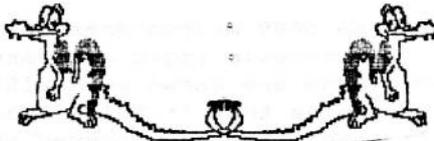


DRAGON



UPDATE

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ISSUE 29. JANUARY 1987.

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Chairman: Paul Grade. 6, Navarino Road, Worthing, Sussex. Phone: 0903-207585.  
S/W.Ed: Neil Scrimgeour, 125, Occupation Road, Corby, Northants. Phone: 0536-66590  
Editor: Tim Lomas, 211a, Amesbury Avenue, London SW2. Phone: 01-674-0327.

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The Gaffer's Bit.....

As of now there is going to be a change in the way that your questions are dealt with, and hopefully this will get YOU better answers and ME time to handle the rest of the work properly. In this issue you'll find a "Helpline" list, which consists of a list of members who have volunteered to help by answering any questions on specific subjects. The idea being that if you have a question on any of the subjects listed you should write to the appropriate volunteer direct (enclosing a stamped envelope if you expect them to reply!!), and they will do their best to provide the answer. Now this doesn't mean that I'm opting out....if you have a question on something not covered in the list, or for any reason you aren't satisfied with the answer you get, I'll still do my best to get things sorted out for you as always, but it DOES mean that you'll have a chance to get answers from people who specialise in a particular subject, which has to be better than relying on me to answer everything....I know I'm a genius, but even so there are limits!. Yes, I still want to hear from you; yes, you can still write or phone me whenever you want; no, I'm not losing interest....it's just that the workload has got to the state where I simply can't keep up, with the result that nothing is getting the attention it deserves, and this way everyone should gain. OK?. As you'll see from the list, we still need volunteers on a lot of subjects....ideally we should have several volunteers for every possible subject...so how about YOU?. You can help just the same as anyone else, so why not?. Next point. I know that Tim and I are always nagging you to send in material for Update....and that still applies!, but I thought I ought to explain one important point.... If you're sending in an article on anything remember that we're limited for space....we have to cover a whole range of topics in each issue.....so if your article HAS to run to more than one side of A4, make sure that it has a "natural break" point, so that it can be split between two issues if necessary. Usually the maximum space we can allocate to any one piece is two sides, and even that isn't always possible. If you're sending listings, the same applies.OK?. Well, I haven't left myself room for anything else now, so I'd better take my own advice!.

*Paul G.*

THE EDITORIAL BIT.....

This month I've commandeered a bit later on so here I'm just going to mention the thing I spotted in the latest Dragon User which qualifies for daftest price of the month.  
H.Andersen Computers qualify for the Daft Price Of The Month Award. Charging 90 quid for a comms program has got to be a joke, even if it does support X-Modem protocols and an upgrade to OS9 to work with 80 track drives at 80 quid more!. The Dragon is a computer which is not best known for its use in commerce!. This sort of price is just what we don't need. Can YOU afford it?, I can't, I wouldn't pay it anyway. What are they trying to do ??? This is the price you might expect for a business program, not for a home computer utility.

*T.L.*

EASY MACHINE CODE (3) . . . . . R.A DAVIS

What you need to know about the 6809 microprocessor, the Dragon's heart is that it contains a powerful arithmetic logic unit and several BYTES which we can regard as it's own RAM. These are known as REGISTERS. What you need to know about the operating system is that it holds the Microsoft Basic comand in ROM, from location(address) &h8000 and up. It uses some of 'our' RAM from &H00 to &H3ff at the 'bottom' together with some of the RAM at the top. The text screen uses from &H400 to &H5FF and the graphics screens &H600 to &H35FF if all 8 screens are in use. You can't alter the ROM from &H8000, but you can use it from your own machine code by jumping or branching to the routines in the ROM, saving you a lot of work! The lower RAM which it uses can usually be PEEKed to see what it holds and can sometimes be POKEd with new data to alter the effect of the ROM routines which use it. If you are still with me, the next subject is the registers, or some of them.

Helpline 87 . . . . .

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

FORTH: John Payne, 3,Sibland Close, Thornbury, Bristol.  
 FLEX: Jurgen Mitchell, 62,Victoria Grove, Lupset, Wakefield, Yorks.WF2-8JD.  
 PROGRAMMING LANGUAGES AND STRUCTURED PROGRAMMING METHODOLOGY: Stan Davies, 153, Allestree Lane, Derby DE3-2PG.  
 GAMES SOFTWARE (MAINLY ARCADE BUT SOME ADVENTURES): Stephen Wood, 52,Downsway, Springfield, Chelmsford, Essex CN1-5TU.  
 M/C (EXCLUDING FLEX & OS9); DRAGON MUSIC; ARTIFICIAL INTELLIGENCE; "C" (UNDER OS9): Chris Jolly, 4,Pinehurst Walk, Orpington, Kent.  
 TAPE TO DISC CONVERSIONS (DRAGONDOS): Graham Smith, 3,Ashton Gate Terrace, Ashton Gate, Bristol BS3-1TA.  
 GENERAL HARDWARE AND UPGRADE CONVERSION PROBLEMS: Bob Hall, 22,Cumbria Close, Thornbury, Avon BS12-2YE.  
 CGP115 & MCP 40 PRINTER SOFTWARE QUERIES: Philip Beed, 27,Findon Road,Elson, Gosport, Hants.PO12-4EP.  
 WORD PROCESSING & GENERAL BASIC PROGRAMMING: F.J.Fisher, 29,Thornham Road, Gillingham, Kent.  
 BASIC PROGRAMMING: Ian Rockett, 2,Knowle Road, Burley, Leeds, Yorks.LS4-2PJ.  
 RTTY / RADIO; LISTINGS FROM INPUT MAGAZINE; SPRITE MAGIC; AMATEUR RADIO; UPDATE ARTICLES / LISTINGS BY R.A.DAVIS: R.A.Davis, 39,Boxley Drive, West Bridgford, Nottingham NG2-7GQ.  
 OS9 SYSTEM AND UTILITIES: Jason Shouler, 70,Victoria Road, Parkstone, Poole, Dorset.BH12-3AE.  
 BASIC PROGRAMMING AND TAPE TO DISC CONVERSION (DRAGONDOS): John Cox, 3,St.Peters Road,Portslade,Sussex.BN4-1LS.

A PLEA . . . . .

Martin Layley is searching for a copy of the Professional Programmers DeltaDOS Cartridge manual. There were not too many of these issued apparently, anyone out there able to help him??

He can be contacted at the following address: Martin Layley, 12 Starmead Drive, Wokingham, Berks. RG11 2HX. Phone 0734 780308



**DRAGON DIARY . . . . . NEIL SCRIMGEOUR**

One of the few new companies at the 6809 show was Occult Software. Well, I presume they are new, although they were selling one of Wayne Smithsons games. Anyway, we picked up their Numerology cassette for review but it's not until now that I've been able to get hold of their address or the price of the program.

What is numerology? That's what I said when I first saw it. Numerology can best be described as your horoscope worked out by numbers. The basis of this 'fortune telling', not quite an accurate description but it's the nearest I can come up with, is that from your name the program gives a number to each letter. Your birthday is taken into account then all the numbers are added up and out of the other end comes a description of your personality. I find this type of program very hard to assess because in most cases they can only be used once, though this prog is a bit different, and this type of program is aimed at a specific market. I suppose the likes of Rusell Grant would find this program very interesting. As I said, this program is a bit different, on the cassette inlay is a lengthy description of what numerology is and how you can use it. Apparently after some people used this system to find their personality, they changed their name to fit the personality they wanted to be, and lo & behold their lives changed for the better! Believe it if you will, I've always been a sceptic and this program doesn't change my mind, but I fully accept that there are people who firmly believe in this type of stuff and I'm not knocking their beliefs, it's a free world. So, how did the program cope with me? Well, I found out that it was very similar to a horoscope, very accurate in some places and very inaccurate in others. I tried all the rest of my family and roughly the same happened. That's about all I can say on the subject. No, I'm not telling you the results of my personality! What I would like to say though is that the program is very well written and well presented, I never came across any problems whatever. So, having written all that, what's the price? That's where I start to have doubts, the price is 6.95, and as far as I can find out it is only available on cassette. 7 pounds seems a lot to pay for a program that most of us will use only once, or mainly for entertainment at a party. For someone who is into astrology it could be good value, or even someone who researches their family trees (there is a special word for it but I can't think of it) (Geneology Neil ... TL) and would like to know what their long lost relatives were like. As I said before, it is very well written and if as much care was put into games as has been put into this, the Dragon market would be a lot healthier. Occult did not print their address on the cassette or inlay but I managed to get it. The address is 1 Merrieleas (oe Merriedeas, I'm not sure which) Drive, Chandlers Ford, Hants SO5 2FQ. If anyone could put me right on the address, I'd be obliged. A few weeks ago, I had a phone call from a distraught member who had managed to bet 98 out of 99 objects in JSW and then couldn't get out of a screen. It was about 10pm when he rang so he'd obviously been at it all night. He must have lots of patience. Anyway, it transpired that he'd never heard of the cheat mode in JSW, as I never heard from him again, I assume that he's finished the game. As I've got a few lines to fill and just in case there are others, the cheat mode is thus: When in the game, press the M, A and X together, the game should freeze. Then use the arrow keys to skip through the screens to the one you want. Press the space bar once and use the arrow keys to position Willy where you want him. Press the space bar again to start playing. Don't forget though, if you collect more than 99 objects, you are unable to finish the game. Apparently it's an untraceable bug.

*Only 340 shopping days to Christmas!*



## REVIEWS . . . . . GRAHAM SMITH

Here are a couple of quick reviews of the utilities in issue 27. Terje Olsen's M/C to DATA routine. Worked first time, no errors in the listing. Creates a BASIC listing of DATA statements rather like the listing given. (that's because I used the routine to make up the listing... TL) That is 3 digit decimal numbers but not the check sum at the end. The only problem I can see with running it is that the Basic program it generates may overwrite the M/C file if it is located in the normal Basic work area and most people prefer their DATA statements in 2 digit hex format as it is less to type in. John Cox's DOS loader. Worked first time, but only because I noticed an error in the source code (Sorry, probably my fault ...TL) The Hex printout is correct but at 1FEC 108EC000 should read LDY#C000 not 2000. Also it was not clear how you go about saving your existing DOS to disc although it may be obvious to some of us. Some people may be surprised to know that you can: SAVE "DOS", &HC000, &HE000, &HC000. If it is just the DOS that you are loading, I suggest that 1FF4 is changed to 108CE000 CMPY #E000 and line 4 of the instructions to SAVE "DOS.BIN", &H1FBB, &H4000, &H1FBB Other than those minor changes, I am quite happy with the utility and now have a couple of DOSs that I can interchange at will without swapping chips or cartridges. A good example of a use for this utility would be to do all the patches published in Dragon User for correcting the standard DragonDOS, remembering that a correction was published in a later issue (I can't remember which one).

## DRAGON QUEST . . . . . CHRIS JOBSON

A lot of Dragon owners that I know are not content with one Dragon, they always keep a spare just in case. I suppose this makes sense when you think about it. If you use your Dragon a lot and something goes wrong with it, you can run the spare while the first one is away or you are contemplating the fault. They can also come in handy to verify whether it's you or the computer that's not running the program properly. (usually it's the human part that's at fault.) Now the next gem of information, there is a vast untapped source of Dragons in the country, owned by people who either couldn't get the hang of it, just bought the latest electronic gadget or lost interest. The now defunct Dragon gathers dust in a cupboard and the owner won't take the time or trouble to sell it. By using the power of your local paper classified ads, you could advertise for a Dragon, you'll be surprised at the response. The lethargic owner now only has to make a phone call to turn his computer into cash. Do not mention a price in the ad and be prepared to haggle, bearing in mind that before you advertised it was just a worthless piece of junk to the owner. As a rough guide, 25-35 for a 32, 45-55 for a 64 and should a disc drive be on offer, try 70-75.00, assuming it has a DragonDOS controller. These prices are quite feasible, don't let the owner bump up the price with bags of software, you probably have them anyway and so they're only worth the price of a blank tape. Try not to buy the books unless you really need them, again they're only worth 1.00 or so each. On 2 occasions people I know have placed this type of advert and have both ended up with 64s and disc drives plus the telephone numbers of 8 people with 32s to sell in that price range.

A few points to remember, agree a tentative price beforehand. Be quick off the mark and get to the owners house before he has time to think about it or you may have stirred him from his lethargy into thinking he can advertise it for more. Ensure that the unit works before you part with money since you may have difficulty after the deal is done. Be sure to pass the other potential sellers telephone numbers to your friends to increase the circle of Dragon owners, it can only be to your advantage. Although it may vary, the price for a nominal advert is around 6.00, don't let the paper con you into putting it into a fancy box or lines above and below since you want to keep your gamble to a minimum.... Good bargain hunting.

In previous issues we have seen two views of Dragon User, for & against. I would like to present you with a third view, that of a Dragon User. I have purchased every issue since buying a Dragon 2 years ago, with the exception of one which I have since regretted missing (Nov '85s edition, which I now have). I didn't buy it initially because I thought it was becoming less value for money, since then I have wished I could refer back to that issue for various reviews and articles. I have also regretted ditching a dozen of the earlier editions when I thought I had read all I needed from them (I have also obtained copies of these). Little did I realise what a great source of information they would be at a later stage as my knowledge grew and I attempted greater things. If we look at the early editions ('83/'84) we will find quite thick mags, full of all the goodies a computer mag should hold. Perhaps not as thick as some of the mags for other machines, but if you have read any of these, you will find a lot of it is geared towards complaints about the machine or service for it. Now although it's not the worlds best machine, the Dragon was released with no major bugs & reasonable back up, that would account for some of the loss in size. The second thing about other mags is that a large portion is dedicated to reviewing games. The Dragon does not have the sort of games software available for other machines (in quantity, not quality) so obviously there would be less reviews. I expect a lot of us would consider that to be good. I gather games are no longer the trend amongst us. What of Dragon User today? Well, since July, DU has been subscription only, I gather that despite this move readership has not fallen too drastically, although I do know people who are no longer getting it or are sharing subscriptions. In some ways I am pleased with this, you never knew which day it would come out, at least this way you get it as early as possible without dropping into the newsagents every day to see if it has arrived. Over the last 18 months we have watched the number of pages drop significantly but it now seems to have stabilised at 32. Since going mail order, the glossy cover has been replaced by a card one with the index and editorial on it, it's not so attractive but if it keeps the cost down, I suppose it's for the best. Contents wise, they do seem to be dredging the barrel, program listings are now given in hex dumps and source code, I wonder if that's to fill the pages or a requested feature? Looking at things in perspective though the greater part of computer mags has always been announcing new products and firms. As far as the Dragon is concerned you could list the new products and firms of '86 on the back of a postage stamp, so really DU is breaking new ground as a computer magazine. The other reason for buying a magazine is the adverts. In the last few months this has been restricted to a handful of firms still supporting the Dragon, who have already dropped their prices as low as they are going to and are unable to offer anything new as there isn't anything to offer. It should also be remembered that DU is not the only Dragon publication suffering from lack of material to print, Update for one has months when it is pretty thin on the ground (but still worth every penny of course!!).

In summary, I think DU has stuck with us for longer than most publishers would consider a viable and economic proposition (remembering that making a profit is a primary requirement for them to stay in business), Lack of material is a concern, although they have enough imaginative ideas to keep filling the pages. I must admit to not liking the software reviewers wit, he seems to enjoy cracking the 'not very funnies' more than reviewing. I would like to know what the software under review is like. Perhaps others like it? I don't. Whilst I for one would like to thank DU for it's continuing support at a time when it might have been easier to give up, I think the feeling is that they can't go on for ever. Then it will be up to us, the users & user groups. I would hope that when this time approaches, they can be honest & announce well in advance, return unfulfilled subscriptions, publish the addresses of all known user groups and pass on mail recieved afterwards to appropriate groups. I for one hope that this doesn't occur for a few years yet, and will continue to renew my subscription as long as Dragon User exists.

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REVIEW OF A REVIEWER . . . . . P. BEED

Do you remember the days when a review of a piece of software was just that?, an informative piece of text which told you descriptively what you would get for your money, the quality of the program, it's strengths and limitations, a general idea of the type of game/ adventure/ utility it is, perhaps a comparison of it's attributes and those of similar programs. I enjoyed these reviews; on reflection they seemed fairly accurate and assured that my hard earned money got me what I wanted and avoided the rubbish.

It seems that trends are changing, the reviews of 1986 seem to have been used as an opportunity for a juvenile sense of humour to attempt to entertain, it wouldn't be so bad if he really was funny, but he isn't!! If I want to read half witty stories I would buy a college rag mag, not a technical magazine! Although one expects to see a little of the reviewers opinion in the review, it should surely not be totally opinion orientated, after all, the fact that I like or dislike a program doesn't mean that the next person will have the same tastes. Perhaps if the reviewer realised this he would give a more objective view of the program he has the privilidge of telling prospective customers about. Rather than writing the funny letters column. I don't think I need to bring update into any more unwarranted disputes by mentioning names, all I will say is if the cap fits, wear it.

THE LISTINGS . . . . . AT LAST

Finally, the listings for the article in issue 27, the one on adventure writing that is. Sorry for the delay.

```

10 CH=0:CH$="":CC$=CH$:VB=0:VB$="":NO$="":NO=0:TL=0:TW=0
20 PRINT:PRINT " WHAT NEXT ?";
30 EXEC34091
40 K=PEEK(135)
50 IF TW=0 AND TL=0 AND K=33 THEN CH$=CC$:TW=2:TL=4:PRINTCH$+" ":GOTO30
60 PRINTCHR$(K);
70 IF K=13 THEN REM PARSER
80 IF K=8 THEN 10
90 IF TL=0 AND K=32 THEN 30
100 IF TW=1 AND TL<4 AND K>64 AND K<91 THEN CH$=CH$+CHR$(K):TL=TL+1:GOTO30
110 IF TW=1 AND K=32 THEN TW=2:TL=0:GOTO30
120 IF TW=2 AND TL<4 AND K>64 AND K<91 THEN VB$=VB$+CHR$(K):TL=TL+1:GOTO30
130 IF TW=2 AND K=32 THEN TW=3:TL=0:GOTO30
140 IF TW=3 AND TL<4 AND K>64 AND K<91 THEN NO$=NO$+CHR$(K):TL=TL+1:GOTO30
150 GOTO30

10 DIMV$(30),V(26,2)
20 FOR N=1 TO 30:READV$(N):NEXTN
30 DATA ASK,BUY,CHO,CUT,DIS,DRO,EAS,ENT,EXA,FIR,FOL,FOR,GET,GIV,HAR,HEL,HIT,INV,
KICK,KIS,LOO,MOU,NOR,REP,SEL,SOA,SOU,SOW,STA,SUC,TEN,THR,UNH,UNP,USE,WES,WRE
40 FORN=1 TO 26:READV(N,1),V(N,2):NEXTN
50 DATA 1,1,1,22,32,5,3,7,3,10,2,13,3,15,1,18,0,0,2,19,1,21,22,1,23,0,0,0,0,0,1,
24,7,25,2,32,3,34,0,0,2,37,0,0,0,0,0,0
60 IF VB$="" THEN 40 ELSE L=ASC(VB$)-64
70 IF V(L,1)=0 THEN 100
80 IF V(L,1)=1 THEN L1=V(L,2):IF VB$=V(L1) THEN VB=L1
90 IF V(L,1)>1 THEN FOR N=V(L,2) TO V(L,1)+V(L,2)-1:IF VB$=V$(N) THEN VB=N:NEXTN
ELSE NEXTN
100 IF VB=0 THEN 40
400 PRINT " WHAT NEXT ?";:REM NEW INPUT

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GROSVENOR SUPERDOS.....KEN GRANT.

Although the standard Dragon Disc Operating System (DOS) is quite a good system, there are several bugs and also room for improvement. This is where Grosvenor Software have stepped in to rectify the problem. Through the efforts of Mike Kerry (who also wrote ALLDREAM) they have brought out SUPERDOS, which is on a replacement chip to fit inside the DOS cartridge. The most noticeable improvement is seen when you want a directory of your disc. Superdos gives you a screenful, then will wait for a keypress before continuing - no need to take a course in Speedreading any more!. It also gives the drive .5 of a second to get up to speed before accessing the disc, which ensures no corruption from writing to the wrong track/sector etc. Superdos also ensures that when saving a backup file, the BAK file is closed correctly, saving the problems which can occur by having too many files open and problems when changing discs within a program. It also ensures that it keeps a correct account of OPEN files on different drives. Other bugs removed are File Information Block numbering, and also taking note of READ errors during BACKUP (Dragondos sometimes ignores these with fatal results). On the latest version of Superdos (E6) there are also patches to correct errors on reading double sided discs and enhancements to enable it to handle well filled discs with fragmented files, it also allows 160 files rather than the original 127.

The chip costs 10.00 if you fit it yourself or you can send your cartridge to Grosvenor and they will fit it (and return the original) for 12.00. Both are supplied with documentation.

Grosvenor Software are at 2, Beacon Place, Seaford, Sussex. BN25-2JZ.

DRAWEZEE EXPLAINED .....R.A.DAVIS

As I would have got the wrong impression about Drawezee from what has been published to date, I would like to put the record straight. It is primarily intended to enable you to copy accurately on to screen from a drawing made on graph paper, and not just for doodling attempts. It's main innovation is that it keeps track of the X,Y coordinates of the drawing and lets you examine and update these to new positions. It includes all the graphics commands of the Dragon, with the exception of GET & PUT, with the addition of a small print routine of limited use, for a few words or numbers. Suitable graph paper needs 10 squares to each larger square, and must have at least 256 squares horizontally and 180 vertically. Smith's graph paper does not comply with this specification, but most good stationers do have suitable pads of the paper costing about 1.00. You need to number it yourself, 0-255 and 0-180, when drawing. Apart from free hand design on the graph paper, you can of course use carbon paper to copy onto the graph paper, and easily transfer this to the screen with Drawezee. You can work in PMODE3 or 4, and save the finished article, or save it part completed and reload it later for completion. As it proved popular with my friends, I donated it to the Group to help towards getting a few pennies for the photocopier and I have no financial interest myself. Although designed for cassette, disc users should have no difficulty in changing the save routines to the addresses needed for disc, as it's all in Basic.

Any ideas?.....

I thought it might be a good idea to liven things up with a bit of graphic work occasionally, cartoon type. If you agree, why not send me YOUR cartoon efforts and we'll run 'em as a regular feature. PLEASE send them on tape or disc though...hard copy gets creased in the post, and as result doesn't photocopy at all well. PMODE4 please.

DECIMAL OR BINARY FRED?





## A MESSAGE TO ALL DRAGONEERS

My first paragraph is addressed to all members. The commercial big boys have by and large let us down. You all know this, it is vital that we do not let each other down. There is a wealth of talent in the group, producing software of a very high standard as Payne Forth, 13th Task and some arcade games in Dragon user bear witness. We could produce even more software of higher standard if we pool our resources and knowledge, co-operation should be our motto. That is what friends are for and we should all be friends within the Group. A register of skills and interests would be a good idea. My message to you all is to get together, work together and produce more software so that we are less dependant on the big boys. You will enjoy yourselves as well. Fellow adventurers, we are on our own now. A section on adventuring falls into 2 sections, programming aid and solving aid.

Programming aid- I think I can answer most questions about Basic and the overall structure of adventures, I would be pleased to help any strugglers. However, I am incompetent in machine code and hi res graphics. Is there anyone out there willing to help us in these 2 areas? (see the article Helpline 87 ... TL) Please let me know, I would be most grateful.

Solving aid- I am willing to publish any problems which bring you to a grinding halt in the hope that another member will come up trumps. (Always have been, all you have to do is write or phone & tell me .... TL) Personally I spend too much time programming to do as much solving as I would like to but I do have the full solutions to the Ket trilogy. Has anyone else completely solved any other adventures and so able to help?

Indeed, I would like to hear any comments and questions on adventures. My address is:- P.C Asbury Smith, 73 Guinness Court, Lever St, London EC1. Phone 01-253-2696

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## ANOTHER EDITORIAL BIT . . . . .

Yes, you are treated to me once more, whenever I have something to say, Paul writes reams, when I don't he leaves me loads of space on the front page & I have to waffle. Still never mind, this month you come unexpectedly on me in the middle.

The reason for this is a request I got the other day for 'editorial guidelines', what was meant was what do I want & how do I want it. To answer the questions in reverse order, how I want it is hard copy, be it written, printed or whatever. If you don't have a printer, feel free to send it in longhand but please make it legible. If you do have a printer, even better, send me a printed copy, that's easier to read still (if possible switch of the right justification if you use a word processor, it's harder to copy type if it's justified). As to what I want, anything at all so long as it has something to do with Dragons, I'm not going to tell you what to write, you probably know better than me what you want to read, that's probably what others want to read too. OK, not so much guidelines as lack of guide lines. It's your newsletter, you write about what you want to write.

Now, the thing I really wanted to talk about was FLEX, not an article but a question. Why has no one sent me a FLEX article, we've had OS9. Does no one use FLEX at all ?? I don't normally actually ask for articles on any subject but I think it's time we had something on the subject, anyone out there capable (and willing) to write something on FLEX for beginners, either an article or a series, if so get in touch, drop me a line or give me a ring. OK, that's me done for this month, back to the interesting bits.

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If you DO give Tim a ring, don't let his wife see you do it!, she might get suspicious!....P.G.

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MAIL ORDER . . . . . P. J. BEED

I'd like to say a few words in response to Chris Jobson's letter in Dec Update. Of the commercial concerns who still advertise in Dragon User I have used all of these at some time or other (except Compusense), and have heard stories of good service when things go wrong from other users. All offer a fairly prompt service, but one should remember that although many firms will despatch your goods on the same day they receive your order, or very soon afterwards, you are then at the mercy of the Post Office. who seem to route urgent goods via the Outer Hebrides yet can get bills to you the same day they are posted! Of Dragon firms still operating I can recommend John Penn, Computape & Peaksoft, to name ones who have particularly pleased me. In particular Peaksoft despatch light goods 1st class the same day, hence when my TV lead broke, I received a replacement straight away, costing little more than I would have paid for the parts to make one myself. So, the mail order firms are OK, but now the warning..... Beware of classified ads, having sent money to two of those, and received nothing in return, I've learned the hard way. Unlike full ads, the publishers accept no responsibility for these (a publishers fund exists to compensate anyone losing money to a full ad) it is impossible to obtain any information about who placed the ad. I'm sure they are not all cowboys but it's impossible to tell who is whom. They have the upper hand as it usually involves too small a sum of money to warrant legal proceedings and in any case, you don't always know who you are dealing with. They take advantage of the distance between you and them by refusing to answer your mail etc. If you must get something in this way, my advice would be to do it following a recommendation, otherwise exchange a few letters enquiring about the goods offered and perhaps ask about sending the cash after receiving the goods. It is an unfortunate state as one of the best sources of cheap hardware etc. is a magazine called micro mart, but rather than risk losing a cheque for 100.00 or more for a printer, I would sooner travel 100 miles or so to collect it or miss a bargain. It's a pity as I expect most ads are genuine. Of course the printer owner would be just as wary of sending his printer and getting no cash, it works both ways. If anyone has a solution to this problem of remote buying, I would be interested to hear it. Another point to consider is that of using crossed cheques, the cost of stopping these can be almost as much as the value of the cheque, and trying to trace the name of an individual who banked your cheque is futile. Perhaps someone with a knowledge of the banking system can tell me what advantage crossed cheques bring me. If anyone knows anything of CIA Soft in Ireland or Pegasoft of Sheffield, I would like to hear from you. The last point is that I would imagine your money is secure in Updates classifieds, they must have come through Paul and will invariably be from a respectable Dragon owner.  
## Crossed cheques can only be paid into an account, while open cheques can theoretically be encashed. Simple, no?. Paul.

X-Word 18 answers.

ACROSS: 1c) Amphitheatres. 2c) Address. 3a) CPU. 3i) Tart. 3m) Sea. 4h) Bus. 5a) Rain. 6k) Viva. 7e) Strum. 7k) Ace. 8a) Coy. 8h) Tracy. 9a) Tic. 9k) Puma. 10e) Brandy. 10k) Sligo. 11d) Plate. 11i) Sweetex. 12b) Spreadsheets. 13k) Tired. 14b) Winchester. 15a) Carthorse. 15k) Seven.  
DOWN: a1) Incorrectly. c2) Audio. c7) Cyclops. d10) Sprint. e2) Dip. e5) Assemble. f2) Rabbit. g7) Rota. h2) Subroutines. i2) Stump. i11) Shut. j1) Erase. 11) Titanic. 18) Yuletide. m1) Reserve. n5) Babbage. o2) Carbondioxide.  
Winner of X-Word 18 was Ian Rockett of Leeds. X-Word 19 winner gets.....no, I'll keep you in suspense!.

REDUNDANT INFORMATION DEPARTMENT

If you save a machine code file in the following format:-

SAVE "FILENAME.BAS",START,END,EXEC

The important bit being the .BAS, you will find that you can reload the file with LOAD"FILENAME" (or RUN) which gives you a saving of a whole 4 or 5 keypresses as the ROM assumes the .BAS and doesn't give you a NE error. Thanks to Graham Smith for that bit.

Reply from Wayne Smithson.....

Dear Paul, after reading the article "Were you conned" in the last Update I feel I have to reply....and I thank you for giving me the chance to do so. I can understand why Eddie Freeman and others feel as though they have been conned. What can I say?...I set out to help Dragon Owners, I put in a lot of work on Dragon Monthly, it took up a lot of my time and I got virtually no help from anyone except a few regular writers. There were 170 subscribers and maybe 4 or 5 bothered to write something. Don't get me wrong, I'm not complaining, I just want people to know that I gave it a go and that I really did try to make DM something worthwhile. I couldn't pull it off, but I did NOT set out to con anyone, only to help the Dragon and its owners. The 7.50 charge only just covers the cost of producing something like DM...ask Paul!. What made the situation worse, as Eddie so rightly stated, is that Issue 1 of Dragons Tail (the magazine replacing DM) said that Dragons Tail was going to be FREE!. This took ME by surprise. As it happens, DT is NOT going to be free after all...how could it be?...it would cost thousands to run every year. I'm sorry that it didn't work out with DM. I've tried to make amends by transferring everyone to Dragons Tail...and just in case you think I'm sitting on a giant wad of subs money, I pay for all 170 copies of Dragons Tail every month with money I can't really spare, just so I don't let anyone down more than I have done already. I don't see what else I can do. Something else that I find upsetting is the fact that virtually no-one has got in touch with ME about their grievances, yet plenty of people have taken it on themselves to "slag me off" behind my back. With the last Issue of DM I sent out a letter saying to get in touch with me if they weren't happy, but only a couple of people did so. I would only hope that Eddie and others change their minds about boycotting Quickbeam and myself. The Dragon is a first rate computer and I would hate to stop writing for it. I've always thought that Dragon owners were the friendliest set of people, so please, let's keep it that way. By the way, Eddie has received his refund without any trouble...but why did he feel that he had to DEMAND it?. I don't know, but if anyone else feels strongly about it I will refund their money too.....Wayne Smithson.

## Last word on the subject, I hope, but I can tell you WHY Eddie and others feel so annoyed, Wayne...people object to having subscriptions diverted to another publication, however good, unless they are consulted FIRST....I think that if you'd ASKED whether they preferred a refund or a transfer you'd have avoided a lot of bad feeling....and you have to allow for the unpleasant fact that almost every Dragon owner has been victim of a con job\* from fake Groups or magazines at one time or another, and it has made everyone VERY suspicious. Anyway, hopefully subject closed. OK?. Paul G.

Apology.....

Sorry there is no OS-9 page again this month, but Jason tells me that owing to other commitments he will not be able to write his page over the next few issues. Would anyone care to volunteer? *Paul G.*

Drive on! . . . . . Paul Grade.

Now I didn't really intend writing anything this month, but I've had several queries from somewhat mystified members who have bought second disc drives to add to their original one, and discovered that peculiar things happen when they connect the things up....things like both drives firing up at the same time, or total failure of either drive to do anything useful at all!.

So, to save myself the tedium of writing the same thing several times, I've decided to inflict it on you here instead. Those of you who know it all anyway can go back and help your Grandmother to suck eggs, this is for the benefit of the others!.

Most people seem to have Dragon Data type drives as "first" units, but most of the following will apply to other types as well.

The first thing to do is decide which of your drives you wish to be "number one" or default drive, and I would suggest that you use the original for this purpose, but it doesn't really make a lot of difference. Once you've reached this momentous decision, open the drive unit by the simple method of removing the casing, and take a look at the drive you'll find inside. Horrible looking thing, isn't it?. Now assuming that this is going to be number one, first locate a double row of pins sticking up at the rear of the drive circuit board. Some of these will be joined together with plastic covered "bridges". Found 'em?. Good!. Now take a closer look and you'll see that each pair of pins has some letters beside it on the board. Some will be "D1" to "D4" (or "D0" to "D3" depending on the make of drive). If yours start at D1, then make sure that this pair has a bridge on them, and that none of the other "D" pairs are bridged. If they start at D0 then ensure that it's D0 that is bridged and none of the others. OK so far?. You should also find a pair marked either MX or MS (or sometimes MD), and if these are bridged, remove it. Done that?, then take a look at the number two unit. Treat this in EXACTLY the same way, except that D2 should be bridged instead of D1 (on units where the numbering is 1 to 4) or D1 instead of D0 in cases where the numbering is 0 to 3.

Now on some makes you may not find the MX pair in the same row of pins as the "D" ones...so if it doesn't appear to be there take a look around the top of the board. If it isn't there at all, don't worry, there are exceptions!. Once you've got this sorted out, the rest is simple. On a Dragon Data unit you'll find a second edge connector already on the lead, so all you need to do is plug it in to the second drive, on other makes you may have to add one to the lead yourself. Again on Dragon Data units, you will find a second set of power leads tucked under the front of the PSU. These have a "one way only" connector, so you can't connect it the wrong way around....just plug it in. One more thing to do...at the back of the drive circuit boards you will find what looks like either a white chip (with BECKMAN printed on it) or what appears to be a black, shiny ceramic one.

By convention only the last drive on the cable has one of these ballasts fitted, so remove the one from the TOP drive. When you've done that, make sure that the units are securely screwed into place and connect up, power up, and test. If one drive seems to be reluctant to initialise a new disc try removing BOTH balast resistors...that usually solves the problem, but allow for the fact that a new drive is always a bit tight and sticky at first, and takes time to settle in and do everything 100% perfect first time.

And that, I hope, should get you going with no nasty happenings. Of course, if you have an original unit other than Dragon Data, then your second drive will need a power supply. This isn't anything elaborate, just a 12v-0v-5v DC unit, with a maximum rating of 2 amp on the 1 volt line and 750 ma. on the 5 volt....Make or buy, the cost will be about a tenner either way.

Well, hopefully this will save me some letter writing. I certainly hope so!. Good luck.

## Classified and Special Offers Page.

FOR SALE... CGP115 Printer Plotter...New pens & paper roll. Good condition. 38.00.  
Ken Grant TEL.0274-597986

Basic Programs Listed. 1 Program Listing...0.75 upto 4 pages.  
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ALL tapes and listings will be returned as far as possible the following day...

G.W.Hale, 'Rose Cottage, Hungerhill, Coolham, NR.Horsham, W.Sussex.  
RH13 8QE.

Software For Sale... Edit+ disc including 128K version...10.00  
Telewriter disc version...8.00, Rainbow Writer tape...4.00,  
Telewriter tape version (with Telemod tape)...5.00, Teleforth  
tape...5.00, Teletutor tapes...5.00.  
All above are ORIGINALS with instructions. Contact David Rothery, 1  
Heath Road, Glosop SK13 9AY TEL 04574 3912

SPECIAL OFFER!! Tandy intelligent modems (Racal-Nilgo CP2123), with  
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current list price of these modems is 115.00 (originally over  
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take too long making up your mind!  
Also for sale, ONE ONLY Toshiba MSX (64k) computer for 50.00 and a  
Tandy Acoustic coupler (110/300) for 30.00.  
Orders and cheques to: Jason Grube, Amberwood, Market Place,  
Peckridge, Staffs. ST19-5DH.

NEMESIS PROGRAMS! DRAGON55 and MEDDLER utility programs on cassette.  
Special price to Group Members only 3.50 each inclusive.  
Cheques and orders to Paul Grade, payable to the Group.

WANTED!! Contact with anyone using a Dragon for medical or nursing  
applications or study, to help me make more use of my Dragon with  
Ophthalmic Diploma studies.  
Contact Philip Beed at 27, Findon Road, Gosport, Hants. or  
phone:-0705-504340. (evenings).

WANTED:- Dragon DOS version of Elitecalc, preferably complete with  
manual.  
Chris Jobson, 091-4165415.

THE ADVENTURE RELEASE OF THE YEAR!. "13th Task" from ARC Software.  
Only 2.50 + 30 pence postage.  
ARC. 272, Mearns Road, Newton Mearns, Glasgow. 677-SLY.

FEELING STRONG?... If so you can have THE disc drive offer of the  
century... provided you can carry it away. All you need to do is call  
in and buy me a drink!  
What does it get you?... a cased pair of 8 inch drives including  
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(0371-4234, evenings after 6. only).

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Circuit Sheets: Available for D32 (most variants), B64, Dragon DOS  
controller, and Cusana DOS controller. All the same price 1.00 each.  
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Dragon Upgrade manual: 32/64 conversion method fully explained so  
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Delta DOS utility: A w/c utility to copy all BASIC and w/c files from  
disc to tape in one operation. BASIC listing of loader and Hex dump  
1.00 or on cassette for 2.50.  
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(0272-875528).

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DRAGONDOS EPRONS: Your DOS 2764 reborn to "patched" V1.0  
specification, or to Eurohard V4.0 or V4.1, or to PETER WILLIAMS  
TRANSLATED & DEBUGGED ENGLISH VERSION OF V4.1. Price for any version  
just 3.50.  
Compuil, 22, Grove Park, Burbage, Hinckley, Leics. LE10-2BJ.

BACKDATE UPDATES: Copies of all earlier Updates available from either  
John Cox, 3, St. Peters Road, Portslade, Sussex. (0273-422492) or  
Chris Channing, Main Road, Dunsby, Nr. Bourne, Lincs. PE10-0UB.

Disc Diary: A new program written for the Group by Tony  
Simmons....keep track of dates and events without having to keep  
track of all those bits of paper you wrote them down on!. Available  
on DragonDOS for B64's at only 5.00 inclusive.  
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Sussex.

AUTODIAL: New, and available ONLY through the Group!. This unit  
operates via the Dragon cassette remote port without interfering with  
its normal use, and enables you to dial direct from your keyboard or  
via a menu, and includes a redial facility. For use with any modem,  
or just as a memory dial unit for your phone!. NOT BT app. (but nor  
are 90% of phone accessories....we KNOW you'd never dream of  
offending Telecom), but complete with software for ONLY 13.50 plus  
postage.  
Phone I.Rees on 01-988-0519 for further details.

BDCOPY: DragonDOS to OS9 file copy utility. Includes 'Telewriter' &  
Basic conversion filters....8.00.  
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monitor buffer, function keys and more!. Suitable for any OS9 system  
(CoCo needs ACIA-Pak) and includes source files....8.00.  
PD-PAK: Selection of useful public domain OS9 utilities on one  
disc....5.00.  
Jason Shouler. 70, Victoria Road, Parkstone, Poole. BH12-3AE.  
(0202-722599).

WANTED!: DOS cartridge and disc drive wanted for my Dragon!, any make  
considered if the price is right, also cheap printer and connecting  
lead wanted.  
Please phone Colin on 0277-220983. (evenings only).

Although this routine has been located in 32 Mode, it should work if placed higher in memory in 64 Mode. Alter line 40 if you wish. The routine as printed will copy Page 3 of PMODE3,1 to memory at &H6000. In line 100 the variables P1 and P2 hold that address, to be loaded into the X register. The Y register is loaded with the start of Page 3, &H1200, defined by the variables P3 and P4 in line 100. The routine loads the A register from the address pointed to by the Y register, and stores it at the address pointed to by the X register, incrementing both X and Y until X points to &H6601 (1537 bytes), which is defined by the variables P5 and P6 in Line 100, which is a subroutine. You can make your own further subroutines for other pages, re-defining P1 to P6 as needed. You will see from the subroutine at lines 130/140 that the addresses to be POKEd with the variables are also defined as variables, and occur 1&2, 5&6, and 8&9 Bytes after the start of the machine code routine. These must be re-calculated by you if you move the routine from its present location, and substituted for those in the listing. The subroutine at line 190 does the POKeing, and can be called at each change of P1-P6 variables, for different pages. The memory map at the rear of the handbook gives all the needed addresses, but notice that in Line 70 you must clear sufficient memory for the stored Pages with a CLEAR command, to avoid the space being overridden by basic. Line 260 re-defines the variables P1-P6 to PCOPY the stored page back on to the screen, and goes to the subroutine at Line 190 to do this. The demonstration merely clears PMODE3,1 to yellow, copies page 3 to memory, then clears PMODE3,1 to blue, and PCOPYs the stored page three, which is yellow, onto the new blue screen, but this should show the effect. The number of pages you can store and copy will depend on the memory you clear to hold the store and the memory you need for your Basic program, of course. DOS users will have to amend P1-P6 to suit their system.

```

10 DATAE,00,00,10,8E,00,00,8C
20 DATA00,00,24,06,A6,A0,A7,80
30 DATA20,F5,39
40 FOR I=&H7000TO&H7012
50 READ A$:A=VAL("&H"+A$)
60 POKE I,A:NEXT I
70 PCLEAR0:CLEAR200,&H6000
80 GOTO120
90 REM SUBROUTINE FOR PAGES
100 P1=&H60:P2=&H00:P3=&H12:P4=&H00:
P5=&H66:P6=&H01
110 RETURN
120 REM ADDRESSES TO BE POKED
130 A1=&H7001:A2=&H7002:A3=&H7005
140 A4=&H7006:A5=&H7008:A6=&H7009
150 REM PCOPY PAGE 3 TO MEMORY
160 PMODE3:PCLS2:SCREEN1,0
170 GOSUB100:GOSUB190:GOTO220
180 REM PCOPY ROUTINE
190 POKE A1,P1:POKE A2,P2:POKE A3,P3
:POKE A4,P4:POKE A5,P5:POKE A6,P6
200 EXEC&H7000
210 RETURN
220 FOR D=1 TO 1000:NEXT D
230 REM SUBROUTINE TO PCOPY TO 3
240 PMODE3:PCLS3:SCREEN1,0
250 FOR D=1 TO 1000:NEXT D
260 P1=&H12:P2=&H00:P3=&H60:P4=&H00:
P5=&H18:P6=&H00
270 GOSUB 190
280 GOTO280

```

```

10 'MOSAICS ..... GERALD HALE
20 '1ST PATTERN
30 X=0:XI=2:XR=63:XL=0
40 Y=2:YI=2:YT=3:YB=31
50 M=56
60 GOSUB500
70 '2ND PATTERN
80 X=0:XI=1:XR=62:XL=0
90 Y=2:YI=1:YT=1:YB=30
100 M=240
110 GOSUB500
120 '3RD PATTERN
130 X=0:XI=1:XR=62:XL=0
140 Y=0:YI=1:YT=0:YB=31
150 M=252
160 GOSUB500
170 '4TH PATTERN
180 X=0:XI=1:XR=63:XL=0
190 Y=0:YI=1:YT=0:YB=30
200 M=251
210 GOSUB500
220 '5TH PATTERN
230 X=0:XI=2:XR=63:XL=0
240 Y=0:YI=1:YT=0:YB=30
250 M=126
260 GOSUB500
270 GOTO30
500 '**DRAWING ROUTINE**
510 CLS0
520 FORC=1 TO 8
530 FORN=1 TO M
540 X=X+XI:IF X>XR OR X<XL THEN XI=-
XI:GOTO540
550 Y=Y+YI:IF Y>YB OR Y<YT THEN YI=-
YI:GOTO550
560 SET(X,Y,C):NEXTN
570 NEXTC
580 FORZ=1 TO 1500:NEXTZ
590 RETURN

```

Across: 1A) musical instrument. 1K) a type of tax. 3C) arrange into a certain order. 3F) linear representation of data. 4K) French wine. 5B) famous volcano. 5H) assemblies of witches. 6A) another musical instrument. 7B) a vortex in a river or other stretch of water. 8A) to burn slightly. 8J) remove a pair of i's from a certain style of print to obtain a perfumed white powder. 9F) cards used by fortune-tellers. 10A) part of a disc. 11G) common name for an integrated circuit. 12B) condition in which the eyes are closed and the nervous system is inactive. 13A) type of feathers found on ducks for example. 13G) set of lines read with a light pen.  
 Down: A) a place where old records are kept. A18) minute fragments resulting from the wearing down of rock. B1) S. African homeland. B7) 3 men of this type, once followed a star. C1) an original sherry or Scottish farmhouse. D6) Trojan product. F1) pertaining to numbers or fingers. F9) a load of rubbish to be eaten with onions. G1) type of loaf. I3) the gaffer would like a new one of these. J9) this chocolate bar could be the subject of a conversation. K1) device superseded by the transistor. L4) a material which prevents the flow of electricity. M1) take an affirmative answer from trendy saucers to obtain a device that converts energy from or to an electrical form (e.g. a loudspeaker).

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

Now I KNOW there were a couple of errors in the last crossword clues list, and I have to admit that it was entirely my fault. The way the winner was decided was to pick the first correct set of answers received, as usual, and allow for the fact that due to my lousy typing there were two possible answers to a couple of the questions. OK?  
 So far as I know THIS month's crossword is all correct, so don't waste time reading any more of this, get on with it!. Paul.

# DRAGON USER

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DUG/11/86