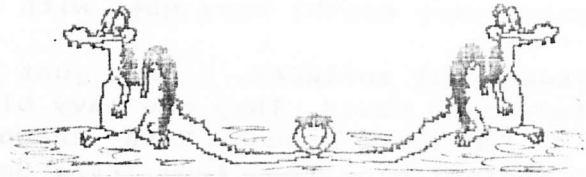


The Newsletter of the National Dragon Users Group

DRAGON



UPDATE

 * ISSUE 72. 'Now We Are Six.' AUGUST 1990. *

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 #####

The Gaffer's Bit

Remember back in the dim and distant days of 1982 how 'in five years at most' everyone and his brother-in-law would have given up going to work, because they'd all be working from home via their computer?; how no-one would need to go shopping because they'd all be doing it from home on their keyboard?; how every home would be computer controlled, and everything (with the possible exception of sex) would be done via your very own computer terminal?. Of course, at that time it was also predicted that only the current generation of brats would be able to understand computers, because the "older generation" didn't have the appropriate education, too.

Whatever happened to all that Hi-Tech Fantasia?. The computer scene is virtually dead now, except for the few business types who are still using the things as filing cabinets and typewriters, all tapping away at the same old IBM clones running the same tired old software. It COULD have had something to do with the fact that the "experts" ignored all data that didn't fit their theory. That most people don't work at jobs that can be done by a computer (they're a lousy tool for digging holes in the road, repairing cars, driving trucks, or even making tea). That shopping and banking by computer would be totally unacceptable to anyone who has to bank or shop, and that a lot of people can't afford to rent a home, let alone a computer to mess it up for them!. Well, that's the "Computer Revolution", that was!. Anyone want to make suggestions as to what the NEXT over-hyped craze is going to be?. How about everyone living in their own little "sealed environment" so that they won't be able to offend anyone else by smoking, drinking, using CFCs, suffering from halitosis, belonging to the wrong religion or political party, using cars, skateboards, or in any way differing from the media programmed norm?. Come to think of it, that idea has been around for years, only the "sealed environments" are called "prison cells". Oh well, that's progress for you!.

What has this got to do with the Dragon?, nothing at all, except that we're all going to need to know which band-waggon to jump on next, now that the computer scene has almost disappeared, so you'd better start thinking now!. (It IS still legal, so long as it's only done in private). If you happen to come up with any interesting ideas do please let me know. Paul.

Paul

The Editor's Bit . . .

How fitting that the Sixth birthday edition of Dragon Update should mark a turning point in its history. This very collection of paper in your hands is the LAST monthly Update ever to hit the letterboxes of the world. From 73, we're bi-monthly. And it serves you all right.

S.W.

PEEKING THE DRAGON (28) BY MIKE STOTT

Well, I have definitely recovered after my last terrible article. Having offered to quit (and being told by Paul that nobody else would pay him 8 pounds per year to fill a page every month) here goes with news of loads of software and other goodies.

First of all is not software but softWEAR. I have just purchased two T-shirts, one for me and one for young David. They are navy blue with a red logo on the left chest - DEDICATED TO THE (here Dragon Data dragon). Highly recommended, good quality at 5.99 including postage from Irene Smith, The Cottage, Tabora, London Road, Brighton, BN1 8SA and very quick service.

The Trackballs I mentioned in my last article are 3.00 each plus 2.50 per order service charge, according to Richard Sutcliffe, obtainable from J & N Bull Electrical, Mail Order & Wholesale Dept., 250 Portland Road, Hove, Sussex, BN3 5QT. The firm never replied to my letter but I ordered one through Richard. It is rather on the large size with the ball being similar in size and weight to a snooker ball. There are two large fire buttons and I found it very good for games like Space Wrek although David found it awkward to find the centre after a while as the ball keeps revolving infinitesimally. Thanks to Richard for adapting one for my wife's BBC Master (which has a port similar to the Dragon's power supply). She hopes, eventually, to use it with drawing programs in school with the younger children as the Trackball is very robust.

Dave Cadman responded to my call for help with READPC. He told me of the problems he had encountered with it after it appeared in Dragon User. I received a copy on disk from Joe Brincat and have been rather successful. First I formatted a single sided disk on my PC and then I saved a basic program to it in Ascii. When I ran READPC I was able to save the program to cassette in Ascii. Using another program on Joe's disk I loaded this into my Dragon and then saved it to tape as a Basic program. When reloaded I could read it perfectly but certain PC commands prevented it running. However I then wrote a very simple program on the PC and ran it. This was then transferred onto the Dragon within ten minutes and was running there without any problems. Line numbers have to be in tens and only 128 characters per line but definitely a good useful program especially if you know the equivalent commands on the PC. Stuart Beardwood hopes to have it available in the PD library very shortly.

About a week ago I had a phone call from Belgium. It was Philippe Hennebert, who had a stand at Hove. He is going to send me copies of four items of software and these will be going out for review as soon as I receive them. I have no idea what they are as yet but hopefully there will be more information in my next article. @ Yesterday's mail brought me a demonstration of parallax scrolling on the Dragon using graphics imported from the ST. For those of you unfamiliar with the term, it is where the various layers of background move at different speeds. Part of it moved faster than anything I have ever seen on a Dragon before, although this will obviously slow when other things happen on the screen. Jonathan Cartwright, yes the same one who recently left the Dragon scene for good, tells me that he hopes to be able to incorporate it into a new game for later in the year. The graphics will probably all be done on the ST if he is able to do it and I'm sure many of you gamesters are hoping he succeeds.

Finally, I have heard whispers on the grapevine that Dragonfire Services are due to release a few new titles in the near future. Despite a letter to Robin Hemmings I have heard nothing back. Hopefully I will be able to give you further information in my next article.



IF . . . THEN . . . ELSE (3) . . . J. M. Winchurch,

We ended last month's article by mentioning the test $A \leq B$. It is possible to obtain two sets of answers to such a test:

- a) simply whether A lies within the range of being equal to or less than B without specifying either.
- b) testing to see whether $A=B$ or $A < B$ and stating which is true.

The first test can ask:

```
If A<=B then perform the action ELSE do some other task
```

The second is more specific; first, we need to ascertain that A lies within our range, then what is its relationship to B. Thus we could ask:

```
If A>B then GOTO X: REM Outside the range  
IF A=B then PRINT "A=B" ELSE PRINT "A<B"
```

Write a simple program to test whether A does lie within the specified range, and then test whether it is equal to or less than B. Equally, you can test whether A is greater than or equal to B.

Note the increased number of routes that there are through your program. There should be 3, the greater-than route, the less-than route, and the equal-to route; each could give a different output. The more complex the program, the more likely are the number of routes through it to multiply; making testing onerous and long winded. There is an answer to this, the "stepwise refinement". But this is a topic for future articles, not for this series.

In the next article I shall attempt to guide you through some simple IF/THEN problems.

THE HOLE REVIEWED BY HARVEY GREY

Hole the final frontier (or should it be space) available from Dragonfire Services priced 3.00 on tape or disc. This is a text adventure set on board a space ship. The scenario is quite simple in that you accidentally fly down a Black Hole (like you do) and find yourself in a strange galaxy. With your limited supply of fuel you have to get back to Earth. Sounds simple enough but unfortunately it is not. You initially start off on board your ship (no surprise there) and a quick exploration around will supply you with everything you are likely to need. Once you have worked out how to use the computer (switch it on insert disc type boot) you can fly to other planets and hopefully this will lead to you making your way back to Earth. In general I found this adventure most enjoyable with problems coming up frequently but not too frequently plus they were not real stinkers to solve so I did not lose interest until I had completed it. Being the worst adventure player going this took some time, but then I also have a low boredom threshold and yet it kept me amused. My only criticism is that on my 64 the inverse text did not work and whenever I died (which was often) I had to reBOOT the program as when I tried to continue it just crashed on me. Still these did not represent too much of a problem and I can recommend this game to any adventurer and non adventurer as well. Give it a go, you will enjoy it.

HOLE can be purchased from Dragonfire Services, 8 Ingleby Road, Wigston, Leicester, LE8 1DQ.



Slow Scan Television... J. Brown.

Similar to Fax, SSTV allows pictures to be transmitted and received all over the world. There are many standards used now, mostly as the equipment is commercially available and expensive.

Originally we used 120/128 lines with a frame speed of approximately 8 seconds. All this means is that the picture took 8 seconds to fill the screen (from top to bottom) and comprised of 120/128 lines across the screen horizontally. Good definition could be obtained and even limited to a gray scale of 5 showed great promise. We used ex. government cathode ray tubes then and the 8 seconds period during the "writing" was stored on the face of the CRT as the phosphor was similar to radar tubes. After a while the picture decayed, so a series of pictures were written on the top of each other, the old one being replaced with the new one. Using computers is very limiting. Whilst the detail can be seen, it is even better when printed out using a printer.

However, all is not lost. Tony Davis G3RLO developed a method with various names: DuoScan, Uniscan etc, which allow pictures to be sent from Dragon to Dragon and the detail of these is first class. There are literally hundreds of these pictures available from the library, ably run by Ray Smith, covering all types of subjects. There is also a program available for you to watch these pictures as you would a game program.

SSTV standards have not changed re the colour side; the SYNC PULSES run at 1200 cycles, these are the brain behind it all and tell it where to start and stop whilst keeping the receive side in step with the transmit side. WHITE runs at 2300 cycles and BLACK at 1500, so anything between these values will appear as a shade of grey.

As far as I am aware, there was only one program for transmission using a Dragon computer, and this was by a Spanish amateur. I did write to him but never received a reply, maybe someone somewhere knows about it. The transmit side would probably be text only as we would need some form of digitising to get pictures into the memory.

I have only heard of one program for SSTV, and this is receive only. It allows freezing of pictures and printing them out, and any frozen picture can be enlarged to examine the results. In all, it's not too bad considering the limited detail.

AMTOR

One of the latest methods of communication, similar to RTTY, it differs in the method, as it is checked before transmission, and is then sent in bursts of information. It is quite complicated and needs a terminal unit, an excellent receiver, a computer with a good program, and also another "clock" to act as the main controller. Using a crystal that is made very precisely, the frequency gets divided down and we get a very accurate 1kc (1000 cycles) which drives the whole system. This is very accurate for both reception and transmission.

There are two methods in AMTOR, the first is FEC (forward error correction), similar to but faster than RTTY, and the second is ARQ (automatic request). When the call is sent, known as SELCAL, the transmit side gets changed over to receive and vice versa. However, provision is made to load memories for retransmission. This saves time, and is supposed to be "mistake free", only relying on the manually-inserted message to be correct.

Whilst AMTOR is not affected a great deal by "noise", it can get corrupted by local signals, for example the internally generated noise from the computer. We have to separate the receiver from the computer, or make up filters using ferrite rings to minimise the local noise. A good earth system can help as it does not rely on the mains earth.



Map reader...Paul Etchells.

This program is for use with a disk system. It is very easy to use, simply type in, RUN, and answer the prompts.

It will display any sectors on DragonDOS disks that are free according to the bit map on track 20 sector 1.

It is useful for determining how fragmented a track or whole disk is becoming, or for whether track 0 sector 3 is free to accommodate a bootstrap loader etc.

It should be an easy matter to produce from this program a map 'writer', for use in conjunction with SWRITE, for custom built RAM disk programs.

```
10 ' map reader
20 '
30 'READS BIT MAP ON TRACK 20
40 'SECTOR 1 AND DISPLAYS UNUSED
50 'SECTORS
60 '
100 CLS3
110 CLEAR500
120 PRINTP203,"map";:PRINT@207,"reader";
130 PRINT@264,"BY PAUL ETHELLES";
140 PRINT@352,"":PRINT:PRINT
150 PRINT@352,"DRIVE NUMBER";:INPUT DR
160 PRINT"START TRACK ";:INPUT ST
170 PRINT"LAST TRACK ";:INPUT LS
180 DIMA$(1)
190 FR=0:CL=0
200 SREAD DR,20,1,A$(0),A$(1)
210 PRINT:PRINT"SECTORS UNUSED:-"
220 PRINT"FROM tr se TO tr se size"
230 FOR I=ST*18 TO LS*18+17
240 TR=INT(I/18):SE=I-(18*TR)+1
250 BY=INT(I/8):BI=INT(2^(I-8*BY))
260 IF (BI AND ASC(MID$(A$(9),BY+1,1))) <>0 THEN GOSUB 1000 ELSE GOSUB 2000
270 NEXT
280 IF CL<>0 THEN GOSUB 200
290 PRINT:PRINTFR"FREE SECTORS=":PRINTFR*256"FREE BYTES"
300 END
1000 FR=FR+1:CL=CL+1:IF CL=1 THEN PRINTUSING"      ## ##";TR,SE;
1010 RETURN
2000 IF CL<>0 THEN GOSUB2100:PRINTUSING"      ## ## ###";TR,SE,CL
2005 CL=0
2010 RETURN
2100 IF SE=1 THEN TR=TR-1:SE=18 ELSE SE=SE-1
2110 RETURN
```

CompuTape R.I.P.

With regard to their non-appearance at the Hove show, I now hear rumours that CompuTape are no longer in the Dragon business. This may or may not be substantiated elsewhere in this issue, but if YOU have any details, let us know. We can't afford to have companies drop out of the community, but if they do close down, it will be a lot better if we all know about it, so that we don't send off any orders to a dead address.

Keep in touch...there's no much of a Dragon market left anymore.
Stephen

Sprite Magic User Group...Harvey Grey

Sprite Magic is a utility designed to help people write arcade style games in BASIC. Originally released in 1984, it received little if any coverage. Why this is so is a mystery to me. Just by glancing through the manual, a wealth of commands previously unavailable are at your disposal, enabling people with little or no machine code knowledge to write fast, smooth arcade style games. Due to lack of coverage very little is known about SM, and to dat I've never seen a program written for it. Therefore, my aim is to set up a Sprite Magic Users Group, or SMUG for short. Its main purpose will be to show users how to write their own games with ease, provide hints and tips, and supply programs through a PD library. All of this will be run cost free. How? To achieve this a newsletter will be run bi-monthly (providing I have enough material to fill it) on disc or cassette, supplied by the users in advance. Once returned, they should send another in order to receive the next issue. PD programs will be supplied in the same way. Now for the hard part. Like all newsletters/magazines, it requires input to survive. I don't know everything about SM (infact I'm still trying to transfer it from cassette to disc), and to come anywhere near close to being successful, I'll need you to send in as much material as possible. Well, I think I've said all I can. If you're interested, drop me a line.

Harvey Grey, Three Trees, Greens Farm Lane, Billericay, Essex. CM11 2NY.

Users+material=SMUG

As Harvey has correctly pointed out, any user group will need support in the form of ACTIVE members and material to survive. You've all been told 20 billion times that you don't get anywhere or anything by sitting about, so if you're interested in helping out with SMUG, drop Harvey a line now. Go on, DO IT NOW! The more ideas he has, the better the group will be. And any group which concentrates on an aspect of Dragon computing will benefit the entire Dragon community. So...if you can't write articles for me, write them for SMUG!

Stephen.

CROSSWORD 55. Compiled by J.D.Bateman.

ACROSS: 1A. Vessel for drying or removing moisture (from coconut perhaps). 2G. Watery plant used in sandwiches. 3J. Type of radiation not as powerful as gamma. 4A. Shake involuntarily with fear, cold etc. 4H. Girls name. 5A. Type of cereal crop or whiskey. 8A. Indian soldier serving with the British-Indian Army. 8G. Type of apple that sounds as if it contains seeds. 9G. Blow up as a tyre. 10A. Below zero in the darkroom. 10I. Kind of soft toffee. 11D. Room in churchg where robes are kept. 12A. Famous person who was 90 recently. 13A. Collection of novels under the same cover.

DOWN: A4. The act of betraying ones country. B1. All over (in every place). B11. Arithmetical problem. C1. (Mountain slopes covered with) loose stones sliding when trodden on. C10. A (Scottish) narrow valley. D4. Oven heating by agitation of molecules. E1. Sea creature often found under rocks. E6. North American prairie wolf. F1. City close to Scottish - English border. G1. Land measure. H1. Bouncy gym apparatus. J3. Salty water. J8. Large showy feather. L2. Description of slow moving (smelly) water. L10. Adhesive. M1. Small mountain antelope which provides a soft polishing cloth.

If you're looking for the answers to crossword 54, sorry, but Stephen forgot to put them on the disc, but don't worry, if you've won you'll STILL get your super gigantic prize(!) as usual.

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	D	A	S	I	C	R	A	T	O	R			C
2		V	C	R	A	C	R	E	S	S	E	S	H
3		E	R	A	R	K	A		B	G	T	A	
4	T	R	E	M	B	L	E	M	I	R	I	A	M
5	R	Y	E	I		I	P		I	E	G	O	
6	E	W	S	C	C	S	O		N	E	N	I	
7	A	H	R	O	L	L	E	A	S				
8	S	E	P	O	T	E	P	I	P	P	I	N	
9	O	R	W	O		I	N	E	L	A	T	E	
10	N	E	G	A	T	I	V	E	P	J	D	G	E
11	S	L	U	E	S	T	R	E	M				
12	Q	U	E	N	M	O	T	H	E	R			
13	D	M	N	I	B	O	S						



Fishy Business Volume 2...

Yes, I'm back. I bet the last couple of months must have been sheer hell, hiding in a dark room pining away and thinking to yourself 'life's just not worth living without my monthly dose of Fishy Business'. Well, fret no more because I, the only aquatic being ever to get past that annoying moving line in Copta Snatch, am back! It's only going to be a short stay as providing the blank cheques I enclosed with my A-level examination papers (**Ditto...SW**) have successfully arrived, I'll be off to university in October, minus the dear old Dragon (it's getting too old for these long journeys). Anyway, on with the party...

So, let's start with your letters.

Secondly (was that hint too subtle? Well, try this; WRITE ME SOME BLOODY LETTERS!!!!), a brief note in reply to Paul's comments a couple of months back about why anybody needs to work hard before exams (**Be careful here, Dudley...SW**). You more than anybody Paul, as a professional cynic, should know that the only way to succeed in life is to beat the system. In this case that means dossing around for a year and 9 months (**I concur...SW**) and then spending the last three months of your A-level course working your backside off revising and doing the coursework. I quite agree that the examination system is unfair and a virtually meaningless test of people's ability as it's at least 50% technique and luck, but whether we like it or not (**Not...SW**), it's the best route to success in this country... (**Now see kickback by Paul at bottom of page...SW**)

Thirdly, since there's precious little else to write about, here some quick reviews...

	G	S	P	D	Overall
SUPERKID	7	9	6	6	7
SYZYG	8	6	7	7	7
ZAK'S SON	2	2	1	0	1
LUCIFER'S KINGDOM	8	5	5	7	6
3D LUNATTACK	9	7	8	8	8

P.P.P.

Lastly, on to the debate about my identity. For those of you really interested, the answer appears in one of the last issues of Dragon User. If that's no help, you'll just have to contain yourselves until my last article (**I'll tell you for the right bribes...SW**)

That just about wraps it up. Hopefully, through whatever divine means, something will present itself that I can write about for next month's Fishy Business. Failing that, I will be providing you with an excerpt from my forthcoming blockbuster book "The Sex-life of a Ping Pong Ball". I'll leave you with some words of erudite piscine wisdom: We all complain about how few Dragon owners there are. But think how left out all the people who don't own a Dragon must feel...

Dudley.

***Just room to say that if you don't write to Dudley in time for the next issue, he'll inflict more words of wisdom like the above example on you - you have been warned! Now, over to Paul...

Do I HAVE to comment?. Oh well, if you insist. Dudley, me old fillet, what makes you imagine that "success" is something to do with conforming to the so-called "norm"? If your idea of success is a third rate BA, a "good" job with a reliable pension scheme, a company Sierra, a semi-detached bowl in Milton Keynes, a semi-detached wife, a couple of revolting brats, a mortgage and ulcers, then I have to agree with you about the importance of exams etc, but with "success" like that I'd rather have a funeral!. I would have thought success was forming your OWN views and opinions, working for yourself when you need cash and doing SFA when you don't, and generally becoming an individual rather than an establishment clone. Try disbelieving everything you're told; try everything twice and THEN make up your own mind whether it's good or bad. Why spend your life trying to conform when you can be a people (however fishy) instead?!. Think about it.Paul.

A good exercise is to make a printer dump for a dot matrix printer. My printer is the DMP105, which is a seven dot machine, and even if yours is not the same, you will be able to follow the assembly listing. This introduces some new opcodes. I shall use PMODE4: PCLS1: SCREEN1,1: as the screen to be dumped. This is 255 x 192 pixels, and the scan will be from top left to bottom right, horizontally one pixel at a time and vertically seven pixels at a time. $As192/7$ leaves a remainder of three

1. Setting printer to graphics mode
2. Make stores for information to be saved and used
3. Save information about the start and end of the screen
4. Provide a C/R command
5. Store the cumulative number needed to set the dot matrix of the printer. The DMP105 needs 128+1 for the top dot, 2 for the second, 4, 8, 16, 32, 64 for each of the others, and combinations of these for setting particular patterns of dots. Setting all seven dots would need 255, while 128 would set none of them.
6. Count each byte of 8 pixels as we move across the screen, so that the next byte will be accessed at the proper moment. The BITA opcode will be used to test for set pixels, and this will need a store of one byte (8 bits). The store must be loaded with \$80 (10000000 binary) to test the first pixel of each byte. To test the second pixel we LSR - logical shift right - this store, which then becomes \$40 (01000000), and continue this LSR until the whole byte has been tested. At that stage the store will be \$0 (00000000), so that testing it for zero will indicate that the next byte should be used.
7. Count each row of bytes so that we can detect when to move down seven rows, for the next horizontal scan.
8. Detect the end.
9. Make a subroutine to send the commands to the printer. We shall be using the X register to "point" at the screen addresses, and the A register to hold the byte. The address in the X register will be changed using LEAX - Load Effective Address X. BITA will be used to compare the A register with each pixel. The B register will be used as a counter for each row of 32 bytes. The U register will be another pointer for printer routines, allowing the A register to get the commands. Several types of BRANCH instructions will be used :- BRA = Branch always, rather like GOTO. BNE = Branch not equal (to zero). BEQ = Branch equal (to zero). BHS = Branch higher or the same as. The other Opcodes will be LDA, STA, ADDA, LSR, LDU, LDY, STX, CMPX, LDB, CMPB, PSHS, PULS, and JSR. You might like to look these up in one of the recommended books. Using the DASM assembler, we'll start next time, with full comment as we build it up.

T. SHIRTS T. SHIRTS T. SHIRTS
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DESKTOP PUBLISHER BY RICHARD SUTCLIFFE

There is a review being done on the program in its conventional mode, so I will not duplicate that. This review is on a use that the graphics mode can be put to.

I have for some time been hoping for a graphics utility for the DRAGON, which I can use to generate the masters for Printed Circuits. At last by making use of this program it is now possible to work on 8 screens at the same time. When I ordered the program, it came as working for DRAGON64 only, but after a telephone call I was supplied with another version which worked with an upgraded DRAGON32, and had some extra functions which proved useful. The first thing I did was to produce a page with ruled lines down the sides and inch marks over the whole area. This was to facilitate positioning and aligning the pads, and delineating the boundaries and fixing points of the board. The scale I used was 80 pixels to the inch. This produces a master on an Epson compatible of 110%, which can be reduced photographically to 100% by a Litho Shop, or the printed circuit board manufacturer. It is normal to have a much larger master reduced, which eliminates the DOTS of the printer, but I found that by using the multipass facility in the printer driver, an adequately dark copy was obtainable without having to print out the screens separately double sized, and pasting them together.

At first work was a bit slow, but after a weeks work, I found I could work quite quickly. (This is not all that long, it would have taken me just as long to produce the artwork using tapes, symbols and a scalpel.) A prototype board was made, and then came the job of correcting my mistakes. I found the cut and paste facility at this stage to be of great use, since I was able to move a section in block to add a transistor which proved to be in the wrong place, and would not fit where it had to go. I next produced the solder resist master. (This is the green varnish which is on the back of a P.C.B. which protects it from corrosion.) I found the way to produce this was to block paint each screen. This left little dots, which had been the centres of the pads. I then pasted 8 X 8 clear pads over these. When done I ended up with a black screen with little white squares on it. To print this normally would have been very wearing on the printer and its ribbon. Think of printing a black page of A4. However the program has the facility to print in reverse which combats the problem. Whilst using this program I hacked it to improve it for use on printed circuits. I have sent Steve Knight a copy of my modified program, so I expect he will incorporate some of the modifications in the disks he sends out. If any body wants to use the program to produce P.C.B. artwork and wants any help please ring me on 0233 634191 and I will give

advice if I can.

PUBLISHER available from Knight Computer Services, 76 Etwall Road, Hall Green, Birmingham, B28 0LE for 15.00 on disk only (assorted Dos's), joystick required

FUN DISC BY STUART BEARDWOOD

Psssst!!...Wanna buy twenty six Dragon programmes for three and a half quid??? No, it's not a software pirate, it's the FUN DISC from the N.D.U.G.! The programmes on the disc range from novel text screen routines which you can use in your own programming, to musical pieces complete with on-screen song sheets. In between are games, quizzes, technical information, tutorials, horoscopes, etc. Too many to list here, but certainly excellent value for money at the price. Even people who prefer their humour to be of the 'toilet' variety are catered for, (all in the best possible taste)!...That alone ought to have a good percentage of you digging into your pockets!

Seriously, this is a disc full of useful, entertaining and informative programmes which Tony Davis has written and compiled specially for the group. It gives an insight into the variety of uses other people put their Dragons to, and hopefully will serve as a model for others to produce something on similar lines. There must be countless numbers of small routines and programmes which, although not 'commercial' individually, can be put together, as Tony has done, to produce a useful and entertaining addition to anyone's collection.

FUN DISC available from Paul on Dragondos disc only for 3.50 incl.

Helpline List

If you have queries on any of the subjects mentioned here, write to the appropriate volunteer, enclosing a stamped envelope for reply. If you need help with a subject that isn't included in the list yet, or you aren't satisfied with the reply that you get, then contact Paul Grade as usual.

FORTH: John Payne, 3, Sibland Close, Thornbury, Bristol.

DOS PROBLEMS: Phil Scott, 4, Badgerwood Drive, Frimley, Camberley, Surrey. GU16-5UF.

PROGRAMMING LANGUAGES AND STRUCTURED PROGRAMMING METHODOLOGY: Stan Davies, 153, Alleestree Lane, Derby DE3-2PG.

GAMES SOFTWARE (MAINLY ARCADE BUT SOME ADVENTURES): Stephen Wood, 52, Downsway, Springfield, Chelmsford, Essex CM1-5TU.

MIC (EXCLUDING FLEX & OS9); DRAGON MUSIC; ARTIFICIAL INTELLIGENCE; "C" (UNDER OS9): Chris Jolly, 4, Pinehurst Walk, Orpington, Kent.

GENERAL HARDWARE AND UPGRADE CONVERSION PROBLEMS: Bob Hall, 22, Cumbria Close, Thornbury, Avon BS12-2YE.

WORD PROCESSING & GENERAL BASIC PROGRAMMING: F.J. Fisher, 29, Thornham Road, Billingham, Kent.

SPREADSHEETS: E. Freeman, 80B, Main Road, Old Duston, Northampton. NN5-6RA.

MODEMS, BASIC ELECTRONICS, ADD-ONS, and FLEX: Tim Hayton, 36, Laurel Drive, Willaston, South Wirral L64-1TW.

DELTA PROGRAMMING: Stuart Mills, 49, Templegate Crescent, Leeds, West Yorkshire LS15-0EZ.

DRAGON HARDWARE PROBLEMS AND REPAIRS: Alan Butler, 16, Barnston Green, Barnston, Great Dunmow, Essex.

COMPOSER PROBLEMS: - Dave Cadman, 32, Breedon Hill Road, Derby DE3-6TG.

RADIO PROBLEMS, INTERFACING DRAGONS FOR AMATEUR RADIO WORK, ETC: J. Brown, 45, Marlborough Avenue, Falmouth, Cornwall. TR11-4HS.

DMP 110 PRINTER PROBLEMS/SCREEN DUMPS ETC.: Dr. J. Hatton, 48, Wern, Llanfairpwll, Anglesey, N. Wales.

EPSON COMPAT. PRINTER SETTING UP & GENERAL PRINTER PROBLEMS. Gareth J. Sims, 24, Logwell Court, Standens Barn, Northampton. NN3-3TN.

RADIO AMATEUR PROBLEMS, INFORMATION & ADVICE. Fred Hopewell, 48, Gladstone Street, Loughborough, Leicestershire. LE11-1NS.

GENERAL PROBLEMS AND MOST REPAIRS. Steve Tate, 22, Fairfield Drive, Wormley, Broxbourne, Herts. EN10-6DY.

CO-CO HARDWARE & SOFTWARE PROBLEMS: Chris Rouse, 18, Gregson Close, Bridgemary, Gosport, Hants.

BASIC PROBLEMS, ESPECIALLY USE OF GRAPHICS FROM BASIC, EPSON COMPAT. PRINTER (SOFTWARE) PROBLEMS, SIMPLE PASCAL: Steve Knight, 76, Etwall Road, Hall Green, Birmingham.

XX

The Late, Late Bit

Not a lot of space left to fill this month, so I'll just mention that so far no one has claimed the fiver I offered for locating the "foul and obscene" stuff in Update. Pity, I was looking forward to reading it!. Actually, I think the person concerned was one of those who imagine that ANY opinion which doesn't conform to their own beliefs MUST be obscene. Funny how some people can't admit that most Sacred Cows show all the symptoms of BSE when examined closely especially the ones that THEY happen to believe in!. Well, I can't think of anything to offer you money for this month (at least, nothing that wouldn't get us MORE allegations of obscenity!), so you'll have to get the old begging bowl out again. Sorry!. I'll try to think of something interesting in time for the next (October) issue. OK?. Paul.

GROUP & MEMBERS PROGRAMS etc.

NDUG DESKTOP! The Group's DTP package. This package is available on either Dragon DOS disc (with Epson type screen dump) or CoCo DOS (with DMP105/6 dump). Produce your own small posters, advertisements, magazines, program or video title screens, etc. 19 font version 12.50. Orders to:-
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DELTA DOS UTILITY. w/c utility to copy ALL Basic and w/c files from disc to tape in one operation. Basic listing of loader and Hex dump price 1.00, or on tape 2.50 inclusive.
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Dragon 32, hardly used, plus all copies of D>User, cartridges, and stacks of tapes, lightpen, etc. Open to offers!.
Please phone M. Booth on 0484-532099.

GROUP SERVICES.

DRAGONART GRAPHICS LIBRARY. Contains THE biggest and best collection of graphics screens for the Dragon, all available at nominal charges. The Library also wants YOUR original graphics efforts. Full details and list available from:-
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The Librarian, 5, Glen Road, Parkstone, Poole, Dorset.

BACK ISSUE UPDATES. Reprints of all issues of Update (from original master sheets) available at ONLY 95 pence per copy inclusive of postage. 14 page index of Update articles only 2.50. Single articles 50p. each. (sae for details). @ Send to Eric Hall, 32, Thackeray Mall, Fareham, Hants. PO16-0PQ. Cheques made payable to "Back Issues Dept. (NDUG).

THE PD LIBRARY is now fully operational once again. For full details of material available contact Stuart Beardwood. More contributions always wanted, so if YOU have any suitable material please let Stuart know. @ Stuart Beardwood, 38, Salisbury Place, Boothtown, Halifax. HX3-6ND.

GROUP SPECIALS:

B32 UPGRADE MANUAL. Full instructions for 64K RAM upgrade. 2.00.

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AFTERTHOUGHTS '72.

Here we are then, at the end of Update 72, at the end of NDUG's sixth year, and at the end of Update's monthly editions. Yes, sad as it is, Update is now going bi-monthly. I'm sure Paul has outlined the reasons elsewhere; lack of material, lack of interest, lack of support, etc etc. If you miss the sound of Update hitting your doormat each month, you've only got yourselves to blame. Still, by the amount of apathy in the group these days, I don't think many of you will miss it at all.

The Hove show was just the last straw when it came to apathy, as it stood as an indication of the sheer lack of support apparent in the Dragon community these days. Its disastrous results have led one way or another to this decision, as as to what effects this decision will in turn have, I dare not even contemplate. Still, we've warned you for years about Update surviving on YOUR contributions.

Therefore, I'll just outline the details for you. The NEXT issue of Dragon Update, namely issue number 73, will be out in OCTOBER this year, with issue 74 following in DECEMBER. I doubt whether its size (pages wise) will change, as the material sent in over TWO months would be barely enough anyway, but we'll have to wait and see. As to how far into 1991 it will progress, I have no idea on the score there either. It's all up to you.

In case any of you haven't realised yet, I am still here, and will be for another couple of months yet - you can't get rid of me that easily! You will be given advanced warning of your new editor when I decide to leave (if there's still a newsletter for them to do), so you can send him lots of nice articles when they take over.

One advantage of going bi-monthly is that you will all have lots of time in which to answer any requests before the next issue. Thus, is I asked you to send in any ideas or opinions about the newsletter or specific articles, you can all do so straight away, and they can be voiced in the "next" issue. See?

So, SEND IN ANY IDEAS OR OPINIONS ABOUT THE NEWSLETTER OR SPECIFIC ARTICLES. Got the picture? Good. See you in October.

Stephen.

%%%%%%%%%%

DOS ADAPTOR KITS to fit your DOS inside the Dragon leaving the port for other uses. Price 16.88 each inclusive. Letter Writer utility 5.00.

Sutcliffe Electronics, 15, West Street, Hothfield, Ashford, Kent. (0233-634191).

PUBLISHER!. New from KCS. Full WYSIWYG D.T.P. package for B64's. Includes 38 fonts and clip-art. DISC ONLY. 15.00.

DRAGON GRAPHICS STUDIO PLUS. Icon, menu and joystick controlled graphics / drawing program. DISC ONLY. 5.99.

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S.Knight (KCS. Dept NDUG), 74, Etwell Road, Hall Green, Birmingham. B28-0LE. (021-777-2477). P&P (UK) 50p, Europe 1.00. @ Fully operational DISC version of CLIFFHANGER (from Input Magazine). Dragon DOS format only. Just send a formatted disc and 1.00 to cover postage etc to:

R.A.Davis, 39, Boxley Drive, West Bridgford, Notts.

DRAGON T SHIRTS!. Top quality "T" shirts. Navy with red Dragon logo. Available in small, medium, large, and extra large sizes. All one price 5.99 inclusive of postage. Cheques and orders to:- I.Smith, The Cottage, Tabora, London Road, Brighton, Sussex. BN1-8BA.

Cassette bargain!. Recorded program tapes, perfect for reuse. ONLY 10.00 per BOX OF 300. (plus 4.00 postage).

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FOR SALE. D32, cassette recorder and over 50 tapes. Sensible offers please to:-

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BARGAIN!. Dragon 64, DragonDOS, disc drive, Mannesmann Talley NT90 printer, cassette recorder, plus software. 110.00 the lot (plus carriage).

Phone M.Davidson on 0280-75720 (after 6 please).

WANTED!. Reasonably priced drive and DOS for my D32, also 12" color monitor or TV. Also interested in a good 80 col. printer. Please phone Eric Hornby on 0462-491324 after 6.30 please.

WANTED. Good, reasonably priced Dragon 64. John Pentland, 5, Dallas Drive, Kirkcaldy, Fife.

WANTED. Disc controller and cable for my Tandy CoCo 1. Phone (office hours) Paul Marlow on 0902-652288, or write to 50, Lime Avenue, Bentley, Walsall, W.Midlands.WS2-0JP.

WANTED!. Elite Calc spreadsheet cartridge; Instant Graph Plotter 1 (or 1&2) on cassette. Phone Ron Lee on 0272-773877 or write to 26, Langham Road, Knowle, Bristol. BS4-2LJ.

WANTED. DragonDOS (or SuperDOS, Dosplus, Cuwana V2. etc) cartridge and manual. Would consider buying with drive if necessary. Reasonable price and postage paid. Phone Steve on Leeds (0532) 789349. (evenings please).

OLD MAGAZINES WANTED!. CoCo Rainbow, Any D.User from May 83 to April 85. Also wanted Basic 09 (with manual) and Altai interface for Atari type joysticks. Please write to: Ola Eldoy, STOKKEN, N-5410 SAGVAG, Norway.

DRAGONFIRE AND SUTCLIFFE IN MAJOR MULTI-NATIONAL COUP

Surprise deal rocks the City while IBM refuse comment

The already well-established utility "Letter Writer", until recently published by electronics giants Sutcliffe Electronics, sensationally changed hands in a deal shrouded in the mystery of secret board-room meetings. Robin Hennings, ace entrepreneur and proprietor of Dragonfire Services, secured the deal for his company after days of uncertainty. Both parties are reputedly satisfied with the deal. The program, reviewed in April's "Dragon Update" by ace reporter Frank Fisher, runs only under the "Basic 42" programming environment and retails for just five pounds, coming with leather-clad instructions. Mr Hennings admitted that while the program was "not a fully blown word-processor", it was "just the job for writing letters and other short documents, working with any Dragon-compatible printer," and included features such as "global search/replace and the ability to link files in order to write documents exceeding the memory capacity." Meanwhile Richard Sutcliffe, creator of the universally acclaimed "DOS adaptor kit", said that he intended continued marketing of this latter product.

Prolific author announces latest release

Roy Cashmore, author of Dragonfire's recent releases "Wordgrid/Poster" and "True or Bluff" has announced his next venture, an additional two full files for the program "True or Bluff", plus a simple reaction game, "Treasure Hunt". All contained on one tape or DragonDOS disk under the title "True or Bluff files 2+3", the package retails at a giveaway three pounds. Mr Hennings stressed that this product would only be of interest to the "dedicated band of 'True or Bluff' cult followers," a movement growing in momentum daily. Mr Cashmore is working on future products in his Swiss mansion, bought with the royalties from his first releases.

Dragonfire boss speaks out on matters of national urgency

Mr Hennings put the public at rest last night with the assurance that Dragonfire's catalogue was still available on receipt of an A5 SAE. He said, "We also sell such best-sellers as 'Pop-Up-Print-Master', 'Impossible!!!', 'Utopia', 'Don't Squeal' and 'WIMP', in addition to our blank disks (retailing at four pounds for ten) and our free PD library." He wished to thank millionaire Mike Townsend for converting "Pop-Up" to tape, and praised the NDUO, but warned "I don't think there will be a woman editor of 'Update' in my lifetime"

Dragonfire Services are at 8 Ingleby Road, Wigston, Leicester, LE8 1DQ. Phone (0533) 889860.

STOP PRESS A Dragonfire catalogue will also be supplied in exchange for two second-class stamps.

STOP PRESS Mr Hennings, speaking of all Dragon companies, urged the public to "spend, spend, spend!!!".

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