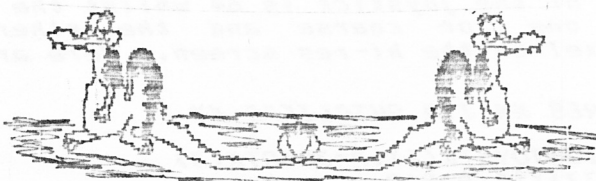


The Newsletter of the National Dragon Users Group

DRAGON



UPDATE

* ISSUE 61. 'Special slimline 4-page edition.' SEPTEMBER 1989. *

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The Gaffer's Bit

Rather a small bit this month (must be the weather!). Apologies for this being the smallest ever Update, but it's a choice between that and nothing at all, because I really DO have to do some essential work on this place, and as a normal size issue takes roughly 27 days to produce the only way I can make the time is to make THIS Update a slimline version. Don't panic, all your usual favourites and hates will be back as usual next month, as will the usual advertising. There isn't really anything much happening at the moment anyway, so you aren't missing out on anything exciting.

The Editor's Bit . . .

You know the reasons, so I won't bother going over them again. Regular monthly articles, such as CoCo Matters, Peeking The Dragon, and any other series of articles which aren't in this issue have been held over 'till next month, so don't panic. I'll fit them in just as soon as I can.

Have you seen 'BATMAN' yet? If not, then do so, and ignore any critics who say it's rubbish. It's well worth spending hard-earned money on, and there's not many films I'd willingly say that about. Yes, Paul, I know it's more about films, but can I help it if there's nothing of interest in the world of computers at the moment? I mean, let's face it, the only thing of any note recently was... or was it... then again, it could've been... Get the message? Just because you (a) don't like, and (b) don't have time for films, you can't stop me writing about them. Unless you edit my Editor's Bit, in which case you CAN stop me writing about them.

By the way viewers, there wasn't any space for LateBits this month, so this insults have to be aired on page 1. If you really want to get Paul's goat up (not that he's really got room for it in the flat), try writing loads of letters and ringing him up whilst he's doing the rewiring. JUST JOKING!!! Well, come on. He's only had FIVE years of it so far! Let's make him really suffer....!
Stephen.

Message from Dragsoft

After reading the review on Data & Loader Printer in Dragon Logic, it appears that some rogue copies have escaped the system. If you wish to correct the bugs yourself they are in Line 49.

Replace START with ST, END with EN, EXEC with EX, and SA with ST (they are in that order). Alternatively, send the ORIGINAL tape or disc back to me and I will correct them and refund your postage.

When V2.0 is completed it will print to tape as well as printer, so giving a ready to run program. I will be offering a free upgrade to all owners of the original program. If anyone has any other problems with Dragsoft programs please don't hesitate to contact me. Bugs are embarrassing but can only be corrected when spotted!.

Mike Townsend, Dragsoft, 41, Hereford Street, Presteigne, Powys.LD8-2AT. (Tel: 0544-260178 late evenings.).

CORRECTION! .

The advert from Bob Morgan in the last issue was sent in with an error in the phone number. Correct number should be 09748-385. Paul.

PMODE 4 Joysticks...J.R.Sutcliffe.

Have you ever been frustrated when trying to draw on the hi-res screen by the fact that the 'resolution' of the joystick is 64 whilst the screen is 256x192?

By using BOTH joysticks, one for coarse and the other for fine, it is possible to get every pixel on the hi-res screen. Here are two routines which show the principle:

```
10 'JOYSTICK FOR THE HIGH RES ** J.R.SUTCLIFFE **
20 CLS
30 M=JOYSTK(0):N=JOYSTK(2):O=JOYSTK(1):P=JOYSTK(3)
40 M=(M-32)/10:N=N+M:O=(O-32)/10:P=P+O
50 IF N>64 THEN N=64 ELSE IF N<0 THEN N=0
60 IF P>64 THEN P=64 ELSE IF P<0 THEN P=0
70 Y=INT(P*3):X=INT(N*4):PRINT@100,"X";X:PRINT@132,"Y";Y:GOTO 30

10 PMODE4:SCREEN1,0:PCLS
20 M=JOYSTK(0):N=JOYSTK(2):O=JOYSTK(1):P=JOYSTK(3)
30 M=(M-32)/64:N=N+M:O=(O-32)/64:P=P+O
40 IF N>64 THEN N=64 ELSE IF N<0 THEN N=0
50 IF P>64 THEN P=64 ELSE IF P<0 THEN P=0
60 Y=INT(P*3):X=INT(N*4):PSET(X,Y,1):WAIT50:PRESET(X,Y,1):WAIT50:PSET(X,Y,1)
70 GOTO 10
```

Slow Print Speed...Stuart Parnell.

Back in Update 38, R.A.Davis sent in a short routine to slow down the print speed, as POKE 359,60 does not work with a cartridge connected. After typing this into a database - type of program I was writing at the time - I came across a very curious error. Everytime I tried to use either FWRITE or CREATE, what should have been sent to disc appeared on the screen! (Sound familiar, Paul?...SW). Not very productive, I think you'll agree! However, this is quite straightforward to avoid, as the program below demonstrates.

```
10 DIM D(2)
20 FOR I=&H167 TO &H169
30 D(I-&H167)=PEEK(I)
40 NEXT I
500 FOR I=&H167 TO &H169
510 POKE I,&H13:NEXT I
520 DIR
530 FOR I=&H167 TO &H169
540 POKE I,D(I-&H167)
550 NEXT I
560 END
```

CROSSWORD NUMBER 45.

ACROSS: 1A.Person running a football team; 1K.Bank that likes to say yes; 2F.Eating utensil; 3A.Little inhabitants of Notty Ash; 4D.One of these sank a famous ship; 5A.Held by lady helping children across the road; 6D.Sea creatures caught in pots; 7A.Blind burrowing animal; 7E.Outdoor cooking apparatus; 9A.Amphibian sometimes collected by schoolboys; 9F.Get roasted around a compass point to get a tin of mixed biscuits perhaps; 10E.Famous trumpet player or astronaut; 11A.Hard to find in a haystack; 11I.Type of horse found in the desert perhaps; 12F.Two or more arries played together; 13A.Outward appearance of the Doctors time machine.

DOWN: A1.Person between the customer and producer; B5.Invigorating seaside air; C1.Slang for the head; C9.Water driven object (providing power for mill, etc); D1.Argentinian who has played for Spurs (slight misspelling); E7.Type of radiation; F8.Used in road surfacing; H1.Wheelstone especially for cut-throat razors; H7.Musical instrument; I10.Allowance made for container in which other things are weighed; J2.Large African river which flows past Timbuktu; K1.Outer wear as worn by athletes; K1.Bird often seen in the garden; K10.A medal (that could be sued for lunch).

The usual tape prizes for the first two all correct entries out of the box. All entries to Paul Grade, please.

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

3

Dumping PMODES 0,1,2.(2)-Mike Townsend

How did you get on with last month's little gem? Well, you may be able to dump PMODE 0 with a modified PMODE 4 dump, but you would have to do a fair bit of modifying in order to dump PMODE 1 because line 60 can only handle 0s and 1s. If you use colour, you will be getting 1-4 or 5-8 depending on which SCREEN you are using. What you have to do is put it into a PMODE and SCREEN combination which only uses 0 (black) and 1 (white). This is why line 10 (last month) must use SCREEN 1,0. SCREEN 1,1 would give you 0 and 5. If you must use SCREEN 1,1, you have to remove the "255-" part from line 60, so that it reads "I=PPOINT(X,Y)*128+..." etc, then divide I by 5, and end with "I=255-I". You can't have a CHR\$ greater than 255.

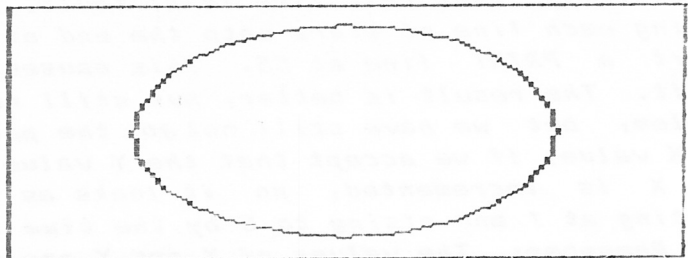
Listing 1 contains the modifications to last month's listing to dump PMODE 1. The first dump shows where the info is stored, now that we have turned it into a black and green picture from its original 'green on red' state. We now have 2 pixels on top of each other for each PPOINT but because there is no need to store each identical pixel twice, it stores this information in only 2 pages, full width but half the height. As it uses all 256 pixels across, we need a new line 50. In line each pixel in twice, so our vertical row is 8 pins on the printer head has the information twice: one at 8 & 7, one at 6 & 5 etc. Line 70 prints this row only once.

As the screen is stored in only two pages, we have 96 (0 to 95) lines to cover. So, if we have not completed the picture, we add 4 to Y and go again.

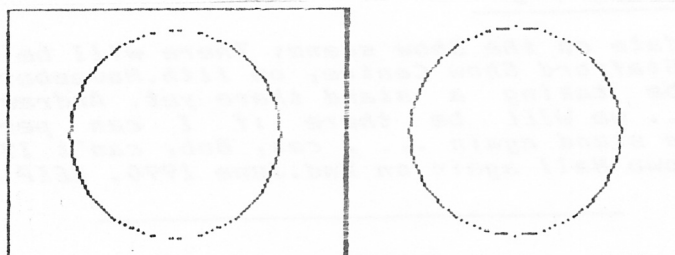
Listing 2 contains the mods for dumping PMODE 2, which gives us two fragmented drawings side by side, with lines 0 to 190 on the left, and 1 to 191 on the right. If we put them together, we get a picture that is full height but half the width, because, in PMODE 2, each PPOINT consists of two pixels side by side. As you now realise, so again we've only used two pages. In line 60, we are consigning each pixel to a separate printer head once only, but in line 70 we print each pixel twice, side by side, to get a full width picture. In line 90 we add 4 to Y once again until the picture is complete.

Next month...some lo-res dumps.

```
50 FOR X=0 TO 255
60 I=255-(PPOINT(X,Y)*128+PPOINT(X,Y)*64+PPOINT(X,Y+1)*32+PPOINT(X,Y+1)*16+PPOINT(X,Y+2)*8+PPOINT(X,Y+2)*4+PPOINT(X,Y+3)*2+PPOINT(X,Y+3))
70 PRINT#-2,CHR$(I);:NEXT
90 Y=Y+4:IF Y>95 THEN 100 ELSE 40
```



```
50 FOR X=0 TO 127
60 Z=X+128:I=255-(PPOINT(X,Y)*128+PPOINT(Z,Y)*64+PPOINT(X,Y+1)*32+PPOINT(Z,Y+1)*16+PPOINT(X,Y+2)*8+PPOINT(Z,Y+2)*4+PPOINT(X,Y+3)*2+PPOINT(Z,Y+3))
70 PRINT#-2,CHR$(I);CHR$(I);:NEXT
90 Y=Y+4:IF Y>95 THEN 100 ELSE 40
```



THE FOR...NEXT LOOP(4)...J.M.Winchurch.

You should now hopefully have some understanding of the mechanics of the FOR...NEXT loop, without being able to do great things with it. One point which needs a little discussion before moving on to this month's problem is to make clear the difference between the upper limit on the simple counter method and that in the FOR...NEXT loop. Compare and RUN the following programs:

```
(A) 10 CLS
    20 C=0
    30 PRINT C
    40 C=C+1
    50 IF C=10 THEN END ELSE GOTO 30

(B) 10 CLS
    20 FOR C=0 TO 10
    30 PRINT C
    40 NEXT C
```

You will note that the upper limits are the same, but the last figure printed in program A is a 9, whilst in B it is 10. In A, when the computer reaches the value 10 it immediately exits, whereas in B it executes the upper limit before exiting. Bear this difference in mind when using the simple counting method. Now, this month's problem. You are required to print the following pattern:

```
*
**
***      Try analysing the problem in plain English before attempting
****      to write the program.
*****
```

It looks as if there might be two loops involved, one to print across the screen and one to print down the screen. On the first loop, the row number is set to 1, then star 1 is printed. Next, the row is set to 2 and star 2 is printed, and so on upto 5. Obviously there is a direct relationship between the row number and the number of stars in it. By convention the horizontal axis is designated X and the vertical axis Y. So it appears that we have two loops which may look like this: FOR X=1 TO 5 and FOR Y=1 TO 5. The row number must be set first before we loop through the print routine, and this suggests that Y is the outer loop. Try this program. Why doesn't it give the required results?

```
10 CLS
20 FOR Y=1 TO 5
30 FOR X=1 TO 5
40 PRINT "X";
50 NEXT X
60 NEXT Y
```

Query line 40. Remove the semicolon. We now have a column of stars, so it is unlikely that this line is at fault. Some how we must prevent the computer tagging each line of stars onto the end of the previous line. The answer is to insert a PRINT line at 55. This causes the program to jump to the next row. Try it. The result is better, but still not correct. We have solved the row problem, but we have still not got the pattern of stars. The problem lies with the X value; if we accept that the Y value is giving us what we want. At each row X is incremented, so it looks as if we may have a variable upper limit, starting at 1 and rising to 5 by the time it reaches row 5.

** Remember: The values of X and Y are directly related.

Your mission, should you choose to accept it (Jim), is to solve this problem!

30 FOR X=1 TO ?

SHOWTIME NEWS!!!

To bring you up to date on the Show scene: There will be an Alternative Micro Show at Bingley Hall, Stafford Show Centre, on 11th. November, but I don't know if the Group will be taking a stand there yet. Andrew's Weston Show is on Sunday 10th. December ... we WILL be there if I can persuade Bob Hall to "volunteer" to run the stand again ... I can, Bob, can't I? The Group's Summer Show will be at Hove Town Hall again on 2nd. June 1990. KEEP THESE DATES CLEAR. OK?!. Paul.

Helpline 1989

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, Allestree 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, Gillingham, Kent.
 BASIC PROGRAMMING: Ian Rockett, 46, Spalding Towers, Lincoln Green, Leeds, Yorks. LS9-7PE.
 SPREADSHEETS: E. Freeman, 80B, Main Road, Old Duston, Northampton. NN5-6RA.
 OS9 SYSTEM AND UTILITIES: Jason Shouler, 14, Rosemary Road, Parkstone, Poole, Dorset.
 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.
 DRAGON/DELTA DOS PROBLEMS; OS9, BASIC 09, AND GENERAL BUSINESS SOFTWARE APPLICATIONS: M.A.A. Abba, 127, Ankerdine Crescent, Shooters Hill, London SE18-3LE.
 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.

The Late, Late Bit

Perhaps I'm stating the obvious, but I think I ought to mention that just because this is a short issue it does NOT mean that ANY other Group services are suspended. Renewals, orders, queries, etc will still be dealt with as usual during this month, and things will be back to complete normality(?) by the next issue. Advertising, both commercial and classified, should be sent in as soon as possible for inclusion in the October issue.

As mentioned earlier, there is another of the "Alternative Micro" shows at the Staffordshire Show Centre on November 11th. Personally, I won't be able to take time out to run a stand there, BUT, as some of you have criticised the Group for not attending in the past, if three or four of you would be willing to run a Group stand and provide the necessary equipment, I'm willing to risk Group funds on taking a stand there. If you're interested, and prepared to do the job properly (don't forget it costs us money!), then please phone me immediately as stands have to be booked well in advance. If not, don't whine later that "The NDUG weren't represented" put up or shut up!
 Well, that's all for now. Sorry if your favourite piece isn't included in this issue, but don't worry, it will be back next month. Paul.

Paul G.

NDUGSOFT NEWS.

As of next month we will be able to offer a revised version of the Malcolm Cowen "Adventure Writer" utility program on DragonDOS disc. Price will probably be the same as for the tape version, but full details will be published in the next issue of Update. For anyone wanting to write adventure programs this utility is a MUST.

Ads & Odds & Sods Page

I'm not running the usual ads page this issue, but as these came in before I asked for advertisers to wait until next month I can't really refuse to print them!.

FOR SALE: Dragon 32 complete with software, books, magazines, etc. 50.00. Buyer collects or pays postage.

A.L. Warren, 3, Brooklyn Road, South Norwood, London SE25-4NH. Phone 01-656-4660.

WANTED: Dragonplus board, working, at reasonable price.
Phone Chris on 091-4165415.

FOR SALE: CoCo 64 with twin drives and DOS 1.1, plus DMP110 printer. 150.00 the lot.

Phone Eric on 0329-232619.

Databases for D32164 with DragonDOS ONLY. All with facility to amend, delete, search, and sort:-

ADDRESS - can handle 170 names, addresses & phone numbers. Price 4.00.

MAGAZINE DETAILS - can store over 5000 items, and sort in date order. Price 4.00.

RECORDS/TAPES - Storage for between 2800 & 10000 items depending on drive type. Please state tracks and sides when ordering. Price 6.00.

Orders or requests for further details to Graham Smith, 78, Coleridge Crescent, Goring-by-Sea, Worthing, Sussex BN12-6LT.

BACK ISSUES DEPT. Owing to increases in the cost of paper etc, the price of back issues of Update will now be 95 pence each inclusive. Eric Hall.

BLANK COMPUTER DISCS

Quantity	10	25	50
5 1/4" D/S D/D 96TPI	£4.45	£10.25	£19.40
5 1/4" D/S D/D 48TPI	£3.95	£9.10	£16.90

All discs are guaranteed & complete with sleeves & labels

100 capacity lockable storage boxes £7.95 each

All prices include VAT and delivery UK only.

Cheques/Postal orders made payable to

Barnston Computer Supplies

16 Barnston Green, Barnston, Great Dunmow, Essex CM6 1PH

Telephone: Great Dunmow (0371) 874234

THE DRAGNET QUARTETTE
DETAIL FROM FLICKER-FREE ANIMATES



Late news

You may (or may not) be interested to know that the Group supplied the one and only Dragon 32 used at the recent Computer Olympiad event held in London, that Andrew Hill is looking for someone with time and money to take over the software side of Dragonfire Services, that Simon Jones has at last managed to get his "Invaders Summer Diary" out, Issue 8 of Dragon Logic has just arrived, and I haven't had a drink all evening!. (This situation is about to be rectified!). Paul.