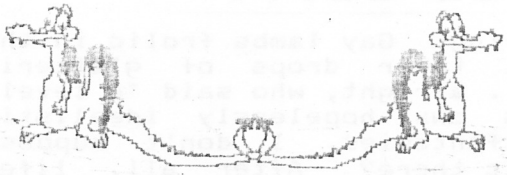
The Newsletter of the National Dragon Users Group

DRAGON UPDATE



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* ISSUE 69. 'HOVE DRAGON SHOW - JUNE 2ND!!' MAY 1990. *
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CHAIRMAN: Paul Grade. 6,Navarino Road, Worthing, Sussex. Phone:0903-207585
EDITOR: Stephen Wood. 52,Downsway,Springfield,Chelmsford,Essex.P:0245-467049
S/WARE EDITOR:Mike Stott, 10,Mellor Close, Prescot, Merseyside. 051-580-7712

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The Gaffer's Bit .....

Don't worry, the postman hasn't been nicking pages out of your Update, it's SUPPOSED to be a couple less than usual this month. Why?, simply because I don't have time to print a full length issue, get things ready for the Hove Show, answer the mail, deal with the telephone enquiries, AND make enough money to stay alive, so being a selfish sort of git I decided that a smaller newsletter would be the best way out of the problem. Anyway, you wont have time to sit around reading, you'll be too busy making arrangements to go to Hove, wont you?.

Mention of mail reminds me, there have been mail delays in this area recently, and some letters have been arriving up to ten days after date of postmark, so if you haven't received a reply to YOUR letter yet it MAY not be my fault!!. Don't worry, I'm trying to deal with the post as it comes in, or at least as soon as possible after that, so you haven't been forgotten!.

Those of you who bothered to read last month's "Late Bit" will remember that I was rather peeved with the NatWest Bank. You may be amused at the sequel to the tale .... Now you all know that I tend to express my views with a little less tact than some people think I should use, but it does pay off!. I decided to write to the Regional Director and enquire as to what kind of games NatWest thought they were playing, and a couple of days later received a very apologetic reply informing me that the Manager "completely misinterpreted Bank policy", and that not only would the excess charges be refunded, but we would now receive interest on the account which would be offset against future charges "which should then not exceed 8.00 per quarter" .... as we'd been paying around 30.00 anyway even before the fun and games began, I didn't think it was a bad result, so the account WILL be staying with NatWest now ... Who says I shouldn't blitz people?, it pays, doesn't it?!.

Hove Show cast, to date, is NDUG, Computape, Pulser, 6809 User, ProTech, John Penn, R.Preston, Barnston Computer Supplies, Knight, Mike Townsend (Dragsoft), Ray Smith (Graphics Library), Philippe Henebert (all the way from Belgium!), Greenweld, Dragonfire, Sutcliffe Electronics, and Andrew Hill. Not quite as many as last year, but still enough to make it a VERY good show ... provided YOU attend too!. See you there ..... Paul.

The Editor's Bit...

Now that everyone has finally stopped being snooker obssessed (Me included, I should add), we can get back to the serious stuff, and the PHENOMENALLY important Hove show, June 2nd. I have no idea if you will get this before the show, but if you do MAKE SURE YOU BLOODY WELL GO!. Think of it, this may be your last chance to catch a glimpse of Paul! (On second thoughts ...)

Joking aside, it's in your own interests to turn up, and you've only got yourselves to blame if it turns out to be a failure. At this stage (29th April), I still don't know how Ossett went, which is usually used as a pointer, so it could be make or break time. Still, I'll be there, so bring an article or ten, just to keep me happy. S.W.

Fishy Business 13...

Ahh, the joys of spring. Gay lambs frolic in the meadows, flowers come into bud, April showers cast their drops of glittering perfection against the wonders of nature and... alright, who said "A level revision"? Can't you leave a fish to glory in his own hopelessly idealistic fantasies? Speaking of hopelessly idealistic fantasies, I don't suppose there's any chance of you sending me any letters is there? After all, life gets rather lonely with nothing in your tank to do except swim through a novelty arch and revise German adjective endings. I've been wondering how I can persuade you to send me somthing. Perhaps Stephen could drape a few naked women around the address (**Then again, perhaps not...SW**), or devote an entire page to it, so as you woul notice. Ah well, look's like I'll just have to settle for putting it in capital letters...

D.T.I.G.G.,
THE VICARAGE,
NORWICH ROAD,
WATTON,
THETFORD,
NORFOLK,
IP25 6DB. (**Happy now?...SW**)

And don't forget to send an SAE.

So, what's new in the debauched world of Dragon software? Well, I noticed the advert for "Buzzing Bertie", the first new game to come on the market for a while. There's not much chance of me getting to look at it for the moment, but scan the pages of Update for a review of it very soon. Speaking of reviews, here's this month's set of marks. By the way, for those of you who missed issue 66 due to illness, disability, or a prior commitment to tour Scandanavia with the Garbaldisham and District Hamster Baiting and Mole Throwing Society, the marks are for (G)raphics, (S)ound, (P)layability, and (D)urability, and are all out of ten. ***P.P.P.***s (ie Piscine Perfection Prizes) are awarded for games which I think are exceptionally good and worthy of regular insertion into disk drive/tape deck (low marks usually mean the game is worthy of insertion into a toaster). OK? Good, here they are then:

	G	S	P	D	Overall	
FIRE FORCE	7	9	4	6	6	
FOOTBALL MANAGER	-	-	7	8	7	
ROMMEL'S REVENGE	8	8	8	8	8	***P.P.P.***
HUNCHBACK	5	6	2	2	3	
BOULDER CRASH	8	8	7	8	8	

So, that wraps up this month's jolly jaunt. By the way, does anybody know the best music to play Rommel's Revenge (or any other mindlessly violent game of apocalyptic destruction for that matter) to? Personally, I find "One Vision" by Queen, or any Faith No More to work quite well. Any suggestions of your own to the usual address along with other pieces of info you might think worthy of gracing these sacred pages. Ho, hum, back to revision then...
Nude females?!, you depraved little halibut!. Stick to your "Gay Lambs", or the occasional unbattered cod!. Paul.

Thank you...

Many thanks indeed for the letters, 'phone calls, and Prestel MBX in response to my heart-felt pleas to resucitate my unstable D64 display. As correctly diagnosed by most, the fault lay with the notorious power switch, which is somewhat over-stressed on a D64 with a DragonPlus extension. I simply bypassed the switch by joining all the relevant tags, and presto, all was well, and I'm now active on Prestel again. By the way, why aren't lots of you on the Prestel MailBoX system? It's only 6.00 per quarter, and must be the cheapest e-mail system available. My MBX is 819993365.
Jeff Purcell.

EASY MACHINE CODE (12) .... R.A.DAVIS

Just sitting back and reading will get you nowhere. If you really want to learn then you must have a go yourself, make your mistakes and remember them. You should now be able to print on the low res screen, so let's have a look at keyboard input. There is a ROM routine exec'd at &H8006 which will scan the keyboard, so in your program you'll have a JMP $8006. This routine will return the last key pressed in register A which we have been using. To find out which key has been pressed we CMPA (n) where n is the ASCII code of the letter required. If a jump is made to &H800C, the key pressed will be printed on the screen. Supposing that you want an answer to a menu which gives the choices 1-4. The ASCII for '1' is 49d or 31h, '2' is 32h, '3' is 33h and '4' is 34h. Having got your menu on screen, you JMP $8006 to get the keypress and JMP $800C to print it on screen. Then you have to find out if it was one of those required, if not then you Branch Always (BRA) to the JMP $8006 instruction. If it was one of the ones required, you have to find out which one and branch to the appropriate routine. This means that the A register must be compared in turn with the ASCII values 1-4 and a branch or jump made if equal (BEQ). Using labels this routine would be:-

```
500 @SCANKEY    JMP $8006
510             JMP $800C
520             CMPA #$31
530             BEQ @ROUTINE1
540             CMPA #$32
550             BEQ @ROUTINE2
560             CMPA #$33
570             BEQ @ROUTINE3
580             CMPA #$34
590             BEQ @ROUTINE4
600             BRA @SCANKEY
```

Now you know how to detect a keypress you can also detect the arrow keys; for the right arrow the A register is compared with $9, the left arrow $8, the up arrow $7E and the down arrow $A. We will deal with the joysticks later. Let's have a look at high resolution. If you have the back numbers of Update you can get most of this information from John Martin's articles on M/C graphics for beginners << early 1986 >>, if you haven't perhaps they could be repeated if there's enough demand. This bit deals with the storing of graphics for use in your M/C routine. The first thing you would have to do is to draw your background screen, using one of the drawing programs and save it to disc or tape as machine code using the normal parameters. If you use an autorun Basic loader for your program, you can then load this screen from disc/tape while displaying the low res screen. The second alternative is to make a short Basic program to load the design, GET it as G with a DIM of about 1500 and parameters (0,0)-(255,191). This will put it as M/C in memory directly above the Basic program you're using. To find the end of Basic PRINT PEEK(27)*256+PEEK(28). The end of the graphics code will be this value plus 6144 in PMODE 3 or 4. You can then save this to tape or disc using those addresses and include the data in your M/C routine. The third way in which you can save several designs is to write a short Basic routine to PEEK each byte of the graphics and POKE it into higher memory; ie. FOR I=1536 TO 7679: A=PEEK(I): POKE I+20000,A: NEXT, if you are using cassettes would put the graphics data at 31536 to 27679 which can then be saved with CSAVEM"",21526,27679,21536 for inclusion in your program. To get your program to put it on the screen pages again you would use LDY #$5420 LDX #$0600 LDA ,Y+ STA ,X+ not forgetting to CMPY with $6C1F to stop the routine! In this way you can store several predesigned pages, especially in the lower PMODEs. The fourth way if you are using the 2 colour screen is to detect only those bytes which are not background, which will either be FF or 00. Your Basic to do this would have to print the address of each byte which holds a different value and the value it holds to the printer. Using this list you would have to enter it all as FCB data within your M/C program. You then use one of the registers to read the data, and another to hold the address, storing the data there. A bit of a chore but it saves memory in a long program.

@ ########Correction to part 11. Line 110 should have read 110 LDY # DATA

Disc Error Trapping(2)...Gareth Sims.

Now that we have listed the error codes and their meanings, we require a method of putting them onto disc. A program to do this is listed below. To use it, type it in, save and then run it. You must then insert the disc which is to contain the error look-up table into drive one. Next, type in the error descriptions as listed last month - start with the BASIC errors and then the DOS errors. The number code of the error is not necessarry for youre disc entry, but you could type it in if you wish. Thus, the entry list on disc would look like this:

```
NF NEXT without FOR
SN Syntax error in statement
....
NE File ddoes not exist
NR Drive not ready
....
?? UNKOWN error
```

Any disc errors marked DOSPLUS ONLY shoudl only be typed in if you are using Dosplus, and I'd advise you to check your codes as versions prior tto 4.8ish could be different. When you reach then end of the list, enter 'XXXX' to ffinish. In the event of an error, enter 'EDIT' immediately after you have typed that entry in, and you can re-type it.

```
10 CLEAR300:C=0:ERROR GOTO 130
20 CLS:PRINT"SET-UP ERROR LOOK-UP TABLE"
30 PRINT"INSERT DISC WHICH IS TO CONTAIN THE TABLE AND PRESS ANY KEY TO  BEGIN I
NPUTTING THE DATA."
40 I$=INKEY$:IF I$="" THEN 40
50 F=FREE:IF F<=0 THEN PRINT"NO SPACE ON DISC!":END
60 PRINT"ENTER 'XXXX' TO EXIT"
70 LINE INPUT"TYPE IN ERROR DESCRIPTION(NO    NUMBERS ARE REQUIRED NOW!) - -->";
E$
80 IF LEFT$(E$,4)="XXXX" THEN PRINT"ENTRY FINISHED EXITING ROUTINE";:END
90 IF LEFT$(E$,4)="EDIT" THEN C=C-1:GOTO 70
100 IF LEN(E$)>65 THEN E$=LEFT$(E$,64)
110 FWRITE"ERROR.DAT",FROM C%64,FOR 64;E$
120 C=C+1:GOTO 60
130 PRINT"ERROR CODE ";ERR;" HAS OCCURED  IN LINE NUMBER ";ERL
140 STOP
150 FOR I=48 TO 55
160 FLREAD"ERROR.DAT",FROM I=64,FOR 64;E$
170 PRINT E$:NEXT
```

Update typesetting facility.

This is a point which seems to come up very often, so it is worth a few moments just to set the record absolutely straight and ensure no further confusion. Many of you have written to ask if you can submit files on OS9 Stylo, or various other word processors. Well, the answer in all cases is NO. The system Paul, Mike, and I use is a very sophisticated (ahem) text formatter written by Paul about 900 years ago, when the 32*16 screen was actually quite advanced. Consequently any material which comes in has to by typed up for this program, and it is quickest to use a hard copy. If you do submit pieces on programs like TeleWriter or Super Writer 2, they will have to be re-typed anyway, so there is really no advantage in sending the program in file form.

I know all this makes for more work for Paul (our REAL typesetting facility!), but don't blame me, he wrote the damn thing!

Stephen.

Repair Work - - - - - - - -

PLEASE NOTE that while Alan Butler and I do our best to deal with your repair jobs, there are times when we HAVE to concentrate on more profitable matters in order to pay the rent, so PLEASE write or telephone BEFORE sending hardware for repair, in order to avoid delays and VERY bad tempers!. Paul Grade.

5

OS9 Files and Directories-Malcolm Cowen

As I said in the last article, OS9 is different. If you know FLEX or any of the Dragon DOS, they all have the same basic idea, you have an operating system, which as far as you are concerned is a black box, either a program or a space waiting for you to load a program in it, and a disc on which you file stuff. When you save a file, it joins the list of similar files on the disc, and very soon you have so many files there that when you use the DIR or CAT command to list them, you can't keep track of which one is what.

On OS9, however, you can keep your files neatly sorted into different areas, by using a special kind of file called a directory. A directory is in one sense a normal file, it has a name, it appears in the DIR (list files) command as a file. But it is also very different to the normal files. It contains not data, but other files. At any one time you have exactly 2 current directories that you are working with. The data directory and the execution directory.

The data directory is what its name suggests, it contains data. It is the directory which is listed out by the DIR command in its simplest form. The execution directory (usually /DO/CMDS) contains the programs which are the various commands you can call. "/DO/CMDS" simply means the directory named CMDS on the disc loaded in drive 0, that is /DO.

To illustrate this, load up your system, then type in DIR /DO, you should get something like the following:

```
 Directory of /DO <date>
OS9Boot      CMDS         STY          SYS
startup      ramload      eps
```

The files OS9Boot, startup, ramload, and eps are normal files, but the others are directories, holding more files in their own right (data files or directory files). To see what they contain, try out DIR /DO/CMDS or DIR /DO/SYS. It is a useful convention to make all directory names uppercase, then you can easily see which files are directories and which are normal files.

COMMANDS

When you type in a command to OS9, it is examined by the command interpreter. Unless it is one of the very few bulletin commands, it is then processed by looking for:

1) A program module in memory with that name.
2) A program module in the "execution" directory with that name.
3) A file containign OS9 commands in the "data" directory with that name.

Whatever it finds it obeys, either by running the program, or by creating another copy of the "shell" or command interptreter to obey the file of OS9 commands. This is an important feature. It means that you can create your own new "macro" commands for OS9 to do what you want.

If you want to change the directory you are using, then 4 commands are provided to help you:

- CHD and CHX change the current directory.
- PWD and PXD tell you what directory you are currently in.

CHD and CHX allow you to specify a directory in 3 ways (in fact any file in OS9 can be specified in these 3 ways).

- you can specify a directory which is a file in your current directory, eg CHD FRED moves you to the directory FRED which is a file in your current directory.
- you can specify the directory above the current one (the parent directory) by specifying the special file "..".
- you can specify the directory by giving its full "pathname" starting from the name of the disc it is one, eg /DO/CMDS.

You can also specify the directory you are currently in by the special filename ".", although this isn't likely to be of much use in this context.

The next article will look at the way the operating system is structured, and what special features will come out of that design.

PEEKING THE DRAGON (25) BY MIKE STOTT

The only item of software I have received for revue this month is a demo version of Accounts from Graham Strong. Having loaded the program I was greeted with an 8 choice menu, three of which asked for details of year etc but then abruptly ended with DEMO VERSION ONLY. Others responded with details for the year 2000 no matter what year I asked for and yet another put the year I had asked for up on the screen but the details were exactly the same each time although it was headed up as a different year. I rang Graham Strong up to tell him that it was hard to review his program from this demo and was informed that he had heard that Dragon reviewers pirated review software. As Software Editor of NDUG I object most strongly on behalf of my reviewers to such accusations. Reviewers give up a lot of time to test programs and let other readers of Update know what is available. It is a thankless task as no two users agree on any program. Accounts is available from Graham Strong, 78 Coleridge Crescent, Goring-By-Sea, Worthing, West Sussex, BN12 6LT on disk for 3.50 incl P&P. He has asked me to tell you that his other programs are now reduced to the same price.

I would ask that in future, if people want software reviewing, the actual program be sent in as it is very difficult to judge anything from a demo. My reviewers and myself try very hard to help writers with any problems encountered as we wish to keep the Dragon software scene thriving. Another succesful show was held at Ossett Town Hall on Saturday 21st April and our thanks must go to Bob Preston for organising it this year. He has asked me to thank you members that attended and supported the few companies that were there this year. As it was successful in it's own uniquely friendly fashion it is more than likely that it will be held at the same venue next year on the Saturday after Easter. It was nice to see Helen Penn running a stand again and she told me that many people were returning several times to purchase software. Next to her was the longest serving company - Computape - a show just would not be the same without Harry. Bob Preston had his usual stand in front of the stage selling software, joysticks etc but books appeared to be his best selling line. Robin Hemmings showed us the new look Dragonfire Services and was very attentive to every visitor to his stand. The whole Knight clan manned Knight Computer Service's stand and Howard caused a stampede when he announced two Dragon T-Shirts were available free to anyone who wanted them as the two lads had outgrown them. Brian and Neil O'Connor were next to us for Pulser Software although the tables appeared to be groaning under the weight of all the Hardware they had brought with them. My thanks go out to Jim Blackman and Geoff Smith for their help on the NDUG stand and special thanks to Michael and David, my two sons. We got a few new members and a considerable number of renewals, mainly from old friends who had joined at previous shows. Does anybody out there know a Christopher Nicholson of 47 Hardwick Street who paid 8.00 to join but forgot to give the name of the town where he lives. Please ask him to contact Paul or else let Paul know his full address as we cannot send out his Updates until we know it.

We sold a few circuit sheets and a few pieces of software but our stand was mainly kept busy with queries which were very varied. I was able to pass most queries over to experts in their own field like Dave Cadman who was there. I apologise to anyone that I was unable to help at all but I suggest they use the Help Line by contacting the person who is named for that field. I was given a card for another Northern Dragon repairer at the show. Although there is no name, the adress is 58 Hexthorpe Road, Hexthorpe, Doncaster and the telephone number is 0302-342818.

Stuart Beardwood arrived late at the show, sidecar laden as usual, and proceeded to show how the Dragon is used at Westgarth, an home for handicapped children. I think everybody was impressed, especially with the use made of the Tandy Book that he had purchased at a previous Ossett show. Thanks on his behalf to those people who donated material for the PD Library which he is now running for the Group.

Ossett has always been known as the friendly show and it was certainly that again this year even though the bar was somewhat haphazard in it's opening times and Adolf Hitler, the local traffic warden, dived in on us standholders as we tried to load our cars after the show.

Instead of Cold Start...Dave Riley.

Few of the graphic screens that I prepare can be completed using one graphic utility alone, so all of my utilities have been modified so that on loading they will not destroy a screen already in memory. After using one utility the computer must be cleared to accept another. This can be something of a chore as some programs do horrendous things to the BASIC which may advsersely affect a subsequent program. The following routine is written to avoid the problems which can arise. It uses the 'boot BASIC' ROM routine which slightly corrupts both the graphics screens, so a machine code routine copies and saves the scrren before it is corrupted, and the screen can be repaired by EXEC &H7000 after RUNning the program. This routine only deals with the corruption that occurs at $1E00 to $1E02 inclusive, and must be modified to correct $2400 to $2402 inclusive.

```
10 FOR N=&H6FF3 TO &H700C
20 READV$:V=VAL("&H"+V$):POKEN,V
30 NEXTN
40 DATA FC,1E,0,FD,78,0,FC,1E,2,FD,78,2,39
50 DATA FC,78,0,FD,1E,0,FC,78,2,FD,1E,2,39
60 EXEC&H6FF3
70 CLEAR200,32767
80 CLS
90 POKE&H149,&HFF:'RESET ALPHA LOCK FLAG
100 EXEC46080
```

HITCH HIKER'S GUIDE - GRAHAM KINNS

Having made a 500 mile round trip to the Weston Show to purchase my copy I got home to find the disc contained no directory. However it booted up okay (only from Drive 1). It is a text adventure ("An interactive science fiction story") played on the standard 32x16 screen, top line taken up by location/score/moves and is disc dependant using compacted/encoded text. Disc accessing is a bit noisy on our drives, presumably it has its own disc routines or it doesn't like Superdos. (Soft. Ed. - This program is really only recommended for V1.0 but this user has not had too much trouble with it.)

The beginning of the game is very close to Douglas Adams' original book but drifts off further through. You find yourself in bed in the dark and having found the light you need to take something to stop the room spinning. If you are killed during the first few locations (by the house being bulldozed etc.) then hints are given with the final score.

The adventure is fully interactive enabling you to take part in discussions with characters (Ford, Marvin etc.), objects (doors), follow them, show them things and get them to do things. The parser is very advanced and frequently needs complete sentences rather than abbreviations ie LOOK IN THE POCKET which can be very tiring on the fingers but the keyboard is very responsive with audible clicks.

You tend to be guided through the initial scenario - if you are not quite on the right track characters make suggestions or things happen automatically, for example we could not catch the Babel fish and thus did not understand a word of Vogon but still managed to get on the Heart of Gold where we are stuck with an obstinate door which will not let us through without evidence of intelligence.

The SAVE routine works okay giving the opportunity of using drives 0/1 (1/2) and saving up to 7 positions per disc. The keyword RESTORE is needed to reload saved positions. For safety a newly formatted disc should be used for this and nothing else put on the disc as the directory is not updated.

Reading the book beforehand might help but not a lot - a totally different kind of adventure which is challenging and entertaining complete with Adams style humour.

One last point, would it be possible to see the original instructions for the programme printed in Update?? Several references are made during the game to numbered 'footnotes'.*

Hitch Hiker's Guide To The Galaxy is available from the Group - Dragondos disc only obviously - Price 5.00. (Will only work on Dragon 64s)

****

If you really want to see the "footnotes", why not try typing 'FOOTNOTE' followed by the relevant number?!. Dunno what these reviewers are coming to ... no inititive at all!. Paul.

Using Autorun II...Roy Cashmore.

Before starting to use the program, it is best to design a screen using a copy of the PRINT@ grid given in the manual (or preferably an enlargement - 160% will fit on A4), or squared paper. Having said that, there is some benefit from trying the

With the cassette in the recorder, type CLOADM <enter> and (of course) the program loads and autoruns (what else did you expect?). The first thing to appear is the question TOPMEM?. If you intend to Autorun a BASIC program, simply press <enter> and carry on. If you are going to use it for a machine code program, you can try entering the top memory location of it, but if it is below 1536, it will be assigned a value of 1536 (the start address of graphics page 1), and if the value is over 13823 (&H35FF, the highest address of graphics page 8), the value will be rejected.

If you input a value between 1537 and 13823, you are aksed to "Press enter to load the machine code routine/graphics when ready". If you are going to use a program with a topmem outside these limits, or a BASIC program, or just want to design a screen, press <enter>

The next question is "Enter name of program to autorun". This is important if you are going to save Autorun and the screen for use - the name must be the header identifier of the program. It must not exceed 8 characters, as usual.

You will now see a green screen with the test cursor in the top left hand corner, and the message "press BREAK for menu". This is the screen on which to design. At any point, pressing BREAK will take you to the menu screen. Pressing BREAK again will return you to the design screen. BREAK also escapes from one of the menu options:

1) load a screen (if you have one on tape)
2) save a screen.
3) save the screen AND autorun routine.
4) list key functions.
5) End and return to BASIC.

IF IN DOUBT, PRESS BREAK.

SCREEN DESIGNING

Graphic characters (as listed in the manual and "Boots guide to the Dragon", p70) are generated on screen by the keys 0 to F (15 in hex), and are shown on the help page (option 4 above). 0 gives a black rectangle, F gives a fully illuminated rectangle, 3 gives top half black, bottom half illuminated, etc. The colour is selected by pressing <enter>, when a beep will be heard and the cursor will disappear. The appropriate (standard) colour code (1-8) is then pressed. The cursor is moved by the arrow keys, pressing <enter> ^ switches between graphic and text modes, whilst CLEAR will clear the WHOLE screen in the selected colour. BEWARE! It is easy to press it in error when a screen is almost complete!

Any character can be overwritten with any other to correct it by repositioning the cursor and ammending the character. In this way, modifications can be easily made. The colour can be changed at any time, but note that when in graphic mode, only keys 0-F, CLEAR, ENTER, BREAK, and the arrow keys have effect. It is possible to build up large characters for a title using graphics characters, by using (1) light characters on a black backgroud and vice versa, (2) character of one colour on a different colour background with black shadowing, and (3) black outlining. Any style of type face can be used together with graphics which will be of a teletext quality. They can be very effective; it all depends on imagination and planning.

Any screen can be saved to tape at any time and then reloaded. FOR USE, a screen needs to be saved with Autorun on the same tape. I have found that both BASIC and machine code programs will autorun, even when I have not entered a valid Topmem.

To be sure of this, the following short BASIC program can be inserted between the autorun screen and machine code program. It should be CSAVEd with the same "name" as that given as the "name of program to Autorun", and it can be the same name as the main (machine code program:

```
10 REM LOADER FOR MY-GAME      20 CLOADM "MY-GAME"    30 EXEC +address if needed
```

If you have any questions, I will try to answer them (please enclose an SAE): Chruch Farm Cottage, Blaston, via Market Harborough, Leicestershire, LE16 8DE.

Apology .....

Sorry, I KNOW this issue is minus most of the "stock" ads, but it's the only way I can hope to get it out on time this month AND answer the mail AND get things ready for the Hove Show. Everything SHOULD be back to normal(?) by next issue. Paul.

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ROTABB - BY PHILIP STONEMAN

Dudley may not like it, but I am now going to attempt to review "Revenge of the Alien Bongo Beast". First of all, like all the other Kouga games it is black and white, but this does not detract from the fun and enjoyment of the game. Starting from the beginning, you are asked if you want instructions, and if you do press 'YES'. You get a highly humourous (or at least I think so) story of how you got to be roaming around the crissy crossy lines dimension in a spaceship blasting up trillions of aliens, which of course you are doing. If, as I am sure you are, using joystick, you will enjoy automatic heat seeking missiles being fired at the targets, but if you like to use keyboard, no such function! Movement is by turning and then thrusting forwards. As well as the before mentioned Heat-seekers there is of course normal fire. At the end of each level you meet the guardian of that level. He can only be destroyed with Heat-seekers, but he has a jamming device that you have to destroy with normal fire first. Now,I am sure Dudley will not mind me telling you the cheat on this game. It is (wait for it) - press break so it gives you a choice, then press S, T, and U at the same time and on the screen appears the time-fabled words "Something Wonderfull Has Happened". To get invulnerability write underneath "I hope it's chips." and do not forget the apostrophe or the full stop. Well, that's about it apart from "Watch Out For The Kamikazes".
Revenge of the Alien Bongo Beast in the Crissy Crossy Lines Dimension available on cassette from Kouga Software, 94 The Oval, Firth Park, Sheffield, S5 6SP for 6.00 incl P&P.

Afterthoughts 69...

Yus, 'tis I, spending a lovely sunny evening craning my neck to type up this disc. As you will have read last month (if you bothered), I shall probably be quitting this job towards the end of the year, primarily because it's too thankless a task!

Doubtless many of you are muttering that you are sick of me, but I don't care. I didn't see the vast majority of YOU volunteering back in 1988, so stop griping. Now's your chance to show the whole world how much better a job you'd have done on Update, as Paul is accepting applications to be the new editor. Please remember, though, that you have to be totally mad to do this job (though I can't see anyone in the group having problems in that department...)

Well, show time again, and with any luck (and a miracle at Paul's end) you may get this before Hove on 2nd June. I hope to see you all there (I can dream can't I), as it may be the last show ever, although reports from Ossett seem to suggest another year for the Dragon's friendliest show. Don't count on it, though; make the most of the opportunity NOW, and get down to Hove.

Paul has absolutely NO chance of finding an "honest bank", and even a bank with the tiniest smidgen of decency will be hard to find. I certainly don't know of any! Still, Worthing's a strange place...if Derek Jameson can live there, what next?!?!

And finally, back on the subject of the show, anyone presenting me (but not Paul) with the entire second, third, and fourth series of Blake's Seven will win my undying (for a while at least) gratitude...but not a lot else. Speaking of which, I'm just off to watch some now...
Stephen.

MACHINE CODE TUTORIALS...D.Riley

The two "Machine Code Tutor" discs written by RAD and published by NDUG must be indispensible to anyone embarking on Assembler with the Dragon. As one who has already done so, I found them both very useful and a bargain at 3.50 each. Both discs are written in Basic using Rainbow Writer to provide an easily read screen display. Many example source listings are given, and facilities are provided for dumping these to a printer. The examples given are all written with DASM which is easily copied in DREAM. The reverse would not be so easy for a beginner. Much Dragon-specific information is given and this too can be printed. Disc 1 has been written so that it can be used as an "ab initio" course for beginners and provides rigorous testing to determine whether the lesson has sunk in. The only error I noticed was at the start of Lesson 4 where the program expects you to agree with the statement "Inherent addressing needs no OPCODE" where "OPERAND" was obviously meant. Disc 2 contains further lessons that logically follow Disc 1, and some rather interesting examples of sound and moving graphics programs that caused me to temporarily discard my mute monitor.

I would disagree with RAD only once - in the notes at the end of Disc 2 he suggests that Dragon-related m/c books will be easier to read after partaking of the Tutor. There is more information contained within the two Tutor discs than in any number of Dragon-related m/c books. I would suggest a better back-up volume would be "Programming the 6809" by Zaks, or even the facility to print individual lessons. I remember in particular the dissertation (Disc 1) on the 6809 CC register as the most informative on this subject that I have read anywhere.

I can only hope that these discs will give rise to an increase in interest in Assembler language that will create demand for a further disc. Sorry, Mr.Davis.

OS-9 User Group Report.

The OS-9 User Group is alive and running well. The 24th disc has come out in May 1990, and there will be 3 more issues this year. There is a lot of stuff for the DISKNEWS.

The big market for OS-9/6809 is in the States. There are different BBS - bulletin board systems (mailboxes) with special sections for OS-9. We have good contacts with them and found a way to get their main publications and to transfer our main publications to one of them. The contacts performed by a CoCo3 owner:

Peter Tutelaers, Strijperstraat 50A, 5595 GD Leende, The Netherlands. Phone (0)4906 - 1971

You may contact him directly. He speaks a good English.

So the number of contacts will grow more and more, and as long as there are OS-9 users in the States we will profit from them - and they will profit from us. OS-9 continues to expand. The 6809 well known shortness of available memory was overcome by Level 2. You can now upgrade your Dragon to 512k bytes of memory (or more), to use this famous Level 2 on the DRAGON machine. A description is in NEWSDISK 23.

When OS-9 was first written, it was so versatile that most inventors of other operating systems didn't believe all its advantages were needed. Now there is a version not only for the Motorola processors, you may run OS-9000 - that is the new name - on Intel 80386 machines. You don't need to buy one of the expensive personal computers to join the peak of development, your Dragon does it.

Editor of the OS-9 User Group DISKNEWS is:
Burghard Kinzel, Leipziger Ring 22A, D-5042 Erftstadt, (W.Germany). Phone: (0)2235 - 41069.

Crossword 52 Answers.

1A,Dictionary. 2I,Cocoa. 3C,Printmaster. 4A,Guy. 4J,Weed. 5F,Minnow. 7A,Falling. 7J,Star. 9G,Spade. 10E,Balance. 11G,Walkman. 12B,Toy. 13A,Purchase. 13I,Human.

A1,Dragonfire. B6,Halibut. C1,Copy. C6,Elevator. D3,Royal Jelly. E9,Patch.F1,Ointmant. G1,Nothing. H3,Mantel. H9,Peace. I2,Cannonball. J7,Spock. K6,Stream. L4,Stream. M1,Mardi Gras. M10,Anon.

Sorry, no crossword this month as David Bateman (the compiler) is otherwise engaged ... in fact he's busy getting married!. However, he HAS promised not to make a habit of this, so hopefully the crossword will be back next issue.

In order to save space this month I'm dropping all the usual "stock" adverts and just printing those received since the last issue. All the usual items are still available, of course, so please refer to previous issues as necessary.

This month's adverts .....

WANTED: Modem and Prestel compatible software for Dragon 64.
Phone 04024-51254.

WANTED: DragonDOS cartridge. Might buy with disc drive if necessary. Reasonable price, please.
Phone Mark Brocklehurst on 0530-243370.

FOR SALE: Dragon 32 coputers for sale, minus power transformers but all tested and working. 18.50 each including postage.
Phone Brian Gibbs on 0323-642465 or 0273-514465.

FOR SALE: Two D32's (one topless), 2 transformers, cassette recorder, books, joysticks. 50.00.
Dragon Data dual disc drives with DragonDOS cartridge and many discs. 80.00.
Oki Microline printer and Printer Control disc. 50.00.
Will accept 150.00 for the lot. Buyers to collect or pay postage.
Phone 0903-746165. (Storrington, Sussex).

MUST SELL!: Tandy Computer, cassette recorder, two joysticks, 120 games and many other cassettes plus 77 Dragon games and many magazines, books and manuals. Absolute bargain at 100.00 or near offer.
Phone Craig Dillon on 0475-29999 or write to 24,Glen Kinglas Road, Overton, Greenock.PA16-9NW.

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We have the power!!.

Well, at least we have the switches!. I have just obtained a few NEW Dragon 64 replacement power switches (the parallel pin ones, of course), so you no longer need to keep your D64 switched on with Selotape or BluTak!. Price 2.00 each plus 20p postage, but supplies are limited so don't wait until yours burns out, order one NOW!. Paul Grade.

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SAVE MONEY AT HOVE!!.

Just a warning to those of you intending to drive down to the Hove Show. Hove Council now operate a "Tow Away" scheme, so PLEASE be careful where you park!. Once your rustbucket has been towed in it will cost you around 90.00 (and a long trip to the pound) to get it back again, so DO make use of the very cheap car park directly opposite the Town Hall in Norton Road ... unless more than 2000 of you turn up there should be ample space there!. Paul.

The Late, Late Bit .....

VERY late this month ... I just don't seem to be able to catch up with things at the moment. Still, hopefully after the Show everything will get back to what passes for normal here.

First item is a request from Steve Knight for a plug (so if there's a spare one in your bath you know where to send it!). Actually he wants me to plug the New Improved (Washes Whiter Than White) version of PUBLISHER, (and he never even sent me a copy as a bribe!), so I think the best thing to do is quote from his letter: "The new version includes dumps for the Seikosha GP100A, CGP115, MCP40, and DMP105/6, 110, 2100 printers and other Tandy printers that use 7 bit graphics." ... "Anyone returning the ORIGINAL disc and 1.00 will receive the updated version which as well as the above dumps includes autorepeat routines, tabs, and Undo when entering text." Steve also asks us to pass on his thanks to Graham Kinns who wrote the CGP dump and helped with the Seikosha one.

OK, end of plug .... just send the cheque to my Zurich account as usual Steve.

Just been listening to the so-called "news" on the box .... the morons are still rabbiting on about that "Mad Cow" disease and seem amazed that people aren't believing Ministerial "reassurances"!. How daft can they get?!. Why would ANYONE ever believe ANY politician? .... they're the most highly paid professional liars in the world!, and as to whether the poor old methane factories can pass on their disease to humans, how can anyone look at La Thatcher and believe otherwise?!. (Though come to think of it, can you class politicians as being humans?).

There has been an absolutely underwhelming response to the news that Stephen is considering retiring as Editor of Update .... one enquiry so far!. I KNOW I've done both jobs before, but if you really imagine that I'm going to do so again you ought to see a good psychiatrist about that imagination of yours!. You need treatment, bad!. Don't push your luck TOO far, 'cos I'd take VERY little persuasion to quit THIS job and let the Group quietly fade away altogether ... I've outlasted four editors now, and I'm tired of having the same old problem every time we need a replacement, so if we don't get a lot more interest in helping to keep things running don't be surprised if you get an Update headed "FINAL ISSUE". Please don't make the mistake of thinking I'm bluffing ....that's something I NEVER do .... try me and see.

Well, I suppose I ought to be boring you with all the usual garbage about "go to the Hove Show", but I can't be bothered. If enough of you fail to turn up the various firms will make a loss (so will the Group) and in all probability decide that you and the old Dragon aren't worth the effort and expense of continued support. It's that simple now, and the decision is all yours. It can be a VERY good show or a total non-event, either way, you decide.

The Group stand "staff" this time are Ken Grade, Simon (Drag Mag) Jones, The Editor, Tim Hayton, and until the bar opens, me!. Dunno if anyone else will be volunteering, but any of the "Old Guard" masochists are always welcome!. The rest of you? ... see you there anyway, OK?. Paul Grade.

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Help Wanted ..... Eric Dale.

I am using a Dragon 32 with Dragon Data disc drive and SuperDOS E6 EPROM. When I type DIR to list the disc contents I keep getting RF ERROR on the screen. It also happens when I use the V1.0 EPROM and with V4.8. I wonder if anyone else has the problem and if so how they overcome it. All help and advise welcome.

Eric Dale, 29,Hulme Road, Leigh, Lancs. Phone 0942-673442.

My guess is either you've got a bad batch of discs or the drive is out of alignment (or has got the world's worst case of belt slip!). Paul. Any other suggestions?.