Einstein Magazine

& ALL MICRO NEWS   Number 90

This label is from a wartime utility mattress that
was still in good condition at the end of last
year, when we disposed of the bed that it fitted.
Einsteins are ruggedly built and last forever, but
how many will still be in use after 57 years?

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EDITOR'S NOTE. Pursuant to recent hints, I can fill issue number 91 and possibly 92, but thereafter things look very bleak indeed. As you know I can generate a certain amount myself but I am running out of steam. Please, any of you with Einstein material of any description, send it to me to look at. If it needs licking into shape - fine, no problem. Even if it is something needing development I can give it a try. EM 92 is due in June 1999 so I need a bit of time to examine things. Also, I am taking a holiday abroad in January/February, if the Doc. will let me fly.

ONE FOR THE KIDS

In spite of the date on this listing I have been unable to find it on any disk or in any issue of EM. It appeared in a PC file with a lot of other stuff and had apparently gone through at least a few word processors and was rather jumbled up. However, I persevered with it until I had an ASC file that would LOAD into XBASIC, got it running and found it to be a well-written and interesting game for younger members. It is rather long and complicated to type in yourself (though quite possible) so I will be happy to put the file on any Member's own disk if it is sent to me with return postage. 3" or 3.5" is OK but in the latter case please mention the DOS in use. I have filed my copy under the name "RACEDAY.XBS"

Playing the game involves entering names of up to 5 riders and selecting a colour each when the rest is automatic with race after race until there is a three-times winner. Quite entertaining to watch, alternate games are run with frogs or turtles. Number 1 always seems to be an albino; I don't know whether this is deliberate or a bug, but it does not affect the game!

NOTE. In line 2065 the - and + characters are Graph h and Graph H, respectively.

```
3 REM""KIDSTUFF" *

4 REM* for *

5 REM* SARAH and BEN.*

7 REM* L.Stanley M.No. 406 1982*

10 RST:RAC=0:T=0:CLS:GOSUB1100

20 SHAPE131,"0030B47830B47830303078B430304884101 478B03478B00020A-
07834B0783400":C$=CHR$(131)

30 SHAPE151,"002070A820505050A870202050505000":E$=CHR$(151):
F$=CHR$(152)

40 PSG7,78:PSG8,31:PSG12,12

90 FORK=1TO5:P(K)=0:NEXT

100 REM* READ INTRO

110 TCOL1,15:FORL=1TO3:PRINT:PRINT:READA$:FORK=1TOLEN(A$):PRINTMID$(A$,K-
,1);:FORF=1TO20:NEXT:NEXT

120 BEEP:GOSUB1100:NEXT

130 PRINT:PRINT:READA$:FORK=1TOLEN(A$):PRINTMID$(A$,K,1);:FORF=1TO20:NEXT
:NEXT

133 PRINT:PRINT" ";

135 TCOL1,11:READA$:FORK=1TOLEN(A$):PRINTMID$(A$,K,1);:FORF=1TO20:NEXT
:NEXT

140 TCOL1,15:PRINT;:READA$:FORK=1TOLEN(A$):PRINTMID$(A$,K,1);:FORF=1TO20:N-
EXT:NEXT:BEEP

145 FORL=1TO4:PRINT:PRINT:READA$:FORK=1TOLEN(A$):PRINTMID$(A$,K,1);:
FORF=1TO20:NEXT:NEXT

150 BEEP:GOSUB1100:NEXT

160 TCOL15,1:PRINT:PRINT:READA$:FORK=1TOLEN(A$):PRINTMID$(A$,K,1);:
FORF=1TO25:NEXT:NEXT
```

```
200 REM* NUMBER OF PLAYERS

210 BEEP:TCOL1,15:PRINT@27,20;"?":PRINT@27,20;:K$=INCH$:IFK$="
"THENT=1:X=1:GOTO700

215 IFVAL(K$)<1ORVAL(K$)>5THEN:TCOL1,15:PRINT@18,20;" NO WAY ":FORK-
=1TO100:NEXT:TCOL1,C:PRINT@18,20;" ":GOTO210

230 GOSUB4000

300 REM* PLAYERS NAMES

310 N=VAL(K$):REM*No OF PLAYERS

320 FORA=1TON:PRINT@0,11;"Name of":PRINT@0,12;"DRIVER No";A;:PRINT;"_____"@
6,15;"Press space bar to fill gaps"

325 PRINT@12,12:S$=INCH$(6):TCOL1,12:PRINT@6,15;" ":TCOL1,15

330 TCOL1,12:PRINT@0,11;" ":TCOL1,15:PRINT@0,12;" 'HELLO' ":N$(A)=S$

400 REM* PICK A COLOUR

405 IFT<>0THENGOSUB5000

415 IFT<>0THENTCOL1,12:PRINT@0,12;" ":TCOL1,15

420 TCOL1,15:PRINT@12,12;N$(A);@20,12;" PICK A COLOUR _":PRINT@35,12:
C$(A)=INCH$

421 IF VAL(C$(A))<1OR VAL(C$(A))>5THENGOTO422:ELSE425

422 BEEP:PRINT@16,20;"TUT TUT":BEEP:FORK=1TO200:NEXT:TCOL1,12:PRINT@16,20;"
":TCOL1,15:GOTO420

425 FORK=1TOA:IFC$(A)=C$(K-1)THENBEEP:PRINT@16,15; "TUT TUT":FORK=1TO200:
NEXT:TCOL1,12:PRINT@16,15;" ":GOTO420:ELSENEXT

430 PRINT@0,12;" THANKYOU ":TCOL1,12:PRINT@20,12; " ":TCOL1,15:FORK=1TO500
:NEXT

500 REM*RIDERS WITH SELECTION

510 RESTORE3010:FORK=1TOVAL(C$(A)):READP:NEXT:TCOL15,12:PRINT@P+3,1;"^":T-
COL1,15:PRINT@P,2;N$(A):NEXT

600 REM* SET 1=TROGS 2=FURTLES

610 IFT<>0THEN700

620 TCOL1,12:PRINT@0,12;" "

625 TCOL1,15:PRINT@2,14;" FROGS OR TURTLES "@2,15; " for first race. (F/T)
?":PRINT@26,15;:V$=INCH$

630 IFV$="F"ORV$="f"THENT=1:GOTO700

640 IFV$="T"ORV$="t"THENT=2:GOTO700

650 GOTO625

700 GOSUB4000:REM* STARTING GATE

705 FORK=1TO5

707 RESTORE3080:P=RND(12)+1:FORA=1TOP:READP$(K):NEXT

709 FORA=KTO1STEP-1:IFP$(K)=P$(A-1)THEN707:ELSENEXT
```

```
710 NEXT

712   RESTORE3030:FORK=1TO5:READP:READQ:TCOLQ,0:PRINT@P,23;P$(K);:W$(K)=P-
$(K):NEXT

715   FORK=1TO5:RESTORE3030:FORA=1TOVAL(C$(K)):READP:READQ:NEXT-
:TCOL1,Q:PRINT@P,23;N$(K);:W$(VAL(C$(K)))=N$(K):NEXT

720 IFT=2THENTCOL1,12:PRINT@0,1;" ":TCOL1,15

730 TCOL1,11:PRINT@0,0;"-#####-#####-#####-#####-#####-@":TCOL1,15

735 IFT=1THENC$=CHR$(131):D$=CHR$(132):ELSEC$=CHR$(133):D$=CHR$(134)

740 IFT=2THENTCOL1,14:PRINT@0,22;"- "@4,22;" — ";C$;" — ";D$;" — ";C$;" —
";D$;" -";

742 IFT=2THENTCOL15,1:PRINT@3,22;D$:TCOL1,15

745 IFT=1THENTCOL1,14:PRINT@0,22;"- "@4,22;" — ";C$;" — ";C$;" — ";C$;" —
";C$;" -";

746 IFT=1THENTCOL15,1:PRINT@3,22:C$:TCOL1,15

748   TCOL9,12:PRINT@39,3;E$@39,14;E$:TCOL15,12:PRINT@39,9;E$@39,13;E$@39,1
9;E$:TCOL11,12:PRINT @39,18,E$@39,4;E$@39,12;E$

760 REM* START TUNE

761   VOICE0,30,15,2,50,5:TEMPO7:M$="G7B7+D5+D5+D5+D5R7B7B7B7R8G7B-
7G7D8R":MUSIC"V0"+M$

770 TCOL1,15:PRINT@22,5;" "@22,6;"GET"@22,7;" ":FORK=1TO500:NEXT

771 TCOL1,12:PRINT@22,5;" "@22,6;" "@22,7;" "

772 TCOL1,15:PRINT@22,10;" "@22,11;"SET"@22,12;" ":FORK=1TO500:NEXT

773 TCOL1,12:PRINT@22,10;" "@22,11;" "@22,12;" "

776 TCOL1,15:PRINT@22,15;" "@22,16;"GO "@22,17;" ":FORK=1TO50:NEXT

777 TCOL1,12:PRINT@22,15;" "@22,16;" "@22,17;" "

780 PSG6,16:PSG7,71:PSG8,16:PSG9,16:PSG10,16:PSG12,16:PSG13,3

800 RAC=RAC+1:GOTO6000:REM*RACE

1000 REM*MAKE SCREEN FLASH

1100 FORF=1TO10:C=RND(15)+1:BCOLC:FORA=1TO50:NEXT:NEXT:RETURN

2000 REM*INTRO

2010 DATA" Welcome to ALBIES KIDSTUFF RACEDAY...."

2020 DATA" Sponsored by EINSTEIN:ALIVE & BLEEPING"

2040 DATA" There are five movers in each race...."

2045 DATA" First mover to jump clear over the"

2049 DATA"-#####- "

2050 DATA" fence is the winner........."

2055 DATA" Each mover will have a driver to be named by each player..............."

2060 DATA" If no driver is named the driver is selected by Albie...................."
```

```
2065 DATA" First driver with three wins is :- _+_+_ KIDSTUFF RACEDAY CHAMPION
+_+_+_"," How many drivers (1 to 5)"

2070 DATA" Press space bar for demo "

3000 REM*POSITIONS FOR RIDERS

3010 DATA0,9,18,26,34

3020 REM*POS' &COLOUR AT STARTING GATE

3030 DATA1,13,9,8,17,11,25,2,33,7

3050 REM*POSITION SCORES ON LANE

3060 DATA2,10,18,26,34

3070 REM* NAMES

3080 DATA"TRACY ","CHRIS ","WAYNE ","KATE ","SHAUN ","ALAN ","RUTH ","SAMU-
EL","SIMON ","MARK ","CRAIG ","MEGAN "

4000 REM* RACE LANES

4010 TCOL1,12:CLS

4020 IFT<>1THEN5000:REM*TEST FOR LANES

4030 FORY=21TO1STEP-1:TCOL1,13:PRINT@2,Y;" ":TCOL1,8:PRINT@10,Y;" ":TCOL1,11:
PRINT@18,Y;" "

4040 TCOL1,2:PRINT@26,Y;" ":TCOL1,7:PRINT@34,Y;" ":NEXT:TCOL1,15

4050 RETURN

5000 REM* RACE TRACK,COLOURS & NUMBERS

5005 IFRAC>0THEN5090

5010   TCOL1,12:CLS:TCOL15,13:PRINT@2,0;"MAUVE":TCOL15,8:PRINT@10,0;"  RED
":TCOL1,11:PRINT@18,0;"YELLOW "

5020 TCOL1,2:PRINT@27,0;"GREEN ":TCOL1,7:PRINT@35,0;"BLUE "

5030 TCOL15,12:PRINT@3,1;"1"@12,1;"2"@21,1;"3"@29,1;"4"@37,1;"5":TCOL1,15

5090 RETURN

6000 REM*RACE

6005 ONERRGOTO8000

6010 R=22:B=22:Y=22:G=22:P=22:D=1

6015 IFT=1THENC$=CHR$(132):D$=CHR$(131):ELSEC$=CHR$(133):D$=CHR$(134)

6020 C=RND(15)+1

6025   K=KBD:IFK=32THENTCOL1,0:PRINT@2,22;P(1)@10,22;P(2)@18,22;P(3)@26,22;
P(4)@34,22;P(5)

6030   ONCGOTO6085,6090,6080,6090,6090,6040,6088,6090,6070,6090,6090,6
050,6090,6090,6060

6040 L=3:W=R:R=R-1:IFR<0THENP(1)=P(1)+1:W$=W$(1):GOTO7010:ELSE7010

6050 L=11:W=B:B=B-1:IFB<0THENP(2)=P(2)+1:W$=W$(2):GOTO7020:ELSE7020

6060 L=19:W=Y:Y=Y-1:IFY<0THENP(3)=P(3)+1:W$=W$(3):GOTO7030:ELSE7030
```

```
6070 L=27:W=G:G=G-1:IFG<0THENP(4)=P(4)+1:W$=W$(4):GOTO7040:ELSEGOTO7040

6080 L=35:W=P:P=P-1:IFP<0THENP(5)=P(5)+1:W$=W$(5):GOTO7050:ELSEGOTO7050

6085 GOTO7060

6088 GOTO7070

6090 BCOLC:GOTO6020

7000 REM*PRINT MOVERS

7010  TCOL15,12:PRINT@39,4;F$:TCOL15,13:PRINT@3,R;C$@3,R+1;"  ":BEEP:PRINT@3,
R;D$:TCOL11,12:PRINT@39,4;E$:GOTO6020

7020 TCOL11,12:PRINT@39,12;E$:TCOL1,8:PRINT@11,B;D$@11,B+1;" ":BEEP:PRINT@11,
B;C$:TCOL11,12:PRINT@39,12;F$:GOTO6020

7030  TCOL11,12:PRINT@39,18;F$:TCOL1,11:PRINT@19,Y;C$@19,Y+1;"  ":BEEP-
:PRINT@19,Y;D$:TCOL11,12:PRINT@39,18;E$:GOTO6020

7040  TCOL9,12:PRINT@39,3;F$:TCOL1,2:PRINT@27,G;D$@27,G+1;"  ":BEEP:PRINT@27,
G;C$:TCOL9,12:PRINT@39,3;E$:GOTO6020

7050 TCOL15,12:PRINT@39,13:F$:TCOL1,7:PRINT@35,P;C$@35,P+1;"  ":BEEP:PRINT@35,
P;D$:TCOL15,12:PRINT@39,13;E$:GOTO6020

7055 REM*PRINT WAVERS

7060  TCOL1,12:PRINT@39,9;E$@39,19;E$:FORK=1TO100:NEXT:TCOL3,12:PRINT@39,9;
E$@39,19;E$:PSG12,8:PSG13,8:GOTO6020

7070  TCOL15,12:PRINT@39,14;E$:FORK=1TO100:NEXT:TCOL9,12:PRINT@39,14;E$:PS-
G12,5:PSG13,5:GOTO6020

8000 REM* WINNER

8005 PSG10,0:FORK=1TO5:IFP(K)>2THEN9000:ELSENEXT

8006 PRINT@L,W;"  "

8007 RESTORE3060:FORK=1TO5:READP:PRINT@P,22;P(K):NEXT

8010 PRINT@10,10;" "@10,12;" "@10,13;" "

8020 TCOL1,15:PRINT@10,11;W$;" IS THE WINNER"

8025 M$="+D5+D5+D5+D5R7B7B7B7B7R8D7D7D7G9R":MUSIC"V0"+M$

8030  FORK=1TO15:TCOL1,15:PRINT@7,10;" "@31,10;" "@7,11;" "@31,11;" "@7,12;"
"@31,12;" "@7,13;" "@31,13;" "

8035 PRINT@14,12;"RACE No";RAC

8040  PRINT@7,10;" "@31,10;" "@7,11;" "@31,11;" "@7,12;" "@31,12;" "@7,13;"
"@31,13;" ":NEXT:BEEP

8060 IFT<>1THENT=1:ELSET=2

8070 GOSUB4000:GOTO712

8080 STOP

9000 REM FINISH SCREEN

9010     FORK=1TO20:C=RND(15)+1:BCOLC:A=RND(32):PSG6,A:PSG7,71:PSG8,16:PS-
G9,16:PSG10,16:PSG12,16:PSG13,11:NEXT
```

```
9020  P=3:S$=" "+W$+" IS FLASHY RACEDAY WINNER ":TCOL1,C:CLS:FORK=1TO-
LEN(S$):P=P+4:TCOL1,P:PRINT@K+3,10;MID$(S$,K,1)

9025 IFP=15THENP=3:BEEP:NEXT:ELSEBEEP:NEXT

9030 TCOL1,15:PRINT@3,21;"Press & Hold: R to Rerun.S to Stop":K=KBD:IFK=82ORK=11
4THENRUN

9040 IFK=83ORK=115THENSTOP

9045 PSG7,126:PSG8,15:FORI=255TO0STEP-1:PSG0,I:NEXT

9050 FORA=0TO1:TCOL6,0:ELLIPSE127.5,18.5,127.5,,A:NEXT

9055 PSG7,126:PSG8,15:FORI=255TO0STEP-1:PSG0,I:NEXT

9056 FORA=0TO1:TCOL1,0:ELLIPSE127.5,193,127.5,,A:NEXT

9090 GOTO9010
```

—@@@—

Review - DISCLIST by UFOSOFT

UFOSOFT is the trademark of Stan Gibbs and DISCLIST is his program for printing out neat labels for slipping into the plastic cases which 3" disks are kept in.

As the blank example shows there there is provision for disk number and DOS version plus 9 lines of text for each side of the disk. Either two or four labels with different details on each can be printed on an A4 sheet and are then cut out along the outer line of dots, making a perfect fit for the case.

This is a large program, DIR makes it 18k and there are 466 Basic program lines! The reason is the number of checks and balances included to ensure that you end up with exactly what you want. It works fine with both XBAS 4 and XBAS 5 and with either Xdos. Knowing that Stan has 9 pin and 24 pin printers as well as an inkjet, I have no doubt that it works with all those and probably most other printers.

The lines for file names are a max 28 characters long so it is possible to get another 9 names in by using lines like for example:

    1.DISCLIST.XBS   10. XBAS.COM

    2.TEDSFILE.DAT 11. TRAINPIC.OBJ

Even more could have been included if condensed type had been used for the text areas, but I expect Stan wanted to cater for as many printers as possible. Some may not do condensed type.

I found Disclist easy to use and it does the job perfectly - what more could one ask? Obtainable from the Editor by Members sending a blank disk and return postage. The example print is on page 20.

—@@@—

A letter from John - "playing my tune".

Dear Ted,

Congratulations on EM-87! Just a few comments regarding the "demise" of the 3"drive and its disks. A very good source of these are the SPECTRUM+3 and AMSTRAD CPC6128 computers, especially the former as these tended to be used purely as games machines resulting in the early demise of the drive's belt - complete rigs boot sale sourced from £1.00p. to £10.00p. very often with a lot of games disks & etc., can also include the CPC's RGB monitor!

Availability of replacement drive belts are well documented (CPC plc, Preston - AVBELT4) and it is possible to "back engineer" this drive into the TC01 ... with a great big BUT! Chris Coxall can supply the details of a small converter plug/socket for 34<to>26 way which takes care of the signals, the BUT being that the 5VDC and 12VDC power lines have to be interchanged, for whilst they appear to have "normal" 3.5" drive power sockets - they ain't! I've "modified" a drive ribbon cable from 34<to>26 way to get a local special school's "slave" TC01 fully operational with a drive from a duff PCB +3, although I didn't find the drive as "nice" as the type of original drive fitted in the TC01!

A hint for those who go looking for 3" disks at boot sales - slide the shutter back and check the appearance of the media ... if it's reasonably all the same colour then the disk's OK (in the main!), if the outer track is clearly showing (with usually the hub area the "original" colour) then forget it - it's come to the end of its life, even at 10p. each! For some reason the disks from AMSTRAD's PCW computers suffer media problems on Tracks 7 onwards, which could be repeated accessing wear problems similar to the outer track (is there an AUTO-SAVE in the LOCOSCRIPT program?), but the chances are that any PCW disk has had a hard life in some office, somewhere. Dirt discolourisation of the disk's label can also show how much it's been used IF it's the original label!

However, as it's easier to go the 3.5" upgrade route the above is only mentioned by way of an alternative, which brings me to the modification of the 3" drive bracket. Another way to modify it (and probably easier for a lot of people) is to drill holes in-align and 1/8"(approx) in to the existing 4 mounting holes and then cut the bracket in two so allowing it to be spaced further apart. This will make the 3.5" drive to "sit" to the top of the drive slot, and existing slotted mounting holes can be used for the 3.5" drive fixing.

John Marriott

DATASTAR: An Idiots Guide to databases, by an Idiot

R.A.L. Knight.

What is a database: – wotsit do?

Do you remember the old card indexes we used to see in offices? With a card for every client that had to be updated by hand every time something happened? Well DATASTAR is like an easy electronic card index, with each 'card' called a 'form' or record. I have used DATASTAR in my employment as a consultant agricultural adviser for some five years now. As a result Tony has asked me to put together a brief (!) article to help those of you who have acquired the impressive array of mighty volumes that make up DATASTAR etc. but haven't got down to making it work.

With luck, therefore, I may be able to help you to at least get a start in using what is an exceptionally useful professional tool. In my case, I collected details of clients, their names and addresses, map references of farms (very useful for out-of-the way places), phone numbers, dates of visits, dates of letters, identity number for my system, area of farm (in hectares) and the type of farming undertaken. Finally a brief note of advice given, and any problems (i.e. watch out for white dog which will be nice as pie until you have one welly off to change into your shoes, and will then dart in and HAVE you!). All this info (data) is stored on disc or can be printed out to give "working sheets".

A DATABASE therefore is a system that can store information, and get from that store the particular info that you want on demand. British Telecom use a sophisticated database for Directory Enquiries.

PRELIMINARIES: In order to avoid giving yourself headaches later, a little thought, or even better, a little jotting of thoughts on paper can really pay off! Why? Well computers can be really pedantic. If you ask a computer to look for "FRED", that is what it will find if it is in the data store. It will NOT find " FRED", (ie space before entry), nor will it find "ALFRED".(For the same reason it is important to type in the info accurately. I several times 'lost' entries because in my haste they got an accidental space before them, and so Albert didn't recognise them when searching. If Albert is looking for "FRED" he will not find "fred" either. So, if we can for the moment talk about an address-book type of database as an illustration, what would you put in it?

Probably something like:

1) Name

2) Surname

3) House name or number.

4) Road

5) Town

6) County

7) Postcode

8) Telephone number.

and if it was for a club or similar organisation, you may have:

9) Membership number.

10) Date of subscription renewal

11) Date of receipt of last subs.

12) Current years sub rec'd? : Y or N and finally, to cover all eventualities:
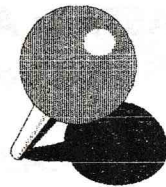
13) Comments.

Each of these 13 areas of info are called "fields". DATASTAR can search on any field. Suppose you wanted a list of members who had paid their subs. this year, you would search on field 12. Another advantage is that you can use random memories (like mine!): if you've forgotten his name, but remember that he lives at "Rose Cottage", you would ask Albert to show records for all "Rose Cottage"s in field 3. (We will deal with HOW you search later). Incidentally, the information in fields 1-13 is in the form of a form (!), and can be known as a record. So you will have a form (or record) for each name in your database.

On your DATASTAR disc is a program for generating the form, called, not surprisingly "FORMGEN" of which more anon! DATASTAR also has a special field, chosen by you, called a key field, which is used for short-cut searching. You will be asked to allocate a field as a 'key' field when you are creating the form from FORMGEN, so give it some thought before you get there. In the case of an address book, the most likely field to use as a key field would be name or surname, since they are most likely to be 'known' and the other info on the form is more likely to be in the 'needed' category.

So get your bit of paper, and a good chewable pencil, and make a draft 'form' . Give it some time and thought, since you cannot add extra fields to a form at a later date and there is nothing more infuriating than typing in the info for three weeks, and then suddenly realising, in a flash, that you really needed a field for 'colour of eyes' or something! Do this while reading the next Para.

IF YOU DON'T HAVE A COPY OF DATASTAR we can probably find you a copy if you cross our palm with silver, and these basic philosophy ought

to apply to almost any Einstein database software worth having. A quite different approach, equally effective for some purposes, is to use ASCII text files and FIND.COM to create a text file database system. More on this in due course too.

CREATING THE FORM:

A Form is composed of of fields, and each field contains 'fixed' printed words as the body of the form, with spaces allowed for the info you are going to put in. Take the entry: Name : Alfred E Neumann "Name :" is fixed, ie it is printed on every copy of the form. "Alfred E Neumann" is the 'info' you are storing on this record, and it takes up sixteen letter spaces. It is clear that you must allow sufficient space for the largest likely entry, otherwise how can you cope with Mr.Aloysius T. Cholmondley-Barrington-Smyth?

FORMGEN will ask you to allocate an asterisk for each letter space for each field you have chosen. OK, so you have decided what fields you want, which will be the key field for searching on, and how many letterspaces each field will need. Lets create a form, print out a blank (or one filled with fictional entry data), and see how it looks. NOW GET OUT YOUR DISC and load "FORMGEN". (You're off now!)

Q:It wants to know "name of form definition file"? A:This is where you name your masterpiece, say "ADLIST" NB if you put in the " now, you will always have to use them as part of the name of your file.So just type in ADLIST (RETURN) You now get a screenful of description of what you are about todo: anyway, type CTRL J and bash on. The next screen will become your form, so you need to type into it the fields you have chosen. (Please note that the fields do NOT have to be all down the left margin of your form. If you have two small fields (perhaps yes or no type fields), they can go on the same line. This means you can'lay out' your form in a creative or artistic way if the mood strikes you, but note that DATASTAR will fill each field in order, starting top left, line by line.)

So start by typing in the 'fixed text' of the first field. Something simple like 'Surname:'. In order to give a little space to the whole job I prefer 'Surname : ' as when the info is entered it looks less cramped.

After the fixed text is typed in, you allocate spaces for the variable text (In this case the 'surname' of each record/form.) This is done by pressing CTRL Q which delivers a little line to the form. This little underline will be where you enter the actual name on the form during data entry. Each press allows for one letter of the name, so do not forget what we said above about allowing enough letters for Mr Aloysius T Etc.!

Move about the form at will, using the keys shown at the top of the screen, entering the fields of your choice. Why not try 1-10 of those listed above? (with suitable spacing of course). When you are reasonably happy with

what you have done, and would like to try it out, type CTRL C (says 'form done').

Shock Horror! an error message? no, not really, but we do have to allocate the key field, as explained above. You have various choices, I suggest press C to save your work and continue. This brings you back to your form (which is now safely saved) to identify the key field. This is done by positioning the cursor on one of the 'letter'lines of the field (ie actually in the info part of the field) and pressing CTRL Q. The data area now fills with asterisks.

Thats OK. Now press the CTRL C again. You should now get your choices again, but with no error message. I usually use D (save form and chain datastar) as this then sets the whole thing up, creating the necessary files to identify your database and form. After pressing D , you will be asked what disc drive you want the DTA and NDX files saved to. To start with, make it the same one you are currently logged on to (probably drive A). This completed, you should be presented with a screen of your form, with the cursor winking away on the first letter of the first field (Surname?), and the letters ADD MODE in the very top left hand corner of the screen.

if you want to see the form 'in the flesh' and have a printer attached press CTRL U, (this gives a copy of an empty form). As an exercise fill in the form with real or fictional entries.

Note that if the entry is (as it should be) smaller than the space you have allowed for it, you have to use the 'RETURN' key to record the info and go to the next field, but if you use all the spaces in a field it will go to the next field automatically. Note that as you leave the last field (and if you dont want to enter anything in a field, just press return), you will be given the option of amending or deleting your info before it is saved to disc. Now print out the filled form as before, for critical examination. If all is well, you can now enter a batch of records onto your database. Not too many at first, say half a dozen, since we have to check retrieval procedure!! NB: Always leave DATASTAR by the authorised route.

If you have finished, type CTRL E (to go to current mode) followed by E to Exit. You have now left your new database (ADLIST), but you are still in DATASTAR, and might want to use another database with another name, well this would be the place to change if you wish. otherwise type return, which will give you the prompt to type CTRL C for the final exit. All your Info is perfectly safe (I hope!) on disc.

RETRIEVAL:

Now, start again from scratch with the disc with your database (with half a dozen entries on it) in the drive. Load DATASTAR ADLIST. (You could load DATASTAR, then at the prompt load ADLIST, but doing it all at the same time is much easier!) The screen clears, leaving you with an empty form,

with the cursor flashing at 'current mode'. It is at this point that you can choose how to 'retrieve' the data you want:

1) There is 'key' mode. If you press K, the cursor will flash in the key field you allocated earlier. Type in this Known Info, and DATASTAR will provide the rest when you press CTRL B (end entry). All the remaining info on the form will be filled in.

2) Use the scan Mask. Press M and all the fields are filled with asterisks. Now fill in some details on one or more of the fields (As mentioned, this info MUST be accurate - no spare full stops, or spaces, and either upper or lower case according to what you used to enter the info). DATASTAR now compares the 'mask' entry with all its records, and will display records accordingly.

Once you have mastered the system it becomes very useful. for example if you have forms for Mr. Smith, and a Mr. Smithers and enter a scan mask of 'Smith', you will get both, in order. One will display immediately, and if you press CTRL N it will display the Next record that matches the mask , and so on until you find the one you want!

Incidentally, this facility can be very useful in cases where, for example, all you can remember was that the address was Red something. Try scan mask on 'Red' in the address fields, and run through (CTRL N remember) until you find the one you recognise!

UPDATING INFO:

Once you have a record on the screen, you can either print it out, if you just want the info, or you can update the info. Using the keys indicated in the top panel of the screen, move the cursor to the field you want to change (perhaps a new phone number) and make the necessary alterations. Then go to the end of the form using CTRL F (or RETURN) and DATASTAR will ask whether you want to file the new Data. Or delete it. This provision means that if you make a mistake you have the option of 'junking' it, and doing better next time. Very useful believe me! Press return once more, and the info is filed.

To leave that form, CTRL E will put you back to current mode to wait for your next instruction. If you've finished, E for exit, Followed again by RETURN, and CTRL C will see you safely out.

MISCELLANEOUS:

When you have many records stored (I had about 600 or more) Albert can be a little slow , this may be helped by what is called 'File maintenance'.NB Backup the disc before trying this! I know people who hav never used it, but it may help if Albert is all stuffed up with info, as it sortt all out on disc, and resaves it in order and in disc-blocks, making searching and saving quicker. It is a slow process - allow plenty of time!! PRESS F from

current mode. You are asked for a filename. This is spurious - I usually call it 'rot'!! You are also asked for a drive to use. This IS important. Your disc must have plenty of space on it for data-shuffling. It must be the same Drive you are using. It is wise to have a DATASTAR disc with nothing else on it. Press RETURN, and go and make lunch. Then press ESC to end.

—@@@—

Another Letter

Dear Ted/Tony,

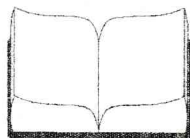Here are some additional thoughts I had from reading Einstein Newsletter No. 4.

Pins 10 is not Motor On at the disc drive as indicated in the newsletter but is actually Drive Select 0, it is only Motor On in the cable from the FDC in the PC, this and the twisted cable is done as a fiddle for the PC to allow each drive to have a separate Motor On output (normally all drives share a common signal), all PC drives are always set to Drive Select 1, with the cable selecting which drive is which.

So to use a drive as 0: on the Einstein simply set link Drive Select 0. On using HD discs in a DD drive (or a HD drive in DD mode), they may format OK with the hole covered, but the media is designed to accept a lower write current and hence has a lower coercivity, therefore when written with the higher write current of DD mode there is a greater chance of the stored data migrating into nearby cells causing data corruption, this may not show up initially when formatted but may make the disc unreliable in the long term. I have had problems with DD formatted HD discs on a couple of occasions.

Attached is a copy of a 3.5" FDD manual for some drives we use at work, the data should be fairly generic.

Best Regards

Duncan

John Marriott's drive bracket mod - see following letter.

fig 1

This section only folded outwards……

Reforming Einstein 1001 disk drive bracket for 3.5" drive

fig 2   fig 3   fig 4

Tony,

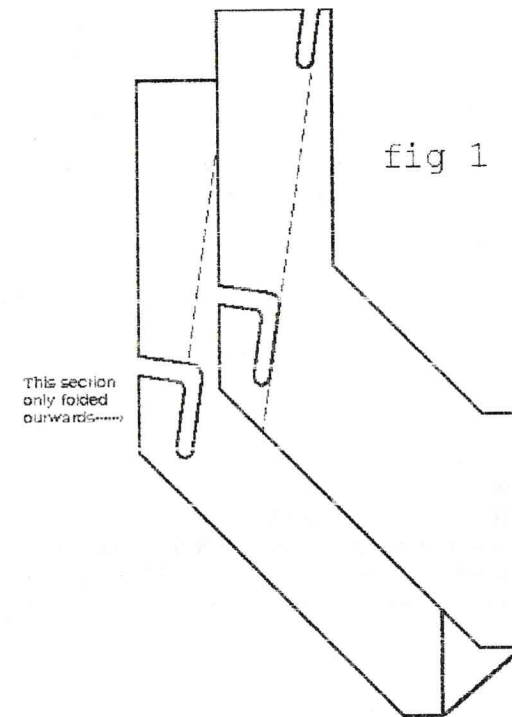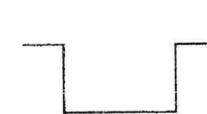Bit more of a follow-up to EM84/6 and Ted Cawkwell's "tin bashing" to fit a 3.5" drive. The enclosed sketch (fig 1) shows an existing drive mounting bracket removed, and using the slotted holes as guides - to the outer brackets outer faces scribe a line across at the bottom edge of the slots, to the inner faces scribe a line across at the top of the slots. IF and only IF you have reasonable skills, place one of the bracket flanges (fig 2) into a vice with the top of the flange down and the outer scribe line just showing to the vice-jaw top and fold the bracket over so that the scribed line is "inside" the fold. I used a light pin-tack hammer to "ease" the fold to about a right-angle. Repeat for the other side (fig 3).

To make the "return" fold (fig 4) procede as above EXCEPT with the aid of a wide-bladed screwdriver and a slightly "heavier" hammer make the second fold by pushing the screwdriver blade across the vice-jaws and "into" the first fold, lightly hammer/ease the screwdriver moving along the first fold. The folds can be "squared" by lightly(!) hammering the blade (or small blunt cold chisle) at right-angles to the clamped flanged bracket.

From initial idea to first modified bracket took me 30 minutes. This causes the 3.5" drive to lie in the same plane midway vertically to the slot. When the plastic blanking plate is removed from the speaker mounting molding you will find that the drive will sit behind with the original molding aperture just giving enough clearance to take a 3.5" disk, with the gaps above/below the new drive to be filled in with stiff/bent cardboard glued into position. No plastic modifications needed, with the original drive bracket "recoverable" if needed.

Whilst the "blanking" cardboard is not really necessary, there is the chance of a disk being fed into the "wrong" slot with the chance of the metal of the disk shutter finding something to short against!

To those that want to go this route but doubt their skills (I'm not much cop at brain surgery!), I'm prepared to modify any bracket providing you make sure the box/package can be re-used, has return post/label, AND 2*2nd. Class NEW/UN-USED stamps as a small thank-you.

YOU'LL need to drill 2, yes, only 2 holes to screw the bracket to your drive. They don't have to be exact, i.e. oversized slightly with washers. DO MAKE SURE that these fixing screws DON'T short against any PCB!

Disk drive power plugs - always expensive and hard to get, with the 5.25" ones like hens teeth ... so why not buy the PC power supplies that scud about boot sales from 50p upwards - plenty of them there, complete with adequate length wiring! There is the tendency to overlook the fact that plugs and sockets are in the main only there for manufacturing convenience e.g. the TC01 disk drive power points could just have easily been soldered wires with the drive power plug on the end - except you can't automate

that type of assembly, and there's nowt wrong with soldering at our level of need.

Types of drives - with computer "pulls", the 1.44M 3.5" drives would seem the logical way to go, using the HD disks from the outset. This will allow for the reasonable future of both drive and disk supplies. Postage ALWAYS gives me a pain from the Dealers, especially when they charge a minimum of £5.00p. and a rather battered second-user Jiffy Bag with about 45p-odd postage turns up with a "substituted" part, & etc.!

Could a centralised BULK BUY be arranged/financed which could probably bring these "pulls" down to a more realistic £2.00p. post?

Frequently Asked Questions - why does my TC01 keyboard/keys stick down? Well, there's spilt drinks of all types, smoking, frying, bodyily by-products, & etc If it's just "age", then a fudge of such simplicity may appeal to some of you. A defunct COMMODORE VIC-20, C-60, C-16 & etc. has a lot of nice soft springs under its key caps. These can be boot sale sourced from 10p.(!) upwards, even your own one which is now showing the dreaded grey screen display.

ADVICE - do ONE key cap on BOTH computers at a time, nothing worse than trying to unravel 50 springs when the "Better Half" wants the table for Sunday dinner! The keyboard will have a "heavier" touch - but can be lived with.

The next serious problem is the key-switch plastic itself. Plastic shapes are formed by melt/medium pressure action e.g. LEGO or granular/very high pressure, which appears to be the TC01 key-switch - where it IS possible to get a pint in to a half-pint pot, but ONLY FOR A TIME! Even different colours seem to affect the behavior of plastic ... so the key-switch is made up of the yellow plunger, black guide/cover and grey switch/housing with them all GROWING to relieve their original formation pressures. The "spring" won't work on these, the short answer being REPLACE, or a very time consuming "take the thing apart and ease down the tight bits"...

...which has just earned me a TC01 with 80 column card, TM01 colour monitor, JUKKI 6000 printer, plus manuals and software - and sore fingers!

Long story! Anyway, the nearest I've come to a direct replacement key-switch are those on an ELECTRON ... but! At a pinch I take out all the TC01 FUNCTION key-switches for use elsewhere in the keyboard, e.g. key! Enlarge the PCB solder holes to allow for the different terminal alignment and "pull" the PCB "closer" to the keyboard metal plate to "allow" for the smaller depth of the ELECTRON key-switch - 3 hands are a help! You may need to "trim" some plastic away from the under-side of the keyboard surround due to lack of "tilt" on the ELECTRON key-plungers, but at least the TC01 key-tops fit well! One word of warning, the TC01 key-switches have some of their terminals bent over, then soldered. When you desolder the join

GENTLY EASE any tab vertically, I use a BLUNT scalpel blade - NOT the soldering iron tip, this will shove the tab across and flat again with it then snapping off! YOU'VE BEEN WARNED!

APRICOT did do a disk drive facade unit about the F1 era (re. Ted's EM84/9), I have two, one with a single drive (half-height, single sided SONY 3.5" drive 26 pin termination) the other a double drive (as above, but double sided) - I've even got an F1 with mono monitor, but alas no boots disks so whilst I know it's an 8080/6 based thing, haven't taken it much further - but thinks that goes for the rest of that era of history!

Steve Potts kindly phoned the other evening to let me know his TM01 monitor is now back on line - the problem being the tube PCB, well - the little variable resistors which I tended to forget do have a habit of "cooking". Incidently, Steve now has about a thousand of these little "pots", just part of the BULK BUY policy for the EINSTEIN USER GROUP Members? Steve may tend to use his monitor more, what with the Shows - but to those that have the "capability", a look at those pots on your TM01 may not be a bad idea!

John Marriott

DISK PARAMETER BLOCKS

The Einstein is designed to be booted from a 3" drive, so to boot from a 3.5" the drive description has to be changed to suit. I have identified 5 sorts of drives used by the TC01:

40 track single sided: 2800,04,0F,00,5E00,3F00,8000,1000,0200

40 " double " : 5000,04,0F,00,C200,7F00,C000,1000,0100

80 " single " : 2800,04,0F,00,C200,7F00,C000,1000,0200

80 " double " : 5000,04,0F,00,8A01,7F00,C000,1000,0100

Silicon Disk : 2800,04,0F,00,7A00,3F00,8000,0000,0200

The Hex numbers are the Disk Parameter Blocks (DPBs) and the commas are mine to separate the parameters, and of course are not used when entering the data. The bytes are in lowbyte-highbyte format. As a brief explanation take the fourth row:

Parameter

5000 Logical sectors per track. 28h=40 50h=80

04   block shift factor

0F   block shift mask

00   extent mask, usually 0

8A01   max data storage as no. of blocks. 018Ah=394

7F00   max DIR entries-1 003Fh=63 007Fh=127

C000   allocation block for DIR 00C0h=194 0080h=128

1000   no. of DIR entries per sector. 0010h=16

0100   no. of system tracks (1 or 2)

A fuller description can be found in EM 1/10 page 14.

The DPBs are in the DOS tracks and when booted are put into (usually) the BIOS area of memory. As you can't get at the BIOS until you have booted the DOS it is obvious that it is necessary to change the DPBs on the actual DOS tracks.

To do this start up the machine in MOS, place the disk you are going to change in drive 0: and type: R100 1B00 <Enter>. This reads the DOS track(s) into memory where they can be looked at and changed. For a drive other than 0: use: R100 1B00 0000 0n where n is the drive number 1 to 3.

Using the T (Tabulate) command you can now find the DPB(s) at the following locations. Note that your start location is 0100H.

XDOS 1.31: 1AEEH only ONE DBP is shown - 40t SS.

ZDOS 1.6 : 1A05H, 2 x 40t SS, 1 x 80t DS, silicon disk

CPM+ : DPBs are in the file CPM3.SYS and, when this is LOADed are found at 280H, 2A5H, 2CAH and 2EFH.

BEFORE GOING ANY FURTHER BE ABSOLUTELY SURE WHAT YOU ARE DOING AND ALWAYS WORK ON A COPY - NEVER YOUR ORIGINAL DISK.

You can use the M command to modify a byte, followed by a full stop to end and return to MOS. You don't need spaces between bytes.

XDOS 3.00

To make a boot disk for a 3.5" drive using XDOS 1.31 (which I have called XDOS 3.00), alter the bytes from 1AEEH to match those shown for 80t DS above. The byte at 106H in XDOS 1.31 is used to set up the Side Flag in the Scratchpad at FBB1, but only a 1 or 0 is recognised. (In XDOS 2 the upper 4 bits specify 80 (1) or 40 (0) tracks, for each drive, and a 1 in the lower 4 bits denotes DS, which makes it very easy to change the configuration by altering this one byte, without knowing where the DPBs are.)

A disk altered as above will boot a 3.5" drive 0: and work OK with 3.5" drives as 1:,2: or 3:.

I have made a couple of other changes to the DOS on my own copy. To enable me to see what DOS I am working with I have altered location 0134H and the next three bytes to 332E3030 (hex) so that Xdos 3.00 appears on the screen on bootup and also I have added a little routine at 0162H to change the scratchpad location FBB1 so that drives can be recognised by Xdos 2.

The bytes at 0162H are:- 3E FF 32 B1 FB AF C9

The second byte (here FFH for four 80 track DS drives) is the one that appears in the scratchpad at FBB1H.

Having made the changes, the code is written back to the disk using W 100 1B00. In the case of not using drive 0, W100 1B00 0000 0n as before. Note that the spaces are essential here as in the R command.

@@@

```
. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
.DISC NUMBER :-
.DOS VERSION :-
.SIDE.A. . . . . . . . . . . . . . . . . . . . . . . . . . . . .
.1 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
.2 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
.3 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
.4 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
.5 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
.6 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
.7 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
.8 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
.9 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
.SIDE.B. . . . . . . . . . . . . . . . . . . . . . . . . . . . .
.1 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
.2 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
.3 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
.4 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
.5 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
.6 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
.7 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
.8 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
.9 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
```

HELP

I would appreciate some assistance with my Colour print program using three successive prints in Cyan, Magenta and Yellow with a possible black overlay.

Obviously good registration is important and the BJC 410 0 is excellent but I would like a member to test the system using a 24 pin DMP if possible to check the viability of the program, as well.

The more help the merrier.

There will be little more than a bit of button pressing required, unless you are prepared to try pictures of your own. All you need is in the program in this case.

Please contact the Editor.

EINSTEIN MAGAZINE and All Micro News

The magazine is usually issued at least 5 times a year by a team of volunteers to give Einstein (and other) computer users -- THAT MEANS YOU -- a forum for the exchange of ideas, information, etc. One copy of each issue is automatically mailed out to every current member of EINSTEIN USER GROUP.

Membership subscriptions to Ivy Cottage, Church Road, New Romney, Kent, TN28 8TY, please. The membership year consists of six mailings, and membership subscriptions are on a "Discounted Bulk Buying" sliding scale. The longer you pay for in advance, the less you pay for each membership year

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**OTHER USEFUL BITS:- Contact Steve Potts

*** MEMBERS' SALES/WANTS ADS:- Free to current Sharp, Dragon or Einstein User Group members.

Apologies if you've been going cross-eyed trying to read the
text in recent issues of EM when it has white streaks across
the page. The printing machine is over 2 years old -- so it
is a discontinued model and parts have to be ordered from
Japan!!! The serviceman didn't find out until he'd driven
all the way from Southampton and stripped the machine down,
that they'd sent the wrong part. Watch this space for news!

"KIDSTUFF.XBS":- I'm sure we printed this in an earlier mag,
but I can't trace it either. How about all you eager beavers
who've indexed the magazine content letting us have a copy,
so we can share the info round? Who's willing to help with
building on whatever already exists, to make a full index?

DATASTAR:- We've finally got round to printing this article,
which got crowded out by the disk drive development work. It
is a very powerful and versatile database, though many will
prefer dBASE for its built-in programming language. Without
this article and the letters from John and Duncan to fall
back on, this issue of EM would have had to be mailed out
with an awful lot of blank pages in it, so please do respond
to Ted's plea for more input. We'll be very pleased whether
it's learned technical or practical how-to-use/do/make-it
articles; or hints, tips, ideas, reviews, listings, letters;
or whatever. If YOU don't send it in we can't possibly print
it -- and blank pages are not a lot of use to anyone at all!

ADVANCE NOTICE:- Steve Potts tells us that the next Stafford
Show is on 18 April. He will have the software library with
him, plus other useful Einstein items. He hopes to see you
there if you need anything, or just to chat & exchange ideas.

BOOT FAIR SPECTRUMS AND AMSTRAD CPC's as a dirt-cheap source
of disk drives, disks and monitors for Einey? John's letter
could be a real life-saver. Do you have equally useful ideas
to share with us all? Have we published Chris Coxall's plug/
socket signal lead converter details yet? Is it coming soon?
Has Steve got details to carry on his show stand? Which PCW
disks are you referring to, John? The PCW-8256 has a 40T-1S
drive, the 9512 has a 80T-2S one, the 8512 has one of each.
JOHN'S 2ND LETTER:- Note John's tin-bashing offer! Contact
him at 121 HILL BARTON RD, EXETER, EX1 3PP (01392 469206).
And more boot-fair sources of useful Einey bits! There is a
compatibility problem with 1.44Mb disks/drives, John. Some
work fine (but see Duncan's letter), others won't have it.
Problem is, the drives are either in HD mode or DD, but we
need HD magnetics combined with DD data flow. Any ideas?
   TONY'S TIP:- A BBC-B & drive going dirt cheap? Plug the
data lead into the back of Einey, use the Beeb to power it.