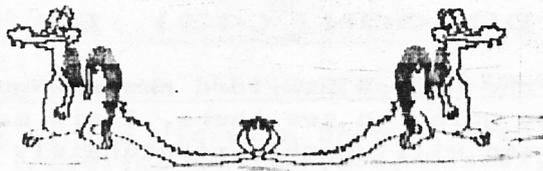


DRAGON

UPDATE



\*\*\*\*\*  
 \* ISSUE 87. FEBRUARY 1993. \*  
 \*\*\*\*\*  
 # CHAIRMAN: Paul Grade. 6, Navarino Road, Worthing, Sussex. Phone: 0903-207585 #  
 # EDITOR: Stephen Wood. 52, Downsway, Springfield, Chelmsford, Essex. CM1 5TU. #  
 # S/WARE EDITOR: Mike Stott, 10, Mellor Close, Prescott, Merseyside. 051-480-7712 #  
 #####

The Gaffer's Bit . . . . .

Welcome to 1993, year of peace, prosperity, full employment, progress, and universal happiness .... Well, you'd believe it if That Nice Mister Major said it, wouldn't you?, so why not believe it when I do?!. Just because I don't believe it myself that's no reason why YOU shouldn't be convinced ... everyone knows that Paul Grade never believes anything anyway, so BELIEVE!, all is well with the World, and anything to the contrary is the result of a bug in your Virtual Reality System!.

Well, there IS one piece of good news that you can believe, the long awaited Adventure program "DRAGON DETOUR" will be ready for release by the time the next Update is out (currently undergoing final tests), and I'll expect EVERY Dragon owner with a disc drive to be buying a copy!. Why?, because it is 100% original material (and that is an original concept in itself!); because ALL proceeds go towards Group funds; because it is totally unlike any adventure game you have ever played before; and because the first purchaser to solve it correctly will get a CASH PRIZE!. Also worthy of consideration is that no other computer game includes characters as diverse (and devious!) as Mike Stott, Paul Grade, Paddington Bear, Maggie Thatcher, and many, many more!. No more details for the moment, wait for Update 88, but keep your cheque book warmed up ready for a quick start!.

What else is new? .... well, there's a revised Helpline list inside (if anyone wants a copy of it so that they don't have to plough through eightyseven Updates, just send me a stamped, self addressed envelope). Not many private adverts this issue, no-one seems interested in buying or selling anything at the moment ... maybe it's all down to the "state of the economy" or something?. Still, there IS one bargain package on offer. Other than that, not a lot doing just now.

So, having nowt to write about I'll leave you with one thought .... isn't it about time the Pentagon bought a Nintendo or a Sega instead of using that tired old Atari 2600 for all those "authentic camera gun" shots they keep on releasing to the TV companies? ... they're about as convincing as a Lamont offlicence receipt. Even a Dragon could do better!. Paul Grade.

The Editor's Bit . . .

- "Tick tock" says Old Father Time.
- "Oh, not AGAIN" says Paul's photocopier.
- "What recession?" says the government.
- "Marriage?" says the House Of Windsor.
- "The Mondeo is a great car" says Ford.
- "...not" says anyone with taste.
- "Profit Margin" say Nintendo and Sega.
- "Easy life" say games programmers [see above].
- "Curiouser and curiouser" said Alice.

YES, it's 1993! Available now in living (and livid) colour! First prize to anyone who can spot the difference from 1992!

Stephen.

## PEEKING THE DRAGON (43) BY MIKE STOTT

6th December - Well the AMS at Stafford has now gone and I must apologise to those people I said I was going to see there. I did make it eventually as Bob Preston and Tony Shellard will vouch. Unfortunately my car had problems on the way so it was fairly late when I arrived. Was it worth the visit? On the whole yes. I thought I had a fairly comprehensive selection of Dragon software but I came away with quite a bundle of tapes from Bob Preston's stand. He was the only one supporting the Dragon so thanks Bob. On my trek round the huge hall I spotted ALTAI four button joysticks for the Dragon at 5.00 and wondered whether to purchase one. Having spoken to the stallholder I found myself coming away with one "to try out". Tony Shellard reckons it is not software but I do not care I am going to give it a good try and will give it a write up in a separate review. For those who want to get hold of one ring Graeme on 0831 513996. My son David bought some pocket money PC games at another stand and chatting to the owner elicited the information that he had oodles of Co-Co stuff for sale, including service manuals, DOS cartridges and games cartridges etc. Ring Alec on 021 354 5409 if you want to find out what is available.

It is amazing how you can make contacts at these shows if you speak to enough people. Another stand was selling a Dragon complete with all one would need to set up as a Radio Ham so I left a membership application and a list of Dragon companies with the vendor. Several more of these were passed out to other interested parties at the show.

Ray Smith has sent me even more new items of software for review. CLIPART is to enable the user to put clips into their programs and would be especially useful in combination with DESKTOP. DESKTOP ORGANISER has all 8 versions of the NDUK DESKTOP on it and is released as an upgrade to DESKTOP. Finally there is DESKTOP FORMATTER which allows you to import a page full of DESKTOP (or other graphic screens), view all 6 as they will appear on the A4 sheet, move them round etc and print them out on a variety of printers. The prices are 3.50, 2.00 and 5.00 respectively. Reviews will appear at a later date.

Have not long returned from the Christmas Fayre at the school where my wife teaches. I took along my trusty old Dragon to keep the kids occupied while their parents spent all their money. SAILOR, MOONCRESTA, and FORMULA 1 were the most popular of the games that I had taken along. I demonstrated all 31 screens of BALLDOZER as I have got a slightly different version to the one that was released. The watchers all complained that their versions of ARKANOID only had 16 screens so once again the Dragon showed it's supremacy. I had a steady stream of customers all afternoon and also a considerable number of spectators. December 27th - Yet again I am having to spend part of my Christmas holiday writing this article.

A number of items of software that I have sent out for review have not been returned yet and I am afraid this means a further delay to you reading about them. Can I make an appeal through this article for any volunteers to review future items. You will need to let me know whether you have a 32 or 64, disk and/or cassette, type of DOS, and which printer you have. Unfortunately there is not much choice of software type now but if you let me know your preferences I will try and send you as near as possible to what you are interested in. Many of my old reviewers have now left the Dragon scene but my thanks go out to those members who have given so much time in writing all the reviews.

Please remember if you do volunteer that any items for review will need to be fairly extensively tried out to find out what they do as they are mainly serious utilities nowadays. You do not have to be a Charles Dickens, however. All it needs is a brief description of what it does.

# 3

## Just Your Average Dragon User...

You wanted to know what people did with Dragons...so here it is!

In August 1991, I travelled to Uckfield, Sussex, in a Metro packed to the gunnels with 9 Dragons, 5 TVs, 2 disk drives, dozens of joysticks and crates of cables! The suitcases ended up on the roof rack. The car nearly didn't make it!

It's amazing how long it takes to set up so many Dragons...but, a number of hours work, and we stand in a Dragon computer room, complete with printer, plotter, posters and printout on the walls, and just about any old personal stores which can be made to load a Dragon. And what's it all in aid of? Computing is a popular activity on the Pathfinder Children's camp.

Maybe they are getting long in the tooth compared to the machines which eat 50 pences in Eastbourne arcades or line the shelves in Dixons, but many of the unusual software titles are just as able to provide a great time. The favourite this time was definitely Shock Trooper, but Donkey King, Zaxxon, and Rommel's Revenge were also 'in'. Many other titles were also popular - how do you open the lift in Final Countdown??

The conclusion of the kids was that the Dragon is an ace computer - the best. I think it's ace 'cos it's got a rugged keyboard, joysticks as standard, sound from the TV, and it's definitely cheap these days! No custom-made chips, so it's easy to fix - name me one other machine which fits the bill!

And where did they all come from? The Dragons were picked up cheap, faulty or secondhand. I have 3 portable TVs which were once left gardens or rubbish dumps. Many of the joysticks are customer returns at Tandy's. All of it is now fixed up with loving care and running sweetly - well nearly! Am I the only owner of a 6-output Dragon power pack?!

Each year I get another broken joystick spindle - one of the hazards I'm afraid. This time, the Rommel's Revenge tape got creased up. I'd gladly pay full price for a new one - but will I be able to? Will I heck! But at least these machines got used.

A few shortcomings: there is a serious lack of titles to hold the interest of female members of the groups, and I can't see it any better on other machines. And, I have no simple text processor suitable for kids to use. Something page-orientated, which scrolls intuitively around a page. Something that uses joysticks! Somewhere you can scribble in a picture if you want to.

Every year I leave the camp intending to do away with the cassettes and replace them with a network and Dragon file server. And the next year I've got no further. Meanwhile, Dragon number 10 is ill in bed. Can anyone offer me a 6847 or spare an "O" keytop? Then there will be 10 machines for the next year's camp.

A.N.Martin.

\*\* "Simple text processor"? You should try the group formatter! "Suitable for kids to use"? Hey, even I can use it!...Stephen \*\*

## MUSIC DISC REVIEWED BY RAYMOND ROACH

This disc is the work by Mozart entitled "Eine Kleine Nachtmusik". I shudder to think of the amount of work that Dave Cadman put in to produce this very fine disc. All four movements are on the disc and the sound quality is excellent. I sat enthralled as I played the disc. My only reservation, as an organist, is that the demi-semiquavers were a bit too staccato. Normally with an instrument there is a certain amount of decay time, so the sound is a little less mechanical than that produced by the computer. Apart from this I can surely say that this is the best work of its kind that I have played on the Dragon. I would like to have been able to select which movement I wanted to play rather than have the whole work played in one go since, once started, the whole work is played. Music lover or not, you would be well advised to get this disc. MUSIC DISC (EINE KLEINE NACHTMUSIK) available from NDUG for 3.00.

HOW COME I'VE ONLY SOLD 6 COPIES SO FAR?  
Paul.

DragonDOS Corrections...G.R. Barry.

There has been quite a lot of confusion about DragonDOS problems. Various errors that existed in the original 1.0 version of DragonDOS were regularly reported in Dragon User, ranging from spurious error messages to complete, inexplicit crashes, often with complete loss of disk data records. These errors, numbering more than 20, have been progressively eliminated with updated ROMs, resulting in the latest version 4.9.

Many users, possibly with fairly basic programming requirements, seem to manage with the original 1.0 version, particularly if keeping to the original Dragon software. However, there are other Dragon owners who are not so satisfied with compromises and like to get things right.

It does not seem widely appreciated that errors occur due to two quite different causes. The first type is due to these mistakes, that are inherent in the original 1.0 ROM. A second type of fault emerges when attempting to use programs which have been tailored to run with any of the later 'corrected' versions of the DOS-ROM, but not using the appropriate DOS-ROM, consequently losing compatibility.

Combinations of these two types of error result in a range of faults, often causing the system to hang up. One not very convenient solution can be to swap to the appropriate ROM each time, which can eventually result in a faulty ROM socket. It is also possible to modify certain types of cartridge to accept two DOS chips at the same time.

Another alternative is to buy new versions of the software program, to suit the DOS that is currently being used.

The point that is being made is that this second type of error is not due to the DOS ROM, but due to the particular software programs having been incorrectly "fiddled" to make them work (by jumping in to the wrong part of the DOS, ie the part of DOS that is provided for linking to BASIC, instead of using the correct entry points). Because the addresses in this BASIC link area are not defined as fixed, they get moved during reassembly, and compatibility with DragonDOS can be lost. As you can imagine, combinations of these two different types of errors are very confusing!

Many of these "difficult" programs can be corrected by running short correction programs on a backup copy, which changes the 'rouge' program to the correct Dragon standard. When this is done, the software will then operate with any DragonDOS ROM, which is the right way to go about it!

\*\* Whilst this is NOT, repeat NOT an excuse to reopen the 'my DOS is better than your DOS' debate, surely patching God knows how many 1.0 replacements rather defeats the object when they fail to maintain compatibility with the original standard system?

AND, please bear in mind that what you are reading now is manipulated and produced, WITHOUT PROBLEMS, using DragonDOS 1.0. Bite not the hand that feeds...Stephen \*\*

POETRY DISC REVIEWED BY RAYMOND ROACH

This disc compiled by Dave Cadman contains thirty nine poems. They are the well known ones like "The Skylark", "The Brook", "Elegy" and so on. Running the 'MENU' enables one to select a poem either by TITLE, AUTHOR, or FIRST LINE. One can choose to scan through the selected poem either by keypress, joystick button or by time interval. There are two choices of screen on which to see the poems. Altogether one has quite a few hours of reading on this disc. The poems are well laid out on the screen for your enjoyment. I was disappointed that there was not the facility for printing out any of the poems, but I appreciate that, to have included such a facility would have reduced the number of poems on the disc and would have meant problems when dealing with the wide diversity of printers used by N.D.U.G. members. These comments apart, I applaud Dave for the vast amount of work put in to enable members to possess such a fine library of poetry. Another MUST for your disc store.

POETRY DISC compiled by Dave Cadman available from NDUG for 3.00.

Just a quick comment . . . . . Paul G.

Mr. Barry is certainly entitled to his opinion, but I DO think it rather insulting to professionals like Mike James, Pam D'Arcy, John Payne, Wayne Smithson, and many others, to imply that their programming is "fairly basic". The bugged V1.0 works perfectly well, which is more than can be said of the replacements!

## Mandelbrot Set generator... Stan Garvey

This is a program that I have modified from the Atari ST, and it is a kind of graphics generator that draws an infinite number of organic paisley shapes, the 'mandlebrot set', named after its creator Benoit Mandelbrot. He was involved with a problem of random noise on data transmissions by telephone at the IBM Watson Research Centre some 30 years ago. He noticed that the noise tended to come in bursts, and when he examined these in more detail he found that these periods of noise were made up from a collection of more rapid bursts of noise, which in turn were also composed of smaller bursts of random noise. A pattern was emerging, and Mandelbrot discovered what he called cantor dust - random, but containing a pattern repeated on different scales. This he called the fractal.

This program scales the complex plane, where the set lives, onto the screen so that we have a "grid" of points covering the complex ("imaginary") plane. The grid is 128 x 191, so that every pixel is a point on the grid. It is scaled in line 80 so that it has the correct aspect ratio to give shape to the set. Lines 180 to 270 iterate the mandlebrot math function on the points. What happens is the point on the complex plane is squared and added into itself. This is continued until the iteration limit is reached, or the number starts to zoom off towards infinity (line 260). Thus, the number on the complex plane gets caught in an endless loop and is in the set, or the number approaches infinity and it is NOT in the set. If it is in the set, the pixel is white, else it is black.

This program goes a bit further in that the number of iterations are stored and used to colour the point in line 280. For instance, if the number zooms off to infinity after 4 iterations, the point may be red, or if it iterated 6 times say, the point may be blue.

When you run the program, you are asked for an iteration limit. Enter 32, and this will draw a good approximation of the set IN A COUPLE OF HOURS. A higher value may reveal more detail but takes more time. The program then asks for the magnification factor - enter 3.5 for the complete set. It then reports the range we will view on the complex plane, and asks for an x axis offset; use -0.5 to centre the set. You could add a Y axis offset before line 140, and then by using the magnification factor with x and y offsets, you could zoom in on any feature of the set. You would also need to alter line 200 so that J goes from BY to TY, and delete the second PSET command in line 280, because at the moment, the program mirrors the set around the Y axis for speed. Beware the double-speed poke in line 25, and Happy Plotting!

```

10 'MANDELBROT
20 GOSUB 50:' INIT
25 POKE65495,0:POKE&HFF03,&H34:CLS:PRINT"WARNING SPEED DOUBLED!"
30 GOSUB180:'MANDELBROT
35 POKE 65494,0:CLS
40 SCREEN1,0:LINE(0,0)-(255,191),PSET,B:GOTO 40
50 'INIT
55 INPUT"ITERATION LIMIT";LIMIT
70 INPUT"3.5 FOR FULL SIZE";H$IDE
80 V$IDE=H$IDE*128/191
90 LX=H$IDE/2:LX=-LX:BY=V$IDE/2:BY=-BY
100 RX=LX+H$IDE:TY=BY+V$IDE
120 PRINT"RANGE X=";LX"TO ";RX:PRINT"RANGE Y=";BY"TO ";TY:PRINT"H$IDE=";H$IDE:PRINT"V$IDE=";V$IDE
125 PRINT"X OFFSET"
130 INPUT"NORMALLY -.5";OFST
140 LX=LX+OFST:RX=RX+OFST
145 SX=(RX-LX)/128:SJ=(TY-BY)/191
150 PRINT"RANGE X=";LX;"TO ";RX;"STEP";SX
153 PRINT"RANGE Y=";BY;"TO ";TY;"STEP";SJ
160 A$=INKEY$:IF A$="" THEN 160
170 RETURN
180 PNODE3,1:SCREEN1,0
200 J1=0:FOR J=BY TO 0 STEP SJ:I1=0:FOR I=LX TO RX STEP SX
240 'REPEAT
245 N1=1:Y=0
250 Y2=Y*Y:X2=X*X:Y=2*X*Y+J:X=X2-Y2+I:N1=N1+1
260 IF N1=LIMIT OR X2+Y2=4 THEN GOTO 280
270 GOTO 250
280 C=N1 AND 3:PSET(I1,J1,C):PSET(I1,(191-J1),C):I1=I1+2:NEXT:J1=J1+1:NEXT:RETURN

```

## Small Circuit Signal Analyser

The concluding part of this program by Chris Jolly appears below. Chris says that he will supply the complete program if you send him a tape or disk PLUS return postage, naturally. His address is: 9, Goldfinch Close, Chelsfield Kent, BR6 6NF.

```

600 'SOLVE FOR FREQ. F
610 FOR J=0 TO NN
620 FOR K=0 TO NN+1
630 MR(J,K)=0:MI(J,K)=0
640 NEXT K,J
650 GOSUB660:GOSUB740:GOSUB830:GOSUB920:GOSUB1040:GOSUB1060:
RETURN
660 'CALCULATE FOR RESISTORS
670 IF NR=0 THEN RETURN
680 FOR J=0 TO NR-1
690 CR=1/R(J,0):CI=0:RN=R(J,1):CN=R(J,1):GOSUB1210
700 CR=-1/R(J,0):CI=0:RN=R(J,1):CN=R(J,2):GOSUB1210
710 CR=1/R(J,0):CI=0:RN=R(J,2):CN=R(J,2):GOSUB1210
720 CR=-1/R(J,0):CI=0:RN=R(J,2):CN=R(J,1):GOSUB1210
730 NEXT J:RETURN
740 'CALCULATE FOR CAPACITORS
750 IF NC=0 THEN RETURN
760 FOR J=0 TO NC-1
770 X=2*3.14159265*F*C(J,0)
780 CR=0:CI=X:RN=C(J,1):CN=C(J,1):GOSUB1210
790 CR=0:CI=-X:RN=C(J,1):CN=C(J,2):GOSUB1210
800 CR=0:CI=X:RN=C(J,2):CN=C(J,2):GOSUB1210
810 CR=0:CI=-X:RN=C(J,2):CN=C(J,1):GOSUB1210
820 NEXT J:RETURN
830 'CALCULATE FOR INDUCTORS
840 IF NL=0 THEN RETURN
850 FOR J=0 TO NL-1
860 X=-1/(2*3.14159265*F*L(J,0))
870 CR=0:CI=X:RN=L(J,1):CN=L(J,1):GOSUB1210
880 CR=0:CI=-X:RN=L(J,1):CN=L(J,2):GOSUB1210
890 CR=0:CI=X:RN=L(J,2):CN=L(J,2):GOSUB1210
900 CR=0:CI=-X:RN=L(J,2):CN=L(J,1):GOSUB1210
910 NEXT J:RETURN
920 'CALCULATE FOR TRANSISTORS
930 IF NT=0 THEN RETURN
940 FOR J=0 TO NT-1
950 CR=1/T(J,1):CI=0:RN=T(J,3):CN=T(J,3):GOSUB1210
960 CR=-1/T(J,1):RN=T(J,3):CN=T(J,5):GOSUB1210
970 CR=T(J,0)/T(J,1):RN=T(J,4):CN=T(J,3):GOSUB1210
980 CR=-T(J,0)/T(J,1)+T(J,2):RN=T(J,4):CN=T(J,5):GOSUB1210
990 CR=T(J,2):RN=T(J,4):CN=T(J,4):GOSUB1210
1000 CR=-(1+T(J,0))/T(J,1):RN=T(J,5):CN=T(J,5):GOSUB1210
1010 CR=(1+T(J,0))/T(J,1)+T(J,2):RN=T(J,5):CN=T(J,5):GOSUB12
10
1020 CR=-T(J,2):RN=T(J,5):CN=T(J,4):GOSUB1210
1030 NEXT J:RETURN
1040 'SOLVE CIRCUIT EQUATIONS
1050 FOR I=0 TO NN:GOSUB 1310:NEXT:RETURN
1060 'REPORT
1070 X=NR(0,NN+1):Y=MI(0,NN+1)
1080 M=SQR(X*X+Y*Y)
1090 IF X<>0 THEN 1130
1100 IF Y=0 THEN P=0:GOTO 1180
1110 IF Y>0 THEN P=90:GOTO 1180
1120 IF Y<0 THEN P=-90:GOTO 1180
1130 P=180*ATN(ABS(Y)/ABS(X))/3.14159265
1140 IF X>0 AND Y<0 THEN P=-P
1150 IF X<0 AND Y<0 THEN P=P-180
1160 IF X<0 AND Y>0 THEN P=180-P
1170 IF X<0 AND Y=0 THEN P=180
1180 PRINT USING "###.###^### ##.###^### ####.##";F,20*LOG(M)/L
OG(10),P
1190 IF SP$="OFF" THEN PRINT#-2,USING "###.###^### ##.###^### #
###.##";F,20*LOG(M)/LOG(10),P
1200 RETURN
1210 'ADD A COEFFICIENT
1220 IF RN<0 THEN RETURN
1230 IF CN=-1 THEN RETURN
1240 IF CN=-2 THEN 1280
1250 MR(RN,CN)=MR(RN,CN)+CR
1260 MI(RN,CN)=MI(RN,CN)+CI
1270 RETURN
1280 MR(RN,NN+1)=MR(RN,NN+1)-CR
1290 MI(RN,NN+1)=MI(RN,NN+1)-CI
1300 RETURN
1310 'PIVOT ON I,I
1320 IF MR(I,I)<>0 OR MI(I,I)<>0 THEN 1360
1330 FOR J=I+1 TO NN:IF MR(J,I)=0 AND MI(J,I)=0 THEN 1350
1340 GOSUB 1540:GOTO 1360
1350 NEXT:RETURN
1360 YR=MR(I,I):YI=MI(I,I)
1370 FOR J=0 TO NN+1:XR=MR(I,J):XI=MI(I,J):GOSUB1510:MR(I,J)
=ZR:MI(I,J)=ZI:NEXT
1380 FOR J=0 TO NN:IF J=1 THEN 1440
1390 UR=MR(J,I):UI=MI(J,I)
1400 FOR K=0 TO NN+1
1410 XR=UR:XI=UI:YR=MR(I,K):YI=MI(I,K):GOSUB1490
1420 XR=MR(J,K):XI=MI(J,K):YR=ZR:YI=ZI:GOSUB1470
1430 MR(J,K)=ZR:MI(J,K)=ZI:NEXT K
1440 NEXT J:RETURN
1450 'ADD TWO COMPLEX NUMBERS
1460 ZR=XR+YR:ZI=ZI+YI:RETURN
1470 'SUBTRACT TWO COMPLEX NUMBERS
1480 ZR=XR-YR:ZI=XI-YI:RETURN
1490 'MULTIPLY TWO COMPLEX NUMBERS
1500 ZR=XR*YR-XI*YI:ZI=XR*YI+XI*YR:RETURN
1510 'DIVIDE TWO COMPLEX NUMBERS
1520 NR=YR*YR+YI*YI
1530 ZR=(XR*YR+XI*YI)/NR:ZI=(XI*YR-XR*YI)/NR:RETURN
1540 'SWAP ROWS I AND J
1550 FOR K=0 TO NN+1
1560 TR=MR(J,K):TI=MI(J,K):MR(J,K)=MR(I,K):MI(J,K)=MI(I,K):M
K(I,K)=TR:MI(I,K)=TI:NEXT:K=I:K=J
1570 IF SP$="ON" THEN SP$="OFF" ELSE SP$="ON"
1580 RETURN
1590 CLS:END

```

The Book Of Dragons... R.M. Farrell.

I was in a book shop in Darlington trying to find a book on Dragon computers, when I came across a small, green, leather-bound book which read "Book Of Dragons, a study by Dr. C.P.Tully." This is what it said:

"They, the Dragons, are very rare nowadays, and hide most of their lives out of the way of the eyes of humans. It is not their natural habit but more an enforced one due to the main part by their remorseless persecution by humans. In the main, there are six species of Dragon, with another listed later in the book.

...The Noble Dragon, generally good, wise, and generous, with some magical ability. Their numbers are few, and they vary in size, but were often gold, silver, or copper in colour. They did not, as is universally believed, have a fiery breath...

...The Marsh Dragon, best described as a genetic joke, living on a knife edge due to its complicated digestive system which provides its means of propulsion. The problem is that their wings are far too small to fly, so they use their breath more like a rocket thruster than a weapon, using their wings to steer. Because the fuel used is highly volatile, the slightest jolt could make them explode. They are very small as far as Dragons go, and come in various colours...

...Draconus Sadisticus, the one which is responsible for all the bad press that Dragons have; thoroughly evil, lusting after gold, silver, and jewels (\*\*sounds like Paul..SW), and often with large hoards on which they sleep. They like humans, cattle, horses, in fact anything to eat, including other Dragons. They can use their breath as a weapon, and are totally unsavoury...

...Sea Dragons, the most mysterious of all. No-one quite knows what they look like, or their social habits. There have been a couple of sightings, the most famous being in Scotland...

...Draconus Changabilis & Draconus Attractabilis, highly magical creatures which can change their form at will to almost anything. They are not evil, nor are they good, so in that respect they are like humans. The more popular of the two is Draconus Attractabilis, which can only change into a beautiful, scantily clad woman, in order to lure knights into their lair and seduce them; hence their popularity...

...Draconus Siliconus. This is the seventh group, which has two sub-species, the Dragon 32 and the Dragon 64, the latter being slightly better at holding large amounts of information. They are the most advanced Dragons to date, and they are versatile, reliable, helpful to have around, and hardworking. An ideal companion..."

The book carries on for several pages about Dragon 32s and 64s, and concludes by saying that they need attention and support, otherwise they will die. I don't want that to happen, do YOU?

\*\* I came across a later version of this book, which featured revisions by someone called S.Jones. The ammendments came to the Draconus Siliconus section, and detailed the even more advanced Dragon Professional, which apparently was just like the D64, but it also wore a suit, carried a briefcase, and commuted to London everyday on a train. They are also very rare. Apparently.

More wacký tales from the Twilight Zone soon!...SW\*\*

###  
Further to Stephen's reference to the Legendary Dragon Professional, I must inform you that this beast is now totally extinct. I DID once encounter one, many years ago, and a most peculiar animal it was too, with two discs and something called a modem, which was supposed to allow it to communicate with others of its kind, but as there were none to communicate with it got all overheated and finally disappeared. Rumours of a wild survivor roaming the hills of Port Talbot can almost certainly be discounted.

The Australian Connection... Joe Pilz.

In February of 1984, I went along to see Richard Wadman to see about the possibility of distributing Dragon computers in Australia. They had just launched the D64 with OS9 and disk drives, and it looked like a good bet.

After some discussions, he agreed to give me the rights for Australia (and New Zealand), and I accepted. Hopping on the next 'plane back (after working in Germany) to set it all up, I formed Dragon Technology Pty Ltd in Australia, and we ordered up 40 D32s, 40 D64s, 20 single drives, and 20 dual drives (which even now I wish we had increased - but funds were limited).

These duly arrived in April in time for an Electronics show and we set up for a big launch. In those days, we got a lot of support from Melbourne House who resided in Melbourne, Australia, and Pan Books. It all seemed to be going well, and we even placed a further order in April.

I was due to return to the UK in July for a distributors' conference. I duly turned up at the supposed hotel and asked for the Dragon Data conference - "who are they?" was what I was told. After a lot of enquiring, we finally found that the conference reservation had been cancelled as far back as March - with no word to us.

I was then to find that Dragon Data were in liquidation; and us stuck with computers from a company that would no longer exist. It took some time for Eurohard to take over, and not before the news would filter down to Australian consumers. We still had a shipment to arrive, and I still don't know how they shipped it.

It took a few months and lots of promotions to sell the remaining Dragons, but we did it. Dragon Technology Pty Ltd moved into other areas, although was dormant between 1985 and 1987. In 1987, I revived the company and started importing from Taiwan, building up the Dragon name in general peripherals and accessories. There is still a Dragon offshoot in Australia, but it belongs to someone else. I had the rights to use the Dragon logo for my own products on paper from Richard Wadman, and still make use of it even today.

Dragon had a short breath in Australia - from go to woe in about 9 months. Just my luck to end up with something like Wadman! Today, like other contemporaries, I earn a living from programming for the PC and consultancy work. Most of the programming revolves around accounting and business development. It's not as fun as the early days, but it pays the mortgage.

Looking at DASM, parts 3 & 4 by RAD.

LABELs are used to identify the location of Data or a SUBROUTINE which needs to be accessed at a remote location within the assembly. A label is identified by starting it with the @ character, eg @START for the start of the main program, @PRINT for the subroutine to print out something, @TEXT for some data to appear on the screen or printer. But you can choose any labels you like of any length. The only constraint is that there must be no space before the label other than the space which the Dragon places between the line number and the rest of the line, and there must be a space between it and the assembler directive which follows it, eg 60 @DATA FCC a,B,c,D,1,2,3 etc. Labels are optional except where the EQU directive is used, and they remember the particular address within the program at which they occur. Because the Dragon always starts from zero when seeking an address, it is usual, but not essential, to place all the Data lines at the start. But these must not appear to be directives when the machine language is EXEC'd, and the program must jump over them. So, line 50 would be 50 @BEGIN EQU \*, and line 60 would be 60 BRA @START. The data would be placed on lines between that and the @START label at which the M.L. routine proper commences.

The EQU directive is used in most assemblers in much the same way. It can allow a LABEL to be defined without generating any machine code. For instance, if you wish to use the BASIC ROM address for accessing the Dragon printer routines instead of your own version, then you can have a label which will jump your program to that address - 55 @PRINTER EQU \$800F - the routine which prints anything held in the A register. A line, say 120 BSR @PRINTER, would execute that subroutine. Any number of addresses can be redefined in that way, including the addresses in separate M.L. programs which are to be linked with the current one, when you are making up a long program in parts to be used as a whole. \$800C would be used for printing to screen. Using the \* (asterisk) with EQU, with a space inbetween (EQU \*), remembers that particular location within the M.L., eg 300 @END EQU \*. While it springs to mind, those using SuperDOS and intending to link several routines into one from disc, should know that when saving down machine code programs, SuperDOS adds an extra byte of garbage to the length. You must provide an overlap to avoid this. DOS V1 does not have this defect, and both work equally well with Dasm.

The North East Dragon Users' Club

Yes, the NEDUC is still around and is as strong as ever, with an average attendance at our weekly meetings in Sunderland of seven or eight. The membership of sixteen consists of regulars from Washington, Chester-le-Street, Sunderland, and Middlesborough.

Our meetings are a variety of discussion, comment, humour, and of course matters relating to the Dragon. The topics covered during the past year include demonstrations of other computers, NDUG's Ramdisk Extra and System 68's Amion (both programmed by a NEDUC member!), plus how to buy and setup a double disk drive with PSU and DOS cartridge for a tenner(!), EPROM blowing, simple OS9, assembly language, correcting listings from books and magazines, games, and Premier's sprite/graphics board. We have also had a tour of Hartlepool Nuclear Power Station (and left with an extra leg each), and future events include demonstrations of an Acorn Atom (which is older than the Dragon) as well as visits to a brewery and a confectionery manufacturer. Anyone wishing to join should contact the club secretary John Oliver on 0642 813702 if they live in the Cleveland area, or David Linsley on 091 389 1577 for the Durham/Tyne & Wear area.  
David Linsley.

Showpak...Tim Lees.

I was given a little program called Showpak, written by Geir Hovland. It's a graphics screen compressor, but where it differs from other is that the compressed screens are loaded in and displayed via a menu written in nicely defined text on the PMODE4 screen. The program reads the directory and prints up all files with the extension .PAK. After that only the spacebar and ENTER need be pressed to select the screen you want and pressing any key returns you to the menu. The only fault I found was that there was no way to exit the program to save the screens back in their normal format. Pressing the reset button usually corrupted the screens in some way. So, I wrote to Geir asking him for help, and after a while I received a routine from him to decompress the screens and return to BASIC, as well as a number of other programs I hadn't asked for. I was delighted to have got all of this, but Geir appears to have moved, and so I am writing this in the hope that he gets Update and will see my thanks.

This Is Rumour Control...

...Here Are The Facts.

Let it never be said that I am ungenerous. I should like to offer my thanks to everyone who has sent in material over the past few months, along the lines of "...your pleas have not gone unnoticed...". Well, your contributions have not gone unnoticed, so many, many thanks. As a result of this input, 1993 looks a tad rosier for Update, but PLEASE DON'T STOP. Now more than ever, all contributions gratefully received.

I hear that the latest threat to human life is none other than electromagnetic "smog" of all things. Yes, H.M.Govt. says that the massive numbers of gadgets now making our collective lives better/faster/more expensive all emit a dangerous field, which, when you take into account the fields from all the electronic equipment in circulation, can build up and disrupt circuits in robots and, more importantly, the central locking systems of police patrol cars. Well, if it's THAT dangerous... Just think what the collective smog from a Dragon power pack, disc drive, printer, and TV will be! When my angle poise lamp becomes affected and tries to strangle me, I'll let you know.

And Finally, with reference to Paul's predictions for 1993. I tried to pawn the country in exchange for the latest Batman video, but unfortunately I couldn't manage it. The video was too expensive.  
end of Transmission.

Stephen.

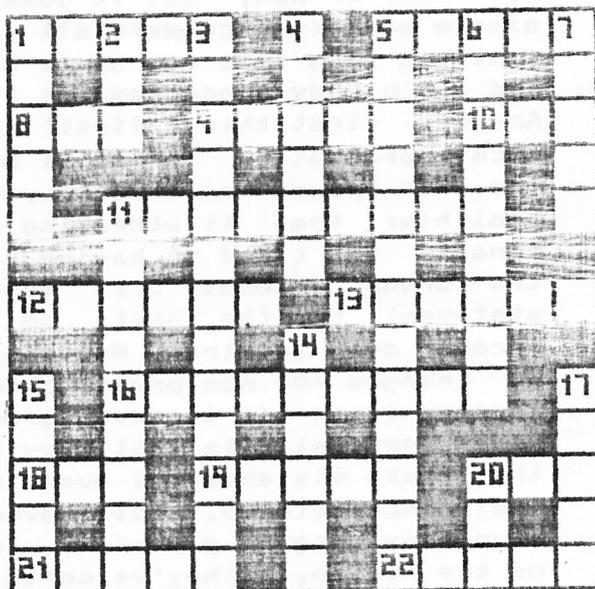


CROSSWORD NUMBER 67.

ACROSS: 1. Leather Binding 5. Happen  
8. Chewy Zia/c 9. Lift 10. Boat  
11. Forerunner 12. Roof of Mouth  
13. High-Stepper 16. Won't Prick  
18. Massage 19. Mental Picture 20. Tear  
21. Taste of Idwn 22. Male Voice.

DOWN: 1. Cane Product 2. Sheep  
3. Pains-Taker 4. Hatred 5. Exaggeration  
6. Waterfalls 7. A Way to go? 11. Tasty  
14. Unjust 15. Bits & Pieces 17. Daily  
20. Sprint.

Answers to Paul Grade, please.  
Winner of XW66 was Ron Prior.



Whither the Dilettante? . . . Dave Riley

Paul has warned us more than once that in the not too far distant future he will be forced to pull the plug on the NDUG as more and more members transfer their interest to newer, more powerful microcomputers.

The Dragon still does everything I need it to do, and for this reason alone I shall continue to use it for the foreseeable future. This is all very well, but the prospect of becoming a member of the Veteran Computer Club does not appeal to me!. A very important feature of my Dragon is that it is the best toy I have ever owned, and this has nothing to do with games. The fun started with the publication of Inside the Dragon, with a little help from the Dragon User. The NDUG has sustained an interchange of ideas between users that has resulted in the machine doing things undreamed of by its originators, but as Paul reminds us, this cannot go on for ever. Across the pond the CoCo3 was introduced in an attempt to revive the 6809 based Color Computer but it did not remain long in production, although it was possibly an even better toy. Even an uprated 6809 was not really up to the job. For 6809 freaks the future would appear to lie in a 68000 based machine, but which one?. I took a look at the Mackintosh. A quick glance at a popular Mac magazine would persuade you that the recession had not affected the Mac user. The Editorial material was all related to the use of expensive proprietary equipment. There was no suggestion that anyone might want to make their own hardware or software. Reader input was limited to only simple operational questions for a pet guru to answer. Not one assembler program was advertised, though I did find one "C" compiler and a couple of BASICS. Provisional verdict on the Mac: fine for the graphics professional but far too expensive and NBG for me!. The next machine for my scrutiny is the Amiga, a currently popular brat's machine. I am not over hopeful, but did not the Dragon initially have a similar user base?.

It is a pity for us that the microcomputer has become primarily a tool of commerce and industry, like a filing cabinet or a bench vice; it is difficult to work up enthusiasm for either of these utility items. Do we have to accept that as the micro becomes more useful it becomes less interesting?. Somewhere there must be an "Inside the Mac/Atari/Amiga/PC", or perhaps a user group with members as eccentric as those of the NDUG. Have YOU found the answer?. If you have please tell me!. Dave Riley.

1993, yet another year over and STILL the old Group staggers on. Darned if I know why or how, but it does, and so far as I know is the longest running single make (non-commercial) user group around. It was the biggest once, but that's a long time ago now!. Says a lot for both the design of the old Dragon and the bloody-mindedness of its users!.

Anyway, first things first: thanks to all of you who sent cards etc ... very much appreciated, and still more thanks to those of you who have been adding the odd pound or two to your cheques, it helps keep the account a lot healthier, than it otherwise would be. On the subject of accounts, I've finally got tired of having a running war with NatWest over their charges on the Group account .... they can't even stick to an agreement from one statement to the next, so I am now in the process of changing the Group account over to Giro. Not that I like Girobank, but at least they guarantee no charges for non-profit clubs and groups, and I can put up with a lot of inconvenience if it saves around 120.00 per year in charges!. Trouble with banks generally is that they have too much in common with politicians .... they make mistakes all over the place and then expect the punters to pay for their incompetence, quite overlooking the fact that said punters often don't have anything to pay with!. We all know that 10% of the population owns 53% of the wealth, (they've certainly got MY share!), but no-one ever makes the point that they nicked it from the remaining 90% of us!!.

Don't politicians make you sick? ... Bush happily ordering the murder of several hundred civilians in order to leave Clinton with an impossible situation, Major prancing around him like a randy poodle! Ashdown doing his "look at me, I'm a big butch military type" act; the entire Labour party trying to act like cut-price Conservatives, and the Government scared stiff that some nasty Editor will print some facts about their smutty little games ... and THESE are the prats we are supposed to believe are Great Leaders!!!

Leaders? they couldn't lead a dog to a lamp post!. By the way, have YOU ever met the person who voted Conservative at the last election? ..... No, nor have I, but surely SOMEONE must have voted for 'em, even if it was only Major's mother, or are election results just as another con job like everything else? .... don't tell me the result was "due to computer error"!. And on the subject of computers, poor old IBM are in trouble! .... seems they got too big to adapt from being a mainframe manufacturer to a PC producer, at least that's the official story, but somehow it doesn't seem quite right to me .... after all, the "PC" was originally an IBM exclusive, so it could be said that they created the PC market .... maybe it isn't polite to mention that they lost sales because they charge too much for their machines and people can buy better, cheaper, elsewhere?. While on the subject (well, more or less) of PC machines, as mentioned in the last Update, I could do with ANY unwanted PC type cards or boards, working or not, ancient or modern, so that I can teach a couple of brats how to fault trace and repair PC type machinery without risking wrecking my one and only working one! (Yes, I've already taught them how to sort out most 6809 type ills!). So, if you happen to see any PC type machinery heading in the direction of the nearest skip do please intercept it and send me the bits .... I'll even guarantee to cover post and packing costs!!.

And on the subject of faults .... wonder why there seems to be a whole crop of Dragon disc drive troubles at the moment? .... even one of mine is playing up a bit, although in that case the cause is several years of dedicated abuse and neglect. Maybe the weather is the snag ... cold and damp conditions DO play hell with bad joints and mucky/greasy head guides ... perhaps we should declare this National Clean Your Computer Equipment Week or something!. Maybe it's something to do with all these naughty graphics discs I keep reading about ... "Too Much Filth in Computers" or something like that?. Maybe if we start a Keep Computing Clean Campaign Mary Whitehouse will come along and clean my drives for me?.

Oh well, I think I've probably bored you enough for this month, so I'll leave you in peace to get on with writing articles for the next issue, inventing a 80486 emulator card for the Dragon, playing with your Nintendo console, cleaning the drains, or doing something illegal, immoral and fattening, or whatever it was you were going to do before this arrived. Have fun. Paul G.

**MATERIAL FOR PUBLICATION.**

ALL ADVERTISING TO PAUL GRADE,  
ARTICLES ETC TO STEPHEN WOOD (EDITOR),  
52, DOWNSWAY, SPRINGFIELD, CHELMSFORD,  
ESSEX.

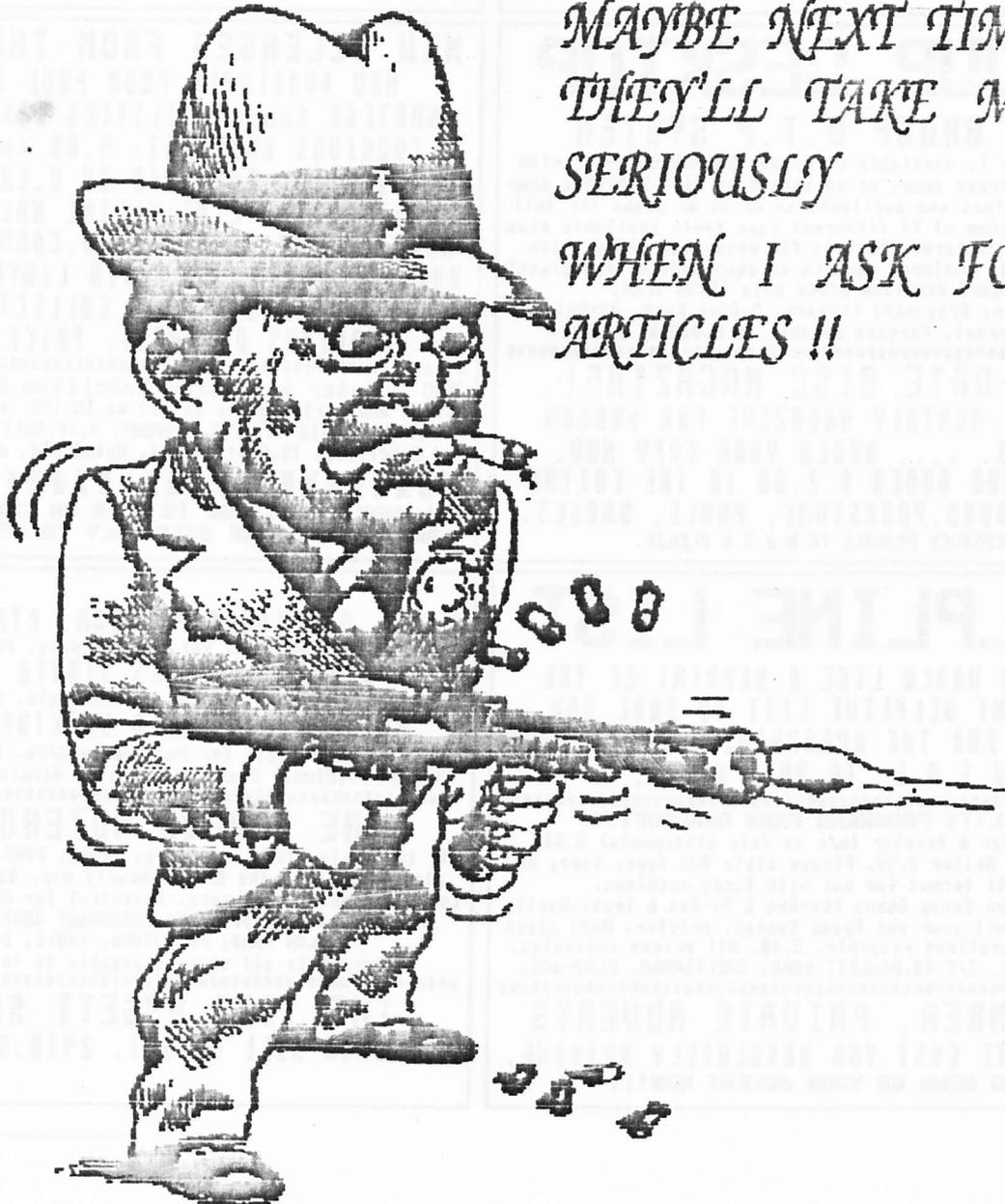
**ANY PROGRAMS?**

HAVE YOU WRITTEN ANYTHING THAT YOU  
WOULD BE PREPARED TO LET US MARKET TO  
HELP BOOST GROUP FUNDS?.

**GIVING UP COMPUTERS . . . . COMPLETE SYSTEM FOR SALE!!**

PAIR OF DRAGON 32's; UPDATED TO 64K; CUMANA DISC DRIVE;  
CUMANA DOS CARTRIDGE; MONITOR; 2 JOYSTICKS; 2 TRANSFORMERS;  
DUSTCOVER; CASSETTE RECORDER; CASE CONTAINING 20 ASSORTED GAMES  
CASSETTES; COLLECTION OF ORIGINAL DISC SOFTWARE WITH ALL MANUALS;  
FORTH ON TAPE AND DISC; COLLECTION OF USEFUL BOOKS & MANUALS;  
DRAGON CIRCUIT SHEETS . . . EVERYTHING YOU NEED FOR JUST 100.00.  
HARRY BOOKER, 45, MEADOWBANK, FARRINGDON, OXON. SN7-8DD.

PLEASE, NO SILLY "OFFERS", THIS IS AN ABSOLUTE BARGAIN!



*MAYBE NEXT TIME  
THEY'LL TAKE ME  
SERIOUSLY  
WHEN I ASK FOR  
ARTICLES !!*

3

**GROUP SERVICES ETC.**  
**DRAGONART GRAPHICS LIBRARY SERVICE.**  
 Contains THE biggest selection of graphics screens for the DRAGON. All available at nominal charge only. The Library needs YOUR graphics screens too. Full details & list from The Librarian, 5, Glen Road, Parkstone, Poole, Dorset. (Screen dumps and text editors etc also available.)  
 \*\*\*\*\*  
**BACK ISSUES OF UPDATE!**  
**REPRINTS TO ORDER!. PRICE 5P PER PAGE (AVERAGE 70 PENCE PER ISSUE).**  
**POSTAGE CHARGED AT COST.**  
**PLEASE SEND CHEQUES AND ORDERS TO:**  
**ALAN GREENWOOD, 132 WENDOVER DR., ASPLEY, NOTTINGHAM. NG8-5JN.**  
 \*\*\*\*\*  
**GROUP P.D. LIBRARY!. Stuart Beardwood, 3B Salisbury Place, Boothtown, Halifax.**

**GROUP SPECIALS**

D32 TO 64K UPGRADE MANUAL.	2.00
CIRCUIT SHEETS. D32, D64, DRAGON/CUMANA/COCO DOS. each.	1.00
NDUG FORTH O/S WITH FORTH ASSEMBLER ETC. DRAGONDOS.	5.00
AS ABOVE BUT WITHOUT ASSEMBLER. DELTA DOS.	3.00
DRAWZEE GRAPHICS UTILITY. DRAGONDOS OR TAPE.	2.50
NEWCOPY TAPE COPY UTILITY. TAPE ONLY.	2.00
DRAGON TO COCO DOS DISC FORMAT CONVERTER.	3.00
COCO TO DRAGON DOS DISC FORMAT CONVERTER.	3.00
DISC EDITOR UTILITY.	3.00
R.A.D.FUN DISC. 24 ASSORTED PROGRAMS.	2.50
R.A.D.BEST OF INPUT. INPUT MAGAZINE LISTINGS. (DISC)	2.50
R.A.D.ANITUNES. MUSIC ACCOMPANIED BY ANIMATED PIX!	2.50
EZEE MACHINE CODE TUTORIAL DISCS 1 & 2. (EACH)	3.00
EZEE ADVENTURE WRITER UTILITY DISC.	3.00

EPROMS COPIED TO ORDER. CONTACT PAUL GRADE FOR DETAILS.  
 ALL THE ABOVE FROM PAUL GRADE. ALL CHEQUES PAYABLE TO NDUG  
 ORDERS TO:- 6, NAVARINO ROAD, WORTHING, SUSSEX.

**GROUP DESKTOP**  
**THE GROUP D.T.P SYSTEM**  
 This package is available on either DRAGONDOS disc, with EPSON type screen dump, or on CoCo disc with DMP105/6 dump  
 Several versions now available so write or phone for full details. Minimum of 19 different type fonts available plus many other features. Perfect for producing video title screens, small posters, adverts or even amateur magazines!  
 Standard versions price only 12.50 from:-  
 The Librarian, Dragonart Library, 5, Glen Road, Parkstone, Poole, Dorset. Cheques payable to N.D.U.G. please.  
 \*\*\*\*\*  
**UP-2-DATE DISC MAGAZINE!. THE BI-MONTHLY MAGAZINE FOR DRAGON OWNERS. .... ORDER YOUR COPY NOW. SEND YOUR ORDER & 2.00 TO THE EDITOR 5, GLEN ROAD, PARKSTONE, POOLE, DORSET. CHEQUES PAYABLE TO N.D.U.G PLEASE.**

**NEW RELEASES FROM THE GROUP**  
 NOW AVAILABLE FROM PAUL GRADE.  
**AMATEUR RADIO UTILITIES DISCS 1 & 2 (VARIOUS AUTHORS): 4.00 the pair.**  
**POETRY DISC .COMPILED BY D.CADMAN. 3.00.**  
**MUSIC DISC "EINE KLEINE NACHTMUSIK" ADAPTED FOR DRAGON BY D.CADMAN. 3.00.**  
**RANDISC EXTRA. BY DAVID LINSLEY. 3.50.**  
**DISC UTILITIES COLLECTION (VARIOUS AUTHORS). PRICE 3.00.**  
 \*\*\*\*\*  
**DOS adaptor kits from Sutcliffe Electronics.**  
 Allows DOS cartridge to be fitted INSIDE the Dragon. 16.68  
**LETTER WRITER UTILITY PROGRAM. 5.00. ONLY. ORDERS TO:- J.Sutcliffe. 15, West Street, Hothfield, Ashford, Kent.**  
 \*\*\*\*\*  
**ALL GROUP SOFTWARE IS SOLD ON THE BASIS THAT ANY PROFIT MADE GOES ONLY TO GROUP FUNDS.**

**HELPLINE LIST**  
**IF YOU WOULD LIKE A REPRINT OF THE CURRENT HELPLINE LIST TO SAVE YOU HUNTING FOR THE APPROPRIATE UPDATE SEND A S.A.E. TO PAUL GRADE.**  
 \*\*\*\*\*  
**UTILITY PROGRAMS FROM DRAGSOFT!. Data Loader & Printer (m/c to data statements) 3.00. TV/Monitor Setter 2.50. Please state DOS type, tape, or ASCII format for use with Tandy machines. Slow but Sure Epson Dumps (Lo-Res & Hi-Res & Text). Easily edited to suit your own Epson Compat. printer. Many sizes and configurations possible. 5.00. All prices inclusive. M.TOWNSEND. T/F 48, HEWLETT ROAD, CHELTENHAM. GL52-6AE.**  
 \*\*\*\*\*  
**REMEMBER, PRIVATE ADVERTS IN UPDATE COST YOU ABSOLUTELY NOTHING. SO SEND US YOUR ADVERT NOW!.**

**K.C.S. PUBLISHER PROGRAM. DTP FOR D64s.**  
 Full 38 font DTP disc for the D64 only. Price 15.00 inc.  
**DRAGON GRAPHICS STUDIO PLUS.**  
 Graphics / drawing program on disc only. Price 5.99 inc.  
**PRINTER CONTROL & DESKTOP FONTS.**  
 20 additional fonts for MacGowan's W/Ps. Price 4.99 inc.  
 K.C.S. 76, Etwall Road, Hall Green, Birmingham. B28-0LE.  
 \*\*\*\*\*  
**THE DRAGON NOTEBOOK!. All the hints, tips, routines, PEEKs, POKEs, etc you need, plus details of the Dragon memory map, Basic, DragonDOS codes and much, much more. Essential for ALL Dragon users! Price just 3.00 from the DRAGONART GRAPHICS LIBRARY. 5, GLEN ROAD, PARKSTONE, POOLE, DORSET. (Please make all cheques payable to the N.D.U.G.)**  
 \*\*\*\*\*  
**THE 1993 OSSETT SHOW!. THE SHOW WILL BE SAT. 24TH. APRIL 1993.**