DRAGON **UPDATE**

The Gaffer's Bit............

So what do I write about this month?. I suppose I could copy all the
   commercial rags and review 1987, but it seems to have been a year most people
would rather forget, so there's not much point in writing about it, is there?.
Trouble is that there's not a lot of news at all right now, everything is much
the same, except that we're losing quite a few members to the ST brigade
   recently. I'm sorry for them, paying all that money just for a load of pretty
colours and graphics, but it's their own money (I hope!), so why should I
argue?. I'd like to say thank you to all those of you who have been adding a
bit extra to their renewal subscriptions and orders "for the copier fund".
It's a great help, because I've had to dip into the fund recently in order to
keep the old Tosh copying, and we really are going to have to get a
replacement before long, so your contributions really are very much
appreciated. While I've got a bit of space to spare, I think I ought to give a
mention to another old established Group, the National Amstrad, Tandy &
General Users Group, known to its friends as NATGUG. Now it's no use all you
Dragon and CoCo owners rushing to join them, because they don't have a lot of
coverage for either machine, but those of you who run a second machine might
well find it useful to contact them, especially if it happens to be a TRS80 or
one of Alan Sugar's little boxes ....they're well into CP/M and peculiar
perversions like MSDOS, and although they're a bit more expensive than us,
they appear to offer a good service, so if you're interested try writing to
Roger Storrs, Oakfield Lodge, Ram Hill, Coalpit Heath, Bristol, or if you
haven't the energy to write to him, give me a call and I'll send you one of
their application forms. OK?. If there's anything else new happening I haven't
heard about it. I've still got the same old problem with the workforce, or
rather the lack of it, but there's nothing new about that!.I'd like to tell
you that in 1988 Update will be bigger, better, and more interesting, but that
will depend on YOU. We can only publish what YOU send us, and unless you all
do a bit more in that line Update is likely to end up as an editorial followed
by a dozen blank pages!. It's your choice, and if you aren't going to bother
about it, why should I?. Anyway, I'm not going to deliver a lecture on the
subject, you all know the score, and Update 1988 will be what YOU make it,
nothing more nor less.

THE EDITORIAL BIT................

   Well, I hope you all have had an excellant Christmas and New Year and are
bright and ready for another year. You'll be pleased to know that I have
   nothing to moan or complain about except possibly the fact that nobody wrote a
report about the show for us - surely somebody could spend 10 or 15 minutes
writing a short summary of what happened (or didn't, as the case may be!).
   As always, articles of any shape or form would be greatly appreciated so
please, donate a smallbit of your precious time to the group and help make it
better for all of us.
   So, until next time, enjoy.....

MEMORY MANAGEMENT ON THE LARGE DRAGON

PART 4 : GETTING IT TOGETHER

This month I want to consider the decoder circuitry. This is the circuit that makes sure that the registers of the mapping-RAM's, the fuse register and the interrupts flip-flop appear somewhere sensible in the memory map. My

solution has been to make them appear between $FF80 and $FFBF, where there is a large hole in the SAM-chip memory map. (The SAM data-sheet appropriately describes this hole as "reserved for upgrades"!). The detailed positioning is decided by the tappings taken from the LS138 (IC9). Wired as shown, the RAM registers lie in order between $FF80 and $FF8F, the fuse register is at any address between $FF90 and $FF9F, and the interrupts flip/flop is toggled by a write to $FFA0 (to $FFAF) or $FFB0 (etc) respectively. All these operations are possible only when the MMU is switched out (ie STATE=0).

Mention should be made of the switching signal to multiplexor IC2 (pin 1) - I have found it satisfactory to apply the same signal (STATE, derived from IC 11) to both IC1 and IC2, but there are some timing benefits on map switching to leaving IC2 connected to the top address lines (see fig 2) except when writing data to the mapping-RAM. (Note that it's not possible to read the mapping-RAM registers, because their outputs are not connected to the data bus! You'll just have to keep a tidy copy of their contents in memory).

Finally, Fig 3 shows a possible method of implementing write-protection, by gating the write-enable signal (RWE) from the SAM with an OR gate (you may then feel obliged to find uses for the other 3 gates on the chip!) This method is preferable to the obvious method of gating read/write direct from the cpu, for the following reason:- in both cases the dynamic RAMs will interpret the memory cycle as a read not a write and will put out data, but in my suggested mod. the intervening LS244 buffer on the main board will stay disabled, and so the cpu will not find another device putting data on its lines at the same time as it is trying to. (To really make the implementation sound we could also toggle the interrupt line nmi so that O/S can warn the user he's sinned).
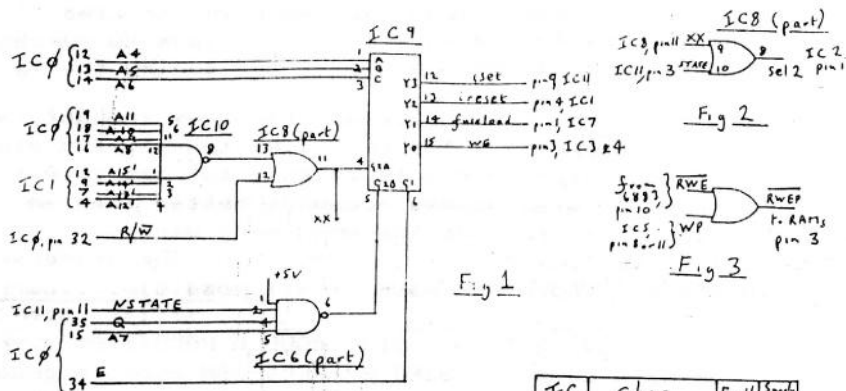
This more or less finishes off the hardware ('bout time - Ed). In the meanwhile I've been trying to sort out the software, and I'll start telling you about that real soon now! (To date I've done the easy jobs of writing a RAM disk driver, and a patch for the Go51 driver, so that the latter uses a high-res screen in extended memory - but the big prize is a patch to OS9 level 1 to allow it to give programs up to 63k of workspace). In the interim, here's a bit of Basic with which to try it all out. It sets up the registers to their default values, and then switches in the MMU. EXEC SWOFF returns you to unmapped mode.

(Note the alternatives in line 60).

```
10 SWOFF=&H7000:'OR WHAT YOU WILL
20 POKE &H0106,&H3B:'RTI
30 POKE &HFFA0,0:'SWITCH OFF MMU ON SWI ONLY
40 POKE SWOFF,&H3F:POKE SWOFF+1,&H39:'SWI,RTS
50 FOR I=0 TO 15
60 POKE I+&HFF80,I: 'LS219
'60 POKE I+&HFF80,255-I: 'S189
70 NEXT I
80 POKE &HFF90,0:'SWITCH IN MMU
90 RETURN
```

Note that you need to be in 64k mode rather than 32k to access a 18-bit address ending in $8000 to $FEFF, and that all absolute addresses ending in $FF00 to $FFFF get fielded by the SAM. This limitation is imposed by letting the SAM do the memory control. Hopefully, I may one day tell you how to use a TMS4500 to get round the problem...

by BOB HALL.

IC9

Fig 2

Fig 1

Fig 3

IC	Chip	Earth	Sup (+5V)
6	'LS20 or 'HCT20	7	14
8	'LS32 or 'HCT 32	7	14
9	'LS138 or 'HCT138	8	16
10	'LS30 or 'HCT 30	7	14

0·1 μF capacitors on all supply (5V) pins to ground.

Decoder, Switching & Write-Protect Circuits for Mk 1 MMU

R.W.H
15.xii.87

EASY MACHINE CODE 16 '.... R.A.Davis.

To start the printer dump routine with DASM... the usual.

```
10 CLEAR 800,&H6FFF    THIS GIVES ROOM FOR M/CODE FROM &H7000.
20 EXEC &HCFFA         TO EXEC THE DASM.
30 ALL                 TO PRINT ON SCREEN.
40 BRA @BEGIN          TO JUMP OVER THE DATA AND STORES TO THE LABEL.
50 @ESC FCB 27,23,18,00  THIS SETS THE 105 INTO ELITE FONT AND GRAPHICS.
60 @SCREEN FCB 0,0     THIS IS A STORE TO HOLD THE SCREEN ADDRESS.
70 @SCREND FCB 0,0     THIS STORE IS FOR THE SCREEN END.
80 @BIT FCB 0,0        THIS STORE IS FOR THE BITA USE.
90 @CUM FCB 0,0,0      THIS ONE FOR THE NUMBER SENT TO THE PRINTER.
100 @ELONG FCB 27,14,0  THIS SETS THE 105 INTO ELONGATION MODE.
110 @NOLONG FCB 27,15,0  THIS RETURNS THE 105 TO NORMAL FONT.
120 FCC 0,0            LEAVE A SPACE.
130 @CR FCB #0D,0      FOR CARRIAGE RETURN.
   140 @BEGIN LDU #@ESC  LOAD THE U REGISTER WITH THE ADDRESS OF THE DATA IN LINE
50.
```

We will send the commands to the printer in due course. This is where the program starts.

ANSWERS TO CROSSWORD NUMBER 28

ACROSS:-
1A) Atlas. 1H) Asylum. 2C) Inlaycard. 3C) Greenhouses. 4C) Hate. 4I) Pawn. 5D) Stirrup. 6B) Ohm. 7F) Circuit. 10F) Drawezee. 11E) Oval. 11J) Bero. 12A) Prolog. 13E) Laser. 13J) Boss.

DOWN:-
A1) Atmosphere. B1) Thermometer. C1) Lighthouse. C11) Mot. D8) Small. E2) Letter. E8) School. G6) diagrams. H1) Ache. H6) Prop. I4) Pubcrawler. J6) Prune. K3) Prism. K10) Zero. L5) Entire. M1) Miscellaneous. Winners of last month's crossword were Graham Smith and Eddie Freman.

4

A LETTER FROM AN EX-EDITOR - TIM LOMAS

Just a short note to thank those of you who kindly donated to Paul's "Buy a
retiring editor a drink" fund, the thought was much appreciated. I shall be
popping off to the off licence in the next couple of days to purchase the said
beverage as my previous bottle had become diminished during the latter days of
trying to get Update together.

While I'm boring you all again (who muttered that they thought they'd
finally got rid of me at the back ??) I'd just like to congratulate Barry on
his first edition, it made a nice change to be able to read it without knowing
what was there in advance! He also seemed somewhat better than me in the
typographical error department. Keep up the good work Barry.
[What can I say... I'm moved... I'd just like to thank the producer, the
director, my parents and all those who made it all possible....Barry]

HENCEFORTH (4) .... BOB SMITH

The next few jottings are going to be about DOUBLE PRECISION numbers and
their use in FORTH. FORTH is based on SINGLE PRECISION numbers consisting of
16 bits (two bytes). This means that a number can be in the range Ø to a
binary number consisting of 16 1's which is 65535 in the decimal system. These
are called unsigned numbers. However the most significant bit can also be used
to decide whether the number is negative (1) or positive (Ø). This means that
a one followed by 15 Ø's is the largest negative number (-32768) and zero
followed by 15 1's is the largest positive number (+32767). These are called
signed numbers.

All numbers on the FORTH stack consist of 16 bit numbers. A DOUBLE PRECISION
number is a number made up of two adjacent numbers on the stack so that the
combined 32 bits are used to store the number. The number nearest the top of
the stack is the most significant half of the number pair. The main point to
remember is that the "two halves" of a double precision number are in no way
different from two separate single precision numbers. It is the word operating
on the stack that decides whether two numbers are a pair or not. The thing to
remember here is that words such as .. (dot) and STK? will print the pair as
two signed numbers, whereas the most significant bit in the lower number is
just another digit buried in the middle of a 32 bit number.

We need words to manipulate pairs of numbers as 32 bit numbers. Some of
these exist already in John Payne's FORTH. In a quick run-through I found 2Ø
words dealing with 32 bit numbers, and 13 of these are for direct manipulation
of 32 bit numbers. The system for naming words that manipulate 32 bit numbers
is a bit of a mess. I have tried to gives names that echo the 16 bit
equivalent word with either a D or a 2 in front. Where the original first
character is a letter, I use a 2, and where it is a non-letter character, I
use a D. The various FORTH implementations, however, do not stick to this and
I intend to use the original names even though this means departing from my
own principles.

That's enough preaching for now, so here are a few of the simplest word
definitions. In some cases they are so simple that they hardly seem worth
bothering with. The reason is that they act as memory joggers when writing
programs. So here are:-

```
2DROP    d1 ---
2DUP     d1 --- d1 d1
2SWAP    d1 d2 --- d2 d1
```

Next time I'll be looking at ways of comparing 32 bit words.

```
SCR # Ø                              SCR # 1
Ø  ( double precision words )        Ø  ( double precision words )
1  ( D1 --- D1 D1)                    1  ( D1 D2 --- D2 D1 )
2  : 2DUP OVER OVER ;                 2  : 2SWAP 4 ROLL 4 ROLL ;
3                                     3
4  ( D1 --- )                         4
5  : 2DROP DROP DROP ;                5
6                                     6
7                              -->    7                              18
```

5

Last time we finished with variable types, but to say this is the end of variables is an understatement. If Pascal only had these variable types alone then it would not be much cop. Very soon you would be building up a quite complex program. At this stage we must finish the basic building blocks of Pascal and that is the Arithmetic Operators and simple Input and Output.

ARITHMETIC OPERATORS.

```
a.   ( )           ..brackets always first
b.   * / DIV MOD..next multiplication or division, left to right.
c.   + -           ..and finally addition and subtraction.
```

The word DIV is a reserved word and stands for Integer division only, ignoring any remainder. Thus 20 DIV 7 = 2.
The word MOD is also a reserved word and stands for "Modulo". This too is integer division but giving the remainder rather than the product, e.g. 20 MOD 7 = 6.

If there are no brackets then, just like Basic, operators at the same level of precedence are evaluated left to right. e.g.

32 + 10 DIV 2 * 3 gives 47, NOT 63 or 7 or 33 or 42!

Don't forget, arithmetic operators must always be specified and cannot be implied as in algebra, i.e. a*b*c does not equal abc!

SIMPLE INPUT AND OUTPUT.

The Write and Writeln statements are used to output data to the users terminal, e.g.
```
write('average value    = ',mean);
writeln('Mean value      = ',mean);
writeln; (blank line!)
```

The write statement leaves the cursor at the end of the character just written to the output device. Writeln has the effect of moving to a new line after outputting the current line, i.e. it executes a carriage return line feed.
The read and readln statements are used to input data. When used with numbers, read takes the next item of data from the user, ignoring any blanks between items and moving to a new line when required. Readln will take an item from the current line (after 'Enter') and then moves to a new line for the next item.
Type in the following program and run it to illustrate these points.

```
PROGRAM read_input (input,output);

VAR      a,b,c,d  : integer;
BEGIN
  read(a,b,c,d); (space activates)

  writeln('a = ',a);
  writeln('b = ',b);
  writeln('c = ',c);
  writeln('d = ',d);
  writeln;

  readln(a,b); (activated by carriage return)
```

```
writeln('a = ',a:4,'  b = ',b:4,'  c = ',c:4,'  d = ',d:4);
writeln;
readln(a);
readln(b);

writeln('a = ',a:4,'  b= ',b:4,'  c=',c:4,'  d=',d:4);
END.
```

Just a point to note. The ':4' after the variable name is a form of simple edited output. It just means print out the result in only four spaces. Most compilers default to eight. If your compiler doesn't support this feature then just leave it out

TELEPHONE CALL CHARGES...MIKE TOWNSEND.

With more of us getting "on line" with the offer of a free modem from Micronet, the dreaded Phone Bills have been causing heart attacks with increasing regularity. This short program will help to keep tabs on how much you are clocking up. The information comes from page 11 of the BT "Your guide to Telephone charges" booklet that arrived with my last, "Ultra-large" bill. Don't forget that if you go a fraction of a second over the Charge Rate Period, you'll be charged for another period. This program compensates for that. Start your stopwatch as soon as you hear the whistle and don't stop it until the modem has logged off.

```
10 'TELEPHONE CALL CHARGES
20 CLS:PRINT@33,"THIS PROGRAM WILL GIVE YOU YOUR TELEPHONE CALL COST WHILE THE
   UNIT FEE IS 5.06P (INCL VAT)    WHEN THE FEE GOES UP, EDIT LINE 20 AND THE END
OF LINE 60":PRINT:PRINT@232,"HIT A KEY TO RUN":PRINT:SCREEN0,1:EXEC41194
30 INPUT" NUMBER OF WHOLE MINUTES";M
40 INPUT" NUMBER OF SECONDS";S:IFS>59 THEN PRINT@321,"(MAXIMUM OF 59 PLEASE !)":
GOTO40
50 INPUT" NUMBER OF SECONDS IN CHARGE    RATE PERIOD";CR
60 T=(INT(((M*60)+S)/CR)+1)*5.06
70 PRINT" THIS CALL COST ";:PRINTUSING"####.##";T;:PRINT" PENCE"
```

REDUNDANT INFORMATION DEPARTMENT

A quick tip for all Flex users with VDATA (The Viewdata and Prestel program) courtesy of Stuart Mills.

In order to access the gateway to TELECOM GOLD from Prestel it would appear necessary to produce a carriage return to log on. VDATA will not produce this under the standard conditions since the ENTER key on the Dragon is converted to '#'. To produce the required CR:

1. Re-enter the menu with shift=@ as usual.
2. Select the 'execute Flex' command from the menu.
3. Then POKE A8AC 0D (obviously the poke command must be available on the selected disk).
4. This produces a CR from the CLEAR key.
5. To reproduce a '#' do the above but POKE A8AC 2A.

You may realise that any character can be produced from the CLEAR key using this technique.

If you own a Brother Thermal Printer and your paper supply has run out, you can write direct to: JONES & BROTHER, JONES SEWING MACHINE CO LTD, SHEPLEY STREET, AUDENSHAW, MANCHESTER. M34 5JD. and ask for their price list for
   home/office equipment for printers. Alternatively, phone 061 330 6531. Thanks to F.J. Fisher for that one.

TEACHING INFORMATION TECHNOLOGY

THrough the pages of "Update" I feel I must reply to Phil Beed's piece in the December '87 issue. As someone who has been teaching both adults and children computing for several years, I can only agree partially with his comments. My experience is that the vast majority of teenage students have little or no inclination to learn about computers through no fault of their own. What has happened is that the subject has been clouded by so much hype and unnecessary jargon, that they are at best turned off and at worst actually frightened off the subject. This is certainly the case with many YTS students who are required to take a 13 week course in "Information Technology". This being equally applicable to both boys and girls.

There is a partial answer to this problem. Firstly forget about teaching programming, some may take to it, most will not, make it an available option. Teach them to use good application packages, like word processors and spreadsheets on the industry standard machines, letting the students see for themselves just how useful these aids can be. Most kids are bright enough to take this on board, and see the advantages. But what is really needed is, and here the arguments will rage, a new approach to the way computing is taught, quite simply don't teach it.

Don't teach it as a seperate subject, don't have computers locked away in special rooms, and don't have special staff to run them. Computers should be integrated into the mainstream subjects, just as they would be in the real world outside the classroom. Finally, I see no problem whatever in letting children play games on computers in school time. Careful choice of software, can make learning much more easy, give good keyboard familiarity, teach loading and saving files, and more important, help to overcome the real fear that some students (both young and old) have of this still very new technology.....Mike Ganley.

HIGHLIGHT BAR MENU (DELTADOS) - D.MARTIN

Having just read in November's issue, Barry's plea for more material, I decided to dust off a routine for inclusion in this month's issue. I get to use an IBM XT at work and have always admired the highlight bar menus that are used in well-known programs such as LOTUS 1-2-3 and PARADOX. I thought I would have a go at producing a similar effect in BASIC, using SCRIBE as the screen driver. The listing below is the result, although I have since polished it up so as to use some TOOLKIT commands i.e. for auto-repeat keys, error trapping etc. I have given you the skeleton program, as some people might not have the Toolkit add-on. The left and right arrow keys are used to move the bar along the options and ENTER pressed to select the option highlighted. The only other key used is '@' to toggle the background colour and this is of course optional. The DATA statements in lines330-400 must be edited to read your options and a description of that option. The GOSUBS on lines 170-240 must also be edited to point to your various routines/other programs. Of course, you need not have as many as nine options and in fact it is better if you do not, as you can then space the options out making them easier to read. A point to remember is that the total length of the combined options should be 29 characters. QUIT might not be needed and so this would provide extra space on the option line. Also, lower case letters aid reading. There is plenty of scope for the program to be modified to enhance its features. I keep the program as an APPENDable subroutine on disk. One idea would be to have your favourite games disk boot-up with the menu with the options showing the games and a description. The following lines will need to be changed if you have less menu options... 60, 130 and 140.

PS: I will endeavour to keep the Delta flag flying in the future. Any Delta owners who have not registered yet should do so, as we can be of great assistance...ask any of the members! The registration fee is, at present, a one of payment of just #1.00.

```
5 '*** HIGHLIGHT BAR MENU FOR SCRIBE ***
6 '*** WRITTEN BY D.P.MARTIN JUNE 86 ***
10 CLS
20 LINE(4,155)-(251,188),PSET,BF
30 RESTORE:FOR I=1 TO 9:READ MC$(I),CD$(I):NEXT I
40 CH=1:PRINTCHR$(2)
50 PRINT@842,"";
60 FOR I=1 TO 9
70 IF CH=I THEN PRINTCHR$(2);:PRINTMC$(I);CHR$(2);:GOTO90
80 PRINTMC$(I);
90 NEXT I
100 PRINT@926,CHR$(2);CD$(CH);STRING$(39-LEN(CD$(CH))," ");CHR$(2)
110 K=PEEK(135)
120 IF K=64 THEN PRINTCHR$(3)
130 IF K=8 THEN CH=CH-1:IF CH=0 THEN CH=9
140 IF K=9 THEN CH=CH+1:IF CH=10 THEN CH=1
150 IF K=13 THEN PRINTCHR$(2):GOTO170
160 POKE135,0:GOTO50
170 IF CH=1 THEN GOSUB 500:GOTO40
180 IF CH=2 THEN GOSUB 1000:GOTO40
190 IF CH=3 THEN GOSUB 1500:GOTO40
200 IF CH=4 THEN GOSUB 2000:GOTO40
210 IF CH=5 THEN GOSUB 2500:GOTO40
220 IF CH=6 THEN GOSUB 3000:GOTO40
230 IF CH=7 THEN GOSUB 3500:GOTO40
240 IF CH=8 THEN GOSUB 4000:GOTO40
250 PRINT@926,STRING$(39," "):PRINT@926," Are you sure...(Y/N)?";
260 K$=INKEY$:IF K$="" THEN 260
270 IF K$="Y" THEN 290
280 IF K$="N" THEN 40 ELSE 260
290 CLS
300 PRINT"MICROSOFT BASIC - DeltaDOS resident"
310 END
320 '***** MENU DATA STATEMENTS *****
330 DATA "AAAAA"," SELECT FIRST ROUTINE "
340 DATA "BBBB"," SELECT SECOND ROUTINE "
350 DATA "CCCC"," SELECT THIRD ROUTINE "
360 DATA "DDDD"," SELECT FOURTH ROUTINE "
370 DATA "EEEE"," SELECT FIFTH ROUTINE "
380 DATA "FFFF"," SELECT SIXTH ROUTINE "
390 DATA "GGGG"," SELECT SEVENTH ROUTINE "
400 DATA "HHHH"," SELECT EIGHTH ROUTINE "
410 DATA " QUIT"," EXIT FROM THIS ROUTINE "
```

THE 6TH 6809 COLOUR SHOW - THE REVIEW?

Well? Where is it then? Nobody has sent a review of the 6809 show on the 5th
December so I would greatly appreciate it if somebody (anybody!) would write
some sort of summary of who was there and what happened...Please?...BC

Back Issue Updates...........

Owing to circumstances entirely beyond my control, we will NOT be able to
supply back issues until further notice.

If anyone with access to a good quality copier would care to take over the job
of reprinting back issues on a more or less "at cost" basis, I would
appreciate it if they would phone me any evening and discuss possible
arrangements. I must emphasise that this job is one which has to be done
efficiently, and that you are NOT likely to make a fortune out of it, as
obviously charges must be kept reasonable.

If you're interested, please phone me on Worthing 207585 any evening. Paul.

DUPLIDISK 2 REVIEW ..... ROGER MERRICK

Quickbeam come in for more than their fair share of criticism, some even from myself.

The original release of Duplidisk was advertised in a somewhat exagerated way, and this led to considerable customer disappointment.

The current release, Duplidisk 2, is a considerable improvement.

Duplidisk 2 is supplied in two versions - one for Deltados, the other for Dragon/Cumana/Super Dos's. (Dup 1 would only work with Dragondos).

Dup 2 will convert a greater range of programs than Dup 1, including some auto starting basic programs.

On a Dragon 64, Dup 2 will restart after saving, whereas Dup 1 locked the system, and required reloading after each save.

If Dup 2 finds a program it cannot convert straightforwardly, it presents the user with 4 options to try different kinds of conversion (and a fifth - to quit). Dup 1 simply reported that it couldn't convert. This adds further to the range of programs the converter will work with.

Dup 2 reports the type of file it is dealing with, Dup 1 didn't do this.

Dup 2 is supplied on cassette, with full instructions for #8.

Duplidisk 1 or 2 appends a relocating/Dos detach module to the program; with Dup 1, ?LOF"filenam" will give a different value to the directory report of the file size. If you wish to remove the relocating/Dos detach module, (e.g. to run the program from tape or on a CoCo disk machine), save the program to tape with the shorter filelength. It will then run correctly when the Dos is not physically connected.

LIGHTPEN SOFTWARE PLEA FROM THE EDITOR

Some time ago the Datapen Lightpen was released with some amazingly hideous software which was of little of no practical use. Some time later, a some ramatically improved software was produced but apart from that, little or no other programs have been published. Has anybody out there written any software for there own use with this lightpen which they think could be of any use to other owners. If so then please send it to me by next post and I'll stick it into this esteemed publication at the next opportunity.

CROSSWORD NO. 29

ACROSS:-
1A)Stuff in (famous Geordie athlete) 1F)Lower division football club, who were once in the 1st division for one season 3A)Dr. Who is one of these 4D)Swell up 4I)A number of pupils 5A)Travelling entertainers 5H)Vegetable 6I)Remove a compass point from a washing powder to obtain extreme danger 7B)High ranging army man. 9A)Plant with fleshy stalks used in jam,wine,etc.9J)Find a city in loos 10E)This type of seafarer may steal software 12A)Roof or bathroom covering 12G)Put a point on a pencil 13A)Hit a small boat 13G)Dry grass
DOWN:-
A1)There has been a worldwide crash in these recently C1)Roundabout place where battle commenced in 1853 D5)Card game with pegged scoring board E4)Sudden forward movement of a compass point in a breathing organ E19)Choose a tool for breaking up ground F8)Game developed from Whist G1)Magic word H5)Feel cold in this South American country I2)Get free I9)Homeless dog or cat J10)People usually have two K2)Mark left by a wound K8)Supreme Headquarters of Allied Powers in Europe L2)Silly horse L8)Adhesive M2)Parasitic white berried plant M11)Conclusion

I thought I'd be extra generous this month again and offer prizes to the first TWO correct entries received ..... the usual games programs, of course, but this month I can give you a choice of a tape or DragonDOS disc, so please state which you would prefer (in the event of you being a winner, of course!). Paul.
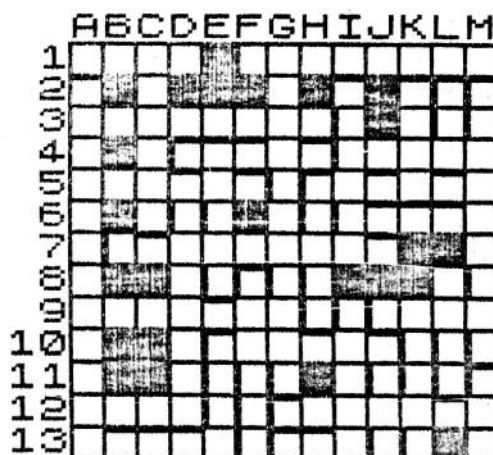
REFILLING PLOTTER PENS....EDDIE STAINER

With reference to Mr. Ron Walters refilling of C.G.P. and M.C.P. plotter pens in the October issue of Dragon Update: What an excellent idea this is, but on the pens I have, the pulling apart was very difficult with the aid of pliers and could easily damage them. So I have made up two little jigs to help with the extracting.
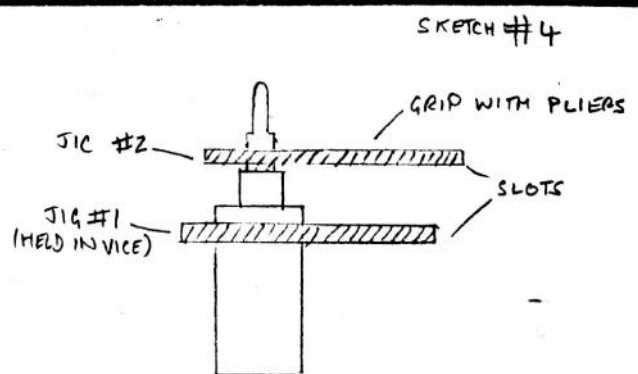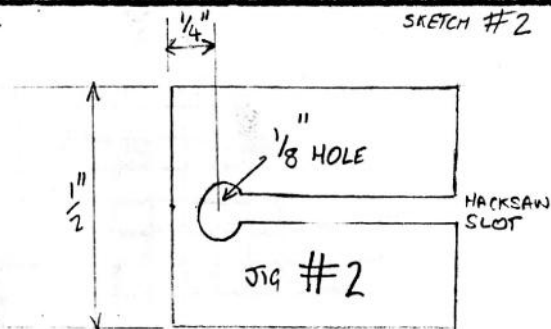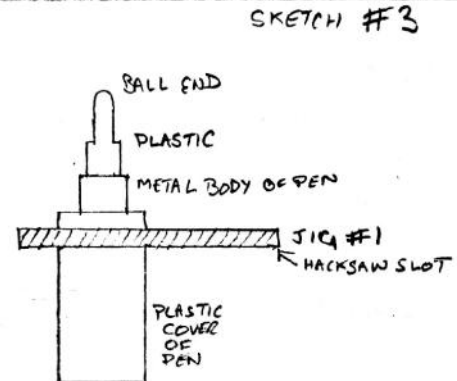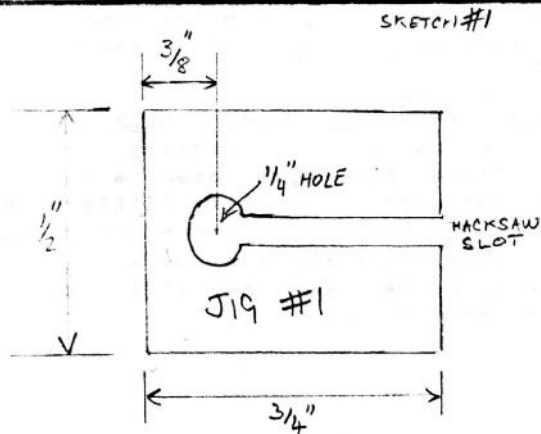
2 pieces of metal 1/8" x 1/2" x 3/4" are required.

Drill a hole of 1/4" diameter in the first piece, and with a hacksaw, cut a slot into the hole at one end (see sketch #1).

In the second piece of metal, drill a hole of diameter 1/8" at a point 1/4" from the end, and again, cut a slot with a hacksaw into the hole (see sketch #2).

Now take the pen and put the plastic cover over the end opposite the ball on the pen (This is to protect te metal casing of the pen) and place it into jig #1 (see sketch #3) and hold the jig in a vice.

Place #2 jig over the small plastic end on the pen (ball end) (see sketch #4), and hold tightly with mole-grips or pliers. Then, with a slight twist, pull upwards and Bingo! The pen is apart.

SKETCH #1

3/8"

1/4" HOLE

HACKSAW SLOT

1/2"

JIG #1

3/4"

SKETCH #3

BALL END

PLASTIC

METAL BODY OF PEN

JIG #1

HACKSAW SLOT

PLASTIC COVER OF PEN

SKETCH #2

1/4"

1/8" HOLE

HACKSAW SLOT

1/2"

JIG #2

SKETCH #4

GRIP WITH PLIERS

JIG #2

SLOTS

JIG #1 (HELD IN VICE)

Ideas???????

Now the above idea is a very simple but very practical one, the sort of thing that YOU could be sending in for Update, so why not pass on YOUR ideas to others?.

The Late, Late Bit.........

Owing to the almost total lack of interesting material, it looks as though
I've got an entire page to invent this month. It's no use you complaining
about it, it's entirely your own fault.Anyway, for a start, let's see if I can
pick an arguement with Mike Ganley over his piece on page seven. Everyone to
their own view, of course, but mine is almost completely opposite to that of
Mike. Firstly, I resent the use of terms such as "Information Technology"....
the idea of using this sort of title is pure Orwell (or Thatcher, whichever
you prefer), it's like a Value Added Tax which reduced the value of whatever
it is applied to, or a Ministry of Employment which deals with UNemployment.
Rubbish!. In this case there's little or no "technology" involved, and even
less "information". Secondly, where does this idea come from that one needs an
"inclination to learn about computers"?... personally I never had the
slightest inclination to learn about anything at all while at school, nor did
anyone else I knew, we learned because it was too damned painful NOT to do
so!. If a knowledge of computers is deemed to be necessary then "inclination"
has nothing at all to do with it. Certainly the idea of merely teaaching
students how to push the relevant keys in order to operate applications
packages on "industry standard" (I wish there was one!) machines can only make
matters worse?. It is this form of teaching which is costing industry millions
and getting computers such a bad reputation. Most commercial software is badly
written, over complicated (usually as result of several hundred modifications
to make it fit different "standard" machines), and NEVER exactly meets the
requiaments of the firm lumbered with using it. Now IF the operator had at
least a working knowledge of programming it would be possible for the original
software to be tailored to fit by the one person who knows EXACTLY what is
required of it, the person who has to USE it, but under the present system, an
operator is just a key pusher, doing a job that a semi literate monkey could
probably do better. (Judging by some of the "commercial" mail I get, most
firms are using a very dim monkey already!). While I would agree with Mike that
computers in schools shouldn't be treated as some sort of holy mystery, I have
to disagree entirely with his conclusions ... a computer is a tool, nothing
more nor less. It is NOT a toy for playing games on, nor is it some kind of
magic box, and to use a tool properly one needs to know HOW it works, and WHY.
Almost every computer (unless you count the Atari 2600 as one) has a keyboard
attached to it somewhere or other, which is intended to interface the user
with the electronics. Likewise all computers have a language, sometimes
several, to make that interfacing simpler, so how can we ever expect to teach
people how to USE computers if they aren't taught to understand and
communicate with them?. If, as we are always being told, the computer is here
to stay, then surely the best course is to dispell the superstition and
mystery and just teach people what it really is, a rather temperamental
abbacus, no magic at all, just a box of switches. I don't see that it makes
any difference at all whether the student is "inclined towards" learning the
subject or not, this has never been considered relevant with any other
subject, so why should it be in this case?. As to people having a "fear of
computers", that is a product of the educationalist's imagination!. Most
children have the ability to recognise a good excuse for being idle when they
see one, and when it's offered to them on a plate even the thickest brat isn't
likely to fail to take advantage of it. Personally, I think the teaching
profession has lost the ability to teach, hence the pathetic results and the
endless stream of excuses for the total lack of a viable educational standard.
Well, you've now seen Philip's and Mike's opinions on the subject, and mine.
Which one is correct, if any, is for you to decide, but hopefully I've now
solved two problems ...[a] given you something to disagree with and feel
indignant about, and [b] filled this page!. Have fun. Paul Grade.

I WONDER WHY...Ken Grade.

I occasionally get lumbered with editing out the typing mistakes for Update, if Paul has too much mail(or there isn't enough Vodka), and often wonder why the worst articles to make sense of are written by people in the teaching profession. There are more grammatical and spelling errors per line from these bastions of education than in a whole article from a hardware enthusiast. Their 'communication skills' leave a lot to be desired, to put it mildly...wonder why the kids don't learn??

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[2]. Providing updates to the above as and when available and also other technical support when possible.

[3]. Providing a BBS for technical conferences and easier distribution of the above (Sometime in mid-1988 when equipmemnt permits.).

I am also trying to provide a technical help service where possible, but I can't guarantee to be able to help in ALL cases!!.

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