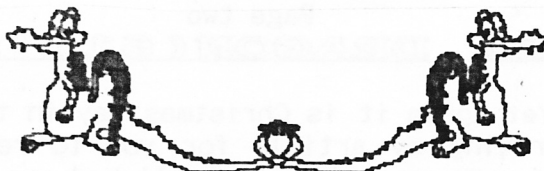


DRAGON



UPDATE

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Another Year, Another Update!

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THE GAFFER'S BIT

How come the "experts" never manage to get anything right?!. Several centuries ago (or at least it seems like centuries) all the "professional" types on the computer/group/publishing scene assured me that a national Dragon computer group couldn't possibly last for more than six months, and that in any event, I was doing everything wrong so it almost certainly wouldn't even last that long. This must be the longest six months in recorded history!. Anyway, we're still here, more or less, and I trust that you're all going to keep those New Year Resolutions you made while under the influence of the last of the left-over Christmas Spirit? the ones about getting your old Dragon back down from the loft and actually trying to remember how to use it?, and about buying all those Group programs that you never got around to ordering last year?, and about remembering to renew your subscription on time?, and about those articles you're going to write for Update? ... What do you mean "I don't remember those"?!. Of course you don't, Drambuie, Newcastle Brown, and Tesco Sherry make a lousy cocktail, and you know you shouldn't have bet that you could drink it and still fly a bicycle around the kitchen table but when they take the splints off and you can get around unaided once more I'm sure you'll remember, WON'T YOU?!. Have a good year!. *Paul Grade.*

1996 And All That...

Continuing to defy the laws of probability (the same ones that inexplicably fail to prevent some lovey-dovey couple from polluting daytime TV broadcast time which could be put to much greater use e.g. testcard), the venerable organ that we know and love as Chairman Grade continues to churn into the new year. And Update is here too. Amazingly, there are still some members out there who are not rushing to join the PC clan. I don't have anything particular against PCs, to be honest. In fact, the "Simpsons" screen saver is almost worth buying a PC for on its own. But it does amuse me how punters in the street are conned into buying the "latest" machine. The staff in the standard array of stores know nothing about the product (apart from one spotty geek who is only there part time for ten minutes on Saturday afternoons when it's really busy with people buying useful things like VCRs), and sometimes have the gall to admit this to your face, in the desperate hope that this will get you on their side and bump up their generous 0.1% commission. And the systems on offer, when they are actually in stock i.e. never, are bundled with a mediocre range of software coupled with an "irresistible" three-year 'guarantee' for a bargain three hundred extra quid, which in fact is only a two-year guarantee thanks to your twelve month automatic parts and labour deal anyway. It would be so much better if they just came clean about it, as suggested by Radio 4's mid-eighties comedy show "Radio Active" (later BBC2's "KYTV")... 'In an age of office automation, choosing the right microcomputer can mean the difference between success and failure...so if you know bog all about computers, choose the one that makes the best noise.' Some lovely noises on the "Simpsons" screen saver. S.W.

++ Stephen, if "venerable organ" translates as "ancient pr***" have you renewed your life insurance?. P.G.

PEEKING THE DRAGON(61) MIKE STOTT

December 25th 1995 - Yet again it is Christmas Day in the workhouse in the Stott household and I am writing my article for you to read. Father Christmas has delivered all his goodies to us and we have all had our customary baths, yes even the dog has had one. What makes it so different this year is that I am gazing out of the window while I am typing this and everywhere is white. Okay it is not very deep, just a covering, but we do not get much snow round here so a white Christmas is a real rarity (like new software for the Dragon - more of that later). Nora, David and I will be completely on our own this year as Michael is now winging his way to Detroit via New York and will probably be eating his Christmas dinner on the plane at this very moment.

Thanks to everybody who took the trouble to send me a card. The only letter I have received lately was an anonymous one from Romford warning me about the costs involved in purchasing a pirate Sky card and also saying that Sky are very clever about finding people who respond to offers broadcast via satellite. Personally I would never buy any of the rubbish advertised on satellite. Also they have not been very clever about replying to my requests for a Sky package which costs less than three hundred pounds per year. I will not pay this, or anything like it, for a couple of football and rugby matches. The majority of the other programmes broadcast are absolute rubbish apart from a few good films in a year. Even these you can wait for another year or so and watch them on BBC or ITV. Sky are ripping the gullible off and trying to force people to pay even more money each year. If everybody cancelled their subscription we would soon get the best sport etc back on terrestrial television.

The Crypt Killer card that I bought has now stopped working, so I must now wait for new software to be written. Some say that it cannot be done but I doubt this very much and expect to see it available early in the New Year. Right, back to the new software I mentioned earlier. Paul has sent me a copy of TETRIS written by John Payne. Does this mean that I will no longer be made redundant?

When I first tried TETRIS I was very disappointed. Many of you will know that I have raved over Paul Burgin's version of the same game, which was never released. This is not a patch on Paul's version, even without a score in the latter game. After my first play I put the game away and started thinking. John Payne has gone to all this trouble to write TETRIS in FORTH. I tried to remember anything else I had seen written in this language and could not. Has anybody else seen a game written in FORTH for any computer, let alone a Dragon. Three pounds has got to be a snip even for the rarity value of an item like this. I reinserted the disk and typed BOOT. I was asked if I wanted to play in colour or monochrome. Turning the colour off on my TV I opted for a black and white version (more soothing on the eye than the green and black of the monochrome) and found this to be better than the colour version which I had originally opted for. This game can be played with or without the accompaniment of music. Okay it is not TAKE THAT or the LSO but some people like music with their games and some do not so it is nice to be given the choice. Three carefully selected keys are used to play the game so you do not need to struggle all over the keyboard to find the right one to move the shapes sideways or rotate them. I have played many versions of TETRIS on the Dragon and on other computers and have found this to be one of the hardest in which to progress very far. I am, therefore, unable to tell you whether there are jewels in the later stages like in some other versions that I have seen. Perhaps somebody will write to me and let me know if these do appear or not.

To sum up : if you have not got a version of TETRIS why not order a copy from Paul and find out why this is one of the most addictive games around. For younger children it teaches them about shapes and how to fit them together. As I have previously mentioned surely the novelty of a game written in FORTH is worth three pounds. Encourage John to continue his support for FORTH and the Dragon, purchase a copy now. Do not forget that the FORTH OS and ASSEMBLER is still available from the Group and now costs only four pounds and fifty pence.

Win The Lottery...Paul Marlow

I had the idea of printing out every combination of six numbers, and wanted to see how many combinations there were before using a box of paper. I know it's not a very useful program but the subroutine starting at line 29 can be used in programs that need to be run for a very long time. The subroutine takes the values of the variables loaded in by line 3 and copies them into the area of memory that stores the values for the loop variables. This means that the program can be stopped at any time and restarted from the point you left off, thus saving having the computer continuously tied up with one program. The shorter program just creates a file containing the initial variable values. The program was written for a CoCo 3, but need very little modification to run on a Dragon. The pokes at line 8, 17, 19, 23, 24, and 27 are speed up pokes for the CoCo which can be omitted, as can line 6. Incidentally, in Update 102 Paul asked about James T. Kirk and toilet facilities. Well, in my capacity of font of all useless knowledge, I can inform you that there were toilets on the Enterprise. According to "Mr Scott's Guide To The Starship Enterprise", there were toilets located in rooms on either side of the bridge. Any comments along the lines that I am in possession of an anorak will be met with the response that I have been called worse things because I am wise enough to own a Dragon. Live Long And Prosper.

(**"Mr Scott's Guide To The Enterprise" is currently available in a double pack with "Mr Scott's Guide To British Rail Train Numbers**)

```

0 CLS
1 TIMER=0
2 OPEN "I",#1,"LOTTERY"
3 INPUT #1,A1,B1,C1,D1,E1,F1,CO,L
4 CLOSE #1
5 Z=1
6 ON BRK GOTO 26
7 TIMER =0
8 POKE &HFFD9,0
9 PRINT#0,"TOTAL COMBINATIONS =";CO
10 FOR A=1 TO 49:FOR B=49 TO 1 STEP -1:FOR C=1 TO 49:FOR D=49 TO 1 STEP -1:FOR E=1 TO 49:FOR F=49 TO 1 STEP -1
11 IF Z=1 THEN GOSUB 29
12 IF A=B OR A=C OR A=D OR A=E OR A=F OR B=C OR B=D OR B=E OR B=F OR C=D OR C=E OR C=F OR D=E OR D=F OR E=F THEN 14
13 CO=CO+1:PRINT#0,"TOTAL COMBINATIONS =";:PRINT USING"###.###";CO
14 PRINT#260,A;B;C;D;E;F;:L=L+1:PRINT#32,"NUMBER OF LOOPS=";:PRINT USING"###.###";L
15 IF TIMER>(3458*5) GOSUB 19
16 NEXT F,E,D,C,B,A
17 POKE &HFFD8,0
18 END
19 POKE &HFFD8,0
20 OPEN "O",#1,"LOTTERY"
21 PRINT #1,A;B;C;D;E;F;CO;L
22 CLOSE #1
23 TIMER=0:POKE &HFFD9,0
24 POKE &HFFD9,0
25 RETURN
26 GOSUB 19
27 POKE &HFFD8,0
28 END
29 FOR T=0 TO 4
30 POKE VARPTR(A)+T,PEEK(VARPTR(A1)+T)
31 POKE VARPTR(B)+T,PEEK(VARPTR(B1)+T)
32 POKE VARPTR(C)+T,PEEK(VARPTR(C1)+T)
33 POKE VARPTR(D)+T,PEEK(VARPTR(D1)+T)
34 POKE VARPTR(E)+T,PEEK(VARPTR(E1)+T)
35 POKE VARPTR(F)+T,PEEK(VARPTR(F1)+T)
36 NEXT T
37 Z=0:RETURN
40 CLOSE #1

```


HenceForth(22)...Bob Smith

Well, as promised in HenceForth(19), the new improved version of DIR has been completed. The original idea of imitating DOS DIR was soon scrapped as I realised that Forth was much more powerful and capable of doing better things than DOS DIR. The version here will search for a string of up to 32 characters, more if you need them. It searches right through each screen where a match is found. What is more it only takes about three minutes to search a complete disc of 720 screens. The ? wildcard is the same as DOS DIR, though the * used in DOS DIR is superfluous in Forth DIR. The program is used by typing the first and last screen numbers for the search range followed by DIR e.g. 210 345 DIR. The program will display a title screen confirming your numbers. Press Enter and the word TEXT: will appear. Press Enter again for a listing of all the non-blank screens, else type your specific search string and press Enter - you can use the wildcard here. The screens below have to be typed in. You will see that there is a separate screen for TEXTIN. This puts upto 32 characters in address 30001 and the character count in address 30000. TEXTIN is used in DIR so you will have to load it before DIR. I've tagged DIR onto the screens for DIR-BL (HenceForth 20) as they use some similar routines. To do this, you will have to put the first DIR screen directly behind the last DIR-BL screen and replace ;s on the last DIR-BL screen with -->. If you don't have enough empty screens then you can use --> as described last time. You can then load the whole lot with 405 LOAD.

SCR £251

```
0 : TEXTIN HERE 30000 ( IF ." TEX
1 T:" CR 30034 30001 DO KEY DUP
2 EMIT DUP 13 = IF I 30001 -
3 30000 C! DROP LEAVE ELSE DUP 8
4 = IF R> DUP 30001 > IF 2 - ELSE
5 1 - ENDIF >R ELSE I C! ENDIF
6 ENDIF LOOP ELSE ." NOT ENOUGH RO
7 OM" CR ENDIF ; ;S
```

SCR £413

```
0 ( LIST OF SCREENS IN USE )
1 C@ 137 = 0 = IF 8-LI 1 LNR +!
2 PR-HDR LEAVE ENDIF ELSE DROP
3 ENDIF LOOP ENDIF SUB-R @ >R
4 ;
5
6
7 -->
```

SCR £415

```
0 ( LIST OF SCREENS IN USE )
1 SWAP DUP . CR CR ." PRE
2 SS AND HOLD ANY KEY" CR ."
3 TO BREAK WHILE RUNNING" 10 1 DO
4 CR LOOP ." *** PRESS ENTER TO S
5 TART ***" KEY DROP CR TEXTIN
6
7 -->
```

SCR £417

```
0 ( LISTING OF SCREENS IN USE )
1 ROT 1 + DUP C@ ROT = IF 1 FOUND
2 ! ENDIF SWAP FOUND @ IF 30000
3 C@ DUP 1 > IF 1 + 2 DO 1 + SWAP
4 1 + DUP C@ ROT DUP C@ ROT = IF
5 1 ELSE DUP C@ 63 = IF 1 ELSE 0
6 ENDIF ENDIF
7 -->
```

SCR £412

```
0 ( LIST OF SCREENS IN USE)
1 : LN-LST R) SUB-R ! 0 J2 @ DUP
2 SCRUP ! (LINE) DROP DUP J2 ! C@
3 229 = 0= IF 32 0 DO J2 @ I +
4 DUP C@ 32 = 0= IF
5
6
7 -->
```

SCR £414

```
0 ( LIST OF SCREENS IN USE )
1 0 VARIABLE FOUND
2 : DIR DECIMAL EMPTY-BUFFERS
3 B[CLS] CR CR 1 1ST !
4 ." DISK SEARCH FOR MATCH"
5 CR ." FROM " SWAP DUP .
6 ." TO "
7 -->
```

SCR £416

```
0 ( LIST OF SCREENS IN USE )
1 1 NSCR ! 1 NOLN ! 1 + SWAP DO
2 SP! GETKEY 0 > I J2 ! IF LEAVE
3 C@ DUP 1 > IF 1 + 2 DO 1 + SWAP
4 (LINE) DROP 1 - 30000 DUP C@ 0=
5 IF LN-LST ELSE DUP 1 + DUP C@
6 ROT C@ 256 SWAP - 0 DO -->
7
```

SCR \$418

```
0 ( LISTING OF SCREENS IN USE )
1 IF 1 FOUND ! ELSE 0 FOUND !
2 LEAVE ENDIF LOOP FOUND @ IF
3 LN-LST LEAVE ELSE DROP 30001
4 SWAP 1 - 0 FOUND ! SWAP ENDIF
5 ENDIF ENDIF DUP C@ LOOP DROP
6 ENDIF DUP C@ LOOP CR 0 DUP J2 !
7 SCRUP ! 1 LNR ! SP! ; ;S
```


Machine Coding(2)... Tony Shellard

SCNINV3 returns to the discrete load and store method, with it's attendant overheads, but processes the screen two bytes at a time. Despite being longer than SCNINV1, it is even faster than SCNINV2.

```

*      SCNINV3
@      LDX      <$BA      *start of screen
LP1    LDD      ,X        *get two bytes
      COMA      *COMplement one
      COMB      *and the other
      STD      ,X++      *increment twice
      CMPX      <$B7      *end of screen?
      BNE      LP1        *branch if not
      RTS              *finished

```

The use of the D register and (auto) double increment halves the number of iterations. As long as the number of cycles in the new loop is less than double those in the old it will run faster. This again points to the weakness of using size as a criteria: SCNINV3 is only slightly bigger than our first attempt but is substantially faster. In such a short program every instruction may be scrutinised with some profit. Having accepted that the indexed instructions are necessarily slow we can look at the CMPX instruction as the next longest. SCNINV4 eliminates it by decrementing a counter and ceasing to branch when it reaches zero:

```

*      SCNINV4
      LDU      <$BA      *start of screen
      LDX      £$0C00    *screen size 6144 bytes
LP1    LDD      ,U        *get two bytes
      COMA      *COMplement first byte
      COMB      *and the second
      STD      ,U++      *replace and increment
      LEAX      -1,X      *decrement counter
      BNE      LP1        *branch if not done
      RTS              *finished

```

I'll digress here to explain my choice of index registers. I've avoided the Y register because LDY needs an extra byte. This one byte is not significant in itself, especially as it would be outside the loop, but does make a large percentage difference in size to such a short routine. If you are using many indexed instructions per iteration it would add bulk and delay. The X register is chosen as the counter and the U for indexing because unlike the LEAX the LEAU instruction does not affect the zero flag, necessitating a CMPU instruction for the BNE to work, eliminating our saving.

Prog	Time	T%	Bytes	B%	TB	TB%
1	0.142	100	12	100	1.704	100
2	0.114	80	9	75	1.026	60
3	0.088	62	13	108	1.144	67
4	0.085	60	16	133	1.360	80
4A	0.085	60	24	200	2.040	120
5	0.081	57	20	167	1.620	95

Dragons In Ham Radio. Johnny Brown

After many contacts re various programs, a few things need to be pointed out.

1. RTTY USB (Upper Side Band) needs to be selected to keep with international standards. For setting the speed, use 45.45 baud for amateur RTTY, and 50 baud for copying commercial stations, although 75 and 100 baud are sometimes used. Tune carefully, else the cursor on the bottom righthand side keeps flipping up and down - practice makes perfect.

2. CW or MORSE Unless your receiver has a CW position, select the standard LSB (Lower Side Band) for normal use between 1.8MHz and 7MHz, or USB for 14MHz upwards. These again are international standards, but careful tuning is still needed, especially if you have an older set using a BFO. As a guide, bad tuning shows up most on E or T due to noise on the bands.

3. CW TUTOR Using a TV set will give you the audio tones via the set's speaker. If you have a monitor without sound, you can get a low level audio signal from the back of the Dragon, though you may find a small audio amplifier will help. There is also a Dragon to Dragon Packet type program, which is/was available on disc. It was developed by RAD and Dave C., and allows packet to packet, receive and transmit, and change over, with remote or manual control. It is menu-driven when loaded, can be used in mailbox fashion, and also caters for priority call signs to be inserted.

It is not compatible with AX25 mode, or any other Packet, but it does allow excellent communication and cannot be copied by anything other than the Dragon setups. The mode used is designated F2D and is not true Packet, but it runs OK and is used in the Derby area, so I am told. It was developed originally for 64K, so I have not yet tried it as there is only one local Dragon Ham and his is a 32K. It has excellent instructions, and is called Cachepack.

There is also a circuit available for a terminal unit (modem) for both CW and RTTY using a single integrated circuit. It is fairly easy to build and get working, as it needs just one pot to set up, and it works well - using the BMK program, it is easy to tune it and copies everything the program caters for.

If you have any queries, please drop me a line.

J. Brown, 45 Marlborough Avenue, Falmouth, TR11 4HS.

More Favourite Utilities. D. Cadman

FASTBACK was written by Graham Kinns and is another program that has appeared on an Up2Date disc (number 8). The program is in two parts, the basic part loads the machine code and contains the screen prompts and error codes. Apparently it gets its speed by only copying sectors marked as being in use. As an example of its speed, a single sided 40 track disc takes three and a half minutes to back up using the BACKUP command, irrespective of the number of programs on the disc, because it copies all 720 sectors. A nearly full disc, with just 512 bytes free, (say, 19 medium length programs) takes one minute three seconds using Fastback, whilst a disc with 140288 bytes free takes just twenty one seconds. Also, you can watch pretty colours on the screen whilst you are waiting, instead of a blank screen!

Dave Cadman.

MORE BOOKS REVISITED. R.A.D.

6809 MICROCOMPUTER PROGRAMMING AND INTERFACING. by Andrew Staugaard, Jr. Published by Blacksburgs. £12.00. 270 pages.

This book is meant to be a tutorial for first experience of the 6809 or other high performance devices in general of that era. However, it is assumed that the reader has an understanding of the fore-runner, the 6800. Each chapter starts with a set of objectives, followed by review questions and answers. The text is illustrated with numerous examples demonstrating important software concepts. There is a chapter on the 6809 addressing modes, of which there are 19, and understanding these is stated to be the secret of the 6809 software concepts. The four appendices include some Motorola Specification Sheets and a summary of the instruction set. Not a volume for the tyro.

Less Than Brilliant...Clive Scott

The first program I purchased was a flight simulator called "Sea Harrier Simulator" in late 1982/early 1983. It came on an unmarked cassette with no inlay or instructions. It was written in BASIC and there was no reference in the program to the name of the author - wise man!

The intention of the program was to land a sea harrier at Port Stanley airport, but the graphics were terrible and the control over the plane minimal. In the first stage you flew the plane by instruments which showed your height, speed, and horizontal speed in numbers, whilst below there were three dials with bars which represented your height, artificial horizon, and speed. If your speed was above 100 when your height dropped below 300ft and your horizontal velocity was above 50 you went to the landing stage. Your height dropped however much you climbed! *{Sounds pretty realistic to me!.. Paul}*

The landing stage had merely a blue strip at the top for the sky, a white rectangle for the runway, over a green background. However, the runway frequently overlapped the sky and the screen drawing was pathetically slow.

To say that it was bug ridden was an understatement - it didn't run at all! I was able to cure most of the glaring errors but I was a novice programmer at the time. It was obvious that a complete rewrite was required to make it any good.

How such a program could be marketed in such a state is beyond belief - the games I obtained from magazine program listings were far better.

Dragon Data, for their sins, used to market a product called "Personal Finance", which came on cassette and consisted of 3 BASIC programs and a small manual, the size and thickness of a credit card. Whilst the programs were bug free, it is unlikely that you would run them more than once.

The first program, "Family Accounts", was intended to record your payments and receipts. It allowed you to set up 20 accounts but only stored the last 10 transactions on each - hardly enough to check your bank statement. It only stored the date, details, and amount, and you were unable to do a split payment. Common to all three programs, there was no option to print.

"Family Budget" allowed you to enter actual and budgeted expenditure over 20 heads and 12 months, but was unable to extract the information from the Accounts program. Indeed, because that program only stored the last 10 transactions, you would need a file for each month to obtain the necessary totals.

The last program, "Family Address List", was a simple database for holding names, addresses, and telephone numbers (up to 80). The fields were fixed so could not be used for anything else and were useless with no ability to print.

Being an accountant, albeit unemployed, I am spoiled on expensive commercial accounting programs, but I feel these programs offer no benefits over pen and paper, and in the case of the accounts program, the bank gives more details free! Perhaps some of our members are aware of even worse programs, apart from the Group Text Editor of course! *{Well, that one does at least work!.. P.G}*

Long Ago, In A Land Far, Far, Away...

...we had a more than a thousand members, lots of stuff to print in Update, and more importantly, lots of Dragon related things to talk about.

Now, in the dark days of the PC Empire, things aren't quite so rosy. To my astonishment, it seems that there are some people out there...some sick, twisted individuals...who actually look forward to the idea of receiving Update every bi-month. I think that for the sake of humanity, it is our duty to help these people to a better life, by either (1) giving them something more worthwhile to do with their time e.g. writing scripts for Australian TV, or (2) making sure that the few minutes of warm glow that the arrival of Update always brings are made all the more enjoyable by having a huge selection of articles to use for future editions of our favourite read.

You want to read it? You want to write it!.

S.W.

Useful Thing. Anon (with two n's)

This routine copies a picture from pages 5 to 8 to pages 1 to 4 of the graphics screen. It is set up for PMODE4; just load two screens in and then EXEC 30000. If you don't have DOS, change the 0C in line 60 to 06 and the 12 in line 95 to 0C. The code can be stuck anywhere you like in RAM

```

ORG 30000          10 CLEAR 200, 29999
LDX £3072          20 FOR I = 30000 TO 30049
LDY £9216          30 READ A$
@LOOP LDD ,Y       40 POKE VAL("&H"+A$)
STD ,X             50 NEXT
LDD 1536,Y         60 DATA 8E,0C,00,10,83,24,00,EC
STD 1536,X         70 DATA A4,ED,84,EC,A9,06,00,ED
LDD 3072,Y         80 DATA 89,06,00,EC,A9,0C,00,ED
STD 3072,X         85 DATA 89,0C,00,EC,A9,12,00,ED
LDD 4608,Y         90 DATA 89,12,00,C6,FF,5A,26,FD
STD 4608,X         95 DATA 30,02,31,22,8C,12,00,26
LDB £255           99 DATA D6,39

@WAIT DECB
BNE @WAIT
LEAX 2,X
LEAY 2,Y
CMPX £$1200
BNE @LOOP
RTS

```

TETRIS.....Ken Grade.

This has been written about by Mike Stott on his page, but as I have had more time to play with the game and I have not seen another version of Tetris for the Dragon (or any other machine, come to that) I thought I would give my impressions.

It has been written by John Payne to run under the Forth operating system, or enough of it to allow the game to run, so it BOOTS in and autoruns. I suppose you all know what TETRIS is about? (I didn't!) For those as ignorant as I was, it's rather like a jigsaw with five set pieces - cube, L-shape, T-shape, zigzag or oblong - which drop, one at a time, rather slowly, from a not very great height. The idea is to arrange them so they fit together and take up the least room between two "walls". The program decides what sort of piece will drop each time, and as the pile of pieces, or "bricks" builds up, there is less and less time to decide where and how the brick will fit. The "bricks" can be rotated and moved right or left from the keyboard. You don't get killed if you don't manage to get a given number of bricks, but you do get rewarded every now and then for being especially clever at juggling the pieces about by having the pile reduced, so you can pile more bricks on it. I managed level nine once, if that means anything. There are a few finer points. The pattern of the bricks rotates when the brick is rotated; there is the choice of PMODE 4 or 3, which is in colour, and you can even have music playing. There is a PAUSE facility, to give thinking time and REFRESH, another delaying tactic.

It's an amusing thing to play around with, and I suppose it must appeal most to people with tidy minds or with a liking for jigsaws. Even so, the last few levels need a quick decision and quick reflex - the basis for most arcade games. Quite a few copies of Tetris have sold already - and that was before the review disc had been reviewed.

Cost: 3 pounds. N.B. on disc only - it's not practical to transfer it to tape. K.G.

MORE BOOKS REVISITED. BY RAD.

DRAGON 32 BOOK OF GAMES. by Mike James, S.M.GEE & Kay Ewbank. Published: Granada.

Released in 1983 at £6, it is a collection of twenty-one games for the Dragon 32 in 132 pages. Each program has a detailed description and most have samples of the screen display, but in black/white which is not quite as good as the real colour of the display. Sound effects are included. The listings do not fall into neat categories, being so varied, some of them familiar favourites of the early days, from Treasure Island to Dragon Talk, the latter similar to the well-known Eliza. Around 21 programmes use moving graphics, and are more uncommon. The book was not intended solely as just another collection of programs, but also as an attempt to cater for those who wished to improve their knowledge, starting from simple beginnings. Each listing is accompanied with an outline of its subroutine structure, details of special techniques used, and suggestions for improvements. With just one exception, all the programs are Basic, and the authors claim that they have been thoroughly tested and printed directly from working versions to make them bug-free. As even the best of us make mistakes, there are also some hints and tips on de-bugging your own attempts. When I first tried to learn Basic, I would have appreciated such a book, but never found one, and there is always something new to learn from others, especially if you can read through a listing and understand it. A good source for now extinct Dragon Books is the 'FOR SALE' shelf of your local Municipal Library, where you can pick up a book worth £7 for around 50p. It was years before I discovered that the Library arranged the computer section to follow on from the Supernatural and Supernormal section!.

OK, OK, I'm SORRY!

I most humbly apologise to all Dedicated Followers of Star Trek for suggesting that the designers of the Enterprise might have omitted to include any toilet facilities but if such essential fitments DID really exist, how come none of the bridge crew were ever caught making use of same when someone pressed the panic button for one of the weekly emergencies?!. The sight of Captain James T stumbling out onto the bridge with his uniform strides draped around his ankles would have enlivened any episode, surely?. This is all most confusing to alien beings like myself, who are subject to Sod's Law at all times and in all places ... how did Star Fleet manage it?.

Paul R. Grade (Capt.), BL Sherpa.

Informative Information

Further to my reply (last issue) to the question of why Up-2-Date discs now go out with "protect" tabs which, I am assured, "can sometimes come unstuck and jam the disc drive", Eddie Freeman has asked me to point out that a simple operation, easily carried out by the average user, can prevent the possibility of this happening. Eddie's instructions follow:-

- [1] Place one thumb nail as close as possible to the tab.
- [2] Move thumb in an outward direction, ensuring that the edge of the nail gets under the tab.
- [3] When part of the tab has been raised away from the disc, grasp the tab firmly between thumb and forefinger and pull in an upwards direction.
- [4] If operation has been successful, tab has now been removed from the disc!.

The wonders of Modern Technology never cease to amaze me!. Paul.

Diagnosis? by RAD.

Colds?, aches and pains?, want to find out what is REALLY wrong with you? then type this one in carefully, run it, and you could find the answer; but please note that the author and the management can accept no responsibility at all for the accuracy or otherwise of the diagnosis!.

```

10 DATA144,76,178,99,85,53,116,27,105,26,174,89,131,99,131,59,95,30,90,4,153,
   84,79,47,82,17,100,68,115,35,118,53,143,70,90,12,48,16,85,12,166,88,
   50,18,114,30,88,16,148,79
20 DATA101,29,161,92,77,12,168,100,51,19,102,70,58,26,59,27,130,98
30 DATA136,58,96,27,158,81,118,43,107,75,74,42,73,41,64,32,75,43
40 DATA100,17,150,78,159,80,139,54,132,56,97,29,111,42,152,70,58,26
50 DATA157,92,168,86,152,75,82,50,62,30,132,100,38,6,130,98,77,45
60 DATA114,42,159,94,149,71,73,5,125,93,81,49,42,10,81,49,51,19
70 DATA70,4,81,16,133,66,79,4,90,58,41,9,84,52,98,66,68,36
80 DATA95,28,114,42,71,2,92,9,156,72,65,33,132,100,115,83,44,12
90 DATA104,39,68,2,133,65,98,19,96,19,147,78,130,52,36,4,97,65
100 DATA174,94,100,31,119,43,101,15,164,91,132,49,83,51,88,56,110,78
110 DATA147,76,128,46,92,13,156,83,150,72,66,34,84,52,124,92,104,72
120 DATA95,11,151,79,84,11,141,70,79,7,106,74,114,82,63,31,73,41
130 DATA135,60,155,77,121,52,114,45,111,79,56,24,67,35,110,78,124,92
140 DATA142,75,105,40,173,97,146,76,45,13,64,32,99,67,118,86,37,5
150 DATA142,77,108,30,148,73,94,18,105,36,104,72,49,17,131,99,73,41,36,4
160 DATA108,38,143,64,117,38,128,44,70,38,99,67,85,53,116,84,70,38
170 CLSO:PRINT@107,"HOME DOCTOR";:PRINT@163," PLEASE ANSWER EACH QUESTION
   " ;:PRINT@232," FOR A DIAGNOSIS ";
180 FOR D=1 TO 5000:NEXT: SOUND1,5
190 CLSO:FOR I=1058 TO 1082:READA,B:C=A-B:POKEI,C:NEXT:PRINT@484," PLEASE PRESS Y
   OR N " ;:POKE1358,63
200 FOR J=1 TO15:FOR I=1196 TO 1204:READA,B:C=A-B:POKEI,C:NEXTI
210 I$=INKEY$:IF I$<>"Y" AND I$<>"N" THEN 210
220 SOUND123,1:NEXTJ
230 CLSO:PRINT@105,"PLEASE WAIT";:SOUND234,2
240 FORD=1 TO 5000:NEXTD
250 DATA82,50,100,32,87,14,131,66,116,45,112,34,135,56,113,30,84,11,166,83,
   116,84,73,12,92,60,142,62,173,91,167,98,167,96,143,65,82,17,142,64,
   136,52,111,79
260 FOR I=1348 TO1370:READA,B:C=A-B:POKEI,C:NEXT:SOUND234,4
270 GOTO270

```

A Bit Late

Well, the middle of February IS a bit late to say thanks to all those of you who sent cards, etc that's one of the snags of having to publish bi-monthly now, but late or not, thank you, they were all very much appreciated. And thanks too, to all those of you who have been "rounding-up" subscription renewal payments and adding a pound or two to orders it does a lot to help keep the Group account in black figures, which isn't such a simple task now as it used to be, especially when paper prices do a 20% jump without notice, and all the other bits and pieces needed to keep things running tend to do likewise!. Very many thanks to all of you. Will we still be around next Christmas? much as it will depress the Editor, I'm afraid we probably will. Damned if I know how, or even why, but NDUG will probably be haunting you for at least the duration of 1996 don't ask about 1997, I refuse to make guesses like that!. Paul G.

Disc Catalogue S.C.G

```

1 CLEAR 3000: DIM B$(99), C$(99): V$="BAS BAK BSC BIN ": CLS: FR=FREE
2 X=1: FOR A=3 TO 18
3 SREAD 1,20,A,X$,Y$
4 A$=X$+LEFT$(Y$,127)
5 FOR Y=0 TO 9
6 B$(X)=MID$(A$,Y*25+1,9)
7 C$(X)=MID$(A$,Y*25+10,3)
8 IF ASC(B$(X))=&H89 THEN 13
9 IF (ASC(B$(X)) AND 1) OR (INSTR(1,V$,C$(X)+" ")>0) THEN 11
10 X=X+1
11 NEXT Y
12 NEXT A
13 X=X-1
14 FOR Z=1 TO X
15 B$(Z)=RIGHT$(B$(Z),8)
16 NEXT Z
17 GOSUB 47: 'SORT
18 ZE=0
19 CLS
20 ZA=1
21 PRINT STRING$(32,45);: PRINT @448,STRING$(32,45);
22 PRINT @32,;
23 FOR Z=ZE+1 TO X-1
24 PRINT "  CHR$(96+ZA) " B$(Z)TAB(13) ". " C$(Z)
25 IF ZA=13 THEN 28 :ELSE ZA=ZA+1:NEXT
26 IF Z>=X THEN PRINT @480,"FREE BYTES ON DISK:"FR;
27 GOTO 29
28 ZA=1
29 PRINT @212,"A-M: RUN";
30 PRINT @244,"SPC: MORE";
31 PRINT @276,"'Q': QUIT";
32 TA$=INKEY$: IF TA$="" THEN 32
33 IF TA$="Q" THEN CLS:POKE &HFFD6,0:END
34 IF TA$="" AND Z<X THEN ZE=ZE+13:GOTO 19
35 IF TA$="" THEN 32
36 TA=ASC(TA$):TA=TA-64
37 WE=ZE+TA
38 FE$=B$(WE)
39 IF RIGHT$(FE$,1)=CHR$(0) THEN FE$=LEFT$(FE$,LEN(FE$)-1):GOTO 39
40 IF C$(WE)="BIN" THEN 44
41 FE$=FE$+" "+C$(WE)
42 CLS:LOAD FE$
43 END
44 FE$=FE$+".BIN"
45 CLS:LOAD FE$
46 END
47 'sort - bubble sort
48 M1=1:M2=X
49 M=0
50 IF M1>=M2 THEN RETURN
51 FOR I=M1 TO M2-1
52 IF B$(I)>B$(I+1) THEN SWAP B$(I),B$(I+1):SWAP C$(I),C$(I+1):M=I
53 NEXT
54 M2=M
55 IF M1>=M2 THEN RETURN
56 M=999
57 FOR I=M2 TO M1+1 STEP -1
58 IF B$(I-1)>B$(I) THEN SWAP B$(I-1),B$(I):SWAP C$(I-1),C$(I):M=I
59 NEXT:M1=M:GOTO 49

```

The Late, Late Bit

More like the Frozen Bit at the moment, as the temperature seems to be about minus telephone numbers, but if I call it that some clever little person is going to ask "Which bit is the Frozen Bit?" and will be positively shocked by the answers, so I perhaps I'd better not. I should listen more to advice, I suppose ... people have been telling me for years that I should go to an (allegedly) hotter place, perhaps they were right!.

Anyway, what's new? unless someone knows something I don't, the answer is nothing at all!. So far 1996 appears to be no more than a recycled version of 1995, with a total lack of activity on the entire computer scene nothing changes except the prices, and they only seem to change in one direction, so there's nothing new about that either. Boring, isn't it?, but with the computer scene totally dominated by the PC variants there is very little that CAN be really new more gimmicks, of course, and more expense, but then what can you expect now that the computer has become little more than a VCR very few people now are interested in how the thing works, or even why, and still fewer are capable of simply setting one up properly, let alone writing anything to run on it ... "computer literate" means knowing very little more than which slot to stuff the CD disc into ... it's about the same as claiming that someone who can put an LP record onto a turntable is a "musician". Actual computing is a dead art!. I'm not sure whether people are just incredibly gullible or simply getting thicker generally it has to be one or t'other, else why would they keep paying out more and more of their hard fiddled loot in order to buy a machine they can't use (and have no intention of learning) which is basically a fifteen year old design with a few added useless gimmicks?.

Just to make the point, have you noticed that some of the current batch of PC machines are being marketed with NO "floppy" drives at all, just CD ROM and a hard drive?. So OK, we all know the old joke about "Real Men Don't Have Floppies", but a disc that you can write to and then take away to another machine is virtually essential for any kind of business work, and unless your computing is limited to playing games and looking at "Encarta" type pictures (Noddy's Toytown Encyclopaedia) in the fond belief that this is "educational", such a machine is totally useless. If that IS the limit of your computing activity, you'd be far better off buying a VCR and spending your money in the children's section of your local video library!. It's about time that someone got around to re-inventing the home computer.

Off the subject of computing, perhaps, but just as an example of "people getting thicker" Our Glorious Leaders seem about to make the possession of a knife "in a public place" an arrestable offence, justification having to be proved in Court I can't wait to see the local Armed Response Unit raiding all the restaurants and hauling the punters off to the cells, can you? and I'm really going to enjoy being public spirited and having all the members of the local Fishing Club nicked at their next competition!. Oh well, it should do wonders for the arrest figures, I suppose, and give the Plods something to do other than chasing those Super-Criminals, the motorists!.

Now, to a more serious topic, even if it is an ancient one. The grand total of pages Stephen sent me on the master disc for this issue was seven and a half!. It isn't HIS fault, he's supposed to be an Editor, not a writer, but it does make things exceeding difficult when trying to make up a fourteen page Update, as I'm sure even those of you who didn't have the benefit of a Comprehensive style education or a Pentium can work out. Logical conclusion seems to be that we need about 50% more material than we are currently getting from you, so it would be very much appreciated if you could rectify this situation as soon as is possible. Having to fill up issues with this kind of garbage, and raid the "archives" for ancient listings etc doesn't do much towards producing an interesting Update, and I've no intention of following the course set by another User Group whose newsletters for the past couple of years have consisted of reprints from old Australian magazines/newsletters!. So, material for publication, please. *Paul.*

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CONTACT PAUL GRADE, 6. NAVARINO ROAD, WORTHING, SUSSEX.

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Paul Grade.

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