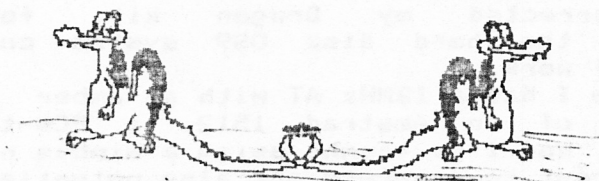


The Newsletter of the National Dragon Users Group

DRAGON



UPDATE

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The Gaffer's Bit . . . . .

OK, so this is the "Christmas Issue", but I'm writing this in mid November, so don't expect me to be full of Christmas Cheer and all that stuff!. There will be no free holly, polystyrene snow, Peculiar Plastic Santas or stuffed reindeer enclosed in this Update, so don't waste valuable drinking time looking for them!, think of Update as being a welcome relief from all those publications that keep on telling you that you have only ten more shopping days in which to overheat your credit card before the annual Indigestion and Hangover Festival begins, and before you have to make the effort to "be nice" to all those people you can't stand and have been trying to avoid since this time last year!. Of course, you MAY be one of those people who actually look forward to being presented with a bottle of Tesco sherry or a frozen and embalmed vulture by the firm (they'll give you the redundancy notice when you return in the New Year!), or perhaps you're the life and soul of the Dreaded Office Party (the Boss has probably forgotten your Julian Cleary impression last year ... but who WAS that you were locked in the file cupboard with?, did you ever remember?), in which case I'm afraid you'll be disappointed with this issue ... it's just as unseasonal as ever!.

Yes, I KNOW I'm a miserable \*\*\*\*\*!, but I like it that way, so go pull your cracker and let me enjoy my annual sulk in peace!. Anyway, I'm sure Robin will be in a much more festive mood .... he's hoping to sell another program or perhaps even two ... so I'll leave you to read his words of cheer, wit and wisdom while I try to find something interesting to do ... preferably something immoral and fattening, if not actually illegal!. Have fun. Paul.

The Editor's Bit . . . . .

I'm having a little trouble getting into the Christmas spirit for this issue as it's still early November. The same old story, you've heard it many times before... still, a Merry Christmas to you all. This issue, again, is pretty packed and I hope Paul doesn't have too much trouble squeezing it all in; I don't want a repeat of the last time's "Just bung it all in" philosophy. Accordingly, I've not written an Editor's Latebit. Shock! Horror!! I know, how will you survive? These are dark years. Inflation, unemployment, wars, famine, no Latebit in Dragon Update.

I ought to mention that the advertised Dragonfire product includes an expanded version of the "Extra Commands" program in this issue, but the two are independent of each other, they just happened to turn up in the same issue, that's all.

I suppose I should leave the rest of the front page for Paul to fill up, he gets upset if he can't have his moan! So a happy Christmas once more, and see you in 1992 with the new Euro-Edition!

\*\*\*\*\*

## Returning to the Dragon..Roger Merrick..

### Prodigal Son, or Lost Sheep?

I have recently resurrected my Dragon kit, following a period of disillusionment after the hard disk OS9 system collapsed, losing several megabytes and months of work.

In that Dragonless time I had a 12MHz AT with an amber B/W monitor, a laptop with hard disk, use of an Amstrad 1512, a PCW-type machine, a Vicki Sirius-MSDOS luggable, and I've taught using a Nimbus network, under Novell. I feel it may be of interest to waverers and also potential software writers to hear what I think is missing from the Dragon and its software, compared with more modern machines.

The PCW machines are marketed at first-time users, typists who need advanced WP functions but don't have a clue about computers. Older computerists seeing this machine may experience *deja vu*: it's just like the old TRS-80 machines, reboxed and integrated. Memory is large but mostly unused. A major disadvantage is the use of 3-inch drives - limited capacity (single-sided, double-density with a lot of space committed to modules which have to reside on the work disk), expensive and likely to be a pain when the format is discontinued. The second drive is a high capacity double-sided 3 inch, with only the user's expertise to prevent them putting the wrong disk in the wrong drive, or flipping over the double-sided disk as they can do with the first drive. High capacity 3 inch disks make ordinary 3 inch disks seem cheap at \$2. Big screen display, B/W only, and very low quality, not monitor standard. Using the bundled software, Locoscript, is an educational and, for the Dragon user, satisfying experience. I recommend you to read a document from disk into a document being edited - this takes an astonishingly long time; it would probably be quicker to rewrite it!

The OS is based on CP/M, which was so bad that MSDOS swept it into obscurity. The WP gives good control over the Dot Matrix printer (which is cheap, slow and noisy) and that is one area where Dragon software should be more responsive - a WP needs good printer control.

The Tosh portable was a neat little machine, very portable - the size of a small typewriter but with 876K of RAM, a 20MB hard disk and 3.5 floppy, and LCD display. Screen display is 80 X 20, but slow and hard to read. This was the main problem really, plus the fact that the box was a completely closed system.

#2,500's worth of yuppie's convenience! Nice if you can afford it, but, say my yuppie friends, not for serious work. The keyboard was smaller than the Dragon's but had 102 keys quite literally squashed in.

The Vicki luggable is a Sirius-type MSDOS, so is an evolutionary dead-end. High resolution screen (800 X 720) but with little ability to use it. It has non-expandable 256K memory which I would love in the Dragon but is almost useless in the MSDOS world as programs are so large. No expansion capabilities, won't take a hard disk, won't read standard MSDOS disks. It is my belief that Douglas Adams owned a Sirius, hence all the jokes about the Sirius Cybernetics Corp. in "HHG2G"!

It runs all the really old versions of wonderful software like Lotus-123, dBase and Wordstar. The really wonderful feature of the Vicki is the not-quite fully reprogrammable keyboard, which means that you can't get a hash symbol. This fine for us Brits, you get the pound sign instead. Fine, until you try to write a BASIC program which uses disk files. The token for the hash sign is not the token for the pound sign so... well, you're f\*cked.

The IBM compats are OK: nice keyboards, fast response, no dropped or bounced characters. Nice big screen displays, plenty of colours, 80 columns plus. Good for games if you can afford \$25 a throw. Some of the programs really are quite outstanding. But there is a problem with all the different types and speeds of compatibles that are around - progs tend to run either too slow or too fast on a given machine. And there's all the little incompatibilities: my mate frequently has to unplug this, disconnect that, or switch-in the other to get progs to run.

You haven't lived till you've tried using Nimbus machines in a network. Oh my God, frustration. 640K memory is inadequate as the network driver takes up so much space.

In the second half of this article (next issue) I'll compare MSDOS with Dragon formats.



**DOOM - REVIEWED BY RICHARD SUTCLIFFE**

This game comes on disk, and runs on a 32 or a 64. There is a digitised voice, saying how good the game is, and then the starter screen. The first playing screen scrolls up from the bottom. This takes an age, and is very frustrating after the first time. The game is played using the ARROW keys, be quick otherwise you will lose your first life. You are safe from the monsters whilst you are on a ladder. Practice is required before you can control your man. After some practice I was able to clear the first screen. The maze on screen two has an added problem in that there is a barrier which has to be got through. On the original version I could never get much further, because the screen started filling up with 'water'. However since then I was sent an improved version which was playable, and I have been able to get to screen 3. On this version the control is also improved. By pressing RESET and then typing EXEC, it is possible to reach the subsequent screens, the last of which is difficult enough to supply a challenge to any games player. My only real complaint about this new version is that each screen takes such a long time to come up. No doubt someone will find the pokes to overcome this. Summary:- In the report I wrote for the original version, I did not recommend this game, however with the modifications put in to the updated version, it has become worth playing. (QUINCY IN THE CAVES OF DOOM) is available from Alfred Knoetig, Wilh. Engelhardt Strasse 40, DW-6430 Bad Hersfeld, Germany for DM3.00 plus DM5.00 P&P per order or PSE, 36 Foxhill, High Crompton, Shaw, Oldham, OL2 7NQ (no price known).

**PEEKING THE DRAGON (36) BY MIKE STOTT**

12th October - This month I think I am going to struggle to keep my article down to one page as so much seems to be happening. I have received a letter from Paul Burgin telling me that he has not progressed any further with his version of TETRAS and it may never be released. The good news is that he also sent me a review copy of SHANGHAI. This is a thinking person's game using Mah Jong tiles with 75 screens to it - so far I have not even completed 3 (without cheating, although I have been able to see them all). If you are easily frustrated I would advise against buying this program as it is very addictive, but often you are left with two tiles the same one on top of the other. The graphics are excellent, response is very quick ..... and it is different.

The next piece of software is really two in one. Richard Sutcliffe sent me his ACCOUNTS program many moons ago and I have now been able to cast an accountant's eye view over it. Choosing not to use the SPEED UP POKE option I still found it to be more or less instantaneous. It uses a hi-res screen, even more about this later, and it is easy to enter and retrieve information quickly either to screen or printer. In some ways this program beats the accounts package I use in work on a PC. There is plenty of room in the files for even medium sized businesses to use this - up to about 8,000 records on a 40 track double sided disk. This will probably be available as shareware with the user being asked to contribute for help etc. Hopefully it will be available through our own PD library. Keiran Anscomb and Richard have combined to produce a hi-res screen in the upper part of Ram using a PCLEARD equivalent with disk. This means that programs will run under Dos with a screen display of 64 characters width and still allow nearly 29K of memory for the actual program. Some snags still remain with this utility at the time of writing but it is hoped eventually to provide all normal functions and even have this running on a 32. Will we eventually get 33K out of a 32?

27th October - Last year at the Stafford Show George Dawson and myself treated ourselves to 3 1/2" drives at 5.00 each. Having had limited success with this one - it proved to be only single sided - I have now purchased a Universal Drive from EEC Ltd which I spotted in Micro Computer Mart. I wanted it for my PC and my wife's BBC Master as well as the Dragon. EEC could not promise that it would work on the Dragon but offered to refund my money if I had problems. It will only set up as drive 1 or 2 but I have now got my 5 1/4" drives set up as 1 and 3. The new drive can be used as either 40 or 80 track, single or double sided. Backup is possible between the two different sizes of disks as well as copying individual files. The drive works on STs and Spectrums etc using a series of dipswitches so this could prove to be very useful for people like myself who have more than one computer. Yes, I could have bought a drive for my Dragon for less than 75.00 but it is cased with it's own power supply and certainly easy to move from one computer to another.

P S Ceallaig of Dublin wants to know if there are any cheats for SPACE SHUTTLE from Microdeal. I am sure someone out there will come up with something.

J Cowie of Hemel Hempstead wants help in obtaining a digital readout from a lathe or milling machine through the Dragon via a 74LS190 counter chip and the appropriate decoder. Has anybody done this or anything similar? Mr Cowie can be contacted on 0442 256840 if you can help. @ 30th October - This morning I received a disk from Richard Sutcliffe with a load of useful utilities on it including the latest version of the hi-resolution screen driver and BROUSE which enables you to look at the contents of any file on a disk but does not affect any current file in memory. These will eventually be either PD or shareware and should be available from Stuart Beardwood by the time you read this.

Adding Commands to BASIC.Kieran Anscorb

Yep - it's this old chestnut again. However this one is for all you DOS and 64K owners out there, so 32K owners turn the page.

How many times have you thought to yourself, "Oh I wish I could add commands to BASIC using the upper 32K of RAM but leaving DOS untouched"? Oh - that many of you? Alright then be that way, but just in case you were interested ...

This is a simple TSR (Terminates and Stays Resident) program that allows you to include as many additional commands as will fit into the 8K area above DOS (\$E000 to \$FF00), and simply reassemble to suit your needs.

The listing as shown (NEWCD) is written with DOSDream, and contains one command: QUIT. This highly useful utility resets the computer to 32K mode and returns all commands to normal, leaving the BASIC program untouched. However, more useful commands can be kept separate for inclusion later, or included straight away. I have included one separate command, OLD, which recovers NEWED proggys. (Every "New Commands" article MUST have one of these!)

To include extra commands in the listing, load NEWCD into Dream, position the cursor between the end of the QUIT command and the command-name table and type: <BREAK> L (filename)

This loads in the extra source code. Now fill in the detail about NAME and DESPATCH ADDRESS as shown. When this is done, merely change the number of commands on the first line (label ANCMDS) and assemble it.

New Commands Main Listing....

```

ANCMDS EQU 2
      ORG 20000
      ORCC #$50
      LDX #$8000 ;START OF BASIC
LHLOOP STA $FFDE ;32K MODE
      LDA ,X ;GET BYTE
      STA $FFDF ;64K MODE
      STA ,X+ ;PUT BYTE
      CMPX #$E000 ;END OF DOS?
      BLO LHLOOP ;NO - DO AGAIN
      LDX #PRSTRT ;START OF COMMANDS
      LDY #$E000 ;START OF FREE 8K
LHLOP1 LDA ,X+ ;GET BYTE (LOMEM)
      STA ,Y+ ;PUT BYTE (HIMEM)
      CMPX #PREND ;END OF COMMANDS?
      BLO LHLOP1 ;NO - DO AGAIN
      LDX 299 ;ADDRESS OF DOS WORDS
      LDY #NWRDS ;NEW WORD TABLE
      LDB #129 ;BYTES OF DOS WORDS
LLL    LDA ,X+ ;GET BYTE
      STA ,Y+ ;PUT BYTE
      DECB ;ALL DOS WORDS COPIED?
      BNE LLL ;NO - DO AGAIN
      LDA #ANCMDS ;AMOUNT OF CMDS
      ADDA 298 ;ADD TO CURRENT AMT
      STA 298 ;STORE NEW VALUE
      LDX #NWRDS ;NEW WORD TABLE
      STX 299 ;STORE NEW VALUE
      LDX #DESPAT ;NEW DESPATCH ADDR
      STX 301 ;STORE NEW VALUE
      ANDCC #$AF ;ENABLE INTERRUPTS
      RTS ;RETURN TO BASIC
PRSTRT EQU *
      ORG $E000
      PUT PRSTRT
DESPAT CMPA #$E8 ;DOS/NEW CMD?
      BLO ERROR ;NO:GIVE AN ?SN ERROR
      CMPA #$E8+ANCMDS
      BHS ERROR
      SUBA #$E8 ;NEW CMD TOK OFFSET
      LDX #NWDES ;NEW DESPATCH ADDR
      JMP $84ED ;CMD HANDLER
ERROR  JMP $C670 ;ERROR HANDLER

```





```

***
QUIT      LDX    #QMS-1 ;PRINT WITTY
          JSR    #90E5 ;MESSAGE
          LDX    #C670 ;OLD WORD LIST
          STX    301 ;RESET VALUE
          LDX    #DEDA ;OLD CMD HANDLER
          STX    299 ;RESET VALUE
          LDA    #1A ;OLD AMT OF CMDS
          STA    298 ;RESET VALUE
          LDX    #B7FF ;POKE RESET ROUTINE
          STX    $E6 ;INTO UNUSED LO-RAM
          LDX    #DE39 ;(BELOW $8000)
          STX    $E8
          JMP    $E6 ;RUN IT
QMS FCC /RESUMING NORMAL SERVIC/
FCC /E./,13,/PLEASE DO NOT ADJ/
FCC /UST YOUR SET./,13,0
***
NWRDS RMB 129
FCC /QUI/,129
* ENTER NEW COMMAND NAMES HERE!
* REMEMBER, THE LAST CHARACTER
* HAS BIT 7 SET, SO ADD 128 TO
* ITS ASCII VALUE.
NWDES FDB QUIT
* ADD THE LIST OF DESPATCH ADDRS
* HERE IN THE ORDER SPECIFIED BY
* THE COMMAND NAME LIST.
          ORG    #-E000+PRSTRT
          PUT    *
PREND EQU *

```

And, by popular demand, the OLD command!!....

```

OLD      PSHS X
          LDX    $0019
          LEAX 3,X
OD1      LDA    ,X+
          BNE    OD1
          STX    ($0019)
OD2      LDA    ,X+
          BNE    OD2
          LDA    ,X+
          BNE    OD2

          LDA    ,X+
          BNE    OD2
          STX    $001B
          PULS X
          RTS
*FCC /OL/,196

```

### ReadPC....Joe Brincat.....

I am sure that few Dragon owners know that any BASIC program written on a PC can be converted to run on a Dragon. I frequently alter programs in this way using the utility "ReadPC". To give an idea of the program's capabilities, I recently converted a 7000-line PC BASIC program to Dragon BASIC in under half an hour. Doing this the hard way (ie, retyping it) would probably have taken over a week!

After over a year of correspondence with the father of ReadPC, Martin Vermeer, ReadPC has now been altered to run with a single disk drive and, more importantly, to SAVE and CLOAD the PC program. This latter is done with a second program called "NewFile". The only problem now is that NewFile works with tape ONLY; maybe one day this will be improved. If he receives enough requests I am sure he will set to work.

In the August Update Steve Carpenter asked if anybody could get ReadPC to work with ASCII codes over 128; I suggest contacting Martin himself, whose address is Ronnegade 22, DK-2100, Copenhagen, Denmark.

I have written an instruction leaflet for ReadPC, and have passed it, along with the disk, to Stuart Beardwood's PD library. (See classifieds.) Anybody wanting a copy may write to him.

In addition to the use of ReadPC you will have to manually alter graphics parameters etc., but it makes life a lot easier by not only converting BASIC, but also allowing you to read PC disks' directories. In short ReadPC can almost turn your Dragon into a PC so don't miss out on this disk, it is extremely useful.

## A Very Very Nice Man... Gareth Rutter...

I've had a Dragon 32 for nearly eight years now and for the first seven of these it was used primarily as a games machine. I was only 11 years old then and was too lazy to learn how to program the thing. I built up a huge games collection on tape, mostly courtesy of Computape, until I realised that the more games I bought, the less interested I was becoming.

I did however continue to buy Dragon User until it went subscription-only, at which point I practically gave up computing for almost a year. I then resubscribed in April 1987, only to find the magazine was less interesting to me then than when I had stopped buying it previously. In March 1988 I did not wish to subscribe any longer.

However, come 1990 I gained a place at University and began to realise that there was a lot of writing to be done. I would much sooner type than write, so I remembered my 32 sat on the table at home. I promptly gained the addresses of all the remaining Dragon retailers and ordered their catalogues. One that particularly held my interest was that of the then Pulser Software (now PSE Computers). They offered a well-presented catalogue with much to offer. Firstly I was after a disk drive, but being a student I had little money (no nasty comments, Paul!). My father offered to buy me one. I contacted Brian O'Connor. He was selling second-hand twin Dragon Data drives at only #135. I ordered one, to be told that he only had one belt for it. He spent nearly a week striving to find me a second belt and kindly phoned me when he had done so. He sent me the drives plus a phenomenal amount of used disks which the previous owner had. They had some pretty good stuff on, too! The drives were in absolutely mint condition and I certainly could not tell that they were second-hand.

A few months later came the time when I needed a printer as well, so I gave him a call. He recommended a Star LC-200 Colour printer and quotes me #222. This included the cable, a manual, a supply of paper, a utility pack (screen dump program, etc.) and a copy of the "Electronic Author" Word Processor. This is tremendous value for money. I received it in the post within three days. It carries a one-year guarantee which also adds to the bargain.

Brian has always been free to offer me advice on any problems I may have and makes it clear that nothing is too much trouble for him. I believe that it is thanks to him I have reentered the Dragon Arena, and if he continues (as I am sure he will) to provide this kind of service to the Dragon World then he deserves all the credit he can get. From here onwards, I joined the group for the first time in May and am pleased and proud to own a Dragon once again.

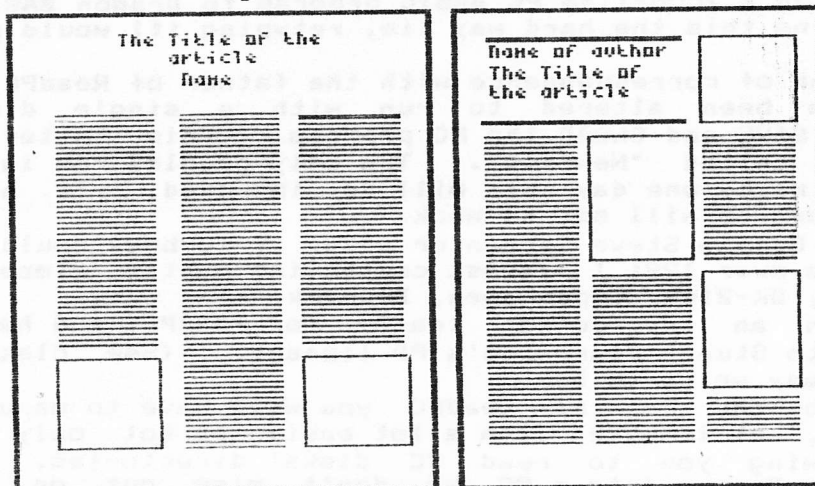
(It's always nice to hear a Success Story. Feel free to keep the "Consumer Reports" coming, Dragonfans, we can all learn from other peoples' experiences. Robin.)

## Desktop Publishing (6). J.R. Winchurch..

### BALANCE

We have seen that off-centred title pages can be dynamic. The same applies to the balance of text on the page. Trying to achieve perfect balance between text and various illustrations can lead to a monotonous and static appearance. Experiment with the positioning of titles, headings and illustrations. Blank space can be used too, and text doesn't have to extend to the bottom of each column. If the column turns out a bit short, this is acceptable. Compare the diagrams - the second is less balanced but more dynamic.

To reinforce this, look for "imbalanced" pages. The two diagrams could also have been given a wider margin. As you look at pages, try to work out where the grid lies, and how the designer has worked around it.





## The Great Stafford Mystery

OK, own up, David, what DID you do with my Group members?!. Everyone knows that the Stafford AMS was due to take place on the 8th. November, and Mike Stott wrote to me the previous week saying that he was going there, so I assumed that even if no-one else went I would at least get a report on proceedings from HIM!. Since then, NOTHING AT ALL! .... no calls from anyone telling me about the bargains they'd just missed, no call from Mike complaining that the beer was lousy, just silence!. DID AMS5 ever happen?, if it did what was it like?, if it didn't, why not?, and WHY IS EVERYONE BEING SO SECRETIVE ABOUT IT?????!. Is there anyone out there?, and if so will the last person on Earth please turn out the lights when they leave?. Paul.

## Let Your Dragon Roar! (2) . Bernd Neuner

See part 1 for instructions on using these routines.

3. LASER effect, as known from "Starship Chameleon". Nice for error messages.

```

PSHS X,Y
LDX #1
LOPBEL LDA #252
STA PIA1PAD
BSR DELAY
CLR PIA1PAD
BSR DELAY
LEAX 1,X
CMPX #100
BLO LOPBEL
PULS X,Y
RTS
DELAY TFR X,Y
LOPDEL LEAY -1,Y
BNE LOPDEL
RTS

```

@ 4. Gunshot effect, to shoot the user when making naughty errors.

```

VOLUME RMB 1
LDX #60000
LOOP LDA ,X+
BSR SOUND
DEC VOLUME
BNE LOOP
RTS
SOUND ANDA VOLUME
ANDA #%11111100 (CLEAR STROBE)
STA PIA1PAD (SOUNDOUT)
LDA #$80 (SPEED)
DELA1 DECA
BNE DELA1
RTS

```

5. And finally, pleasant to every ear, a bell.

```

BELL LDX #PIA1PAD
LDB #$64
BLOOP LDA ,X
EORA #$C0
STA ,X
LDA #$19
CLOOP DECA
NOP (FOR TIMING)
NOP
BNE CLOOP
DECB
BNE BLOOP (DON'T LEAVE ROUTINE YET)
RTS

```

Here is my address; I would be pleased to hear of any other interesting sound routines. Perhaps I could do another article some time in the future?

Bernd Neuner, Weldaer StraBe 29, D-6443 Sontra, FRG.

# Fast Text Screen Dump..J.G.Hattersley...

Most Dragon BASIC text screen printer dumps are laboriously slow and for this reason are rarely used, machine code versions being preferred. The main reason for their slow speed is that characters are read from memory and sent to the printer one at a time.

If we delve into the Dragon's memory we find that the text screen storage starts at memory location 1024 and ends at memory location 1535, a total of 512 characters, or 16 lines of 32 characters per line.

A much faster dump can be achieved by reading and printing 32 characters from memory at a time. This can be done using the VARPTR string function ("The WHAT?"), of which a brief explanation follows.

Type in the following BASIC program and run it:-

```
10 CLS
20 SC$="THE NORTH EAST DRAGON USERS CLUB"
30 Y=VARPTR(SC$)
40 Z=VARPTR(SC$)+2
50 W=VARPTR(SC$)+3
60 PRINT"Y=";PEEK(Y)
70 PRINT"Z=";PEEK(Z)
80 PRINT"W=";PEEK(W)
```

The length of SC\$ (Y) is 32 characters, and the address of SC\$ is given by the formula (Z\*256)+W, using the figures obtained from lines 70 and 80.

Let us now write the text screen printer dump. The first task is to fill the screen with printable text characters. This is done by lines 30-60; this can be replaced by any routine that puts the desired display on-screen. A GOSUB to your drawing routine, maybe, or a (C)LOAD(M) command to read the screen in from tape or disk.

Line 90 sneakily sets the length of SC\$ as 32 characters (1 line of the screen display), putting this value into VARPTR(SC\$). Now comes the clever bit.

Line 100 sets up a loop to the number of lines on the text screen. Lines 110 and 120 put the text screen memory locations into VARPTR(SC\$)+2 and VARPTR(SC\$)+3.

When X=1024, ZM=4 and ZL=0.

When X=1056, ZM=4 and ZL=32.

When X=1088, ZM=4 and ZL=64.

When X=1312, ZM=5 and ZL=32.

(Try missing out lines 130-220 and run the program. Now include those lines and run it again. The difference is because the Dragon uses the different character codes for displaying and printing some of its characters.)

Line 230 prints the selected display-line. Lines 80 and 260 print purely cosmetic "=" signs at the start and end of the printout. Lines 70 and 270 are also optional: they can be used to select special printer codes if required (bold, condensed, italics, etc.).

The main object of this program is to allow the printing of any Dragon text screen from within a BASIC program by calling a small subroutine. Lines 10-20 and 90-250 allow you to do this. The original program was tested against a machine code dump and little difference was found in printing time.

```
10 CLS
20 CLEAR100
30 FOR X=1024 TO 1535
40 Y=RND(58)+32
50 POKE X,Y
60 NEXT X
70 PRINT#-2,CHR$(31)
80 PRINT#-2,STRING$(32,61)
90 SC$="":Y=VARPTR(SC$):POKE Y,32
100 FOR X=1024 TO 1535 STEP 32
110 ZM=INT(X/256):ZL=INT((X/256-ZM)*256)
120 POKE Y+2,ZM:POKE Y+3,ZL
130 FOR C=1 TO 32
140 N=0
150 F$=MID$(SC$,C,1)
160 D=ASC(F$)
170 IF D>31 AND D<97 THEN N=D:GOTO 200
180 IF D<32 THEN N=D+96:GOTO 200
190 IF D>95 THEN N=D-64:GOTO 200
200 N$=CHR$(N)
210 TS$=TS$+N$
220 NEXT C
230 PRINT#-2,TS$
240 TS$=""
250 NEXT X
260 PRINT#-2,STRING$(32,61)
270 PRINT#-2,CHR$(30)
300 END
```



# USING BASIC FUNCTIONS IN M.L. by RAD.

Perhaps you too have found that the individual EXEC addresses for Basic Functions do not always give the correct results. This listing uses an address which lies within the command program loop and will execute most if not all the Basic function routines without problems. The address is 34012.

```

10 CLEAR200,&H4FFF
20 IF PEEK(27393)=88 THEN 40
30 LOAD"DASM.BIN"
40 EXEC 27648
50 ALL: PAG 4:FML
60 @BEGIN EQU *
70 BRA @START.
80 @LINE FCB 170,40,48,44,48,41,
196,40,50,53,53,44,49,57,49,41,4
4,172,0
90 @START LDX >#A6
100 PSHS X
110 LEAX @LINE,PCR
120 BSR @FUNCT
130 BRA @RESET
140 @FUNCT STX >#A6
150 LDA ,X
160 ANDCC £#FE
170 JSR 34012
180 RTS
190 @RESETPULS X
200 STX >#A6
210 RTS
220 END
230 PMODE4:PCLS:SCREEN1,0
240 EXEC&H5000
250 GOTO250

```

## TOKENISER

```

10 GOTO30
20 LINE(0,0)-(255,191),PSET
30 A=PEEK(25)*256+PEEK(26)+12
40 A=A+1:PRINTPEEK(A);" ";:IF PE
EK(A)<>0 THEN 40 ELSE END
50 REM THE LINE CODED IS LINE 20

```

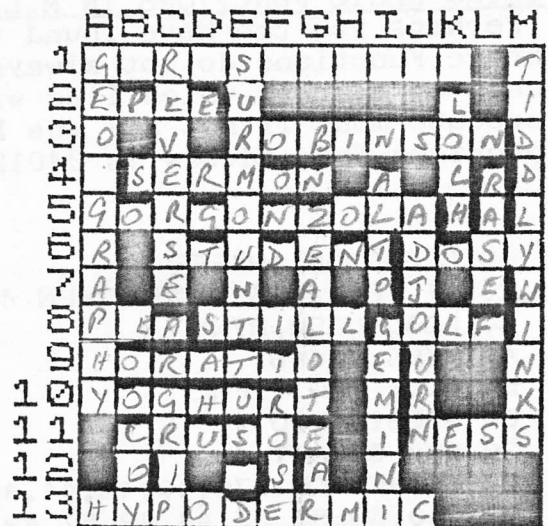
The Assembly listing is for Dasm - Disc version. The subroutine @Funct at Lines 140 to 180 is the universal Exec routine for the Basic functions. The latter is stored as Data in Line 80, starting with the Basic Token, followed by the ASCII for the Basic and the Token for PSET at the end. It draws a diagonal line across the screen in PMODE 4. When a Basic function has only the leading Token, it is possible to use FCC instead of FCB and the Text instead of the ASCII data. E.G. @CIRCLE FCC 177, "(128,96), 40, 1",0 to draw a circle of diameter 40 in colour 1. The final zero is obligatory. There the number 177 is the Token for Circle, of course. Starting at Line 90, the Data held in \$A6 is saved onto the Stack (100) and then the X Reg is pointed at the address of the function Data (110). From here we go to the main subroutine at 140 and the address held in the X reg is transferred as data to location \$A6. The A Reg takes the Data pointed to by the X Reg - the Token - (150) and the Condition Code Reg is cleared (160). Then the routine at 34012 is exec'd (170) followed by RTS to return to 130. Any further Functions should be called between Lines 120 and 130, which latter sends the program to the RESET routine at 190 which restores the original Data to \$A6. The final listing here is a short Basic which will gives you the Tokens,

CROSSWORD NUMBER 60.

ACROSS. 1A. Recently reformed pop group now on world tour; 2A. Small sword; 3E & 11B. Famous fictional castaway; 4B. Given by a vicar on Sunday. 5A. Italian cheese; 6C. Person who attends a college perhaps; 6J. One of seven dwarfs; 8A. Garden vegetable; 8D. Apparatus for refining alcohol; 8I. Sport using a small round ball; 9I. Mr. Nelson; 10A. Semi solid food made from fermented milk; 11B. See 3E; 11J. See K2; 13A. Needle used for injections.

DOWN: A1.Statistical study of life in human communities; B11.Shy; C1.60 backwards; C10.Hold tightly; E1.Overcome; F10.Prickly girl in the garden; G5.Fanatical enthusiast; G11.Used for hearing. 14.Type of saxophone; I8.Zodiac sign; J5.Leave to a later date; K2.Stretch of water supposedly containing a monster; L4.Knock down to ground level; M1.Game played by flipping counters.

Don't forget that all entries should be sent to Paul Grade ONLY ... and that only the first TWO all correct entries out of the box can win. (Otherwise we'd go broke!!).



CROSSWORD 59 ANSWERS.

1A.Gamma; 2B.Loiter; 3F.Ham; 3I.Burma; 4D.Ape; 4H.Mirror; 5G.Bin; 6A.Filing;  
7E.Grog; 8A.Noose; 8G.Sugar; 9B.Swift; 9H.By pass; 10A.Errand; 10I.Grout;  
11A.Roundabout; 12C.Snug; 12I.Range; 13A.Music centre.

A1.Gala; A6.Finger; B1.Swallow; C10.Russ; D3.Matins; E2.Typing; G3.Ambrosia;  
H1.Humming; H9.Brown; I1.Cabinet; J11.Tar; K1.Carrier; L3.Motions;  
M1.Pharmacist.

[illegible]

### PRIZE CROSSWORD RESULTS.

As most of you discovered before I did, there was an error in the prize crossword clues which permitted two possible answers, one of which didn't fit, and the other didn't make sense!. However, I've allowed BOTH possibilities as "correct", and having stirred the box well, the first entries out were from J.D.Bateman and D.Parr, so they get their next Group subscription absolutely free!. No, that's supposed to be a prize, not a punishment!. Paul G.

#####

6809 USER REVIEWED BY MIKE STOTT

Thanks to Sotos Mandalos for sending me this copy of 6809 USER. A number of people have asked me about this magazine so here is my opinion based on the issue sent to me.

The appearance is very reminiscent of DU when it went subscription. The letter page is followed by two good adventure pages from Robert Cleminson, whom I rate as the best current "adventurer" in the Dragon scene. David Rothery supports OS-9 users in two separate articles and Roland Hewson also contributes two articles. Jeff Purcell produced an article about FAST FOURIER TRANSFORM together with a demonstration program. Ken Smith looks after the comms. freaks and the magazine is completed with a software review, adverts, and competition results. Overall impression - very good quality in all the articles, well produced and interesting. Sotos informs me in his letter that it is produced using an AST System 486/25 and printed using a laser printer. Yes, it is very effective but I would have liked to have seen a Dragon used.

The copy sent to me in July was the latest issue but, surprisingly it is dated January/February 1991. Sotos has explained that Roger Quaintance has had lots of problems of late, including his health, and also, like Update, nobody will contribute. The next issue is promised for a couple of weeks from the date of Sotos' letter but I do not know if this was the case.

6809 User is available from Sunnydale Publications, P O Box 13, Ilfracombe, North Devon for 7.50 for 6 issues or 1.25 plus 15p post each.

HELPLINE HELP REQUIRED!!

I am currently trying to compile a new "Helpline" list for the New Year, as many of our old volunteers have either changed machines or interests. So, If you WERE on the list and wish to change details (or even resign!), PLEASE LET ME KNOW SOONEST. If you weren't listed but have a topic on which YOU would be willing to assist other members, and would like to be included in the new list, PLEASE LET ME KNOW SOONEST as well!. Paul Grade.



THE LATE, LATE BIT .....

I suppose that at this time of year I ought to write about all the outstanding events that have taken place in the computer world during 1991, but I can't think of any!. Something MUST have happened, but if it did it was the best kept secret of the year, and I certainly never managed to discover what it was.

Oh well, people had to discover eventually that computers weren't really magic after all ... you can't really fool all of the people all of the time ... but it seems to have happened rather suddenly.

So what other interesting topics can I bore you with this month? ... The Great Maxwell's Myths, ? (did he fall, was he pushed, or is he alive and well and laughing himself sick in Tel Aviv?), or the Great Single Currency Debate? (you can ALL have a single currency ... 1p each after tax!), or Was Waite Working for the CIA? (who cares except Ollie North?!). ... the possibilities are endless ... and all totally boring, not at all suitable for this time of Frivolity, Overspending, Indigestion and Goodwill!. Of course, you all know how much I like Christmas, and how enthusiastic I am about it ... you read it all last year and for about seven years before that, so hopefully I don't need to go over it all yet again .... all that stuff about peace and goodwill is definitely overdone by any standards, and so horribly fake, although I have to admit that a touch of honesty seems to be creeping in this year .... I've just received a Christmas Catalogue from my Friendly Local Gun Shop offering special Christmas discounts on selected hand guns ... that's what I like to see, a touch of the REAL Christmas Spirit!! ... Shoot a Santa for Christmas and Save on Presents!!.

I've just had a call from Stuart Beardwood and it seems someone in his area has been doing some early Christmas "shopping" ... they've nicked his upgraded Dragon 64!, so if any of you get offered one by someone wearing an eye mask, striped jumper, etc, and carrying it in a large sack marked "SWAG", do please let Stuart know ... he's offering a large reward for its safe return (well, he might manage 50p or so!).

Now, how would some of you like to play detectives?!. Eric Hall, the one who reprints back issues of Update, has become a back issue himself!. To put it simply, he failed to renew his Group sub a couple of months ago, and is now off the list, BUT I haven't a clue whether he is still doing reprints or not as I've had no explanation from him and he has not replied to requests for information on this point!. So, if anyone in that area would care to make some discrete enquiries .... like "What the Hell are you playing at, Eric?" ... and let me know the result, I would be most grateful. If it turns out that he is NOT continuing the reprint service, and anyone else with access to a reasonable copier would care to collect the master copies from him and take over the job (unpaid, but a (very) small profit IS possible), they would be doing the Group a very big favour!.

Talking of playing detectives ..... just been listening to the local news on ITV and learned that "police have discovered a body in Brighton Cemetary ..." do you think I ought to tell 'em that there a few hundred more buried there?. ITV is doing well tonight ... they've just apologised for the fact that "there is no weather tonight but it will be back as usual tomorrow". Dunno what they're serving in the ITV canteen this evening but it must be better stuff than I've got!. Oh well, it's late, and time I reviewed the Smirnoff situation, I think. Have fun ... see you again next year. Paul.

*Paul G.*

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 \*\*\*\*\*

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