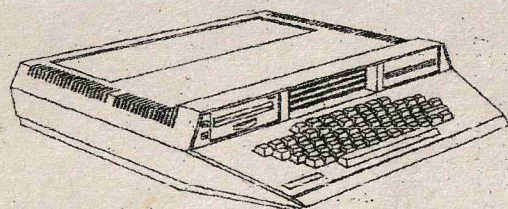


EINSTEIN MAGAZINE

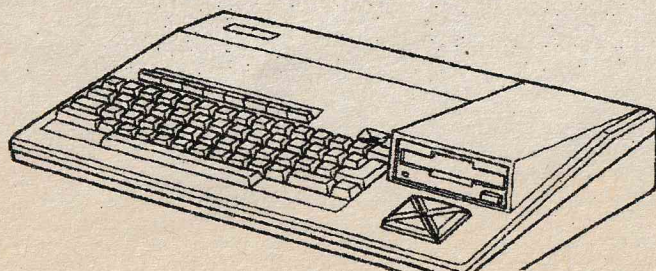
No: 86

TATUNG
Einstein

TC-01 AND TC-01A
COLOUR MICRO COMPUTER



TATUNG
Einstein
256



published for users of Einstein (and other) computers
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Have you forgotten the April 1998 Stafford Show already?

SHAME ON YOU !!!

Saturday 18 April, Stafford Showground, A.518, 2 miles out,  
shuttle bus from the railway station, leaflet with this mag.  
\*\*\*\*\*

EINSTEIN REQUIRES GOOD NEW HOME

~~~~~

Member H Yee has THREE modern 16-bit IBM-compatibles and so
hasn't used his Einey for the last 2 years. He derived much
pleasure from it in the past and is willing to donate it to
a good home if anyone is willing to collect it from him.

It looks like it has a mono monitor and twin drives. Contact
him at 29 Stotfold Rd, Hitchin, Herts, or on 01462-450478.

The More Things Change, The More They Stay The Same!

~~~~~

At the time of keying these words in it seems quite certain  
that this issue of the magazine will be both thin and late.

As you will be aware, over the past couple of years I've  
been increasingly involved in non-Einstein activities such  
as the practical side of historic building conservation, and  
I have also had considerable extra responsibility thrust on  
me as the volunteer printer for my local group of parishes.

With only an overworked disabled vicar and two part-time  
unpaid curates to cover five parishes, we've already lost  
one of our two curates this year, and are about to lose the  
other at exactly the same time as we are into celebrating  
sixty years since the building of our local church -- the  
first new one on Romney Marsh for five hundred years -- with  
a very ambitious program of celebratory events and souvenir  
descriptive booklets, in addition to the regular output of  
our 600-copies-per-issue 32-page monthly parish magazine,  
plus a variety of various guidebooks, service sheets, etc.  
In addition this activity has also led to my being heavily  
involved in a specialist book reprinting and republishing  
project, which is very demanding on both my time and energy.



\*\*\*\*\*

In the past I have systematically used opportunities and facilities as they came along in order to teach myself the theory and practice of thatching, carpentry, tiling, printing, bookbinding, railway civil and mechanical engineering, accounting, operation and signalling, computing, so when the opportunity unexpectedly occurred for me to learn bricklaying at the training centre where I learned to frame up timber roofs and build real staircases a quarter century ago, I jumped at the chance, as bricklaying is a much-needed skill that I did not have in my repertoire.

However, I now live three hours from the training centre with a journey involving two buses and two trains, I am 55 not 35, and the course is no longer a City & Guilds one that concentrates on craft training and is run in office hours, but is now an NVQ one -- many employers think this means "Not Very Qualified", not entirely without reason, -- that is designed to keep bored and rebellious youngsters off street corners, and give them somewhere harmless to be bored and rebellious in. As a result no real bricklaying is taught, the course is more theory-based than practical, concentrates more on the social organisation and human interaction of building sites than on bricklaying skills, and is a group self-teaching exercise. The Construction Industry Training Board has just pulled out of funding it, as it doesn't, in practice, produce a supply of bricklayers for the hard-pressed skill-hungry construction industry in the way that the City & Guilds craft training used to, but only bored youngsters who most employers regard as only fit to be put on unskilled labouring work, and who are only marking time until something more lucrative turns up.

My experience of NVQ training courses over the past few years is that they are almost entirely organised to serve the need of "The Education and Training Industry" to promote and establish and expand itself by appearing to be providing something essential, whilst in fact being wholly artificial and having nothing but the most tenuous relationship with individual craftsmanship and skill. The NVQ cult appears to be a self-serving embryo religion in the process of evolving rather than any real organised movement to engender genuine skill and ability that is of any real use to an individual, and even where real skills are provided this appears to be despite, rather than because of, the NVQ system itself; and that the system is really only designed to provide remedial skills to make up for the total absence of the basic skills, abilities and real understanding in products of the modern "education system" that would have been taken for granted in youngsters by the time they had left school and been out in the real world for a month or two in the days of my youth.

\*\*\*\*\*

However, I have also found that despite the almost totally useless way that the all-pervading all-conquering self-serving NVQ system is structured, for those who are really determined to acquire new skills, then it is possible to take advantage of the opportunities and facilities that the system provides for teaching yourself. However, unless you are fortunate enough to be in one of the extremely rare "training centres" where they still remember what integrity used to mean way back in the days of steam trams, empire and horse-drawn coal drays, you may have to take on the trendy Yuppie "training managers", and keep asserting your right to use the resources & facilities to learn and teach yourself by your own efforts until they give way to you on the point.

In so far as production of the Einstein Magazine is concerned, this has now produced a situation where I am fast becoming a highly-skilled self-taught bricklayer who works rather slowly but carefully and who produces top-quality work which is totally unsuited to the conventional cowboy-builder "building site" environment, but which is exactly what is needed for the very demanding remedial, restoration and conservation work that I'm increasingly involved in.

However, it also means that (allowing for lunch and tea breaks) I'm now working a nine-hour day (plus three hours travelling each way) on five days a week. Once I get home I just about have time to swallow a tin of cold beans and to stuff a tin of spinach in my bag for lunch the next day -- the old "Three Shredded Wheat" trick is a big confidence trick! -- before I crawl exhausted into my pit for what seems like only a few minutes rest until the alarm clock shrills insistently in my ear and the whole circus begins again.

Of course, no-one in their right minds would take on a career in bricklaying at the age of 55 -- anyone with any sense at all and any real skill in bricklaying would have arranged their finances so as to be retiring to a life of luxury in the Bahamas at that age!!! -- but being of a naturally sedimentary disposition, and having to fight the system to learn bricklaying despite it rather than as a result of it, I am totally shattered and only fit to be carted off to the knacker's yard by the time Friday night arrives, and it takes me all weekend to recover and get into a fit state for anything at all. By then the pantomime is starting all over again and it's too late for anything else.

I can just about cope with the task of printing the parish magazine on a monthly basis, and of collating, stapling and folding the printed sheets into magazines and delivering my share.



I could continue to do the same for the Einstein Magazine on those weekends when I'm not too busy on parish printing, but the task of persuading and encouraging our Einstein contributors, co-ordinating their material into an interesting and readable magazine with varied, interesting and useful content, and conducting a heavy and hectic correspondence with all and sundry is now far beyond my present constant state of mental and physical exhaustion.

For the future I can't see any improvement in the situation, as I was hard-pressed to meet my existing commitments when I started the course, and when I complete it and become a Not Very Qualified Level 2 Bricklayer I shall have a six months backlog on top of an almost impossible current commitment.

What to do about it? Well, this situation was foreseen, albeit on a gradual crescendo of increasing impossibility rather than a sudden crunch, and Ted Cawkwell's Einstein Newsletter was originally suggested by him as a replacement for the magazine that he could produce on a limited scale for a small group if I had to give up altogether, and was then diverted at my suggestion into being a means of co-ordinating a small active research and development group.

Ted said a while ago that he thought this work was coming along so well that the newsletter might not serve a really useful purpose for very much longer, so as a temporary measure at least, Ted may be willing to take on the editing of the Einstein Magazine in my place while I continue to print and distribute it.

The only snag here is that when he was offered the magazine earlier, Ted did say that he was reluctant to take it on single-handed, as he has recurring health problems that might make it difficult for him to guarantee to deliver without the possibility of letting us down at any time.

So are YOU absolutely desperate to take on the Einstein Magazine editor's job? It really does need someone who went to school long enough ago to have learned to cope adequately with spelling, grammar, punctuation, syntax and boring things like that which the education system long ago gave up on as too much trouble to bother with, not least because many of our contributors are keen to share their information with us, but have difficulties with these matters themselves -- and being dyslexic doesn't exactly make life any easier!

In addition an artistic eye is desirable, to organise the use of "white space" (and maybe illustrations?) so that the text is easy to read and readily digestible, rather than a solid heavy lump of indigestible and unleavened text.

We do have a certain amount of material waiting to be published, and we also have a carefully nurtured and cunningly cosseted band of contributors willing to send in new material as they see their existing articles appear in print. An important part of the editor's job is, of course, to actively encourage anyone who betrays even the slightest hint of having something worthwhile to say or to share with us into actually getting it down onto paper or onto disk.

So we now have an urgent vacancy for a new editor for the Einstein Magazine, cos it's become totally impossible for me to continue to do it. It's been somewhat time-consuming, but great fun, and I'm sure you will find it to be so too. So please do apply in droves for the job, cos we all want to continue to get it, and I want the fun of printing it and mailing it to you, but I can't continue to edit it any more.  
\*\*\*\*\*

#### NOVEMBER 1997 STAFFORD SHOW REPORT -- Steve Potts

Hello to you all. Yet again I have forced myself to put pen to paper (or disc to printer?). I have to book the Friday off, and also arrange cover for the Saturday morning shift.

This gives me a good start to my duties as EINSTEIN OUTSIDE EVENTS MANAGER. On the Friday I load up the car with as much as I can get in, making sure not to forget the kettle (as I did previously), or the cups. The time before, yes, I remembered the makings, but you really do need a spoon (as we found out later!) Oh well, I must try again in April for a perfect score.

This year we have an even earlier start, as the doors for loading have to be closed at a certain time for safety regulations. The alarm clock rings at an unreal time, and after a bowl of cereal John arrives. John has assisted on the stand for the last few years (despite not having an Einstein any longer), so he deserves a vote of thanks for driving to my house before 5.30am regularly on show days.

Yes, I did remember to fill the car with petrol, so off we go through Newark and around Nottingham and Derby to Stafford.

Arriving at Stafford show ground we got a good welcome from Ray, who had his busy head on. He points out the area for the Einstein stand on the floor plan and in we go !!

The show is the best organised I go to, showing the classic Einstein off to the public.



\*\*\*\*\*

We unload the various machines I have brought, and we set up some on 80 column display. With this I can show good text layouts, word games and Infocom books. I personally like the interactive books, like The Hitch Hikers Guide To The Galaxy.

The next I have in standard mode, with the demo master disc running an automatic "Intro to Einstein". This gives some information on several points about memory, discs, add-ons etc.

When you think about colour, sound, control of movement, all of this was available long before the term multimedia was thought of..

The last Einstein is in colour running a routine I wrote with INFO\_FAX This is a screen full of colourful text and block graphics. This catches the eye and then changes at about fifteen second intervals to a new page, of which there can be 900.

This is along the lines of Ceefax/Teletext, showing the club details and services.

Show opening time approaches, and the public flood in. I notice it must be raining outside, it had just started as we arrived. I hoped it would not put people off coming to the show. We started off very slowly on our stand. First the odd sideways look, then people started to speak to us, recalling their first real computers. I tried to slip away to look around the show, but I never got very far before there were questions to be answered.

The solution was to look at the map of the show in the program and to pick a section at a time to grab a quick look around.

This year on the stand I tried to support users by supplying some bits and bobs. I have a small stock of drive belts for the 3 inch drives as on a Einstein 256 and Amstrad CPC/PCW computers at approximately 1.25, and will do other things, such as printer leads, etc., if required.

Another thing has happened in the supply line. Stan Gibbs gave me a call and we discussed the fitting of 3.5 drives. On the strength of this I have secured a supply of drive line converters to alter the data and power lines to suit Einstein.

\*\*\*\*\*

These plug on to the 3.5 inch drive and on to Einsteins ribbon cable. Also there is a power lead converter that swaps the lines to suit, also in the kit. Both bits are included at 2.60.

So you can see I am trying to get a supply going at reasonable cost.

The drive belts are commercially available at 12.50 but this includes a cleaning disk. The drive converters are originally Amstrad in origin and cost 8.00 normally.

The other stall-holders cannot believe I do this all for the love of it. I meet the costs myself for the doubtful pleasure of meeting people and helping keep a point of contact for the Einstein. I fear that if there was no point of contact things would dry up, so we could do with a membership drive to consolidate the present membership and if possible add to them. I still hear of people with Einsteins that do not know of our little toe hold in the big world of computers.

Quite a bit of interest was indicated in the hard drive article, mostly the lack of any details. I feel this is a good area to peruse. Interest was also shown in the bare motherboard I display. The brains were pointed out to those who expressed an interest.

One particular member was well ahead of me in several points of setting up and controlling extras added to Albert's ports. I refer to Dave Hill, who spent quite some time mulling over the control chips and how to re configure them. I promised to do some detective work and Dave made a donation to the "coffee fund". As a result of this it was found that the data and specification sheets for the chips in Einstein are no longer to be found and the manufacturers have given up on them.

However I have some papers from a student at Loughborough College, who worked on a MIDI connection to Einstein. Included in this was a faded fax from Western Digital, barely readable, so after getting the original back from being on loan to Andy Bennet I had it scanned into a PC and enhanced the readable copy. This should be with Dave by now.

The saga and work involved in tracking down these important specifications has given me an idea. If we can do the archaeology to discover the data and specs of Einsteins internal organs, we should commit them to disk, for these obsolete chips may be able to be replaced with more modern



ones (or a daughter board) and perhaps even a PIC chip. The control and operation of add-ons would be easier to sort out and understand. So I suggest that this information should be available through the user group. A sort of technical knowledge store akin to the notion of the PD library. I can feel Tony going into copyright cringe mode. <<< Tony: That's odd, cos I can't! >>> But this is all obsolete, so I see no major problems in sharing the pinouts or calls.

I would like to see a WELCOME DISC also, for owners without manuals or who cannot follow them. Provided all is well this could save us all chasing info for months that may seem common to the next chap. Some projects may have been given up on that we all could have benefited from but for info being available.

Meanwhile back at Stafford a former member, Mr Pellington, donated his TCO1 to a good home, as his wife requires the space for more ornaments (.... only joking!). But thank you very much, Albert is now living on the desk of a Lincoln man, Philip DiRichleau, or "Tigger", as he is known in Amstrad circles. I hope he will contribute to the widening of our circle, as he is well known as a mover and a programmer too.

So there you have it. A good day, spent on the run, so I didn't get all around the show hall. The attendance was good, and every one was happy as far as I could tell. I bought a few things including some resistors. I only wanted three, but had to buy a box full!! I'll have to sort them out at home, one by one ..... so if you need a variable resistor for your monitor, do drop me a line.

After a busy day, we packed up the stall & headed for home. Unpacking was left to another day -- but the steak & kidney pud that my wife had ready on the stove for me was not !!!

In conclusion, after three days given over to attending this show, the interest is clearly still there, so I will begin to prepare for the next one. As I have now run right out of membership forms I will have a go at designing an attractive new one that I can print off myself from disc.

I would like to meet more Einsteinians, if only for a chat. We are only human and we need to feel wanted, so if you ever feel that you're the only one, do keep up your membership and try to encourage others to join in and share their thoughts -- who knows what may happen. I personally would like to see some new programs, well thought out & presented, to give us a lift and thumb Albert's nose at Moggie soft....

EM 86/9

## SKETCH

A Simple Drawing program, with notes on Screen Load/Save.  
by Ted Cawkwell

Perusing old EMs, as is my wont, I came across a **VERY** simple joystick operated drawing program which had been written by Stuart Marshall for a competition. As it won and was only 10 lines of Basic, I took a look at it and decided it was worth a bit of improvement.

I also came across a full colour screen save/load program by Peter Hambidge, and it occurred to me that I might combine the two.

I have added choice of graphic colour, fill, and circles to the original without making it too slow (it was never fast). The print facility relies on the dump built-in to System 5, activated by Cntrl B or Print Char\$(2). If this facility is required with Xbas 4 it will be necessary to use the DOS dump described in The Compendium on page 86. Adding it to this article would make it far too long, but I will happily do another article if there is demand.

The following is the complete program, if you do not wish to use the screen load/save, miss out Lines 20 to 60 and 110, 225 and 227.

```
10 REM: SKETCH FOR XBAS 5
20 CLEAR &A000:LOAD"SCRNSL.OBJ:REM Load/Save
25 GOTO 70
30 CALL &A000:CLS:SAVE"PIC.OBJ",&B000,&E000:RETURN
40 CLEAR &B000:LOAD"PIC.OBJ"
50 CALL &A049
60 GOTO 140
70 CLS:PRINT@12,0;"*** SKETCH ***"
80 PRINT@0,3;" JOYSTICK FOR UP/DOWN,
LEFT/RIGHT,";@2,5;"FIRE BUTTON TO DRAW LINE"
90 PRINT@2,7;"E...TO ERASE PICTURE."
```



EM 86/11

```

95 PRINT@2,8;"F...TO FILL. K...TO CHANGE COLOUR"
100 PRINT@2,9;"C...FOR CIRCLE,SPACE TO STOP"
105 PRINT@2,10;"P...FOR PRINTER DUMP"
110 PRINT@2,12;"S or L TO SAVE/LOAD PIC.OBJ"
120 PRINT@13,14;"SPACE TO START";@11,16;"SHIFT/BREAK TO
END"
125 PRINT:PRINT "FOR HARD COPY,CONNECT PRINTER AND
PRESS 'P' NOW"
127 K$=INCH$: IF K$="P" THEN PRINT CHR$(1);
130 S=KBD:IF S=32 THEN GOTO 135:ELSE GOTO 130
135 CLS32:G=15: REM Main Routine
140 SHAPE140, "E0C0A09008040000":BCOLO:X=256/2
:Y=192/2:A=1/250
150 PRINT@1,23;"X";@8,23;"Y";
160 X%=ADC(0)-112:Y%=(ADC(1)-112)*.75:X=X+X%*A
:Y=Y+Y%*A:SPRITE0 ,X,Y,15,140:GCOL G,0
170 IF X<4 THEN X=4:ELSE IF X>255 THEN X=255
180 IF Y<17 THEN Y=17:ELSE IF Y>192 THEN Y=192
190 PRINT@2,23;" ";@2,23;INT(X);@9,23;" ";@9,23;
INT(Y);
195 S=KBD:IF S=68 THEN L=0:A=1/250
197 IF L=1 THEN A=1/75:GOTO 160
200 IF BTN(0)=0 THEN PLOT X,Y:ELSE IF BTN(0)=1 THEN
UNPLOT X,Y
210 S=KBD:IF S=80 THEN GOSUB 290
215 IF S=84 THEN Z=Z+1:IF Z>1 THEN Z=0
216 IF S=85 THEN L=1:GOTO 160
217 IF S=75 THEN GOSUB 330
218 IF S=70 THEN GOSUB 370
220 IF S=67 THEN GOSUB 240
225 IF S=83 THEN GOSUB 30
227 IF S=76 THEN GOTO 40
230 IF S=69 THEN GOTO 135:ELSE GOTO 160
240 FOR J=4 TO 80 STEP 2: REM Circles
250 ELLIPSE X,Y,J
260 ELLIPSE X,Y,J-2,,1
270 IF KBD=32 THEN RETURN
280 NEXT:RETURN
290 PRINT@0,23;MUL$(" ",13);: REM Print
300 PRINT@1:PRINT CHR$(27);"A";CHR$(8);:PRINT@0
310 PRINT CHR$(2);
320 RETURN
330 PRINT@0,22;:INPUT"INPUT 2 to 15";G: REM Colour

```

```

350 PRINT@0,22;MUL$(" ",22);
360 RETURN
370 ORIGIN X,Y:FILL 0,0:ORIGIN 0,0: REM Fill
380 RETURN

```

When you have typed the listing in, check it carefully and then SAVE"SKETCH". Plug a joystick into the Analogue Port 1 on the right side of the micro, RUN the program and follow the on-screen instructions. If you intend to use a printer MAKE SURE it is ON LINE! There are no safety checks in this program, which will CRASH if the printer is not present and correct. The REMs are optional and may be left out.

When you press U to lift the pen you will notice that the cursor moves much faster, and lets you nip around the screen without drawing or erasing. Only D will get you back to the other commands. It helps when changing between U and D or D and U to keep the cursor moving by pressure on the stick. You will immediately spot the change in speed.

The commands take a few seconds to start sometimes so be patient. If you hold K down too long you may end up with a row of Ks, get rid of them with delete before entering your colour number or funny things may happen!

If you wish to use the screen load/save facility (and it is very good) you need the file SCRNSL.OBJ on the same disk as the program. The easy way to obtain it is to write to Tony and order Volume Ein 347 from the Software Library. It contains lots of good stuff from EM vol 2 including the file SCRNSL.OBJ. You could ask for Ein 346 on the other side, this is files from EM vol 1.

The hard way is to type the following code into MOS starting at location 0100, finish with a fullstop, then go back to DOS and SAVE 1 SCRNSL.OBJ.

```

2100B02200D03E00
D3093E00E63FD309
0618C50600DB082A
00D077232200D010
F4C110EE2100C822
00D03E00D3093E20

```

E63FD3090618C506  
00DB082A00D07723  
2200D010F4C110EE  
C91100B021000006  
18C50600E5D57DD3  
097CF640D309D11A  
D308E1231310EDC1  
10E71100C8210020  
0618C50600E5D57D  
D3097CF640D309D1  
1AD308E1231310ED  
C110E7C9.

You will notice that the only file that can be saved or loaded is PIC.OBJ. This is for simplicity but it should be apparent that a second SAVE will overwrite the original. The way to operate is to RENAME any PIC.OBJ file you wish to preserve to e.g, MONKEY.OBJ. If more work is needed on a file then RENAME it PIC.OBJ, making sure you have a copy of the original if you need it, and that the PIC.OBJ you are replacing is not a file you want to keep. Each file takes up 12k on the disk, so it soon fills up.

Line 300 contains an ESCape code to change the printer line spacing, (CHR\$(27);"A";CHR\$(8)), the 8 being the number of 60ths of an inch. I found this necessary as I got horizontal white lines otherwise. You may need to adjust this for your own printer.

The numbers you input to change colour are the Einstein's normal colour codes. 0 - transparent and 1 - black would be invisible so are not used, but there is nothing to stop you using them, if you wish. The 'black' background prints white because the printer only puts 'illuminated' pixels on the paper, i.e. foreground pixels.

I am currently modifying Sketch to make colour prints in magenta, cyan and yellow so that I can superimpose them to make a full colour print on my BJC 4100. This is because I have found that Sketch is easier to use than Grafdraw for this purpose as I can write in ESC codes for colour, though of course, GD is a much better drawing program.

---@@@---



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