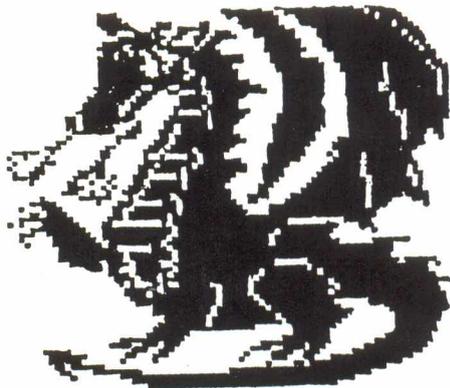


Dragon Logic



ISSUE 6

U.K. ONLY

INSIDE

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Dragon Logic, 72 Diriebught Road, Inverness, IV2 3QT.

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Editorial

By DON MORRISON

Fresh from their success at Weston-Super-Mare, Dragonfire Services in association with the National Dragon Users' Group have announced plans to stage a South-East show later in the year.

So as to avoid a direct clash with Bob Preston's Ossett show and the Alternative Micro Show, the joint Dragonfire/NDUG show is to be staged at Hove Town Hall on the 3rd of June. Full details can be found on page 4.

Meanwhile plans for the Ossett show are well underway and, as reported last Issue, the show is due to take place at Ossett Town Hall on Saturday 25th March.

The majority of Dragon suppliers will be there with the latest in Dragon software, hardware and magazines, and once again, Dragon Logic will be represented at the show, though on this occasion by Jonathan Cartwright of Starship Software.

Rumour has it that Pulser Software will shortly be leaving the Dragon market and the Ossett show will be their last. Judging by the comments made by Neil O'Connor last Issue in On the Spot, it seems there may be some truth in the rumour, but we'll keep you informed with any developments.

The subject of shows is very much in the limelight at the moment, as the debate as to whether there should be a Scottish 6809 show continues. It seems a number of Scots are a bit annoyed at the manner in which they've been constantly ignored over the past number of years, and who could deny that, for the most part, the Dragon scene has all but ignored Scottish Dragon users. Our view on the matter, is fairly well known, but we would like to hear the views of other readers on the subject.

On a lighter note, if any of you were concerned for our well-being during the recent floods here in Inverness let me put your minds at rest: no we weren't swept away in a torrent of water, though there are no doubt some who wish we were!

If you would like to correspond with any section of the magazine, write to Dragon Logic, 72 Diriebught Road, Inverness, IV2 3QT.

• LETTERS •

I must firstly thank you for sending me Dragon Logic Issues 1 to 4. Having now read these first 4 issues I must agree that it is a most satisfactory magazine.

There are one or two points that I would like to take up - A Scottish 6809 Show? Yes I do think it is time we had at least one and I cannot be alone in these thoughts. After all for people like yourself it means a round trip to London or Weston of over 1000 miles. Hardly a day trip. As you suggest, a show in either Glasgow or Edinburgh would seem ideal, as they would not only be accessible from most of Scotland but also from the North of England.

I would hope that the suppliers do not believe the old adage that the Scots are mean. The Scots are not mean, merely prudent and having invested in a Dragon wish to do the best by it. I am sure I speak for the majority of Scottish 6809 users when I say we would be willing to pay for a Scottish show and spend money whilst there.

Perhaps even if a pure 6809 show were not possible, then an 'Alternative' Micro Show as held recently incorporating the Dragon, Tandy, Einstein, Oric, QL etc could be staged.

Apart from airing our views in letters such as this, how can we persuade the suppliers to come North of the Border? If every Scottish 6809 user wrote to at least one supplier it would at least be a start.

Alexander McIntosh, 26 Southhouse Avenue, Liberton, Edinburgh, EH17 8ED.

Editor Replies: There has been much debate recently as to where Dragon shows should be held, though as yet no one has suggested Scotland. However a Scottish 6809 show could prove an attractive move, were someone to take the initiative. Firstly, as Alexander stated, such a show would attract, not only Dragon users from Scotland, but also many from the North of England who have also found themselves 'left out in the cold' as far as Shows as concerned. Secondly, there are a number of suitable locations particularly in Glasgow, which would be considerably cheaper to hire than a similar location in London.

Dragon Logic has recently pointed out such suggestions to Andrew Hill of Dragonfire Services, and we await his response.

Most people in the Dragon scene nowadays are by no means newcomers, they have their interests and preferences. When they ask for more software what they mean is software for their particular interests, which don't always coincide with what is available.

For example I'm interested in anything on the Dragon, games, utilities, hardware, magazines, shows etc and my problem is the number of hours in the day. Consequently not a lot gets covered in depth so when I get a problem it takes a while to solve (lack of in depth knowledge).

What I and other people need is more help from Jonathan Cartwright and others. The Airball Construction Kit is a great step forward in that it allows the punters to create their own games. Instead of cloaking the programs in secrecy, copy protection etc, explain it, allow us to alter it, help us to alter it.

In other words lift the general level of knowledge of the Dragon world. The more we ALL know, the longer it will go on.

News

If you have any new products for the Dragon - Software or Hardware - write to Dragon Logic, 72 Diriebught Road, Inverness, IV2 3QT.

JOINT DRAGONFIRE/NDUG SHOW

The National Dragon Users' Group in association with Dragonfire Services have announced details of their proposed Dragon show.

Due to the large number of shows being held throughout the months of April and May, the NDUG have moved their show to a later date and to a different and better location.

The Show will now be held on Saturday 3rd June 1989 at the Great Hall in Hove Town Hall, near Brighton.

Built in 1973, Hove Town Hall is a most impressive location providing seating for 200+ with full cafeteria and bar facilities, and easy access by road via the A23, A24, A259, A27 and M23 roads. Train services are available from London to Brighton and in many cases it is possible to travel direct to Hove itself.

The Show is being held from 10am until 3.30 pm though price details have yet to be announced.

For further information contact Paul Grade, 6 Navarino Road, Worthing, Sussex. TEL - 0903 207585.

PRESTON ANNOUNCE DATE FOR OSSETT SHOW

Bob Preston of Preston Computer Games has announced details of his proposed Ossett show. The Show is to be held in the Town Hall on Saturday 25th March from 10am until 3pm. Admission is £1.00 for adults and 50p for children.

Numerous suppliers have voiced an interest in attending the show, which in the past has proven to be one of the most successful and well attended venues in recent years.

Further details can be obtained by contacting Preston Computer Games, St. Brides Major, Mid Glamorgan. Tel - 0656 880965.

DRAGONFIRE SERVICES MOVE ADDRESS

Dragonfire Services have recently moved address. All orders should now be addressed to Dragonfire at Unit 3, Rising Sun Enterprize Centre, Blaina, Gwent. Tel - 0495 292159.

SUNNYSOFT OFFER RAY OF HOPE FOR ANIMAL CENTRE

Dragon user, Roger Quaintance has recently launched a new Software company called Sunnysoft.

The Company has been set up to provide funds for the Sunnydale Animal Rescue Centre in Ilfracombe which Mr Quaintance and his wife have been involved with for a number of years. The Company are currently offering 4 titles : RAE Maths Tester, Logic Trainer, Towers of Hanoi and Resistor Colour Codes.

All titles are available on cassette or disk (Delta DOS or Dragon DOS) priced £8.50 with the exception of Towers of Hanoi which retails at £2.50. Post and Packing of 50p should be added to all orders.

For further details contact Sunnysoft at 20 Church Street, Ilfracombe, North Devon



PROGRAMMERS LOGIC

By Jonathan Cartwright

The back cover of the last issue says that I will be giving "further advice on sprites". Well, that's news to me! Nevertheless I endeavour to please the public so here goes...

If you've read the past few issues you'll now know how to construct and display sprites. The routines that I've given you are mere skeletons, they aren't suitable for every occasion. For example the code in the last issue only allows you to display 8 by 8 sprites. Now, other than Beanstalker which games have you seen that solely use sprites of that size? Not many.

In addition to that, the routine only allows you to display sprites at 8 pixel intervals horizontally. This means that if you wish to move a sprite from one end of the screen to the other, 1 pixel at a time, then you can forget it. Moving sprites 1 pixel at a time can be a fiddly business and I for one do not particularly care for it. However, I have found that moving things horizontally often requires speed. This effectively rules out pixel movement, especially when you've got half a dozen other things to do at the same time (move nasties, perform tests, update score, decrement timer etc.). Therefore I don't propose to teach you anything about such methods of displaying sprites; if I can manage with 8 pixel movement then so can you. Of course, vertically you can move sprites any number of pixels at a time, this is due to the way that the screen is mapped out in bytes. The bytes are in horizontal rows, thus you can access any vertical position by moving to the appropriate row of bytes. I'm probably making this sound a lot more complicated than it actually is. If you've used my routine then you'll understand what I mean.

What I'm going to do now is adapt the routine from the last issue to display sprites of 16 by 16 pixels. The main principles are the same, however

the sprite and mask are now two bytes wide and 16 bytes deep.

```
                ORG 9216
@DISPLAY        LEAU @LOCONSCREEN,PCR
                LDX ,U
                LEAY @DATA,PCR
                LDB #16
@GRABLOOP       LDA ,X+
                STA ,Y+
                LDA ,X
                STA ,Y+
                LEAX 31,X
                DECB
                CMPB #0
                BNE @GRABLOOP
@DISP           LEAU @LOCONSCREEN,PCR
                LDX ,U
                LEAY @MASK,PCR
                LDB #16
@DISPM1         LDA ,X
                LEAU @AND1,PCR
                LEAU 1,U
                STA ,U
                LDA ,Y+
                COMA
@AND1           ANDA #$FF
                STA ,X+
@DISPM2         LDA ,X
                LEAU @AND2,PCR
                LEAU 1,U
                STA ,U
                LDA ,Y+
                COMA
@AND2           ANDA #$FF
                STA ,X
                LEAX 31,X
                DECB
                CMPB #0
                BNE @DISPM1
                LEAU @LOCONSCREEN,PCR
                LDX ,U
                LEAU @SPRITE,PCR
                LDB #16
@DISPS1         LDA ,X
                LEAU @OR1,PCR
                LEAU 1,U
```

```

          STA ,U
          LDA ,Y+
@OR1      ORA #$FF
          STA ,X+
@DISPS2  LDA ,X
          LEAU @OR2,PCR
          LEAU 1,U
          STA ,U
          LDA ,Y+
@OR2     ORA #$FF
          STA ,X
          LEAX 31,X
          DECB
          CMPB #0
          BNE @DISPS1
          RTS

@RESTORE LEAU @LOCONSCREEN,PCR
          LDX ,U
          LEAY @DATA,PCR
          LDB #16
@DISPDATA LDA ,Y+
          STA ,X+
          LDA ,Y+
          STA ,X
          LEAX 31,X
          DECB
          CMPB #0
          BNE @DISPDATA
          RTS

@MASK    FCB 7,224,31,248,63,252,127,254
          FCB 127,254,255,255,255,255,255,255
          FCB 255,255,255,255,255,255,127,254
          FCB 127,254,63,252,31,248,7,224
@SPRITE  FCB 0,0,7,224,24,24,32,4
          FCB 32,4,64,6,64,2,64,6
          FCB 64,10,64,22,64,42,32,84
          FCB 34,172,29,88,7,224,0,0
@DATA    RMB 32
@LOCONSCREEN FDB 3072

```

For your information I will return in issue 7 with advice on something else. Some of you might have written to me by then, well they do say miracles occasionally happen don't they?

WESTGARTH CHILDRENS HOME -----SPECIAL APPEAL-----

Our main concern at Westgarth at the moment is with transport. Several years ago we were given a mini-bus from the local MENCAP society. They had bought new vehicles and very kindly gave us their old one. Fortunately the Council agreed to maintain the vehicle (it took 500 pounds to get it roadworthy!). But when the bus finally gives up the ghost, which will probably be within the next two years (it's a well-used Y-reg) we will have to find the money ourselves for another one.

We haven't had to do any fund-raising ourselves in the six years we have been open, but the bus has become so useful to us for outings and running two pre-school playgroups during the day that a replacement is (to us at least) essential. One of our cleaning ladies is running in the London Marathan for us (she's a VERY fit 55!) and others are organizing jumble sales etc. My contribution is the income from the music discs which Pulser are selling (EL-PEA 2&3) but I have another idea Dragon Logic may be able to help with.

The 'Stereo' recordings of my Composer music seem to be very popular as a novelty item, so I had planned to start selling them for Westgarth. A C-90 for around £2.50 should be saleworthy even to non-Dragon users.

Dragon Computer Music

Using Microdeal's 'COMPOSER'
in Stereo Sound!



The quality of the recording is not too good on my cheap and nasty system but a good 'master' done on a decent system would copy quite well on mine to create a 'stock'.

I am also working on a suite of 'jingles' for people to use in their own programs, with about 11 short tunes in each of six programs to choose from. Just pick the one you want and use it to liven up any game or utility. It may even encourage people to bring out new software - decent music can make a program more marketable.

Anyone wishing further details should contact me at 38 Salisbury Place, Boothtown, Halifax, HX3 6ND. Tel : 0422 48631 (home) or 73097 (work).

Article by Stuart Beardwood.

W.I.M.P

WIMP - Windows, Icons, Mouse, Pull-down menus - was developed by Xerox in their Palo Alto laboratory about 14 years ago as a user friendly interface which supposedly makes the computer more 'friendly' and easier to use, making minimum use of the keyboard. The idea is that the screen is covered with Icons representing calculators, notepads, files and other objects which you would likely find on a proper desk. To access a file or whatever, you merely have to position a small pointer over the appropriate icon and press the mouse button, and you're in business. Apple were the first to use the system back in 1981 on their Lisa micros (which cost a little over 6000 pounds at the time), and later on their cheaper Macintosh computers. The WIMP appeared on the newer 16-bit micros - the Atari ST and Commodore Amiga for example. And now it's available on the Dragon.

As I also own an Amiga, I have had a bit of the WIMP experience already. I also know how much memory WIMP systems tend to crunch, and the Dragon only has 64k of it (the program requires a 64k machine). Another hardware problem for the Dragon is that there are no mice available, so an analogue joystick is necessary. This is particularly annoying as all my joysticks appear to have 'blind spots' which meant I was unable to position the pointer at some points on the screen, but I was able to access every icon, no matter where it was. To be fair to Broomsoft, though, these are, as I've already stated, Hardware problems, and the program has provision for a mouse should one become available. (Siegfrieds Schraubenzieher GbR of West Germany, as reported in last Issue, are currently marketing a device which will allow an Atari Mouse to be used alongside the Dragon).

Using WIMP programs is meant to be amazingly simple. Dragon WIMP is indeed - I was actually drawing pictures with the Mouseart program (more on this later) before I had even opened the manual. The WIMP system has an impressive look to it, with a 'blue' screen background and neat little drop shadows around the windows.

Programming your own WIMP programs is fairly straight forward. The new WIMP commands are pretty obvious

and, as the manual states, keep to the usual Microsoft BASIC syntax standards. The only problem I can see is keeping track of all screen co-ordinates, but it is worth taking your time over your programs, as the results can be quite amazing, as demonstrated by the sample programs.

Along with the main WIMP program, the Dragon WIMP disc comes with some 'free' software. The first of these programs is the 'Front Panel', which is basically a 'blue' screen with a column of icons, from which you can select what ever file takes your fancy. Among the icons is one for the Designer program. Position the pointer over this Icon, press the fire button and the natty Icon Designer screen appears. The program is entirely menu and icon driven, using the joystick to design icons on a 16x16 grid. Quite why you would ever need to design another icon evades me - there are over 60 to choose from.

The third and final program is Mouseart, probably the best graphics design program I have seen on the Dragon (although I have yet to see the Dragon Graphic Studio from Knight Computer Services). All the usual features are there, along with several shading/hatching patterns. Again, it entirely Icon and menu driven, and demonstrates how easy it is to use WIMP.

I hope that Broomsoft plan to publish further software to run with WIMP. Whether they do or not depends on the number of WIMP discs sold and this in turn will depend, to a large extent, on how much support software there is available. (Alas Michael Edwards of Broomsoft has recently upgraded to the Acorn Archimedes, and as such he has no plans to produce further Dragon software).

Either way, it would be a shame to see the Dragon WIMP disc shoved away on the bottom shelf along side the old Dragon Data Cavehunter cartridge because there is nothing to use it for but draw pictures.

If you have a 64k Dragon, DragonDOS/SuperDOS and a floating joystick, the Dragon WIMP system deserves a good. long look.

Dragon WIMP is available for £12 from exclusive publishers, Dragonfire Services at Unit 3, Rising Sun Enterprize Centre, Blaina, Gwent.

By Zennan Green

DRAGON USER



Feature

In the aftermath of the recent demise of Dragon User, the longest surviving commercial Dragon publication, an undeniable air of pessimism has taken grip of the Dragon scene, so much so that serious doubts about the future have arisen.

There are those who will use Dragon User's collapse as an excuse to move onto more profitable machines, but there is also a genuine concern about the future. Neil O'Connor has stated that, in the aftermath of the collapse, the future of Pulser Software remains in jeopardy. Their concern, it seems, at present represents a minority viewpoint, but for how long?

The reasons behind Dragon User's collapse are many and varied though they all evolve around one theme, owner apathy. When, in July 1988, Dragon Publications took over the running of the magazine, there were a reported 2400 subscribers yet five months later, the figure had dropped dramatically to a meagre 1450. Serious questions must be asked as to why this sudden drop in subscribers occurred.

The Postal Strike is reported to have caused havoc in the Dragon User office, preventing over 300 subscriptions from being processed, a sizeable number for any Subscription based magazine let alone Dragon User. In addition, one only has to take account of the manner in which notice prior to Dragon Publication's take over had been held back. It is obvious that had the readership been informed several months in advance, many more would have re-subscribed.

Dragon User remained a Professional magazine right to the bitter end, and it is perhaps for this reason that they began to find themselves in financial difficulties. The use of DTP as opposed to Commercial typesetting methods would undoubtedly have proved a more cost efficient system of production as would the use of Photocopying methods rather than Commercial Printing. Had Dragon User reduced its contributory fees, or indeed abandoned the practice of payment altogether, there was no reason why the magazine could not continue on an amateur basis. Bob Harris may counter this by saying that, had such actions been taken, the magazine may have found itself short of material for publication, but the fact that all remaining Dragon publications have existed on an amateur basis from the very beginning, puts paid to that idea.

Dragon Logic is in no way criticising Dragon Publication's management of Dragon User, we have merely observed the situation and suggested ways in which the magazine could have survived, had the proper course of action been taken. Indeed, we have suggested many of the above to Bob Harris in an attempt to sustain the life of the magazine, but to no avail.

Throughout 1985 Dragon User enjoyed sales of up to 36000, though a sizeable number bought the magazine on a semi-regular basis. In June of 1986 the magazine announced that it was to become available by subscription only. In giving only ONE months notice the magazine is said to have lost over 6000 Subscribers. Had the proper course of action been taken, and the readership informed several months in advance it is obvious that the magazine would have survived significantly longer. One would have imagined that they would have learnt a

great deal from such mistakes but, ironically, similar mistakes were made in 1988 when once again the readership was informed of the take over, only ONE month in advance. In taking over the responsibilities of Dragon User, Bob Harris had offered a life line to fellow Dragon users and it is unfortunate that so few had taken advantage of this life line.

The loss of Dragon User may indeed pose a threat to the future of Suppliers but one must remember, that besides Dragon User, there are other equally dedicated (perhaps more so) Dragon magazines who will continue to offer as best a service as their resources allow them to.

Dragon Update with its 1000+ readers will provide an ample advertising base for companies wishing to take advantage of their low cost advertising rates.

In order to cater for the financial restrictions of Dragon suppliers, Dragon Logic will now be offering low cost advertising rates which, in the long run, should encourage growth among Dragon suppliers.

Though one of the smallest Dragon magazines, Dragon Logic expects a steady growth during the next few months, and will, as always, continue to provide the best service to our readers.

The majority of suppliers seem set to stay in the Dragon market, and though some will move on, there will be a regular supply of high quality, low priced software. The prospect of no less than 3 Dragon shows this year, will also put paid to the suggestion that it will no longer be possible to sell software on a large scale, rather, companies will still have much the same marketing opportunities as they had prior to Dragon User's collapse.

User Groups and magazine will continue to support the Dragon as long as there is adequate demand for their existence. It is for this reason that one must subscribe to as many User Groups and magazines as one possibly can. Without such bodies, the Dragon would surely die.

It is no longer possible, indeed acceptable, to rely on others to do all the work, everyone must play their part. To this end, it is vital that as many users as possible contribute towards the Dragon scene, either through magazine articles or through producing software. Regardless of your capabilities, you have a part to play.

The Dragon scene will sorely miss Dragon User but we must not look back at the old days and wonder what might have happened, we must look forward to the future and ensure that in years to come, the Dragon will still exist and users will buy software and will attend shows. Until this is achieved, the future remains bleak, but you have to chance to alter the situation and you must do it now, before it is too late.

HINTS AND TIPS

*By Jonathan
Cartwright.*

The Lives/Jumps poke for Pulser Software's Impossiball! is POKE &H2F2F, <no of lives/jumps>. A word of warning, at the end of each screen the game 'beeps' for each remaining life/jump, so don't give yourself too many or you'll be waiting forever!

softscene

By : Alan Swift
& Zennan Green.

Name:Desktop
Authors:Ray Smith & Ken Grade
Supplier:National Dragon Users Group
Price:£10 to Group members. £8.50 to non-members.

I expect most of you will have seen a advert for Desktop somewhere, and so will have a fair idea of what it is capable of achieving. Splitting hairs here, it is not really a true Desktop publishing system, but then I expect that would be impossible with the Dragon's screen resolution and memory. More accurately, Desktop is a sophisticated hi-res screen designer with the best screen dump facility I have ever seen.

There was no instruction manual supplied with the program, as all the necessary instructions are on the disc file. It is quite user friendly, using a main menu (called up by pressing the <CLEAR> key), and is well prompted where required. From the menu you can call up a font, enlarge it, reduce it, call up a graphics screen, save/load, print and so on.

Documents/posters/newsletters/mags./letters are all written on the hi-res screen. You can position the cursor anywhere on the screen and type in your text in one of the nine supplier fonts. An extra ten fonts are available from the NDUG for £4.00. Bearing in mind that you can enlarge all of these fonts, you are left with a huge selection of text styles and various shapes, all of which can be mixed on the same screen. Text editing is not advanced, but is quick and fairly straight forward, using the arrow keys (but be careful when backspacing) to position the cursor and just retyping the appropriate word. When you have completed your screen, it is saved to disc, and you start another screen from where you left off.

With your complete document saved on disc, you can then set about printing it. The screen dump supplied is Epson compatible, so make sure your printer is. (I understand the NDUG have produced a version of Desktop which features a DMP105 type printer dump-ED). Otherwise you will have to consult the detailed supplied on how to install your own dump routine.

Page formatting can not be set up on screen so you must have a good idea of what you want your output to look like and take care when printing each screen. Your printout can be quite natty as the print routine allows the screens to be dumped in various sizes, widths and at different tab settings. However, printing takes a little patience at first, as you have to manually wind the paper back in the printer to position columns. This takes a little practice and you can expect to waste a few sheets of printout on your first two or three attempts, but you'll soon get the hang of it.

Like I have already said, Desktop is not a true desktop publisher but some of the results it can achieve come quite close to true Desktop publisher output (on a dot matrix printer), if you are willing to spend the time to achieve this.

Overall, I think Desktop is essential if you have a printer and need something printed a bit 'spicier' than the various wordprocessors allow, and if you want to move text around various pictures. It could also be seen as quite a 'luxury' for creating hi-res title screens and screen dumping. Either way, you will probably find a use for Desktop and for the price (especially to NDUG members) you can't go far wrong with this program.

Name:Orange Boot
Supplier:Orange Software
Price:£1.99

The purpose of this utility is to place a boot routine on a Disc, allowing you to type in "BOOT" and then the system runs any program you have chosen, be it a menu, a simple DIR command, or a total game, it lets you get your Disc system into some kind of order.

Using the utility is easy, "BOOT" the disc, and you're asked for the drive to be targeted 1-4. Make sure the disc you're going to write to is already in the drive, before you select its number. From here one of two things should happen. If the required track and sector are free then you are asked for the name of the program to be run when the "BOOT" command is used and examples are given on the screen. When the title has been entered this is written to the disc, and you are reminded to add this program if it can't find it on the DIR.

If the sector and track are not free then you are told so, if it holds a BOOT routine you can alter the title. If it holds other data then we come across the only problem with adding BOOT routines on used discs. It is best to add the BOOT routine onto a blank disc, then copy over the programs : this way the BOOT will be OK. Do not try to back it up as this will overwrite the BOOT and you are back where you started.

Next time you put an order into Orange, tag this on, it's worth getting, but if you are adding BOOTS to an existing collection then some discs will need copying so allow yourself some time to get this done.

Name:Copycat
Supplier:Orange Software
Price:£2.99

If you are going to copy a lot of files between discs or collect a set of together you could do worse than use Copycat. A minimum of two drives is necessary.

As usual the utility is menu driven and most questions can be answered by one keypress, simple and quick. The options offered are Protect on/off, Kill, Copy, DIR and Help screens, text which takes you through the system.

DIR will send to the screen or printer a DIR listing as per normal, or full details giving tracks and sectors used aswell as Load addresses in Hex.

Copy is self explanatory, the manner in which it is presented to you is the part which I like most. First you can get a DIR listing of the source disc, decide to copy 2-1 or 1-3 and then you can either copy over ALL files or select them at will. You are informed on screen of the progresses being made and a pause is built in to allow you to change discs. This is where two drives are necessary. Protect on/off and Kill work the same as Copy, the function can be done en masse or selectively. Full progress is again shown on the screen, and control is still held by the user by means of an abort key.

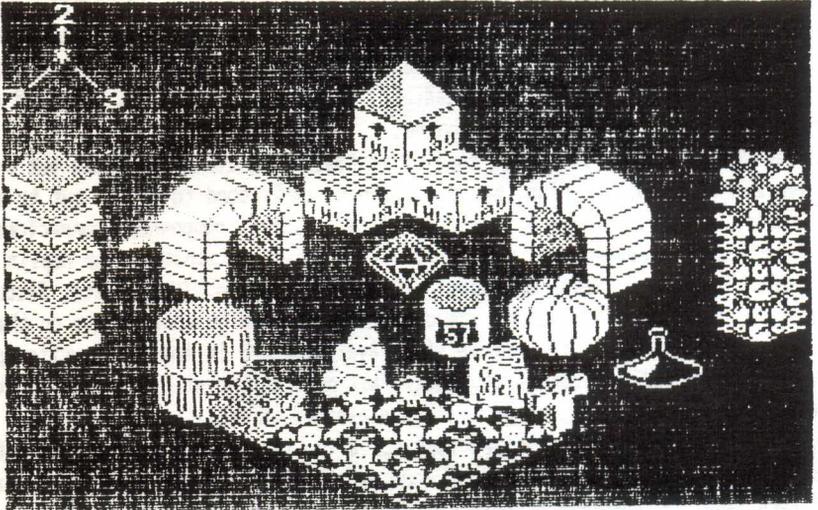
As well as the program, the listings make interest reading, showing how this Utility works and the information it contains is worth the price alone. I have experience of using this Utility for a large transfer of data, when I went from 5.25" to 3.5" and it wasn't too traumatic.

Name: Airball Construction Kit
Supplier: Dragonfire Services
Price: £5.00

If you have had enough of Airball 1, here is a chance to rekindle your interest. Firstly you need an original tape version of Airball. Then you boot the ACK disc, directions are given as to how to transfer the tape onto disc. When you re-boot the disc four options are displayed. The instructions are a must when using the ACK, so read them!

The first option will allow you to play Airball 1 with infinite lives, this does make things a lot easier.

Secondly, designing rooms will prove to be great fun though using the 2D screen to display 3D objects does play



tricks on the eye, but this can be used to good effect, especially when the ball leaves the ground. As you design, the co-ordinates are displayed for your benefit, these are necessary when notes are made as to where objects are to be placed. Beans, Flasks, Dragons etc are available, to place in the rooms and corridors. The objects list places these objects in the rooms at the co-ordinates you choose. Also remember to place the pumps at 3,3,0 - this is where each new life begins.

Creating the object list is simply a matter of entering the co-ordinates you want to objects to appear in the game.

The last option is even easier, this takes all the screens under a new name, along with the object list and compiles Airball 2, a change of music will accompany your masterpiece. Just a note though, the screens and games do take up a lot of valuable disc space.

(Airball 2, written by Michael Edwards, will shortly be available from Dragonfire Services, featuring many re-designed screens. Contact Dragonfire for further details-ED).

HARDWARE

Ever thought about letting your Dragon see something of the outside world, or even control parts of it? Well that is what this article is about, there have been some useful words written in Dragon User and other magazines, and though they have been of use to me in the past, none of them have taken the subject far enough, ie to the final working circuit. I hope to take you through the stages so your Dragon can sense accurately Temperature (or pressure, voltage etc) and then take action, by relays, motors and solenoids and control the process it is monitoring. This is a small step towards Artificial Intelligence, but with the Dragon taking sensor readings coupled with IF, THEN, ELSE and some creative programming, the Dragon will be in control.

What can you do with an interface once it is built? The list is endless but one pointer is to have an end product in mind, besides learning it is good to see it put to some use.

Now there are a few things to sort out. First all the components, connectors etc will be given with Maplin references, making all items easily obtainable. The Maplin catalogue is available from W H Smith and does contain other Dragon DIY projects. Second, there are several 8 bit ports available, the one I have decided to concentrate on is the the Dragons Claw, by Lucidata Ltd. The unit is still available and in the brief write up you may get an idea why I chose to use it. Lastly all programming will be in Basic (that's for my benefit) and all the access pokes will be explained in full.

Now, I've been at this interface lark for a few years, but only recently with the Claw. There must be some people with a lot more experience out there, using the Timers and Shift Registers and if you have anything on the Claw, or sensor circuits, then please share it with Dragon Logic, I'll write it up if need be.

Finally to those of you who are going to have a go, no need to panic about the jargon, it will be explained and special skills and tools are not necessary. A soldering iron at the most and maybe a voltmeter will suffice.

The projects will be powered by Batteries, 5V is necessary, I use 4 * 1.25v cells in a holder. Just a word about Veroboard, it is intended for experiments so when laying components along a copper track, remember to cut it. A drill will remove the copper track or use Maplin tool FL25C.

HELP-LINE

There's confidence for you. I would prefer written question or ideas, it gives me a chance to ponder over them, and so come up with the right answer. Address all correspondence to Dragon Logic or:

Alan Swift, 12 Hereford Close, Prospect, Worksop, Notts, S81 0PP.

Don't get stuck for the price of a stamp, and remember, I'll refund postage for any help given to me.

Lucidata's Dragon Claw

This is intended as an introduction to the most underrated piece of Hardware produced for the Dragon, underrated in the sense that you don't seem to hear a lot about it, but with a

little thought it can open up a whole new world for your Dragon.

It is still available from Lucidata Ltd, PO Box 128, Cambridge, CB2 5EZ for £20 (inclusive of VAT & P+P). Phone (0223) 356846.

The unit is the same size as a games Cartridge, with two IDC header sockets on the top, these give connections to the Via chip and are referred to as Ports A&B. These ribbon connectors have the advantage of being cheap and make the finished article look tidy and reliable. There are two other connectors, one is a male 40 way edge, this mates with the Dragon, and the other is a Female 40 way edge which allows other Cartridges to be connected at the same time, ie a Dos, Rom Cartridge or even other Claws. The mating does look a little precarious, but touch wood, no problems so far. This aspect of other Cartridges will to a large extent determine your limits of use of the Claw, especially in a development stage, but on it's own the unit has a multitude of uses.

With the unit you also get copies of the Data sheets for the 6522 Via Chip used, but these are heavy reading and finding the addresses to even access the port took me a week (this must have made some people bin the Claw). A simple routine in Basic to set the port output then input would have been a good idea, hence the following projects. The Claw does bring out 5v and 0v but try to avoid taking any current from the Dragon via the Claw, the project will require its own supply. The main advantage of this is that the project can be tested separately from the Dragon and any mistakes do not take revenge on the Dragon interior. The two easiest methods of power supply are batteries or a small mains adaptor (regulated). There isn't much more to say, as the Claw can only be as good as the circuit it is reading or controlling.

Next Issue I'll be going into this in further detail with the first of my Hardware projects, an Output PCB.

Article by Alan Swift.

Blockman

The object of Blockman is simply to collect six of the flags, avoid the poisonous Sheep Skulls and defuse the bomb. The only trouble is that each bomb contains a Timer which is quickly running down.

Movement is by way of the Arrow keys or the Right hand Joystick, pressing 'Space' or 'Fire' pauses the game.

The second level is reached by clearing 3 of the first screens. The second level consists of a maze, in which you have to defuse the bomb. Movement is restricted to the white squares.

Beware of Eugene who bounces around the screen. He will kill you if he jumps on you. Avoid him at all costs! He will, however, delete any of the Blue squares he happens to jump on.

The program, in its present form, requires a Dragon DOS Cartridge to be installed upon running. Cassette users who wish to play the game should change LINE 32 to PMODE 3,2:PCLS 3 and add the following line : 5 PCLEAR 5.

BY J. CARTWRIGHT

```

10 CLEAR1000
11 CLS:PRINT:PRINTTAB(12)"blockman"
12 PRINT:PRINT" PROGRAM,GRAPHICS,CONCEPT AND MUSIC: J.CARTWRIGHT.":PRINT:PRINT" PRODUCE
D BY: starship software"
13 PRINT:PRINT"*****DO YOU NEED INSTRUCTIONS (Y/N) *****
*****"
14 I$=INKEY$:IF I$="" THEN 14
15 IF I$<>"Y" AND I$<>"N" THEN SOUND1,1:GOTO14
16 IF I$="Y" THEN GOSUB 164:GOTO 18
17 IF I$="N" THEN 18
18 CLS:PRINT:PRINTTAB(12)"blockman"
19 PRINT:PRINT" PROGRAM,GRAPHICS,CONCEPT AND MUSIC: J.CARTWRIGHT.":PRINT:PRINT" PRODUCE
D BY: starship software"
20 PRINT:PRINT"*****";PRINT:PRINT"*****
****":PRINT@288,"SELECT SKILL LEVEL (0-9):";
21 I$=INKEY$:IF I$="" THEN 21
22 IF I$<"0" OR I$>"9" THEN SOUND1,1:GOTO 21
23 SL=VAL(I$)
24 PRINTI$;
25 PRINT@352,"":PRINT:PRINT"PRESS ANY KEY TO PLAY blockman"
26 I$=INKEY$:IF I$="" THEN 26
27 CLS
28 DIMBL(7),BM(7),SK(7),FL(7),BO(7),A$(160),S$(9),EN$(128),EG(7)
29 S$(0)="BR2HU4ERFD4":S$(1)="NR5R2U6G":S$(2)="NR5U2REREUHLG":S$(3)="BU1RFREUHEUHLG":S$(4)
="BR4U3DL4U4":S$(5)="BU1RFREUHLHU2R4":S$(6)="BU1NU4RFREUHL2U2ERF":S$(7)="BU6R4D2GD3":S$(8)
="BU2RDFREUHLHUERFD":S$(9)="BU1RFREU4HLGDFR1"
30 S$(4)=S$(4)+"BR2"
31 PA$="ND6R3JFDGBR5BD3U5RERFND5D3NL2RBR4BU4D5FREU5BR4BD5RFREUHLHUERFBR4BU1NR4D3NR2D3R5BR3U
6R3FD4G"
32 PMODE3,1:FCL93
33 CLSO:C$=CHR$(128)
34 PRINT"blockman";C$;"blockman";C$;"blockman";C$;"block";
35 PRINT@480,"kman";C$;"blockman";C$;"blockman";C$;"blockman";
36 PRINT@67,CHR$(142)CHR$(141)CHR$(130)CHR$(154)CHR$(128)CHR$(128)CHR$(167)CHR$(173)CHR$(1
62)CHR$(183)CHR$(188)CHR$(178)CHR$(202)CHR$(195)CHR$(200)CHR$(219)CHR$(209)CHR$(218)CHR$(2
31)CHR$(237)CHR$(226)CHR$(251)CHR$(128)CHR$(250);
37 PRINT@99,CHR$(142)CHR$(141)CHR$(130)CHR$(154)CHR$(128)CHR$(128)CHR$(171)CHR$(161)CHR$(1
70)CHR$(187)CHR$(128)CHR$(178)CHR$(206)CHR$(195)CHR$(128)CHR$(218)CHR$(216)CHR$(218)CHR$(2
35)CHR$(227)CHR$(234)CHR$(250)CHR$(249)CHR$(250);
38 PRINT@131,CHR$(140)CHR$(140)CHR$(128)CHR$(156)CHR$(156)CHR$(152)CHR$(164)CHR$(172)CHR$(
128)CHR$(180)CHR$(188)CHR$(128)CHR$(200)CHR$(128)CHR$(200)CHR$(216)CHR$(128)CHR$(216)CHR$(
232)CHR$(128)CHR$(232)CHR$(248)CHR$(128)CHR$(248)CHR$(128)CHR$(136);
39 PRINT@204,"joystick";:PRINT@239,"or";:PRINT@268,"keyboard";:PRINT@332,"get";C$;C$;"the"
;:PRINT@366,"flags";:PRINT@397,"avoid";:PRINT@427,"the";C$;"skulls";
40 PRINT@194,CHR$(193)CHR$(197)CHR$(207)CHR$(207)CHR$(207)CHR$(207)CHR$(202)CHR$(194);
41 PRINT@226,CHR$(196)CHR$(205)CHR$(204)CHR$(205)CHR$(206)CHR$(204)CHR$(206)CHR$(200);
42 PRINT@259,CHR$(207)CHR$(207)CHR$(206)CHR$(205)CHR$(207)CHR$(207);

```

PART 1


```

79 SCREEN1,0:L=3:SC=0:S=0:GOSUB218
80 GOSUB222
81 GOSUB 115
82 SCREEN1,0
83 TM=120:F=0:X=128:Y=80:GOSUB 107:EX=0:EY=0
84 PUT (BX*16,BY*16)-(BX*16+15,BY*16+15),B0,PSET
85 PUT (X,Y)-(X+15,Y+15),B0,PSET
86 IF S<>3 THEN TM=TM-2:GOSUB 195 ELSE TM=TM-1:GOSUB195
87 IF TM=0 THEN L=L-1:GOSUB197:SOUND100,5:X=128:Y=80:GOTO 80
88 I$=INKEY$:IF JS=0 THEN J0=31:J1=31 ELSE J0=JOYSTK(0):J1=JOYSTK(1)
89 IF J0=63 OR PEEK(344)=223THEN GOSUB 105:X=X+16:GOTO 95
90 IF J0=0 OR PEEK(343)=223THEN GOSUB 105:X=X-16:GOTO 95
91 IF J1=0 OR PEEK(341)=223THEN GOSUB 105:Y=Y-16:GOTO 95
92 IF J1=63 OR PEEK(342)=223THEN GOSUB 105:Y=Y+16:GOTO 95
93 IF PEEK(65280)=126 OR PEEK(65280)=254 OR I$=CHR$(32)THEN SOUND1,10:GOSUB 186:DRAW"BM194
,184;C3"+PA$
94 GOSUB 197
95 IF X<0 THEN X=240
96 IF X>240 THEN X=0
97 IF Y>144 THEN Y=0
98 IF Y<0 THEN Y=144
99 MP=3072+(Y*32)+(X/8)
100 IF PEEK(MP)=1 OR PEEK(MP)=106 THEN L=L-1:GOSUB197:GOSUB107:X=128:Y=80:GOTO84
101 IF PEEK(MP)=128 THEN SC=SC+20:PLAY"T255ABCDEFG":F=F+1:GOSUB146
102 IF PEEK(MP)=0 AND F>5 THEN 122 ELSE IF PEEK(MP)=0 AND F<6 THEN L=L-1:X=128:Y=80:GOSUB1
97:GOSUB107:GOTO84
103 GOSUB 197
104 GOTO 84
105 IF S<>3 THEN PUT (X,Y)-(X+15,Y+15),BL,PSET:RETURN ELSE PUT (X,Y)-(X+15,Y+15),BL,PSET:R
ETURN
106 PUT (X,Y)-(X+15,Y+15),BL,PSET:RETURN
107 COLOR3,0:LINE (0,160)-(255,191),PSET,BF:IF L<=0 THEN 148
108 A=0:FOR I=1 TO L:PUT (A,160)-(A+15,175),B0,PSET:A=A+18:NEXT I
109 DRAW"BM2,189;C2RFREUHLHUERFRBR7ROHLGD4FRERBR7U4HLGD4FRBR6U6R2FDGFD2BR8L3U3NR1U3R4BR3BD
1DBD2D1"
110 DRAW"BM112,174;D6U3NR3U3R5BR3D6R5BR3U5RERFD2NL3D3RBR7BU2D2L2HU4ERFRBR7HLGDFRFDGLHBR7UB
U2U"
111 DRAW"BM70,164;NR4R2ND6R3BR3NR4R2D6L2NR4R2U6R3BR3ND6RFDURED6BR4NR4U3NR2U3R5BR3BD1DBD2D"
:LINE(110,165)-(230,169),PRESET,BF:LINE(108,164)-(232,170),PSET,B
112 DRAW"BM112,190;NU6R5BR3NR4U3NR3U3R5BR3D5RFDREU5RBR3NR5D3NR3D3R5BR3NU6R5BR3BU1UBU2U":X
P=156:FOR Q=1 TO LEN(STR$(SL)):DRAW"BM"+STR$(XP)+" ,190"+S$(VAL(MID$(STR$(SL),Q,1))):XP=XP+
8:NEXTQ
113 GOSUB 146
114 RETURN
115 FOR I=1 TO SL+18:X=RND(15):Y=RND(9):PUT (X*16,Y*16)-(X*16+15,Y*16+15),SK,PSET:NEXT I

```

DRAGON · GRAPHICS

There are loads of Drawing programs about and at the last Colour Computer Convention at Weston there were a rash of new ones.

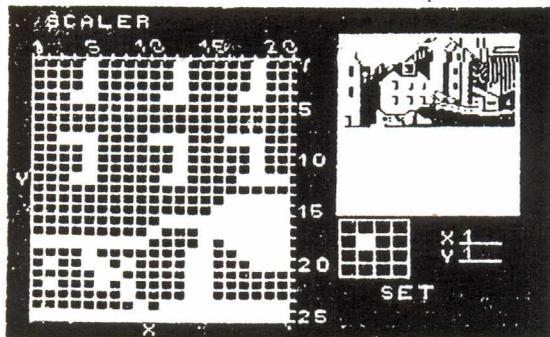
Stephen Knight produced the Dragon Graphics Studio, Orange produced Easel and Dragonfire Services produced a WIMP, to name but three. The WIMP, strictly speaking, is not a drawing program but does contain MOUSEART. EASEL is intended for those who use BASIC 42 from Harris Software which narrows the field of its potential users. The Dragon Graphics Studio was undoubtedly the best of the bunch and appears to owe a lot in its development to DRAGDRAW, but needless to say, it is much improved with lots more fonts and other options. Having said that, all these drawing programs have the same drawback, in as much as they all need a modicum of skill and artistic ability to produce an original drawing containing a fair amount of detail. The only really reliable way to produce a high class screen is by using graph paper as a guide.

Obtain a sheet of graph paper which has at least 256 squares one way and 192 squares the other, then outline a grid of those dimensions. Place on top of the graph paper, the drawing you wish to reproduce on the screen and trace it (using a fairly dark carbon between the two sheets) on to the graph paper.



Having got your drawing to scale, you can reproduce it using a program such as Tony Davis' DRAWZEZEE obtainable from the NBUG. Or you can use the accompanying program SCALEIT, which I find easier to use. This program results in a drawing 80 pixels by 100 pixels in size, so mark off an area of that size on your graph and start. The program divides the 80 * 100 area into 16 parts each 20 * 25 pixels in size and allows you to draw each enlarged section at a time.

The commands are (M) for MOVE (using the arrow keys to select the area) then (S) to PSET the enlarged area or (R) to PRESET the area, When you've finished drawing with the Joystick, press (E) for END, give your drawing a name and it will be saved to DISK.



What is the use of 80 * 100 pixels you ask? Using Program 2 (MOVEIT) you can place the finished sketch anywhere on the screen you chose, and by referring to your graph you can work out the precise position for it.

Figure 1 shows the SCALEIT program in operation and Figure 2 shows the finished drawing with the SCALE drawing in place, outlined to show it in relation to the finished picture.

So get to it, and if you're no great shakes as an artist choose a drawing to copy from a newspaper, a magazine or even a christmas card. If you choose the latter, you'll have to make a photocopy first, because its difficult to trace through a christmas card.

Just one word before you start. Don't pick a drawing containing too much detail to start with.

LISTING ONE - SCALEIT

```

10 CLEAR:V00:PCLS
20 DIM N0$(25),A(25)
30 *****LETTERS*****
40 LA$="PM+1,0U4E2F2D2BL4R4D2BR3"
50 LC$="PM+1,0BR3E1RU4H1L2G1D4F1R2BR4"
60 LD$="PM+1,0BR3E1U4H1L3D6R3BR4"
70 LE$="PM+1,0BR3U6L5D3R3BL3D3R5BR3"
80 LL$="PM+1,0U6BD6R5BR3
90 LM$="PM+1,0U6R1F2D1U1E2R1D6BR3
100 LN$="PM+1,0U6F5BU5D6BR3
110 LO$="PM+1,0BR3L2HU4E1R2F1D4G1BR4
120 LR$="PM+1,0U6R3F1D1G1BL3R3F1D2BR3
130 LS$="PM+1,0BU1F1R2E1U1H1L2H1U1E1R2
F1D5BR3
140 LT$="PM+1,0BR6U6L6R3D6BR5
150 LV$="PM+1,0BU6D4F2E2U4BD6BR3
160 LX$="PM+1,0U1E4U1BL4D1F4D1BR3
170 LY$="PM+1,0BU6D2F2E2U2BL2BD4D2BR5
180 *****NUMBERS*****
190 N0$(0)="PM+1,0BR1R2E1U4H1L2G1D4F1R
1E4BD5BR3
200 N0$(1)="PM+1,0BU4E2D6BR3
210 N0$(2)="PM+1,0BU5E1R2F1D1G4R4BR3
220 N0$(3)="PM+1,0BU5E1R2F1D1G1L1BR1F1
D1G1L2H1EF1BR6
230 N0$(4)="PM+1,0BU2E4D6R1L4RU2R6BD2BR
3
240 N0$(5)="PM+1,0BR4BU6L4D3R3F1D1G1BL
3RU1F1R2BR3
250 N0$(6)="PM+1,0BR5BU6H1L2G1D4F1R2E1
U1H1L3RD3BR6
260 N0$(7)="PM+1,0BR3U2E3U1L5BD6BR6
270 N0$(8)="PM+1,0BR3L2HU1E1H1U1E1R2F
1D1G1L2BR2F1D1G1BR4
280 N0$(9)="PM+1,0BU1F1R2E1U4H1L2G1D1F
1R3PD3BR4
290 N0$(0)="PM+1,-1U4H1L2G1D4F1R2E1G1R
P4
300 N0$(10)=N0$(1)+N0$(0)
310 N0$(11)=N0$(1)+N0$(1)
320 N0$(12)=N0$(1)+N0$(2)
330 N0$(13)=N0$(1)+N0$(3)
340 N0$(14)=N0$(1)+N0$(4)
350 N0$(15)=N0$(1)+N0$(5)
360 N0$(16)=N0$(1)+N0$(6)
370 N0$(17)=N0$(1)+N0$(7)
380 N0$(18)=N0$(1)+N0$(8)
390 N0$(19)=N0$(1)+N0$(9)
400 N0$(20)=N0$(2)+N0$(3)
410 N0$(21)=N0$(2)+N0$(1)
420 N0$(22)=N0$(2)+N0$(2)
430 N0$(23)=N0$(2)+N0$(3)
440 N0$(24)=N0$(2)+N0$(4)
450 N0$(25)=N0$(2)+N0$(5)
460 BK$=CHR$(32)
470 MI$="PM+2,-3R3BD3BR2
480 CLS7:PRINT@135,"SCALEIT";:PRINT@231
,"NEW OR OLD SCREEN?";:PRINT@295,"CHOOS
E N OR O";
490 X$=INKEY$
500 IF X$="O" THEN 1500
510 IF X$="N" THEN 540
520 GOT0490
530 *****SMALL DRAWING BOARD***
540 LINE(155,15)-(239,119),PSET,BF
550 *****INIT PROGRAM***
560 PMODE4,1:SCREEN1,1
570 RS=0:X1=1:Y1=1:X2=15:Y2=33:X3=160:
Y3=126:X4=157:Y4=17
580 DIM M(21,26)
590 DRAW"BM18,12;XLS$;XLC$;XLA$;XLL$;X
LE$;XLR$;
600 *****LARGE GRID***
610 FORX=12T0132STEP6
620 LINE(X,28)-(X,180),PSET
630 NEXTX
640 FORY=30T0180STEP6
650 LINE(12,Y)-(135,Y),PSET
660 NEXT
670 *****NUMBER LARGE GRID***
680 DRAW"BM11,27;XN0$(1);
690 DRAW"BM36,27;XN0$(5);
700 DRAW"BM59,26;XN0$(10);
710 DRAW"BM89,26;XN0$(15);
720 DRAW"BM119,26;XN0$(20);
730 DRAW"BM4,103;XLY$;
740 DRAW"BM64,188;XLY$;
750 DRAW"BM136,36;XN0$(1);
760 DRAW"BM136,60;XN0$(5);
770 DRAW"BM136,90;XN0$(10);
780 DRAW"BM136,120;XN0$(15);"
790 DRAW"BM136,150;XN0$(20);
800 DRAW"BM136,180;XN0$(25);
810 DRAW"BM203,135;XLY$;":LINE(212,135
)-(231,135),PSET
820 DRAW"BM203,145;XLY$;":LINE(212,145
)-(231,145),PSET
830 *****MOVE GRID***
840 FORY=122T0154STEP8:LINE(156,Y)-(18
8,Y),PSET:NEXTY
850 FORX=156T0188STEP8:LINE(X,122)-(X,
154),PSET:NEXTX:PAINT(X3,Y3):GOSUB1060
:GOSUB1090:DRAW"BM175,166;XLS$;XLE$;XL
T$;
860 *****COMMANDS***
870 X$=INKEY$
880 J=JOYSTK(0):K=JOYSTK(1):P=PEEK(652
80)
890 IF J=0 THEN X1=X1-1:X2=X2-6:IF X1<
=1 THENX1=1:X2=15
900 IF J=63 THENX1=X1+1:X2=X2+6:IFX1=>
20 THENX1=20:X2=129
910 IF J=0 OR J=63 THEN GOSUB1060
920 IF K=0 THEN Y1=Y1-1:Y2=Y2-6:IFY1<=
1 THEN Y1=1:Y2=33
930 IF K=63 THEN Y1=Y1+1:Y2=Y2+6:IF Y1
=>25 THEN Y1=25:Y2=177
940 IF K=0 OR K=63 THEN GOSUB1090
950 IF PPOINT(X2-2,Y2-2)=0 THEN PSET(X
2,Y2):PSET(X2-1,Y2):PSET(X2+1,Y2):PSET
(X2,Y2+1):PSET(X2,Y2-1):PRESET(X2,Y2):
PRESET(X2-1,Y2):PRESET(X2+1,Y2):PRESET
(X2,Y2+1):PRESET(X2,Y2-1):GOTO970
960 PRESET(X2,Y2):PRESET(X2-1,Y2):PRES
ET(X2+1,Y2):PRESET(X2,Y2+1):PRESET(X2,
Y2-1):PSET(X2,Y2):PSET(X2-1,Y2):PSET(X
2+1,Y2):PSET(X2,Y2-1):PSET(X2,Y2+1)
970 IFP=126 AND RS=0 OR P=254 AND RS=0
THEN PRESET(X1+X4,Y1+Y4):PAINT(X2,Y2)
:GOTO870
980 IF P=126 AND RS=1 OR P=254 AND RS=
1 THEN PSET(X1+X4,Y1+Y4):LINE(X2-2,Y2-
2)-(X2+2,Y2+2),PRESET,BF:GOTO870
990 IF X$="" THEN 870
1000 IF X$="E" THEN LINE(174,156)-(230,
166),PSET,BF:DRAW"BM175,166;XLE$;XLN
$;XLD$;":GOTO1440
1010 IF X$="R" THEN SOUND1,1:RS=1:LINE(
174,156)-(230,166),PRESET,BF:DRAW"BM17

```

```

5,166;XLR$;XLE$;XLS$;XLF$;XLT$;":GOTO8
70
1020 IF X$="S" THEN SOUND9,2:RS=0:LINE(
174,156)-(230,166),PRESET,BF:DRAW*BM17
5,166;XLS$;XLE$;XLT$;":GOTO870
1030 IF X$="M" THEN SOUND2,9:LINE(174,1
56)-(230,166),PRESET,BF:DRAW*BM175,166
;XLM$;XLO$;XLV$;XLE$;":GOSUB1130:GOTO8
70
1040 GOTO870
1050 '***POS NUMBERS***
1060 LINE(209,123)-(234,134),PRESET,BF
1070 DRAW*BM213,133;XNO$(X1);
1080 RETURN
1090 LINE(209,136)-(234,144),PRESET,BF
1100 DRAW*BM213,143;XNO$(Y1);
1110 RETURN
1120 '***LOC. ON MOVE SCREEN***
1130 GOSUB1600
1140 X$=INKEY$:IF X$=""GOTO1140
1150 IF X$<>CHR$(10) AND X$<>CHR$(9) A
ND X$<>CHR$(8) AND X$<>CHR$(94) AND X$
<>"S" AND X$<>"R" THEN 1140
1160 LINE(X3-3,Y3-3)-(X3+3,Y3+3),PRESE
T,BF
1170 IF X$=CHR$(10) THEN SOUND1,1:GOSU
B1600:Y4=Y4+25:Y3=Y3+8:IF Y4>92THEN Y4
=92:Y3=150:SOUND10,5
1180 IF X$=CHR$(9) THEN SOUND1,1:GOSUB
1600:X4=X4+20:X3=X3+8:IF X4>217THEN X4=
217:X3=184:SOUND10,5
1190 IF X$=CHR$(8) THEN SOUND1,1:GOSUB
1600:X4=X4-20:X3=X3-8:IF X4<157 THEN X
4=157:X3=160:SOUND10,5
1200 IF X$=CHR$(94) THEN SOUND1,1:GOSU
B1600:Y4=Y4-25:Y3=Y3-8:IF Y4<17THEN Y4
=17:Y3=126:SOUND10,5
1210 PAINT(X3,Y3)
1220 IF X$="S" THEN SOUND1,1:GOSUB1600
:RS=0:LINE(174,156)-(230,166),PRESET,B
F:GOSUB1270:DRAW*BM175,166;XLS$;XLE$;X
LT$;":RETURN
1230 IF X$="R" THEN SOUND1,1:GOSUB1600
:RS=1:LINE(174,156)-(230,166),PRESET,B
F:GOSUB1270:DRAW*BM175,166;XLR$;XLE$;X
LS$;XLE$;XLT$;":RETURN
1240 GOSUB1600
1250 GOTO1140
1260 '***SCAN SCREEN***
1270 LINE(209,123)-(234,134),PRESET,BF
1280 POKE65495,0
1290 XS=9:YS=27
1300 FOR I=1TO25:SY=I+Y4:YS=YS+6
1310 LINE(209,136)-(234,144),PRESET,BF
1320 DRAW *BM213,143;XNO$(I);
1330 FOR N=1TO20:SX=N+X4
1340 XS=X5+6
1350 LINE(209,123)-(234,134),PRESET,BF
1360 DRAW*BM213,133;XNO$(N);
1370 A(N)=PP0INT(SX,SY)
1380 IF A(N)=0 THEN PAINT(XS,YS) ELSE
LINE(XS-2,YS-2)-(XS+2,YS+2),PRESET,BF
1390 NEXTN:XS=9:NEXTI
1400 LINE(209,136)-(234,144),PRESET,BF
:DRAW*BM213,143;XNO$(Y1);
1410 LINE(209,123)-(234,134),PRESET,BF
:DRAW*BM213,134;XNO$(X1);
1420 POKE65494,0
1430 RETURN

```

```

1440 LINE(1,1)-(256,14),PRESET,BF:LINE
(1,15)-(154,120),PRESET,BF:LINE(1,120)
-(256,192),PRESET,BF
1450 FORI=1TO2000:NEXTI
1460 CLS2:PRINT@71,"SCALER";:PRINT@167
,"SAVE GRAPHICS.";
1470 PRINT@263,"DRAWINGS NAME-";
1480 PRINT@329,"-----,DRW";
1490 PRINT@327,"";:INPUTNA$
1500 IF NA$=""THEN 1470
1510 SAVE NA$+".DRW",3072,9216,3072:EN
D
1520 CLS3:PRINT@71,"SCALER";:PRINT@167
,"LOAD GRAPHICS.";
1530 PRINT@263,"NAME AND EXTN:";
1540 PRINT@329,"-----";
1550 PRINT@327,"";:INPUTNA$
1560 IF NA$=""THEN1520
1570 LOAD NA$
1580 SCREEN1,1
1590 GOTO560
1600 GET(X4+1,Y4+1)-(X4+20,Y4+25),M,G
1610 PUT (X4+1,Y4+1)-(X4+20,Y4+25),M,N
OT
1620 RETURN

```

```

TAPE - SAVE/LOAD ROUTINE
TO REPLACE LINES 1460-1590 INCLUSIVE
1460 CLS:PRINT:PRINT:PRINT*
SAVE GRAPHICS"
1465 PRINT" =====
1470 PRINT" DRAWINGS NAME
1475 PRINT" UP TO":PRINT"
8 CHARACTERS
1480 PRINT:PRINT" -----";:
.DRW";
1485 PRINT@294," ";:INPUTNA$
1490 IF NA$=""THEN 1470
1495 CLS3:PRINT@256,"POSITION TAPE TO
SAVE NA$"
1500 PRINT@320," PRESS ANY KEY WHEN RE
ADY":EXEC34091
1505 CLS8:PRINT@256," SAVING NA$"
1510 CSAVE NA$,1536,7679,1536:CLS3:PRI
NT@256,NA$;" SAVED":FORDL=1TO2000:NEX
T:END
1515 CLS:PRINT:PRINT:PRINT:PRINT"
LOAD GRAPHICS"
1520 PRINT" =====
1525 PRINT" DRAWINGS NAME
1530 PRINT" UP TO":PRINT"
8 CHARACTERS"
1535 PRINT@294," ";:INPUTNA$
1540 IF NA$=""THEN1525
1545 CLS7:PRINT@224," PREPARE TAPE TO
LOAD ";NA$
1550 PRINT@280," PRESS ANY KEY WHEN REA
DY":EXEC34091
1555 CLOAD NA$
1560 SCREEN1,1
1590 GOTO560
1600 GET(X4+1,Y4+1)-(X4+20,Y4+25),M,G
1610 PUT (X4+1,Y4+1)-(X4+20,Y4+25),M,N
OT
1620 RETURN

```

```

LISTING TWO - MOVEIT
10 *PROGRAM TO MOVE SCALER DR
DRAWING INTO POSITION ON PAGE ONE
OF FINISHED DRAWING
20 PCLEARB:DIM Q(600)
30 CLS:PRINT:PRINT:PRINT* LOAD IN S
CALER DRAWING*
40 PRINT:PRINT:INPUT* FILENAME.EXT*
F$
50 LOAD F$,9216:CLOSE
60 PMODE4,5:SCREEN1,1
70 EXEC34091
80 GET(155,15)-(239,119),0,G
90 CLS:PRINT@69," NOW PUT THE DRAWING
HERE YOU WANT IT ON PAGE ONE
00 PRINT:PRINT* THE HORIZONTAL POSITI
N IS 'X' AND YOU CAN GIVE IT A VALUE
FROM -155 TO -1 OR FROM 1 TO 16";

```

```

:INPUT X
110 PRINT:PRINT* THE VERTICAL POSITION
IS 'Y' AND YOU CAN GIVE IT A VALUE
FROM -15 TO -1 OR FROM 1 TO 72";:
INPUT Y
120 PMODE4,1:SCREEN1,1
130 PUT((X+155),(Y+15))-((X+239),(Y+11
9)),Q,PSET
140 EXEC34091
150 CLS3:PRINT@128," WAS THE DRAWING P
LACED OKAY?":PRINT* (Y/N)?*
160 S$=INKEY$:IFS$=""THEN160
170 IF S$="N"THEN GOT060
180 IF S$="Y" THEN CLS:PRINT@128," SA
VING TO DISK":T=INSTR(F$,"."):F$=LEFT$
(F$,T):SAVE F$+"PIX",3072,9216,3072:EN
D
190 IF S$<>"Y" AND S$<>"N"THEN 160
200 GOT060

```

Adventurers Anonymous

This Issue, as promised, we present the last instalment of our solution to the Return of the Ring. Going back to last Issue, regular readers will realise we've completed the main part of the game leading up to the Forest Moon, and it is from here that we continue our Quest this Issue:

When on the Forest Moon, you should have a tracker, armour, mask, one power pack and a blaster. This leaves space for an extra item which you may need at any time.

There are ten miles of forest on the planet. In every mile of forest there are three transporters. On the trackers there are three options - one is for travelling OUT of the forest, two is for travelling IN the forest and three is for GOING SOMEWHERE REALLY INTERESTING!

ONE MILE IN-----A Genie with a key Drop Flask, Get the Bottle with the Key in it.
TWO MILES IN-----A Stone - Get the Stone.
THREE MILES IN-----Advice - Dark Ring use Mutant lose.
FOUR MILES IN-----Treasure Chest-Drop bottle with Key in it. Get Treasure Sack.
FIVE MILES IN-----Cyclops Eye - Get Eye.
SIX MILES IN-----Black Orb - Get Orb.
SEVEN MILES IN-----Temple of Regeneration.
EIGHT MILES IN-----Trog with Amulet - Use Eviction.
NINE MILES IN-----Village of the lost Krell. Drop Treasure Sack.
TEN MILES IN-----The cave of the Nightfall Mutant.

First get the key, then get the stone. Use key to open chest and get treasure sack. Get the cyclops eye and the black orb. Use the spell of eviction to get rid of the trog and take the amulet. Go back to planet surface. Take them back to the appropriate room of many guests and take all the units that are given to you and drop them in the room of

regeneration. Ensure you charge up your power packs. Give the treasure sack to the Krell King. He will tell you to take it to the lost Krell. (You must take the treasure sack to the Krell King before visiting the Lost Krell as nothing will happen otherwise).

Make sure you have the dark ring Shedir, the treasure sack and the fake book when going back to the forest moon. Once on the forest moon go nine miles in and drop the treasure sack in the village of the lost krell. Give the space unit to an Actel character. Go ten miles in and drop the fake book, then take it and give it to someone reliable (ie. someone who is not fighting all the time). Take the dark ring shedir off the Actel Charater, and start making your way back. From nine miles in to one mile in, it will always be nightfall this means the nightfall mutant will be roaming the forest. Whenever you hear the distinct noise of the nightfall mutant USE SHEDIR, you will be transported to a different and safe place. NEVER use the ring when you are not in danger because if you do, you will lose the book of skulls. With this help you should make it back quite easily.

Once back on the planet, take all the rings and units to the time travel chamber. Take the book of skulls to the oracle, once this is done the option of going to the time travel chamber will be open. Using the white pass, enter the chamber and drop all six units. You should now see the time ring. Take all the rings (gold, silver, bronze, copper & dark ring shedir) and then finally the time ring. YOU HAVE NOW COMPLETED THE FIRST PART OF THE ADVENTURE.

In the second part, you must find the gauntlet, use it to take the chalice to give to the grey dwarf then find all the rings and give them to all the actel characters. They should now come back to life after being turned to stone. Then go to the castle and face the evil one YOU HAVE NOW COMPLETED THE RETURN OF THE RING.

Our thanks to Andrew McBride for the solution to what is a quite fascinating Adventure game, and one which we'll no doubt come back to in the future.

Aswell as having solved Return of the Ring, other titles Andrew has claimed to have solved include Ring of Darkness, Vortex Factor, Aquanaut 471, Calixto Island, Quest, El Diablero, Mountains of Ket, Temple of Vran and The Final Mission.

So, if you're encountering difficulties in any of the above write to Andrew at 109 Main Street, Lt. Harrowden, Nr. Wellingborough, Northants, NN9 5BA. All enquiries must be accompanied by a SAE, otherwise Andrew is under no obligation to reply.

Derrick Moores, another familiar face to Adventurers Anonymous, has informed us that he has completed Larkspur Waldorf is Trapped and is willing to supply copies of his solution sheet. Copies of the full version of his solution sheet can be obtained by writing to Derrick at 15 Parkville Road, Prestwich, Gt. Manchester, M25 5QG. Again a SAE must be included.

Derrick has, however, given us permission to publish a condensed version of his solution sheet and while this may not be as detailed as his full version, it will solve any problems you may be encountering. The solution, by the way, should be used along side the maps published in Issue 2 & 3.

- 1) Start in the courtyard - Go west to the Armoury and get the shield.
- 2) Return to the Courtyard and go North to the firey gateway.
- 3) Wear the shield and go east to the forge - get the spanner and go to the bunkroom - get ladder. Drop spanner.
- 4) Take the ladder to the tower past the patio and drop ladder.
- 5) Next go to the store room near the kitchen and get the steak.

- 6) Find your way to the bar, and go down to the cellar, then to the storeroom and get the hammer.
- 7) Next go to the castle office and open the cabinet - take helmet.
- 8) Return to the tower and go balcony, go to the library get the book wear the helmet and read the book. This gives you the magic word.
- 9) Drop the hammer, helmet and the book. Now go to the mail office and get the rope. Take this to the door at the end of the narrow passage. Drop the rope.
- 10) Return to the cellar, go to the shrine and drop the steak, say the magic word and take the saw.
- 11) Leave the shrine and go to the wheel house and pull the lever. Go to the generator room and get the paddle.
- 12) Find the raft (sq. 28 on map) and go to hut (sq. 39 on map) and get the key.
- 13) Return to dry land and go to the door in the narrow corridor and open the door, get the sheet and the rope from the corridor and go to the playroom. Cut the bars with the saw.
- 14) Make a parachute with the rope and sheet, and go to the Window

HAPPY LANDING!

If anyone would like copies of the two maps referred to in the solution, send 20p per map, to cover the cost of photocopying and please enclose a SAE.

Part two of the Larkspur Trilogy is available from Orange Software for £2.99. No information as yet as to the release date of the third adventure, but we'll let you know. We would, by the way, welcome a copy of Larkspur Waldorf - The Journey Home, so if Orange are reading this, how about it Orange?

Rally, as promised, is reviewed elsewhere by Stuart Beardwood, a man of many talents as readers of Soundcheck will know.

That I'm afraid is all we have time for this Issue, except to tell you that as of now, Dragon Logic will be publishing regular Adventure Help Line forms, the first which is printed below. If you're having problems with any Dragon adventure simply complete the slip, send it to us at the usual address and we'll print it, space permitting.

Until next Issue, goodbye.

Donald Morrison

```

*****
*                               Adventure Help Line                               *
*                               -----                               *
*                               *                               *
* ADVENTURE ..... *
* PROBLEM ..... *
* ..... *
* NAME ..... *
* ADDRESS ..... *
* ..... *
*                               *
*****

```

CHARTS

To mark the end of an eventful year, a year in which Microdeal, Quickbeam & Pamcomms left the Dragon market, only to be replaced by newcomers - Orange Software & Kouga Software, Dragon Logic published its Elite of '88 Chart Special.

Though not inundated with entries, Dragon Logic received a broad section of opinions, the results of which are printed below.

```
*****
* Award Categories                * Recipient of Award          *
*****
* Best Arcade                    * LUCIFER'S                   *
* game of '88                    * KINGDOM                     *
*=====
* Best Adventure                 * RALLY                       *
* game of '88                    * ADVENTURE                   *
*=====
* Programmer of '88             * JONATHAN CARTWRIGHT        *
*=====
* Supplier(s) of '88           * PULSER/ORANGE SOFTWARE     *
*=====
* Magazine of the year          * DRAGON USER                 *
*=====
* Most underrated               * CRAZY                       *
* game of the year              * FOOTA 2                     *
*=====
* Best peripheral                * DOS                         *
* of the year                    * PLUS 4.6                    *
*=====
* Best Utility of '88           * DRAGON GRAPHICS STUDIO     *
*=====
* Most valuable                 * BOB HARRIS/                 *
* individual(s) of '88          * PAUL GRADE                  *
*=====
* Most promising                 * DRAGON                      *
* magazine of '88               * LOGIC                       *
*****
```



Name: Dragon Advanced Music System (DAMS)

Author: Chris Jolly

Suppliers: Computape (tape version) & Orange Software (disk version)

Price: £8.95

System: Dragon 32/64 tape or DragonDOS disc

DAMS allows you to compose 4 - part music on the Dragon, or, according to the 20 page manual (which would have benefitted from an index of some sort) 'allows you to synthesize complex polyphonic sounds'!

The tape version I had for review wouldn't load using the CLOADM"DAMS" instruction given in the manual. For some reason the file name had four inverted @ signs to follow it, as did the other files on the tape. I hope it was a 'rogue copy'!!

Space does not permit a detailed description of what is a VERY complex program, definitely not for the beginner! The notes for each channel are entered separately, using the normal A-G notation with sharps, flats, note lengths and pauses etc. requiring only a few, easily remembered key-presses. You have to remember what you entered into the other three channels though, the program can only edit one channel at a time. Forward planning is the name of the game. An impressive screen editor with word processor type facilities is used for this - very good once you get used to it.

You have a choice of 5 different waveforms for each individual channel. Not only this, you can edit the waveforms, using another complex screen editor, alter volume, vibrato, chorus, reverb, attack, decay, sustain, resonance, (nearly finished!) and something called Voltage Controlled Filter! It takes six sides of the A4 manual to describe that lot, so I'm not even going to try! Suffice to say, this is what produced those 'Complex polyphonic sounds'. You can have one channel as 'percussion' sound if you like.

You can save the music text and/or the waveforms from the programme, but to produce a tune which can be loaded and played requires the AMC program (following DAMS). This can combine pieces, and produce a 'stand alone' re-locatable binary file. A feature of this code is an interrupt routine, so that M/C programmers can use the music along with graphics routines.

An extremely comprehensive and versatile program, but one which is intended for use by experienced assembler programmers.

FANZINES

DOH MORRISON REPORTS

The Dragon Gazette, the latest in a long line of publications from New Era Publications, is a bi-monthly newsletter to supplement 6809 User.

It should be stressed that *The Dragon Gazette* is not simply yet another amateur magazine, rather it is a newsletter which concerns wholly with news & current affairs items, of interest to the Dragon world.

The newsletter comes in the form of two A4 sheets (corner stapled) and while this does somewhat detract from the presentation, it has to be said that the newsletter features without doubt the finest presentation of any Dragon related periodical, relying as it does on Desktop Publishing facilities.

The first edition of *The Dragon Gazette* features an interview with Paul Grade on the proposed Hove Summer Show and reports that the prospect of the infamous Ross Bros London Show going ahead remains doubtful.

Other interesting information includes a report on a proposed Mouse, to be manufactured by Martin Cleghorn in association with Greenweld Electronics, and a new device which will enable Dragon users to expand the capabilities of their machine with an 80-column screen, extended RAM and BBC Basic.

A full page is devoted to Computer Communications, as experienced by one particular Dragon user. For anyone considering purchasing a MODEM, it should prove interesting reading, providing as it does, information on the best Dragon related Bulletin Boards, and ideas on how best to use your MODEM.

The final page is devoted entirely to the Editor, Simon Jones, and Dragon enthusiast, Matthew de Monti, as they express their opinions on a number of Dragon related issues, not least the problem of apathy amongst Dragon users.

The idea behind the launch of *The Dragon Gazette* was primarily to provide Dragon users with regular monthly news coverage, in view of the fact that 6809 User had gone bi-monthly.

One would have expected slightly more than 2 pages but for the price of £1.75 for six editions, *The Dragon Gazette* represents good value for money.

The Dragon Gazette is available from New Era Publications, 37 Collins Meadow, Harlow, Essex. **nn**

This Issue, On the Spot features an interview with Bob Preston, proprietor of R & A.J Preston.

Though a comparative newcomer to the Dragon market - Preston Games entered the market in 1987 after acquiring the rights to former Blaby stock - Bob Preston has done much work for the Dragon and this month, stages his first Dragon show at Ossett.

WHY DID YOU MAKE A PERSONAL CHOICE TO BUY A DRAGON?

The Dragon was produced in Pyle which is only about 3 miles from here, so one likes to buy a local product.

WHY DID YOU LAUNCH PRESTON GAMES AND WHAT DID YOU HOPE TO ACHIEVE IN DOING SO?

We are software distributors, selling games for all computers to shops. When Blaby came up for sale, we bought its stock and the rights to all their games. Demand for Dragon games caused this purchase, to help keep our customers supplied. If we had not done so we would have lost a part of our distribution business. We then separated the Dragon from our normal business and started Preston Computer Games, hoping to help keep Dragon owners happy by mail order.

WITH DRAGON SUPPORT FALLING, HOW LONG CAN YOU SEE THE NEED FOR PRESTON GAMES?

As long as there is a Dragon out there, we will be needed.

WHAT IN YOUR OPINION HAS KEPT THE DRAGON GOING FOR SO LONG?

The Dragon has a very loyal following and even if another computer is owned, the Dragon is kept.

WHAT EXPERIENCE HAD YOU HAD WITH THE DRAGON PRIOR TO SETTING UP PRESTON GAMES?

None really - as I sold the Dragon I bought, but we did sell games for the Dragon?

WHAT DO YOU THINK OF THE STANDARD OF SOFTWARE CURRENTLY AVAILABLE FOR THE DRAGON?

Difficult to answer as we are only involved with our own software, and ours is increasing all the time in sales and we are producing new or good old titles all the time.

HOW DO YOU RATE THE DRAGON AS A GAMES MACHINE?

Excellent.

WITH SO FEW TITLES BEING PRODUCED, HAVE YOU EVER CONSIDERED THE POSSIBILITY OF CONVERTING SOME OF THE MORE POPULAR TITLES, AVAILABLE FOR THE LIKES OF THE SPECTRUM, TO DRAGON FORMAT?

Too expensive, and not enough sales to warrant this.

WHAT DO YOU LIKE BEST ABOUT THE DRAGON?

Selling the games and finding products for sale.

IN YOUR OPINION, HOW LARGE A ROLE HAVE PRESTON GAMES PLAYED IN KEEPING INTEREST IN THE DRAGON ALIVE?

I think we have helped in our small way to keep the Dragon going, in producing games and supplying Joysticks, Interfaces, Printers, Light Pens etc. Our stand at Dragon shows has been described as "a show on its own", our aim is to supply the Dragon owner with all that is needed.

HOW HAVE THE DRAGON COMMUNITY RESPONDED TO PRESTON GAMES SINCE THE COMPANY WAS LAUNCHED?

Very well, we sent software all over Europe and, for example, recently sold a Dragon 32 to an American living in Sweden.

DO YOU THINK DRAGON USERS ARE DOING ENOUGH TO KEEP THE DRAGON ALIVE?

Some yes, some no.

HAVE YOU ANY NEW TITLES NEARING COMPLETION?

We are about to bring out older titles such as Sprint and Petite Pascal.

HAS YOUR WORK WITH THE DRAGON BEEN AN ENJOYABLE EXPERIENCE AND WHAT HAS MADE YOUR WORK WORTHWHILE?

Yes it has been enjoyable. What makes it worthwhile - answering the telephone and saying "yes we have Dragon games, we will send you our catalogue."

WHAT HAVE BEEN YOUR BEST AND WORST MOMENTS WITH THE DRAGON?

Best moments - perhaps it was at the PCW shows in Olympia and Earls Court showing the Dragon and seeing the surprise on peoples faces. Our worst moment was trying to get "Hotel on Mayfair" produced. It took four months and 2 duplicating companies before it went on sale.

WHAT'S YOUR FAVOURITE GAME?

The one that sells best.

WHAT IS IT ABOUT THE DRAGON THAT HAS KEPT YOUR COMPANY GOING?

Loyalty to the machine and our good products and service.

WHAT IN YOUR OPINION MAKES A GOOD GAME?

A game that is not too easy to play and one that can be played again and again without loss of interest.

TO DATE, WHAT HAS BEEN YOUR MOST SUCCESSFUL PROGRAM?

Our most successful program that has out sold all others is "Kung Fu the Master."

AS A SHOW ORGANISER, HOW DO YOU RESPOND TO PLEAS ON THE PART OF SCOTTISH DRAGON USERS FOR A SCOTTISH 6809 SHOW?

Being Scottish, I would of course support a show in Scotland, but it would have to be the "Alternative" type as I don't think a 6809 show could stand on its own.

WHAT IS IT THAT ATTRACTS SO MUCH SUPPORT TOWARDS THE OSSETT SHOW?

Ossett has a loyal following, it is an excellent hall and is well placed for those from the Midlands to attend.

AFTER OSSETT DO YOU HAVE ANY PLANS FOR FURTHER SHOWS?

No, we will of course be attending all other Dragon shows, and may run another Ossett show in November.

ON AVERAGE, HOW MANY UNITS OF ANY ONE PROGRAM CAN YOU HOPE TO SELL?

That is a secret, some sell well - others not so well, but I suppose anything from 100 to 1000 is about the range of sales.

HOW DO YOU RATE THE DRAGON AS AN ALTERNATIVE TO THE MACHINES OF TODAY?

The Dragon is still a very good but ageing machine, it was produced ahead of its time and if it had come out today, with the new ideas, it would have been a best seller.

HOW SERIOUS A SET BACK DO YOU FEEL THE COLLAPSE OF DRAGON USER WILL PROVE TO BE?

There is no doubt that the loss of Dragon User was a blow to us all but it may be a blessing in the end, it will make the other magazines sit up, and improve their format and content. The NDU6 is worth an £8 sub. and reaches a lot of users. The greatest difficulty is getting to all these Dragon owners out there who have bought second hand or third hand machines and don't know where to get software. Computer shops don't help, they don't stock Dragon games. This is, I think, our biggest problem - getting to the new owners.

◉ **INTERVIEWER : DON MORRISON**

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NEWS EXTRA

If you have any new products for the Dragon - Software or Hardware - write to Dragon Logic, 72 Diriebught Road, Inverness, IV2 3QT.

New Era Publications have recently announced the launch of several new publications for 1989.

The titles involved include THE COMPLETE HISTORY OF THE DRAGON, a fully researched book, outlining the Dragon's complete history, and THE DRAGON USERS' HANDBOOK - 1989/1990, which following the success of their first edition has been completely updated and much improved.

New Era have also announced details of a number of ambitious Hardware projects to be produced in association with Martin Cleghorn (former Technical adviser to Harry Whitehouse) and Greenweld Electronics. Details of the proposed projects are limited at present but it is expected that they will include a new Dragon Mouse and a device featuring an 80 column screen, extended RAM and BBC Basic. Price details have yet to be announced.

New Era have also informed us that their ACCOUNTANT PLUS utility is now available at the reduced price of £1.95.

New Era Publications can be contacted at 37 Collins Meadow, Harlow, Essex, CM19 4EN.

Dragon user, Mike Townsend has announced details of a new Dragon software company called Dragonsoft.

The newly formed company, which intends to specialise in utilities, has launched its first product, a Data Loader Printer, available from Dragonsoft on tape or Dragon Dos format for £2.00.

Orders should be made payable to Mike Townsend and sent to Dragonsoft, 41 Hereford Street, Presteigne Powys, LDB 2AT.

Show organisers, Emsoft, intend to hold their next Alternative Show at the Horticultural Hall, London on Saturday 1st April.

The show, which is most unique, will once again feature a number of Dragon distributors including Capri Marketing and Preston Games.

Further details can be obtained by writing to Emsoft, Poplar Lane, Ipswich, IP2 0BA.

Drawezee, NDUG'S popular Graphics package, is now available on disk format.

The new Disk version, featuring a FREE "Mirrorimage" program, is available on Dragon DOS V1.0 or CoCo Dos for only £3.00.

Orders should be sent to Paul Grade (Group Chairman), 6 Navarino Road, Worthing, Sussex.

Starship Software will be representing Dragon Logic at the forthcoming Ossett Show on Saturday 25th March. Dragon Logic writers, Jonathan Cartwright and Jonathan Denison, will be selling Back Issues of all our previous editions on the Starship stand.

Name: CAD 6809

Authors: Jonathan Cartwright & Neil O'Connor

Supplier: Pulser Software

Price: £4.99

CAD 6809 is a PMODE4 Graphics package, which say its authors, was designed to assist budding computer artists produce masterpieces on the Dragon 32/64.

I myself would not go so far as to suggest that, but having used CAD 6809 thoroughly I have to say it is a most impressive and user friendly graphics package.

The program is available in both tape and disk format, the latter featuring an Icon-driven menu. It was, however, impossible to achieve this on the tape version, owing to speed and memory restrictions. Instead, a text menu has been included in which the cursor is moved using the right-hand joystick.

CAD 6809 features a number of typical commands including Draw, Frame, Mirror, Circle, Invert, Line, Box, Disc, Load, Save, Fill, Cls, View and many more, too numerous to mention. There are however a number of unique commands which really make CAD 6809 stand out against other Dragon graphics packages and these include Copy, Swap, Rays, and a unique Zoom mode. There are 8 types of brush to choose from as well as several shades. To select a command you simply place the cursor over the respective Icon and press the joystick button.

The program also features a special pattern fill - in addition to the conventional Fill command - which may be used to fill circles, boxes, etc with any pattern you wish. The routine is a primitive version of the Dragon's PAINT command and it does have a number of restrictions, speed being its main problem. It is nevertheless a welcome addition.

CAD 6809 has gone one up on its rival, Picture Maker, in that it allows for text - black on white or white on black. This is achieved by moving the joystick into the correct position (after selecting the command) and pressing 'Fire'. Text can then be entered, in either upper or lower case, and afterwards you can return to the menu.

The program features a quite unique command known as ZOOM, which allows the user to perform finely-detailed work by enlarging the section required, rather like the MAGNIFY command as featured on Picture Maker. Though useful, it would have been perhaps more useful were it possible to enlarge or reduce any given area as with a photocopier.

The main problem with CAD 6809 is the speed at which it operates, particularly for tape users. Written in BASIC, the program is obviously slower than its machine code rivals, but the results are no less impressive.

Overall I found CAD 6809 a most impressive graphics package, undoubtedly one of the better titles currently available but it remains to be seen whether it will beat off the competition from its closest rival, Dragon Graphics Studio.

Name: Rally
Author : Neil O'Connor
Supplier: Pulsar Software
Price: £7.99

GAME OF THE MONTH

Not so much an adventure game, more an interactive, ground-based 'treasure hunt', in which you participate in a car rally. You aren't asked to 'Find the seven golden amulets' or 'rid the world of the evil menace', in fact all you know is that you are looking for clues to help you complete the rally. Your only enemies in this adventure seem to be time, hunger, and your own lack of caution.

The PMODE4 screen display contains a status box at the bottom, which tells you whether or not you're in the car, whether the engine is on or off or whether the door is open or closed. Your energy level is displayed as a percentage and goes down rapidly if you choose to walk around too much. You also have some cash, 20 pounds to begin with. The rest of the lower screen displays the time, a petrol gauge and space for computer prompt and your input (of the VERB/NOUN type). A space across the screen centre is used as a scratch pad by the computer for various messages throughout the adventure.

The top half of the screen carries the very detailed graphic sketches of the 37 different locations you can visit. The method of finding clues by moving a flashing cursor over the screen, and pressing ENTER when you wish to investigate even a pixel-sized dot, is what makes RALLY stand out from other graphic adventures. I would advise the use of a notebook to jot down the vast amount of clues obtained from the game, unless you have another Dragon running a database to hold them all!

As with other adventures you can TAKE objects, READ things (clue), BUY goods in shops and carry objects to help you obtain more clues. The usual Inventory lists the objects you are carrying and there is a SAVE GAME facility (you'll certainly need it!).

Did I like it?

After a frustrating start (I didn't realise you have to PAY MAN at the beginning - that's why he's holding his hand out!!) I became more and more involved with the game and yes I DO have another Dragon with a database full of clues (which I still can't make head nor tail of!!), I've used a couple of printer ribbons dumping the graphics screens and studied them in bed, on the bus, in the bath, etc. This game is taking over my life! I've got better things to do! I'll just run it once more - I'm sure I missed a clue SOMEWHERE.

NEXT ISSUE

Next Issue, Dragon Logic begins a new series on POSTSCRIPT, a relatively new Computer language, featuring the most up-to-date Desktop Publishing Facilities.

Technical Adviser, Alan Swift, continues with the second in his three-part series of Hardware projects, featuring an OUTPUT PCB.

Other features include the second part of Jonathan Cartwright's BLOCKMAN listing, further advice from Jonathan Cartwright, Ray Smith & Stuart Beardwood in their respective columns, an EXCLUSIVE interview with a mystery Dragon celebrity, a report from the Ossett show, the usual news, reviews, letters, clubs information, listings, charts, hints & tips and a special report on the dangers of Software Libraries.

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