

The Newsletter of the National Dragon Users Group

DRAGON



UPDATE

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The Gaffer's Bit

You think I've got nothing to write about, don't you?, and normally you'd be right, but THIS month there IS an item of news to report! How would you like a disc based magazine on the months when Update isn't published?. Thanks to the efforts of Ray Smith (remember Ray?, the masochist who runs the Graphics Library?) you can now have one for just two pounds per issue, including the cost of the disc, postage, etc.

While Ray is running his disc magazine as a Group publication it will be entirely HIS work, so please send all enquiries, contributions, orders etc to him, NOT Robin or me, or there will be much delay and confusion. OK?. Whether or not the disc mag works, or sinks without trace, will depend entirely on YOU any magazine needs (a) subscribers and (b) contributors, and without those all Ray's efforts will be wasted and you will have missed yet another chance to keep your machine supported. Unlike Update Ray's publication is NOT intended as a "newsletter" but it WILL be covering all the usual reviews, listings, adverts, etc. plus any news items that turn up too late for inclusion in Update, so it will be well worth the very reasonable cost.

What else is new?. Well, there is to be another "AMS Show" at Bingley Hall, Stafford on Saturday 9th. November, although at this stage I can't tell you what Dragon representation there will be. "AMS" no longer stands for Alternative Micro Show it is now All Micro Show and Radio Rally, which will probably mean it will be bigger than previously but possibly less relevant to Dragon owners. I don't have enough details to judge.

That, I'm afraid, is about all the news worth printing. So now read on

Paul G.

The Editor's Bit

What do you mean, you've all gone away to Majorca? Come back and read this issue at once! It's cool, it's groovy, it's packed with ... well, words ... um ... and there might even be a crossword! Just think, you could do it on the beach.

Actually despite the good weather (which is still holding as I write this but will have gone when you read it, no doubt), all you people seem to be quite active at the moment. Dare I to hope that the Ossett Show (review inside) has fired your enthusiasm? Anyway folks, thanks for the articles, and the software sales! Although my backlog of reviews is almost gone I can still afford to be selective with articles. Keep them coming in!

As usual though there doesn't seem to be much new software about. Judging from what I saw at the Show, part of this could be through lack of advertising. If so, companies, don't forget to TELL US about new products as well as sending review copies to Mike as reviews take a long time to get published sometimes, since we are a bi-monthly newsletter after all!

Well I hope this issue is to your satisfaction (though no doubt Paul will comment if he thinks it won't be). See you inside... (That's the cue to turn the page. Oh I forgot, you're all in Majorca.)

PEEKING THE DRAGON (34) BY MIKE STOTT

I am sorry to say that I am back into my old bad habits of writing the whole article at the last minute before deadline. Unfortunately I have had a year end at work just 4 weeks after starting which has been difficult and I have also been busy at home.

Surprisingly enough I have been able to answer nearly every query received myself and as SAEs were enclosed or they were over the phone I will not bore you with them here. I have had quite a few queries about the SUPERKID cheat so I will give that here in case there are more who want to know it. 1:

Get on to the Hi-score screen and select "RES"

2: Use joystick to enter 13 37 for collision detection and/or 25 67 for lives.

3: The codeword is ALISON.

4: Select "END" and now you can turn the collision detection on and off and select 1 - 9 lives.

A word of warning - the fire-button should be pressed gently after each part, and I do mean GENTLY. All this may sound complicated but I have done it to test it and I can assure you it works.

One solution I cannot come up with is in answer to Richard Sutcliffe's phone call. How can you PCLEARD, disks being used, within a program? All the POKES I have seen require a "NEW" afterwards which would mean you would lose your program as soon as you ran it. Somebody must have cracked it so please let Richard or me know the answer.

Let me tell you here about the good service I have received from a non-Dragon company. When I left Bear Brand I bought an Amstrad PC1512 off them for David very cheaply. (Let me tell you now that David is like me and uses his PC as a second computer to the Dragon). As he did not have a hard disk I ordered a 20meg full kit (SCSI as it turned out) from Marblewell, who advertise in Micro Computer Mart, last Wednesday for 99.00 plus 5.00 P&P plus VAT and it arrived on Saturday. I installed the hardware on Saturday evening and set it up in twenty minutes on Sunday. Not a bad sector anywhere on it and fairly rapid.

Turning to adventures I have sent out a number of VORTEX FACTOR sheets although the last issue of Update only came out a week ago. There has still been no offers of help for Martin Waller with STARKE ISLAND, but Robert Cleminson has now solved PERSEUS AND ANDROMEDA leaving Tim Lees and myself struggling to complete it.

A number of us Dragon owners in the North West are meeting in Manchester shortly for a practical demonstration of ZAPPER by Peter Mooney who was one of the authors. This is a disk and memory utility which has been around for several years but is still a very useful program. Perhaps after this meeting I will be able to make better use of it. Normally when we have a meet it is rather a haphazard affair with everybody in small groups swapping hints on different subjects. Hopefully this will become a regular organised event. Other owners in the area are always welcome although numbers are restricted as we meet in somebody's house and not in a hired room.

As I have got space in this month's article I must mention some of the items available from the PD library which Stuart Beardwood runs and also the Sprite Magic User Group. Stuart keeps sending me some really useful software for both of these, obviously hoping for a mention. Well here goes at last. One really useful looking program is VIDGEN which is a Video titling utility for creating MODE4 text for scrolling onto the screen whilst recording onto Video Tape. This is a must for those of you with Video cameras and is so easy to use. POKEFIND is a utility whereby you can move a box of variable size round any graphics screen and then print to screen or printer the Poke values of the lines within the box. KITES is Stuart's own program used to design kites and is really interesting even just running it through to see what has already been done. Virtually every subject is covered in this comprehensive collection and many people are now ordering the lot. If you let him know what you are after he will fill a disk (or tape) with whatever he feels suitable.

By the time you read this I will have been Software Editor for three years (Soft is very apt, but did I wear well?). I am encouraged by all those who ring me with problems or write to me with them. Hopefully I am able to answer most queries satisfactorily as nearly everybody appears happy afterwards.

Showtime??????????.

I KNOW that there were rumours of a Dragon Show being held at Bristol later in the year, but so far I have heard nothing at all from Rob Preston about it, so please, don't write and ask me for details as and when I get any information I'll let you know. OK?. Paul.

Readers' Rhubarb (1)

Occasionally it has been suggested that we run a Problem Page so that answers to common problems can be supplied "in public" as it were, preventing several people having to solve the same problem off their own backs. As Steve Carpenter has given me a number of queries for such a page I think this might be a good time to start it up. So, if you know the answers to any of the problems below then please let me know and I'll print your answer next time around. Of course if you have any appropriate queries then again, send them in to me (make sure you indicate that it is for the Readers' Rhubarb section). This is just an experiment at the moment so it may not run for long, depending on feedback. We'll have to see how it goes - it's all down to you, as usual! @

Questions:

1. Is there available a program to convert BBC DFS files to DragonDOS readable files? How about vica-versa?
2. Having got the READPC program published in Dragon User working, I find that the Dragon's tape INPUT routine skips characters above ASCII 128. I need to read all characters (ASCII 0-255), so can anyone suggest a modification?
3. Does anyone know of a good cribbage program for the Dragon?
4. Has anyone got CoCoCAD running on a Dragon 32 disk system? This program was originally published in The Rainbow, October 1985. I have been using DOSplus for a year now and I think it is terrific...a great help with Telewriter and has transformed my Dragon into a new machine! Thanks Phil! One problem though, is there a patch to get it to work normally with Rainbow Writer? (Ed-Very topical, Steve. See elsewhere.)

Answers:

In answer to your first problem, an experimental program to do this is contained on my (well, Dragonfire's) PD Disk 1. It needs some working on though, and I have yet to hear of anyone doing this. Help, someone!
Robin.

Letter to the Editor

Dear Robin,

On page 14 of Issue 75 of Update, Ken Grade referred to the incompatibility of ScottDOS (I assume he means DOSplus) with DragonDOS in relation to the POKES to echo screen output to the printer. He also implied that those who use DOSplus are to be pitied, presumably for having no bugs to avoid. (At the last count there were around 56 bugs in DragonDOS 1.0 and around half that in SuperDOS E6.) I have always accepted justified criticism and usually treat unjustified criticism in an appropriate manner, but I must make an exception in this case, because of its wide circulation. I must, therefore, point out that if DOSplus is incompatible with DragonDOS because the POKES cause problems when writing to disk, then SuperDOS and DragnDOS are also incompatible with DragonDOS! The POKES described stop all three systems from working correctly.

I feel it is also necessary to emphasise that the BASIC program supplied by Ken Grade is a screen dump, as stated. The POKES, in contrast, do not send the screen content to the printer as stated, but echo to the printer all characters sent to the screen. The difference? The former gives 16 lines of 32 characters while the latter may give one line of 512 characters.

Yours Sincerely,

Philip G Scott.

Editor's comment:

I have used DOSplus for nearly 2 years and consider it to be the best DOS available for the unexpanded Dragon, with the possible exception of DeltaDOS which I have yet to use. True, incompatibility can be a problem but I think the advantages far outweigh this, and I have found Phil most helpful in the past. Once again Phil has come to the rescue by sending me an article which appears elsewhere in this issue. I am reproducing it exactly as he sent it, hence the typeface. Choosing a DOS from the three mentioned in his letter seems to be a case of deciding whether you want 56 bugs and 100% compatibility, 0 bugs and 90% compatibility or, with SuperDOS, a trade-off between the two. I would recommend buying a DragonDOS 1.0 cartridge and replacing the EPROM with DOSplus so that, in an emergency, you can always have the assured compatibility of DragonDOS should you need it. In order to use DOSplus it is, in my opinion, well worth the effort.

Robin.

To Lay A Ghost (2) .. Dave Riley

A program destined for mode 1 memory must first be loaded into mode 0 memory and then copied to its destination, together with a vector to point to it. First of all assemble the program in mode 0 as usual, but make sure it is RELOCATABLE. The example given just puts inverse zero characters on the screen and can be copied into mode 1 memory by entering XCOPY. It can be run in mode 1 memory by entering X\$200 or by leaving Dream and entering EXEC&H200. If you commit the entire assembly to disk remember that the EXEC address is in the address of the COPY label. This address will be placed in location \$9D-\$9E by the computer, so in some circumstances it is advisable to make the program insert the new EXEC address (\$200) in \$9D-\$9E. If you use cassette, avoid the use of \$200 for the EXEC vector, as this is in the cassette buffer. Note that no ROM subroutines are used. To use the ROM routines first try out this example and then refer to Update Issue 68 page 10, "Accessing ROM from D64 Mode 1" which I wrote before I realised that the EXEC48000 ghost had not been exorcised.

Sample Program

```

VECTOR ORCC  #$10    ;ENTRY
      CLR    $FFDF
      JSR    $8000
      CLR    $FFDE
      ANDCC  #$EF
      RTS                      ;EXIT TO BASIC
*****
*PROGRAM TO RUN IN MAP MODE 1*
@      LDX    #$400
      LDA    #$30
L1      STA    ,X+
      CMPX   #$600
      BNE    L1
      RTS
*****
*ROUTINE TO COPY PROGRAM FROM*
*MAP MODE 0 TO MAP MODE 1*
COPY   LDX    @
      LDY    #$8000
L2      LDA    ,X+
      ORCC   #$10
      CLR    $FFDF
      STA    ,Y+
      CLR    $FFDE
      ANDCC  #$EF
      CMPX   #COPY
      BNE    L2
*****
*ROUTINE TO COPY VECTOR INTO*
*CASSETTE BUFFER*
      LDX    #VECTOR
      LDY    #$200
L3      LDA    ,X+
      STA    ,Y+
      CMPX   @
      BNE    L3
*****
*THE FOLLOWING LINE IS*
*DEACTIVATED FOR THIS DEMO*
*      JSR    $200
      RTS

```

Answer to Phil Scott.

Here we go again, the old argument about "bugs" in DragonDos 1.0 and compatibility. There are NO bugs in DragonDos! Surely the test of any routine, program or DOS is whether it works? On that basis DragonDos definitely has no bugs. The confusion and problems with the many versions of DragonDos have been caused by people attempting to improve on nature. They have disagreed with the way in which certain disc operations were written, because they weren't "elegant" or used non-standard methods, neither of which constitute "bugs". (Bob Harris' complaint, when he was still writing for the Dragon, was that there were so many different - and incompatible - Dos's, each of which needed its own version for a given program.) The point with the "quick 'n dirty" POKE's, Phil, is that they ARE quick and simple. That is what most people want - a short routine which will do what they want without using an assembler, then Exec'ing one address, and POKE'ing another. The POKE's were given in "Inside the Dragon", by one of the writers of DragonDos. Lastly, on incompatibility, why is it that most of the complaints and problems which Paul gets, regarding discs, come from people using DOSplus? I can't remember one from a DDos 1.0 owner. Ken Grade.

Desktop Publishing (4) .. J.R. Winchurch

Page Layout

The simple grid that we saw last issue can be improved in appearance by narrowing the column of text, which gives a wider inner margin. If this inner margin is wide enough it may be suitable for side-headings. The resultant display is that much more dynamic than the simple, page-wide column. Two good layouts could be as follows. The first is for simply narrowing the column sufficiently to add interest, while the second is suitable for side-headings as well:

TOP - 40 MM	40 MM
BOTTOM - 70 MM	70 MM
INNER - 54 MM	54 MM
OUTER - 140MM	170MM

Readability is enhanced by this narrowing of columns, but may be further improved by dividing the column into two. Thus, although the horizontal grid is still one division, the vertical grid now has two divisions. Try these screen dimensions (on "Publisher"):

TOP - 50 MM
BOTTOM - 80 MM
INNER - 60 MM
OUTER - 48 MM
GAP/COLUMNS - 8 MM

Although it is usual to make the two columns of equal width, it is by no means the only way to do it. One column could be made narrower in width than the other. This type of layout is more suitable where you have a main text column, with a narrower subsidiary text alongside. The subsidiary text would also be in a smaller font than the main text in order to reinforce the difference in importance.

It is possible to divide the vertical page into more than two columns. Four or more columns would not be unusual. In my opinion however anything more than three columns is not suitable for an A4 sheet as the number of characters per line becomes severely restricted - unless, of course, a very small font is used. I tend to use the Group's program, as I have said, to build up A2 and A3 sheets. Therefore, in such circumstances, four or more columns becomes feasible. As I intimated in an earlier article, I achieve this by printing out large character galley proofs, which I then mount on the appropriate sized sheet. These are more suited to wall displays. For an A4-sized sheet I would recommend the following screen dimensions for a three-column page layout:

TOP - 42 MM
BOTTOM - 72 MM
INNER - 32 MM
OUTER - 42 MM
GAP/COLUMN - 8 MM

We shall see in future articles that the three column layout, used with a suitable horizontal grid, lends itself to a more flexible page design. Diagram blocks may extend over more than one column, and with care, a visually pleasing layout is possible.

Thus we are led onto the use of the full page grid, and this is what we will consider in the next article.

HI-SCORE - REVIEWED BY JONATHAN BAKER

The Hi-Score Database is a good idea as well as being easy to use. It keeps a record of your highest scores, the date when you achieved it and the name of the game. There are seven main options. When you produce a hard copy (print-out) the computer will ask you whether you want them sorted into alpha-numerical order. This can take quite a long time with a big file. On the whole this is a very good program. Although it still has a few bugs in it, it has got a big !YES! written on it for us arcade game freaks.

Hi-Score available from Alexander Lia, 22 Coy Pond Road, Branksome, Poole, Dorset, BH12 1JU. for 2.50 plus a blank cassette.

(Soft. Ed. - Jonathan is one of our younger members and I feel he has done a good job with this review. Incidentally, I have written to Alexander Lia listing the faults I found and he has sent me an alteration. Younger members will probably find this program useful.)

BASIC Program Layout..Stephen Ross....

Although I have only had my Dragon for a couple of months I have enjoyed experimenting with it, and although my ideas are simple, I hope they may be helpful to other beginners.

The ideas for BASIC program layout in this article are geared towards filing systems, but are generally valid to most menu-driven or similar systems.

I usually start a program with a few REM statements to remind me at a later stage how the program is being set up, what stage has been reached and so on.

The first section of the program is then used to load any static information into string and numeric variables. String data of course is held between quotation marks. If you are not using disk or tape files then all the information you expect the system to hold will have to be in this section. Otherwise, it is usually input by the user.

The second stage (I omit menu selection and various options) is then the instructions to the computer concerning screen layout. Using the "PRINT @" grid in the Dragon Manual, you can decide more easily where the information will be printed. It is important to begin this section with a CLS command to clear the screen. If the goal was a simple one of printing one page of information, one could then use a loop such as "500 GOTO 500", and the page would be displayed indefinitely. However a far more dynamic approach is to introduce a menu selection routine where the user can decide which page he wishes to view, and then return to the menu after displaying the page. Alternatively one could use a specific order in which to display the pages of information.

Finally, do remember to clear string space if necessary. (With a line such as "CLEAR 1000".) This MUST be at the beginning of the program.

If you wish to get in touch with me to discuss simple BASIC programs then please do so (via Robin). Note however that I am still a beginner and may not be able to answer more complicated questions.

The Rainbow: August '90...P.Marlow..

Before I start this month's review I would firstly like to explain my short absence. This was due to having to revise for my college exams. Anyone who has taken the BTEC HNC Chemistry course will tell you how long it takes. However I am back now and there should be no more absences till next March, at least.

"Rainbow"'s August issue contains programs such as a revised version of the July issue game "Ez-Thello" which allows you to play against the computer. There's a machine code utility that splits multi-statement lines which makes listings easier to read (this can only be used on 64K machines as it patches the BASIC ROM). The most useful program this month, "Doublewide", prints two 8-page graphics screens side by side on the DMP 105/6. It needs slight modifications to run on the Dragon but is very useful if you have large graphics to print. Another good program is "Spiro" which simulates the Spirograph wheel and draws an infinite variety of designs. (At the moment I can only get this to work on my CoCo; however I hope to get it working on my Dragon very soon). "Detecto" is a Cluedo-type game that uses the text screen. "Lcopy" is a machine code utility that copies one line to another, ie, LCOPY 100 TO 400. (This is another that only works on the CoCo at the moment.)

I have decided to concentrate just on the programs from now on, so if you want to find out about the articles you'll just have to buy the magazine! "The Rainbow" is a very good source of commercial software for the CoCo, even if it is a bit pricey. It hardly replaces the British software suppliers though, but it is a useful supplement to them.

Incidentally, how many CoCo users are members of the NDUG? From the response I have got from these articles it seems as if there's only me!

(Not so, Mr Marlow! There are several more CoCo users in the NDUG to my knowledge. This is another example of a writer getting lonely through insufficient feedback from the readers, methinks. Somebody send him a bottle of champers, or better still, a letter. - Robin)

Difference of opinion

I'm not at all sure that I like this idea of the "Readers Rhubarb" column all that usually happens is that you send in a question, and wait several months to get a batch of inaccurate and conflicting answers!.Not efficient at all. Still, if that's what you want, so be it, but please let Robin know ... it's his idea!. Paul.

Reclaiming Duff Tapes...Mike Townsend...

Sometimes you find yourself with a tape that, no matter what you try, just refuses to load. Of course you've followed all the tips in the "Data Recorder Care" article in the last issue of Dragon Update (You DID read it, didn't you..?), but all to no avail. You reset the volume control a dozen times, tear your hair out, hit the bottle and kick the cat, but nothing works. There remains one more thing that you can try...

A few weeks ago, I was given a load of Dragon games tapes by a young lad who had a problem. He had tried everything except hitting the bottle (he couldn't find milk anyway). I said that I would use my "Hilton Utilities 1" program (Quick free plug...sorry Ed.) (Don't do it again. And the name's Rob. Ed. Oh I see.) to try to re-record them, as sometimes a different tape recorder will load a troublesome tape. What he didn't realise was that, on some tapes, there was a perfectly good copy of the program on the "B-Side", although on some there was no label on that side. "Utilities 1" (oops..and another!) made a good job of re-recording the "A-Side" on most but some just refused to load and some were too long to fit inside my 32 with the copy program still resident.

Using AUDIO ON and MOTOR ON, I listened to the tapes. Some had varying volume and some were just too quiet altogether. I made up some leads to connect my data recorder to my stereo tape deck, played the tapes on the stereo and re-recorded them on my data recorder. The automatic volume control corrected the volume on some and smoothed out the varying volume on others. Some tapes took two or three goes but then loaded, and I was able to re-record them off the Dragon to give a perfect quality recording. Some, however, still defied repair. Once again I listened to them and found that, compared to a good tape, they were lacking in Treble and crispness. This Treble needed restoring. The Dolby system on my stereo came to the rescue. When recording under a Dolby system, the high frequencies where tape hiss occurs are amplified and then, on playback, reduces this tape hiss. This gives a corrected volume for the music at that frequency but the volume of the tape hiss is lowered. If you play back without Dolby, you get an increase in treble, so all I did was to record from the data recorder to my stereo, using Dolby. One tape ran first time and the other on the second try.

The owner of the tapes was pleased, I was proud of myself, and I hope a few of you will be happy if it works for you. Don't forget, if you are CSAVEing from your Dragon, to POKE 144,1 first (see my article in the last issue). Happy reclaiming!

PS: If anyone has converted "Hilton Utilities 1" to run on a Dragon 64, in order to be able to load large programs that would fill a D32, could you please contact me on 0544-260178, from 8 pm to midnight.

TRUE OR BLUFF - PHIL CHATFIELD

I think I like it! Even though I have only sampled the one player option I was quite entertained by this little number. If it can be said to have a weakness at all, it is that it suffers from the 'Trivial Pursuit' enigma. 'What's that?' I hear the nation roar. Haven't any of you people out there who do not own Trivial Pursuit visited friends who do and been amazed at their incredible knowledge? you just didn't realise that they knew so much about the mediaeval kings of Lower Saxony did you? Having said that, if you are in the habit of visiting a fellow Dragoner, and you both own a reasonably weighty dictionary you can each prepare your own vocabulary in data files and challenge one another with your ability to mask the true meanings. Better with more than two, then you can interchange discs, forget the number you first thought of, throw them in the air and go down the pub! This is getting a little complicated. Let's stick to the single player game and exchanging discs with a distant relative shall we? The part of the programme where you create the data files is quite entertaining in itself. Finding suitable words is no bother, thinking up the false definitions is a real hoot. The words you get with the programme have some good definitions - or my vocabulary is equivalent to that of a gnat, one of the two. On the negative side the display is a bit basic and it gives a nasty twitch when passing from the second to the third definition. Another annoying little quirk is that if you select the full complement of 15 words to wrack your brain over and, at the end of the game, select the 'continue' option it offers, lo!! the dreaded FC error greets your gaze. If you select less than 15 words at the start this error does not occur, a minor annoyance.

All in all an entertaining little piece - especially if you are in regular correspondence with another Dragon owner and enjoy challenging one another.

TRUE OR BLUFF available from Dragonfire Services, 8 Ingleby Road, Wigston, Leicester, LE8 1DQ.

Oh no!, Not again!!!. Paul Grade.

So we're back to the futile old "Dos versus DOS" arguments again! Well, before I get blamed for something I HAVEN'T said I'll make my position clear. don't give a damn WHICH DOS anyone sells or uses, but if it isn't 100% DragonDOS V1.0 compatible don't complain to ME when your discs crash. I've used V1.0 for eight years and never found ANY "bugs" which prevent it doing just what it was intended to do, and it IS the Dragon "standard". I DO strongly object to false claims of "compatibility" though, and a DOS which requires you to patch or modify your discs is NOT compatible at all, and to advertise or market such a DOS as being "DragonDOS compatible" is contrary to the Sale of Goods Act. Market or buy what you wish, but don't make false claims. P.G.

Ossett Show Review...Frank Fisher....

Time for the Ossett Show again, possibly the last remaining venue for Dragon and Tandy shows. This year there was a total of ten exhibitors, all old hands.

Steve Knight, PSC Computers (formerly Pulser Software), John Penn, NDUG (represented by Mike Stott), 6809 User, Dragonfire Services, Dragsoft, Dragon PD (Stuart Beardmore), SMUG and of course R & AJ Prestons, the organisers of the Show.

Brian O'Connor of PSE was doing a roaring trade in second-hand hardware: his entire stock of second-hand D64s were sold within the hour! He also had some new titles but I never got to see them. I do believe though that in all departments Brian had a field day!

On the other end of the scale, John Penn sat there and watched the world go by.

Nobody was buying software! Even Rob Preston, who normally does well, was alternating between his six tables and keeping a check on the door. (His wife was selling the tickets.)

Dragonfire Services was represented by our esteemed editor Robin. Seems a likely lad but I was mentally measuring him up for a straightjacket. (Wibble. Ed.) He was pushing his PD disks, 2 Dragon and 1 Tandy, each full of handy programs. (My old man was there too but most people thought he was with John Penn! Ed.)

Dragsoft, in the guise of Mike Townsend, was selling software and hardware. The Dragon PD Library, courtesy of Stuart Beardmore, had at least 20 disks covering such diverse features as M/C routines, fun programs and demos. Those older hands will probably remember the READPC program in Dragon User; the program itself needed a double-sided disk drive to operate. Apparently the program has been rewritten to use the Dragon single-sided drive, but no further info is available at present. Also there is a program called "Credit", a full screen editor by Herr Michael Rodziej of Germany. The Sprite Magic User Group was also on this stall.

Steven Knight seems to be 6 inches taller than when I last saw him. He was demonstrating his latest updated "Publisher" program, as well as a demo for a game called "Robocop". The demo was impressive to say the least, with 3D effects and synthetic robotic voice. Mike Stott on the NDUG stand was kept fairly busy all day answering questions and flogging NDUG disks. He signed some new members up as well as taking renewal subscriptions. 6809 User seemed to be a little lost stuck away in a corner but were kept reasonably busy.

The following Monday I spoke with Mike Stott and Bob Preston. The general consensus of opinion was that the Show was a success; the good news is that there will be an Ossett Show again next year (Hurrah!). Also in the pipeline is a Show to be held in Bristol. Watch Update for details.

The number of people who attended the Show exceeded 100, about 20 down on last year, which is actually very good. I feel that the heart of the Dragon beats strongest in the North. (Cue lots of irate Southerners. Ed.)

My impressions? Once again a Show worth visiting, to meet again those people that I had met last year plus a few new faces. I most certainly will attend the next if at all possible, and I hope you will too.

Information required, please.

I have had several enquiries recently regarding OS9 and FLEX groups, or rather the lack of them. If anyone has any up to date information regarding the existence of Dragon groups specialising in either of these Operating Systems please let Robin (or me!) know so that we can publish details. Paul.

Easy Machine Code (21) ...RAD.

In the screen dump we got as far as the routine @DWN6:

```

1050 @DWN6 LEAX 32,X          1060 LDA ,X
1070 BITA @BIT              1080 BNE @DWN7
1090 LDA @CUM               1100 ADDA #96
1110 STA @CUM               These routines should now be second nature to you as they
have been explained and repeated so many times! The numbers used are of course
peculiar to the DMP 105 printer, to which we now go again.
1120 @DWN7 LDA @CUM         1130 ADDA #128 for the DMP 105.
1140 STA @CUM              1150 LDU #@CUM pointing the U register to the
@CUM address again.
1160 JSR @PRINT and print out. 1170 LSR @BIT to see if it's zero or do the
next bit of the byte.
1180 BEQ @NUWBYT if @BIT is zero we need the next byte.
1190 BRA @LOWLOW otherwise carry on with this sequence on the next bit in the
byte.
1200 @NUWBYT DECB to count the bytes across the screen.
1210 CMPB #0 to detect the need for a new line.
1220 BEQ @GOGO which will move us further down the screen.
1230 LDX @SCREEN as we don't have to move yet and can carry on the row of bytes
1240 LEAX 1,X to get the next byte in the row.
1250 STX @SCREEN to get it for re-use later.
1260 CMPX @SCREND to see if we have finished.
1270 BHS @STOP Branch if higher or the same to stop.
1280 LDA #128 same as #80      1290 CTA @BIT again.
1300 LBRA @LOWLOW and go back to the main routine for this bit.
1310 @GOGO PULS X          1320 LEAX 224,X move the scan position down seven rows.
1330 PSHS X and save this new address to be used instead of the original one.
1340 STX @SCREEN for easy use again. 1350 LBD #32 to set the counter.
1360 LDU #@CR              1370 JSR @PRINT to get a carriage return.
1380 LDA #80 our old friend 10000000. 1390 STA @BIT again.
1400 LBRA @LOOK and go back to do it all again.
1450 @STOP PULS X          1460 RTS which ends the program.
1470 @PRINT LDA ,U+ the printer routine. Load the A register from the data at
the address pointed to by the U register, and increment the U register.
1480 BEQ @FIN If the A register holds a zero then branch to @FIN.
1490 JSR @800F This is the normal ROM routine for any printer.
1500 BRA @PRINT get the next character to be printed, if any.
1510 @FIN CLR @CUM set the @CUM store to zero.

```

Hooks and Printer Echo by P.G.Scott.

In Issue 75 of "Update", Ken Grade bemoaned the fact that the "quick and dirty" method of echoing screen output to the printer did not work with DOSplus (ScottDOS), and suggested a BASIC program to perform the task ("Text screen printer dump..." P.14) While the program is a neat screen dump utility, it does not produce the same effect as the POKE's. Before describing a routine to provide a printer echo function, which should work with any software, it would be as well to discover why the lazy programmer's "sloppy" POKE's do not always work (or more accurately - corrupt the operation of some programs.) The three locations \$167-\$169 provide a "hook" to allow user programs to intercept character output from BASIC and to process this in some way. Programs which provide alternative text screen displays (Rainbow Writer, EDIT+) or additional disk file access facilities (DOSplus) use this hook to route the data to the appropriate device. The POKE's replace the jump (\$7Exxxx) inserted by these programs by a jump to the printer output routine in BASIC, preventing these programs from carrying out their assigned tasks. Obviously, if the hook is not used there is no problem. So, what is the solution? It is, quite simply, to use a short routine which uses the hook in the correct manner. As I described in "USER" some time ago, the technique for using hooks is not difficult:

1. Load a routine to do the required task, which uses or bypasses the existing hook as appropriate; 2. Copy the existing hook so that it can be used (and replaced if required); 3. Insert the jump to the routine just loaded to activate it.

Steps 2 and 3 are best included as an initialisation sequence in the routine, so that a LOAD/EXEC sequence will install the routine automatically. You've seen the theory, now the practice. The following program will give the same result as the POKE's, but still allow other programs to continue to operate.

```

03C0 BE 0168      LDX #168 Copy the three..
03C3 AF 8C16      STX <EXIT+1,PCR ..byte hook to..
03C6 B6 0167      LDA #167 ..the end of this..
03C9 A7 8C0F      STA <EXIT,PCR ..program
03CC 30 8C09      LEAX <ENTRY,PCR Now write the..
03CF BF 0168      STX #168 ..new hook into..
03D2 86 7E        LDA #$7E ..place to initiate..
03D4 B7 0167      STA #167 ..the program
03D7 39           RTS Done.

```

```
0308 BD 800F ENTRY JSR $800F      Call printer O/P routine..
0308      EXIT RMB 3              ..and obey the old hook
```

The first nine lines of the program copy and setup the hook to install the program after the EXEC, while the remaining two lines do the work (the existing hook is written to the three byte data area at label EXIT). Many of you will already have spotted that this program still has a number of flaws, including possible changes to the processor condition codes, which may cause problems. Again, this is easily overcome by changing the line with label ENTRY to the sequence

```
03D8 7F      ALL      EQU $7F
03D8 34 7F ENTRY PSHS #ALL      Stack registers..
03DA BD 800F JSR $800F      ..call printer routine..
03DD 35 7F PULS #ALL      ..restore registers..
```

This preserves all the registers while the data is output to the printer. So far, so good, but I suspect that the result is not what the originator wanted. Yes, it does echo to the printer everything written to the screen (by BASIC), but it also echoes to the printer all data written to the cassette, printer (giving duplicated characters) and, in the case of DOSplus, all disk output as well. All is not lost (yet!), as a few more lines added to the program will overcome this. The program (from label ENTRY) becomes:

```
03D8 34 7F ENTRY PSHS #ALL      Stack registers
03DA 0D 6F TST $6F      Test device number..
03DC 26 03 BNE SKIP      ..skip if not screen
03DE BD 800F JSR $800F      Call printer routine
03E1 35 7F SKIP PULS #ALL      Restore registers..
03E3      EXIT RMB 3      ..and obey the old hook
```

There is still a problem that can occur. If the printer is off-line, the DRAGON will stop until it is put on-line. If you can live with this, then skip the next bit. If, however, you prefer to suppress the echo while the printer is "BUSY", then one further modification will do the trick:

```
03D8 34 7F ENTRY PSHS #ALL      Stack registers
03DA 0D 6F TST $6F      Test device number..
03DC 26 0C BNE SKIP      ..skip if not screen
03DE B6 FF22 LDA $FF22      Get BUSY status
03E1 84 01 ANDA #1      Extract busy bit
03E3 26 05 BNE SKIP      Jump if busy
03E5 A6 61 LDA 1,S      Recover A register
03E7 BD 800F JSR $800F      Call printer routine
03EA 35 7F SKIP PULS #ALL      Restore the registers..
```

```
03EC      EXIT RMB 3...and obey the old hook.
```

The Program is position independent, so it can be loaded in anywhere, though \$3C0 is good enough. SAVE it as a binary file, with the entry address the same as the load address, so that EXEC will setup the hook. Finally, how to turn the echo on and off. The initial state is echo enabled, so, in the case of the last two programs, to turn echo off POKE &H3DC,32 is used, while POKE &H3DC,38 will turn it back on again. For the latter program, you could just switch the printer between on-line and off-line instead. To remove the echo facility completely, the best way is to POKE 113,0 and press reset to start the Dragon from "cold", though you could also copy the original hook back from \$3EC-\$3EE to \$167-\$169, provided no other routine has linked into it in the meantime.

This is all very well, but WHY should anyone have to learn 6809E Assembler in order to use a supposedly "compatible" DOS type?. Paul G.

The Editor's Late Bit.....

Right, here we are then. What better to celebrate my return home after a year at ***** Polytechnic (go on, guess!) than editing the latest blockbusting edition of Update? Yes, I'm back in Leicester now and will be until the end of September. (You lot don't get my ***** address, it avoids confusion.) I feel I should apologise to those who have phoned me in the Poly Halls for the background noise. I'm afraid the people I was living with were all completely insane (not me, I'm normal, honest!) and kept doing elephant impressions. Anyway I'm back at home now, which means much MORE background noise in future. Oh, if anyone's interested, the Paul Simon concert was great. (Be QUIET Paul.) Thanks to Richard Sutcliffe for supplying me with a version of "Letter Writer" which is compatible with "Grotto Mk II", and I will investigate this as soon as I get some spare time from typing Update and running Dragonfire. (Ironically, isn't it? I can't make typing easier because I'm busy typing.) Apologies to anyone who has experienced a delay when ordering ex-NDUGSoft material (now Dragonfire's, heh heh!), those have now been sent off and it's nearly organised now as well. Such efficiency!

As I said on the front page, it's nice of you to have given me some feedback. I know Paul wishes the Group could be "all over by Christmas" so he can be normal (ha!) again, but remember Paul, that's what they said about the Second World War! (And the First...)

THE LATE, LATE BIT

Yet another enthralling issue almost completed, but where is the news?. Trying to discover something that might be of interest to Dragon owners now is about as easy as trying to discover an honest politician in Parliament!. OK, so there's the AMS5 Show, and Pulser have changed their mane to confuse the Inland Revenue (why else?!), and Robin told me that Dragonfire Services managed to sell a program last month, but is this REALLY all the news that is news on the Dragon Scene?. Something must be happening out there, but it is the best kept secret of the century, so if you discover what it is do PLEASE let us know so that we can tell the world!.

I keep getting letters and calls from people wanting to know "whatever happened to Compusense, Microdeal, Computape, Bob Harris, Simon Jones, Andrew Hill, etc, etc" and all I can tell them is that in most cases the persons/firms concerned have disappeared from the Dragon Scene completely. I am informed that Compusense (Ted & Stan) left their last known address for places unknown, and were never seen again; Microdeal left the Dragon for more profitable pastures, but so far as I know John Symes and his bank account are still alive and well and putting on weight!!; Computape are a bit of a mystery too, Harry told everyone that he was passing his stock of software on to someone else ... but if he did that someone disappeared too and was last heard of playing hotellier somewhere on the Isle of Wight! Bob Harris went into a massive suik after his attempt to run Dragon User went wrong, and if anyone has heard a word from him since it probably wasn't a polite one!! Simon Jones (you know, the one who started "Dragmag" and changed its name to "6809 User" after several years of funny looks and propositions from the postman) is still very much alive, and is currently attempting to make a living as a genuine Journalist inventing news items for his local rag, although he STILL doesn't believe me when I tell him he ought to BECOME a news item himself!, and while he still runs a D32 is no longer connected with the scene other than as a user; Andrew Hill (Dragon Magazine) was last heard of about a year ago trying to run a printing and publishing company from an industrial estate somewhere in Blaina ... since then I've heard nothing, so either he has made his million and doesn't want to tell me in case I try to borrow it from him, or joined the rest of the country in the dole queue!. You now know almost as much as I do about the Late, Great Stars of Dragonland ... if anyone knows anything (preferably unprintable!!) that would add to the above information do please let me know. Oh yes, I almost forgot to mention that Donald Morrison got all disillusioned and gave up computers altogether, and Bernd Neuner got tired of trying to run the SCG with virtually no support at all and ended up trying to make a living testing PC software!.

Reading back over that lot makes me wonder what the Hell I am still doing on the scene! ... either I'm too bloody minded to quit or I must have developed into a keener masochist that I thought!. Still, so long as the Group remains solvent, and there are still people I can irritate with stuff like this, it would be a pity to shut things down. Why should I want to irritate people?, simple, they get far too smug and complacent if someone doesn't tread on their toes occasionally, and as almost everyone else seems to want to please all of the people all of the time, and not say anything which might offend anyone, I HAVE to do it!. Like most kids I always wanted to grow up to be the sort of person that I was always told not to associate with and I succeeded*!!*.

Anyway, back to Update matters for a moment: sorry, but there is no crossword again this month as nothing has arrived from Dave Bateman and I'm useless at compiling crosswords. If anyone is bored enough to make up a couple that I can use as "reserves" in case Dave doesn't send one for the next issue, please do so ... but don't forget to enclose answers as well!!!.

Paul Grade.

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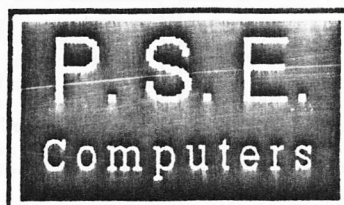
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