So what's new this month?...from where I am, not a lot. There's only a couple of interesting bits of news, Tim Hayton will be running some Micronet pages for us, as of now, and Ray Smith will be operating a Graphics Library, both of which ought to make very welcome additions to "Group Services", but other than that things are pretty dead. What I'd REALLY like to know is what has happened to all the cheap hardware......A few months ago there were lots of potential "deals" around, printers, monitors, drives, modems, etc, all at virtually give away prices, but suddenly, NOTHING! Even the contacts I usually BUY from are phoning to ask if I've heard of anything! So where's it all gone?, if anyone out there knows the answer, PLEASE let me know and maybe we can get things moving again.

One final point for this month...one or two of you have been complaining that my "Bit" is getting too tame, that I haven't been insulting anyone lately. Don't worry, I just thought I'd try being all respectable for a while, but it won't last, I can promise you that!, and the next victim may well be YOU, so don't push your luck unless you're taking up masochism as a hobby!

Well, that's about the lot for now...I'm going to investigate the last of the Smirnoff supply and get on with answering today's mail...all 19 letters of it! Don't be good, it's so damned boring...try being exceptional instead.

THE EDITORIAL BIT

No moans this month, I don't have to, Phil Beed's done it for me in his article. Therefore this month, first of all I'll thank Neil (Scrimgeour that is) for his articles over the past months, at least someone kept sending me things to print. So, what shall I print on page 3 next month, perhaps the threatened second part of my MUG bit. Mind you, what about a topless picture of Paul, now there's a thought, if that threat doesn't get me inundated by three days after you get this, all I can say is 1) You haven't seen Paul at one of the shows or 2) You are all Masochists. Yes, that one I like, I've been sat here for 15 or 20 mins wondering what to write, now it's done.

Right, that's this month, the last though is about Redundant Information. I've had several queries about it and if I don't get some I may well start reprinting some from last year. Be warned. So now read on, the interesting stuff starts on the next page. T.L.

# Any more suggestions like THAT one, Tim, and you may discover that "inundated" isn't QUITE the right word for what you'll get!...don't push your luck, I'm quite good at photo montage work, and my version of "Lomas on Three" could get us banned!. ...The Gaffer.
Philip Reed suggested to me that a dump which uses the fast scrolling ability of the CGP115 might prove quicker than those we have. This is the result. The printer scrolls up to set the origin in line 200. I have made a silent scan routine in lines 270-310, the pen will not move if the line being scanned does not contain a pixel of the colour sought. The pens will not change colour until the correct colour has been found. As usual, only one colour is used for each complete scan of the screen, to save time also in changing the pens. When a pixel of the correct colour is detected, the pen will move to that position on the paper and print. It will stay there until the next pixel is found. This avoids a waste of time by moving the pen without drawing. As usual yellow is taken as the paper colour so it's better to have yellow as the background colour. As printing takes place everywhere else, the result is not as dense a colour compared to small dumps. You will find it easy to alter this routine to use the black pen instead of one of the others and also to amend it to do a PMODE4 screen in black. The high speed poke is used, if you have any doubts about your Dragon using this, you can delete line 88, but of course the routine scans the RAM, not the screen. As it takes 2 pixels per colour, only every other pixel needs to be tested which also speeds it up quite a bit.

10 CLS
20 PRINT "THIS IS A LARGE SCREEN DUMP"
FROM D32 TO CGP115 PRINTER PLOTTER
IT WORKS ONLY IN PMODE3 SCREEN1,0 IN
COLOUR, IT IS BEST TO HAVE YOUR
BACKGROUND COLOUR YELLOW.*
30 PRINT "IT PRINTS ONE COLOUR AT A
TIME THEN GOES BACK TO THE START TO
PRINT THE NEXT ONE. THE ORDER IS GREEN
BLUE, RED, YELLOW = PAPER
PRESS A KEY. *: EXEC34091
40 CLS: PRINT: PRINT " THE PAPER SCROLLS
UP AND DOWN TO GIVE AN ENLARGED DUMP
ALONG THE PAPER. THE PEN WILL NOT MOVE
OR CHANGE UNTIL A PIXEL OF THE CORRECT
COLOUR IS FOUND. PRESS A KEY: EXEC34091
50 CLS: PRINT: PRINT "POSITION TAPE ON
SAVED PICTURE AND PRESS PLAY. ENSURE
PRINTER IS READY. THEN PRESS A KEY: 
EXEC 34091
60 PMODE3,1: SCREEN1,0
70 CLOADM
80 POKE65495,0: REM HIGH SPEED POKE
90 GOSUB790
100 POKE65496,0: CLS: PRINT " DO YOU WANT
ANOTHER DUMP OF THE SAME SCREEN (Y/N)?"
? REM CHANGE SPEED
110 IF INKEYS"," THEN 110
120 IF I="Y" THEN SCREEN1,0: GOTO80
130 CLS: PRINT " DO YOU WANT TO LOAD
ANOTHER SCREEN TO DUMP (Y/N)"
140 IF INKEYS"," THEN 140
150 IF I="Y" THEN RUN110
160 STOP
170 " PRINT ROUTINE
180 Z=1
190 PRINT #:1,CHR$(191):"GRAPHICS
200 PRINT #:2, "R48-512"
210 PRINT #:2, "I" :SET ORIGIN
220 IF Z=2 THEN Z=3
230 X=0:Y=0:F=0:L=0
240 A$=INKEYS:IF A$="R" THEN PRINT #:2,
"A":RETURN
250 IF Y+192 THEN 410
260 C=POINTER(X,Y)
270 IF F=1 THEN 320
280 FORP=X TO 255 STEP 2:U=POINTER(P,Y)
290 IF U>192 THEN Y=9:GOTO430
300 IF U=Z THEN F=1:GOTO320
310 X=Y+1:L=L+2:GOTO240
320 IF C=L THEN S=1:GOTO390
330 IF C=2 THEN C=1:GOTO240
340 IF C=4 THEN C=3:GOTO240
350 IF C=3 THEN C=1:GOTO240
360 IF C=4 THEN C=3
370 PRINT #:2, "C":
380 PRINT #:2, "M":
390 IF S=1 THEN S=0:GOTO410
400 PRINT#:2, "39,2":F=0:GOTO410
410 IF Y=192 THEN Y=0:L=0:X=0:GOTO440
420 IF X=255 THEN Y=11:L=L+2:X=0:
GOTO240
GOTO240
GOTO240
430 X=X+1:GOTO240
440 Z=Z+1:IF Z=5 THEN 460
450 PRINT#:2, "M0,0":GOTO220
460 PRINT #:2, "M0,0":PRINT #:2:"A":RETURN
DRAGON DIARY........NEIL SCRIMGEOUR

My God! I actually got a response to the PCOPY problem mentioned a couple of months back! Well, only one, but even one is better than none. It was also quite a good one as well, the saviour is RA Davis and the best thing to do is quote from his letter, so here goes:

"I have had a good look at the ROM in the 64 and 32 at the PCOPY routines. There appear to be two routines at the address, and, the 64 JMPs and BRs are of course to higher locations than the 32, also the second routine is slightly different in each case. But the main danger lies in the fact that the 64 ROM has been amended to allow for the EXEC which puts the machine in 64k mode, so there must be major differences in any case. It's far too complicated for me to touch. (and me .... Neil).

Mr Davis continues:

"... The routine uses 16k to store graphics pages of 1536 bytes equivalent to PCOPY as it stands, the second half of the routine dumps them back to the screen. It uses addresses POKEd into locations 32766 and 32767 to determine the pages to be swapped from Basic. By using variables to define these addresses in advance, it should be quite simple to store and dump any graphics pages as you need and dump them into any other screen page. If in 64 mode the routine would have to be moved into high memory locations of course, this is quite easy to do. 32116 is the EXEC to store the pages and 32118 to display them, in the routine as it stands. I see that we were misinformed about the 64 and PCOPY. It will take variables, even complex ones, in the PCOPY command, provided you keep it to pages 1-8. The 32 will PCOPY an additional 4 pages, 16-20, as well as 1-8 without any changes it seems, and the routine in INPUT makes it easy to copy 9-20! (Using extra CLEAR)

Well, there you go members, it's all up to you now, you've got a program to do the hard work for you. If anyone modifies it to 64 mode or just modifies the prog in general then send in the listing.

This is my last Diary piece. Through the past months I've aired my views on everything I've wanted to and exhausted all the subjects I can think of. To those of you who've written in to Diary, many thanks, all letters have been appreciated. It's also the last issue that I'm mentioned as software editor. Most of you know that I own an Amstrad 6128 and because of this I haven't been able to devote as much time to the Dragon as I've wanted to. I will be popping up every now and then with the odd article, starting with a review of the IMP 2000 printer. Therefore please note the name of the new software editor next month. Dragon Diary may also appear under new management if anyone's foolish enough to take it on!

PS Many thanks to those of you who wrote or phoned regarding Occult's address, it is 1 Merrielea Drive, NOT Merrieleds.

*** The following data should be poked to locations 32110 to 32135 for the routine mentioned in the article ....TL
DATA 198,127,254,16,142,6,8,166,128,167,160,16,146,12,8,38,246,57,198 127,254,16,142,6,8,166,167,128,16,146,12,8,38,246,57

EASY MACHINE CODE (4) ... R.A.DAVIS

What you need to know about the registers is that there are 8 of them, or 9 if you count the A & B registers together which make the D register. They are known as A,B,CC,DP,X,Y,U,S and PC. But for the moment the A,B,X and Y registers will be enough for us to digest. The first thing the 6809 'looks' for is a command, known as an OPCODE, which is a number. This could tell it to transfer data to another register, to process data, to point to data at a specified address, to test or branch, for input/output, or for other controls. As well as indicating the type of operation to be performed, the OPCODE has to state the register or registers concerned. This means an awful lot of numbers to know or remember, but today almost everyone uses assembly language which makes the task much easier. You will find lists and explanations of OPCODES
and the assembly language equivalents in most good books about the Dragon. If you get a good assembler such as DASM/DEMON, you will get a handy reference card with that. Compusense used to supply a card separately and may still do so. If you want to carry on, you need to get such a list - NOW.

So a machine code program uses OPCODES to instruct the 68008E to load data into selected registers, move it, alter it etc. etc. This means that an OPCODE is usually followed by the data needed, or the name of the register with which the operation is connected, known as the OPERAND. To avoid having to remember the multitude of numbers which represent the OPCODES, a system of abbreviations, known as mnemonics (an aid to memory), is used. I know of 3 such systems for the Dragon, in machine code. Topsy by Pam D'arcy, Dream by Mike Kerry and DASM/DEMON from Compusense which I use. They all have slight differences. Having installed your assembler program in the Dragon, you can use it to make up your own machine code program, using some of the RAM not used for the assembler. The companion to an assembler is a disassembler. This enables you to see a machine code program in its assembler version. There are many of these, some in Basic; I use the machine code version supplied by Pam D'arcy. A further help is a Monitor program, which shows machine code as numbers, sometimes with the ASCII equivalent and allows alterations to be made. You get this with DEMON but it's fairly easy to make your own.

SP EDIT FLEX WP ........ MIKE GANLEY

At the risk of opening up old wounds over the OS9 v Flex issue, one of the major attractions of running OS9 on a Dragon 64 must surely be the excellent word processor available for it! Stylograph. Until recently the Flex camp has not had a product of similar quality for their operating system. However, Compusense now have a Flex based, full feature word processor available!

Compusense have prudently made SP-Edit similar in operation to Stylograph, to enable easy conversion from one to the other. The main command menu is similar and embedded control codes follow a similar format (for example to set line length is LL). Text entry is fast and the current issue 8 of SPE fully supports the Dragonplus board, hence you can get 80 cols on screen. To be fair, SPE lacks the extra features that Mailmerge gives Stylograph. It's quite easy to produce a standard letter and merge addresses with Stylo, SPE has no facility for this. It also lacks a multi copy facility, on the plus side, Compusense supply source code for some parts of the program, enabling you to customise it to suit your particular printer (it comes configured for Epson compatibles). I was able to set it up for my Oki printer, yes, underline, double width and all, with little difficulty.

So, if you are in the market for a good word processor program, and SPE is that, take a look at this one. Bearing in mind that it does lack the Mailmerge option of Stylo, but you may not want to use that. The SPE spell checker is just as good. SPE is available at £5.00 and needs a Flex system, with or without Plus board.

Ringing the changes!

As Neil Scingour has decided to resign as Software Editor, and someone HAS to do the job, as of next month Barry Caruth will be taking over this onerous task! Neil says that his resignation has nothing at all to do with the resignations currently taking place at the BBC, Guinness, and the White House, and that he has never worked for the New Statesman under ANY name at all, so I suppose we'll have to believe him until the News of the World proves otherwise!

Anyway, many thanks for all the work, Neil, and I hope Barry makes at least as good a job of things. Paul.
INTRO TO FLEX.......G.C.

What I'm going to do over 2 articles is to give an idea what the FLEX Operating System can do, first of 2 points, I am not an expert or a programmer, I can only tell you about my experiences and how a beginner can get to grips with it, I will also be assuming that you have read the Flex articles in the Feb and Sept '85 Dragon Users, if not I suggest you borrow them, I'm not going to reinvent the wheel.

What is Flex? To say it is an operating system is stating the obvious but what is an operating system? Well, it frees the computer from being tied down to one program or language, making it more flexible. How it does this is really quite straightforward. When the machine is 'booted' a small machine code program is loaded into memory which handles all the input, output and disc accesses. The rest of the machine is 'free' RAM to allow the user to do with as they please. This has the effect of allowing any program or language to be loaded or run, be it Basic, Machine code, Pascal or whatever. All these programs will require input and output routines, these are provided by the 'kernel' or 'shell' (the initial program booted in). All the programs have to do is talk to the kernel and it does the rest. Now, why should we want an operating system for a humble micro? Well, it's a bit like a Microwave Oven, you don't miss it if you haven't got one but when you do, you wonder how you ever managed without one. What this means for you and your Dragon is that you are no longer restricted to Basic but can load and run a program of any language you desire (provided it is available). Now, I know you are still having trouble with Basic (like me!) but there is more to it than this as I hope to show you.

Flex itself has been around since 1979, right from the start it has always had an 'open architecture' approach, which means that the producers were never secretive about the product and that all parts of the system were well documented. This meant that Flex became the 'hobbyists' OS for the 6809 as they were able to fiddle with it to their hearts content, for this reason, it was extremely popular. It's best feature however was that it was very easy to come to grips with, even for the beginner. This simple approach did not diminish it's power and performance, making it very attractive for the small business user. When the Dragon was launched, Flex was ready and waiting, making it the natural choice for Compusense to take up a licence and distribute for the Dragon. One disadvantage was that in implementing Flex for the Dragon, Compusense modified some of the system, making it incompatible with the earlier version. So much for history.

Flex itself is in 3 parts. The File Management System (FMS) which manages the files on disc, the Disc Operating System (DOS), which processes commands and the Utility Command Set (UCS) which are the user callable commands. The FMS and DOS reside permanently in memory while the UCS resides on disc; the command programs only being loaded in as they are needed. The beauty of this approach is that if you are so inclined, you only have to write your own program, save it to disc and it becomes part of the UCS. I must say I have never needed to do this, there are so many users here and in the US that if you need an program, you can bet that someone has already written it. There is one advantage of Flex which is not well documented, as Compusense market versions of Flex for both Delta and DragonDOS, once they are booted, Flex takes over and apart from a couple of minor exceptions, they are totally compatible, ie. the systems can read discs created on either system. This is because when the FMS and DOS are loaded they 'overlay' the area that would normally contain the DOS, Flex then talks directly to the drives, hence it makes no difference which system is used. This is impossible for OS9 as no one has yet written a bootstrap for DeltaDOS.

Next article, a look at the 3 parts of Flex, what they do and the more useful parts.
IMPROVE YOUR VIDEO DISPLAY...BERND NEUNER

If you use your Dragon (as I do) with a monochrome monitor (or TV), you might be interested in improving the quality of the video display. There are two little hardware modifications to provide a better video output.

(1st mod was discovered by Roger Woods of the OS9 User Group)

1. If you hate the 'dot crawl' on the screen then try soldering a 100nF capacitor across the ends of the colour crystal, named XL1 (XL2 on a 64); it's the crystal with the number 4.433691. This should stop the colour signal on the video output socket. I wired the capacitor to a switch to get both colour and improved black and white displays.

2. Normally your Dragon has a black on green display. If you enter SCREEN1,0, the display changes to black on orange which is better for most monitors. Unfortunately, the Dragon switches back to SCREEN0,0 everytime it prints something to the screen (even the 'OK') if SCREEN1,0 is better than SCREEN0,0 on your monitor (try it with the line 1 SCREEN 1,0;GOTO 1), the following modification exchanges SCREENS 0,0 and 1,0 by inverting the CG signal from the video display generator.

Get a SN74LS00
Disconnect the connection between the VBG MC6847 pin 39 (colour select signal) and the PIA (IC35) MC6821 pin 13.
Connect pin 14 of the SN74LS00 to pin 17 of the VBG
Connect pin 7 of the SN74LS00 to pin 1 of the VBG
Connect pin 3 of the SN74LS00 to pin 39 of the VBG
Connect pin 1 and pin 2 of the SN74LS00 to pin 13 of the PIA
Now, you should have black on orange display in SCREEN0,0 and black on green in SCREEN1,0.

MAIDSTONE SHOW REPORT ... STEPHEN COGAN

I was late to the show after taking a wrong turning and heading back towards London. When I arrived there were perhaps five people inside (not including exhibitors) so I could tell it wasn't going to be a very busy show! The companies who attended were: Computape, Compusense, Grosvenor/PNP, John Penn, Harris, Occult, Smithson and David Makin who was showing a number of products he is about to release through John Penn, including Music Maker which includes an option for interrupt sound where you load the program, EXEC it, then you could be typing in something else (provided it doesn't overwrite it in memory) while listening to the Music. He suggests you only use one voice as the more you use, the slower the Dragon gets. Anyway, back to the show. Ted Opyrchyl (nic) of Compusense showed how removing the colour chip from the Dragon improves the display by some very high percentage, you lose the colour but that doesn't matter if you use a monochrome monitor. I must stress that you need to know exactly which chip you are removing, as if you remove the wrong one and damage it, it could be very expensive. Computape and John Penn were showing their massive selection of Dragon software, Harris were showing Basic42, Occult had their numerology program adding an atmosphere of mysticism, and Smithson were showing Frankie, Gordon Bennet and Electronic Author.

Most people were a bit disappointed with the show, only the hard core of the Dragon companies go to these shows, but it does give them a friendly air. if the Dragon is to survive these shows MUST be supported. It's no use going just to the 6809 show every year. If a show was cancelled near you because companies pulled out, it would be your fault for not supporting the other shows.
THE DRAGON AS PC CLONE? ... JOHN PAYNE

I found out something I thought rather interesting (may, useful even) the other day. Did you know that the Dragon (DragonDOS, I don't know about Delta) can read MSDOS (IBM PC) disks? The method is as follows:

1. Format a disc on the PC, specifying a single sided format (This may not be necessary if you have double sided drives).
2. Using MSDOS, copy the files you're interested in onto the new disc. A particular file will occupy continuous sectors as the disc has just been formatted. This avoids having to master the MSDOS sector allocation (which scatters sectors all over the disc if a file is modified).
3. Move the disc to the Dragon and you can reread the sectors, obviously you can't use DragonDOS directly because the directory is on a different track and its format is different, but using Forth to do direct sector accesses, I have successfully read (and written to) existing MSDOS files.

This is not quite as easy as it might be, IBM/MSDOS use 512 bytes per sector instead of the Dragons 256. The disc controller reads all 512 bytes automatically but you have to ensure that the disc buffers are enlarged to 512 bytes long. Since the sectors are double length, there are only 9 of them per track (eight in early MSDOS). This means that the conversion of 'logical sector number' (i.e. Forth screen number) to track and sector number has to be modified. Otherwise the controller winds up looking for say screen 11 as the eleventh sector on track zero instead of the second or third sector on track one, and reports it can't find it as only sectors numbered 1-9 are on any track. MSDOS allocates 32 bytes in the directory for each file. Bytes 0-10 have the file name and extension and bytes 26 (low byte) and 27 (high byte) have the cluster number of the start of the file. 'Cluster number' = logical sector number - 7 on a single sided disc. Logical sector number 5 is the start of the directory.

SCR # 13

Ø (MULTI BLOCK TRANSFERS) HEX
1 : CHK OVER OVER SWAP - B/BUF *
2 : C00 + 33FF (BUFFER END) *
3 : IF (NOT ENOUGH MEMORY)
4 : SWAP..* TOOMANY QUIT
5 : ELSE C00 (BUFFER ADDRESS)
6 : ROT ROT 1+ SWAP (SET UP)
7 : LOOP PARAMETERS) ENDFI \-->

SCR # 82

Ø (SWITCHING DISC FORMAT)
1 : DSKFMT (STACK DIAGRAM)
2 : SECTORS/TRACK BYTES/SECTOR ---
3 : 'B/BUF ! (ADJUST NUMBER OF
4 : BYTES/BUFFER)' 'R/W 41 + !
5 : (ADJUST SECTORS/TRK IN R/W)
6 : EMPTY BUFFERS
7 : FIRST USE ! FIRST PREV ! \-->

SCR # 14

Ø : RANTODSK #CHK
1 : DO DUP I Ø R/W B/BUF +
2 : LOOP DROP EMPTY-BUFFERS I
3 : DSKTORAM #CHK
4 : DO DUP I Ø R/W B/BUF +
5 : LOOP DROP \ DECIMAL IS
6 : BOTH THE ABOVE WORDS HAVE
7 : (STK: STARTBLK ENDBLK ---) 7

SCR # 83

Ø : MSDOS (SWITCH TO MSDOS DISK
1 : FORMAT) 9 512 DSKFMT ;
2 : DRAGONDOS (SWITCH BACK TO
3 : NORMAL DRAGONDOS FORMAT)
4 : 18 256 DSKFMT ;

DRAG MAG!!!

What is it?...Drag Mag is a Dragon Magazine, run by Simon Jones, on Micronet 700118821. It covers news, arcade and adventure tips, reviews, competitions, interviews, and a whole lot more, so if you've paid your Micronet subscription, take a look, and if you like what you see, give it your support!
OS9 Addiction .... ROB SCHOFIELD

Well, you've booted up and you're faced with that doom laden prompt, so, what do you do next?
Usually, there's a set of possible options, in my case these are: 1) Sit staring at the screen with a blank mind because you've forgotten what you were going to do, 2) Pop the top of a bottle of beer then execute option 1 again and 3) Panic because you've forgotten what you were going to do. Usually I opt for option 2, at least that way I get to drink some beer.
Yes, the truth is out, OS9 users are not really mega geniuses with bulging foreheads and blood shot, reddened eyes; most of us are ordinary weirdos with nothing else to do but give ourselves headaches, from continuous frenzied staring at a flickering TV screen, and wrist cramp from having to retypethe last command because of the slow keyboard scan that doesn't give any quarter to idiots who think they can get away with typing faster than it can scan.
However, the behavioural traits associated with OS9 addiction are easily recognised, here's how to spot a developing addiction before it's too late.
The beginnings are usually small but insidious; you first begin to feel as if your current OS and DOS are driving you mad. This can be caused by operating systems or DOSs doing similar things, such as not letting you get at that vitally important file you saved correctly last week, even though it appears in the directory or eating your directory and making your disc useless until a reformat (thus losing your last 3 months work, unfortunately, you forgot to back it up the last 4 updates). This leads to a second symptom, known as 'the cravings', a vague yet insistent feeling at the back of your mind that you can't stand it any longer, immediately followed by the 'search through the back issues' stage, a painful and prolonged period as the (now painfully addicted) body searches for an alternative solution. This often accompanied by the 'what do you recommend?' which leads to your friends suddenly finding it embarrassing to be around when you start talking. About this time, desperation sinks in as friends stand back and watch you desperately thrash about trying to get rid of the hallucinatory feeling that your wallet is full of pieces of blue paper. Words such as disc drive, high step rate and 40/80 track tumble from your mouth in frothy cascades. The suddenly, all the pain stops—Your Dragon is kicked out with all this glittering hardware, big boxes of software lie all around; the rosy glowing feeling of contentment sets in and you don't care anymore, even though the real pain is about to begin, suddenly it's alright again.
This is the beginning of the end, OS9 addiction; the addict begins to spend sleepless nights muttering concurrent execution, multi tasking, I/O redirection and other such arcane incantations in order to bewitch his hardware. Family and friends shun him in their distress, his face becomes haggard and the hair falls from his body. The OS9 addict sells possessions to fuel his addiction, buying assemblers, editors and compilers to send him irrevocably futher and further down the road to exaucation.
So, be warned, should you see this developing in yourselves then: Give in, you're in for a lot of fun!!
(Next time he might even talk about OS9 ......... TL)

HOW TO WRITE ARTICLES .... PHILIP BEED

One of the Group's difficulties is a lack of material to publish; if everyone in the Group were to write an article every couple of months and submit it then we could soon amass a stock of articles from which the contents of each Update could be drawn, to produce a balanced and informative newsletter.
WHAT SHOULD YOU WRITE ABOUT?
Anything related to the Dragon or to do with computing if it applies to the Dragon. Printer reviews I'm told are in short supply (except the CGP115), but any piece of hardware or software with which you have had experience, or less usual applications you have tried to put your Dragon to, it needn't
necessarily have been successful either, as other readers might be able to benefit by learning what you couldn't do, or even suggest an alternative solution. How about some general theme on computing or peripherals you have some knowledge of? Try to think of some of the things you wish people had told you before you attempted them, or parted with cash, then try to help others to be the wiser for your experience. Remember also that the group's membership spans from raw beginners to professionals, it doesn't matter what level you write at, you are sure to interest someone within the Group.

HOW TO WRITE YOUR ARTICLES

Just because you hated English at school and always got D for your essays doesn't mean you can't write! You don't even need a printer, plain old pen and paper will suffice. Just put down your thoughts the best way you can, if you are an expert on the written word, so much the better but don't worry if you're not, we have an excellent editorial staff!!! (Well, one of me anyway....TL) who are adept at formatting and editing your work to make it fit the page and make precise interesting reading. So, lack of expertise in writing is no excuse. Tim would far rather have to correct and amend an interesting article for publication than have no article at all. Likewise, don't worry if you have difficulty in spelling, that can soon be put to rights, corrected if there are mistakes (or mistakes added if you are an expert spelling) (Hm, I thought this was too good to continue ....TL) WHAT'S IN IT FOR YOU? The pleasure of seeing some of your work in print for a start, also the knowledge that you are helping others. This has a knock-on effect if everyone writes something then you get the benefit of their articles as well, the end result is a bigger and better Update which can only be good for the group and its members.

So, don't sit there waiting for someone else to write Update for you, get out the pen and paper and start making Update the newsletter you want it to be.

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.

FORTH: John Payne, 3, Sibland Close, Thornbury, Bristol.

FLEX: Jurgten Mitchell, 62, Victoria Grove, Lupset, Wakefield, Yorks, WF2 8JD.

PROGRAMMING LANGUAGES AND STRUCTURED PROGRAMMING METHODOLOGY: Stan Davies, 153, Alistree Lane, Derby DE3-2PG.

GAMES SOFTWARE (MAINLY ARCADE BUT SOME ADVENTURES): Stephen Wood, 52, Downsway, Springfield, Chelmsford, Essex CM1-5TH.

M/C (EXCLUDING FLEX & OS9): DRAGON MUSIC; ARTIFICIAL INTELLIGENCE; "C" (UNDER OS9): Chris Jolly, 4, Pinehurst Walk, Oprington, Kent.

TAPE TO DISC CONVERSIONS (DRAGONDO): Graham Smith, 3, Ashton Gate Terrace, Ashton Gate, Bristol BS3-1TA.

GENERAL HARDWARE AND UPGRADE CONVERSION PROBLEMS: Bob Hall, 22, Cumbrria Close, Thornbury, Avon BS12-2YE.

CGP115 & MCP 40 PRINTER SOFTWARE QUERIES: Philip Reed, 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 MAGICI AMATEUR RADIO

UPDATE ARTICLES / LISTINGS BY R.A. DAVIS: R.A. Davis, 39, Boxley Drive, West Bridgford, Nottingham NG6-7GO.

OS9 SYSTEM AND UTILITIES: Jason Shouler, 70, Victoria Road, Parkstone, Poole, Dorset BH12-3AE.

BASIC PROGRAMMING AND TAPE TO DISC CONVERSION (DRAGONDO): John Cox, 3, St. Peters Road, Portsdown, Sussex BN4-1LS.
MODEMS, BASIC ELECTRONICS, ADD-ONS, and FLEX! Tim Hayton, 36, Laurel Drive, Warrington, South Wirral L64-1TW.
DELTA PROGRAMMING: Stuart Mills, 49, Templegate Crescent, Leeds, West Yorkshire LS15-9EZ.
DRAGON HARDWARE PROBLEMS AND MINOR REPAIRS: Alan Butler, 16, Barnston Green, Barnston, Great Dunmow, Essex.

DISC HANDLER ALDDREAM (DELTA)... S. MILLS

10 'DISC HANDLER ALLDREAM (DELTA ONLY)
20 'VERSION 2.0 30:10:86
30 'MAIN PROGRAM
35 PCLEAR
37 CLEAR30,5000
40 GOSUB1000
50 GOSUB7000
60 GOTO30
100 'WRITE MENU
110 CLS
120 PRINT @44,"MENU"
130 PRINT@78,****
140 PRINT@TAB(4)"1: SAVE TEXT FILE"
150 PRINT@TAB(4)"2: LOAD TEXT FILE"
160 PRINT@TAB(4)"3: EXEC ASSEMBLER"
170 PRINT@TAB(4)"4: EXEC MONITOR"
180 PRINT@TAB(4)"5: KILL TEXT FILE"
190 PRINT@TAB(4)"6: LOAD ASSEMBLER"
192 PRINT@TAB(4)"7: DIRECTORY"
200 RETURN
500 'UTILITIES
510 'STATION1
520 PRINT@380,**;1
530 RETURN
550 'STATION2
560 PRINT @14432,**;
570 RETURN
600 'GET FILENAME
610 INPUT "ENTER FILENAME";IF$
620 RETURN
700 'SELECT OPTION
710 GOSUB510
7800 'DIRECTORY
7900 DIR
7920 PRINT:PRINT"<<PRESS A KEY>>"
7925 BS=INKEY:IF BS="" THEN 7925
7930 RETURN

Crossword 19 answers.

ACROSS: Accordion, VAT, Sort, Graph, Vin, Etna, Covens, Viola, Whirlpool.
Singe, Talc, Tarot, Sector, Chip, Sleep, Down, Barcode.
Photocopier, Topic, Valve, Insulator, Transducer.
The winner of Crossword 19 was Graham Strong, who wins an Alldream cartridge.
Sorry there will be no crossword this issue, but it hasn't arrived in time for inclusion. It will be back as usual next month.
The following hex dump should be entered from Hex 2710 to Hex 2928. We’ve published plenty of hex loaders in the past so there’s no point in listing another one here.

01- 16,00, BD, 16, 00, FE, 16, 01 34- ED, 00, FF, 01, 17, FF, 25, 17
02- 73, 00, 00, 00, 00, 00, 00, FF 35- FF, 00, FF, 00, 00, 00, 00, 00
03- BB, BB, BB, C8, 01, BB, 01, 00 36- FF, C8, 00, 00, 00, 00, 00, 00
04- BB, BB, BB, BB, BB, BB, BB, BB 37- 00, A8, 26, 07, 39, 34, 36, C6
05- BB, BB, BB, BB, BB, BB, BB, BB 38- BB, BB, BD, FF, EE, FF, 17, FF, 18
06- BB, BB, BB, BB, BB, BB, BB, BB 39- BB, BB, BB, BD, BB, FF, 00, 00
08- BB, BB, BB, BB, BB, BB, BB, BB 41- BB, BB, BB, BB, BB, BB, BB, BB
24- BB, BB, BB, BB, BB, BB, BB, BB 57- BB, BB, BB, BB, BB, BB, BB, BB
30- BB, BB, BB, BB, BB, BB, BB, BB 63- BB, BB, BB, BB, BB, BB, BB, BB
31- BB, BB, BB, BB, BB, BB, BB, BB 64- BB, BB, BB, BB, BB, BB, BB, BB

We’re on Line!!!

Well almost! Thanks to the efforts of Tim Hayton we now have our own Micronet "Gallery" pages. The NDUG Micronet pages started on February 2nd. They are on page 780110837 in the Gallery section. They will be updated every Sunday, and will contain information about the Group, Dragon news, reviews on s/w and hardware, etc. Anyone who would like to contribute to the pages should mailbox Tim Hayton on 5132774641. Those of you without modems should refer to the special offer on this month’s "Classifieds" page. Please note that to access our Micronet pages you need a Prestel/Micronet subscription.

PLEASE NOTE: We have decided to take these pages as an experiment. A lot of you asked why we didn’t make use of Prestel facilities, so we’ve decided to give it a three month trial. If there is enough interest and support to make it worthwhile, we will continue and probably expand the idea, but if not, well, you’ll have only yourselves to blame if we have to drop it. OK? Paul.
Are You a Wiz at Graphics?

If so we'd like to have a glimpse at one of your creations. Even if you're not the Michelangelo of the computer, we'd still like the opportunity of seeing one of your Hi-res mode pictures.

Search through your drawers or wherever it is that you've hidden those gems on cassette or disc and send us a sample of your creativity. We will feature the best pictures we receive in Dragon Update. (Depending on the response!).

What is more (there is more?) we will present one of Microdeal's latest games on cassette to the designer of the best screen we receive each month.

All we ask is that they are your own work. We won't mind if Auntie Mabel did give you a hand, as long as they are original. (If your Auntie Mable is anything like mine, now there's an original for you!).

These pictures will then form the nucleus of the National Dragon Users Group Graphic Library. We hope to build up a large library of Graphic Screens which will be available to members for use in their own programs.

Please send the disc or cassette containing your Graphic Screen(s) saved in the normal 6K Binary form to:

Ray Smith, 5 Glen Road, Parkstone, Poole, Dorset, BH14 0HF.

We would appreciate a short note from you telling us the method or the program you used in creating the picture. (PMODE3 or 4 ONLY please). Hopefully this will lead to an article or two in later Updates comparing the popularity and the usefulness of the various programs.

Here's a sample screen to be going along with...
Basic Programs. Listed 1 Program listing...75p, up to 6 pages.
Additional pages 5p each.
2 or more Programs...50p each.
ALL tapes and listings will be returned as far as possible the following day.
RH13 3EE.

SPECIAL OFFER! Tandy Intellisense monitors (132-3172), with manual, cable, and 384K board, for £47.50.
March only.

Tandy Acoustic coupler (112-380) for £38.00.

Orders and cheques to: Jason Drude, Aberbroth, Market Place, Penrith, Cumbria, CA10 0JP.

WENESIS PROGRAMS! ADAMSW & MEEDER utility programs on cassette.
Special price to Group Members only. 3.50 each.

Orders and cheques to Alan Gaul, payable to the Group.

SELLING UP! Dragon 64 complete and with manual 75.00.
Dragon 32 complete plus a "Vandalised" 32 for spares (5 units shipped)

Prices on request.

Tape Speed / Sound card, works well with Dragon, (cost £80.00)

Tape Sprites Generator card with built in screen and sound. Price to £50.00.

LED/Sound/LED/Screen 32 plus a "Vandalised" 32 for spares, (5 units shipped)

Prices on request.

DELTA discs: FORTH and Teletext upgrade.

Astral 90 colour monitor, PDL/DAMTSC 1.12 & 1.50 Compendium and ROM inputs, plus Stereo sound. £18.00 (local delivery only).

TAPES: Astarace, SRS Calc, DRS, Sprite Magic, Printer Control + Donner...all £5.00 each.

ASSORTED GAMES TAPES ONE ALL AT £1.50 each...too many to list.

BOOKS: Inside the Dragon, Complete FORTH...2.00 each. Hackers Handbook, Coo Tech Reference Manual...1.00 each.

Contact Alan Gaul, 49, Cinstant Road, Morpeth, Northumberland, NE61 4HA. For orders phone 0769-317911.

WANTED: - Saltman Graphic System, Gemini Dragon Car, SUN Artist Designer, both Melbourne House "Enter the Dragon" tapes, The Cat in the Hat, Cat in the Hat,浮世绘, advanced, Cassie Pascal's, and Unwired Logic.

Contact J.A. Shepherd, 10, Templewood Road, Pitsea, Basildon, Essex SS03-3JL.

COWEN SOFTWARE Ltd. Colossal Cave (with game save)...8.00. Adventure Writer (full documentation)...3.50.

Both available on cassette from Cowen Software Ltd., 5, Bristo Road, Lewes, East Sussex BN7 1SN.

FOR SALE: As new Datalab DSF software, RT8, Syntax in, and some external

Stock Control...all at £10.00 each.

DSF Advanced Programmer Manual 5.00. Sony Printer/Plotter, your colour, Dragon compatible. 25.00.


Contact Mike Bailey on 0272-322411.

RSP NEW PACK SPECIAL!!! Complete package for 324 owners, comprising of a Prism Novice 1000, connecting lead and software to access Video data and all scrolling type 10A.

The modem will operate on 1200/75 baud for Prestel, and on 1200/9600 for use to user operation. The price for the complete package is ONLY 35.00 to Group Members, 40.00 to non members.

Cheque/PO or cash (registered post) to T.Watson, 34, Laurel Drive, Wiltzington, South Wirral L64-1JN.

Ease of disc transfer...Unprotected game code of any game sent in return for a blank tape and 25p stamp, but you MUST include the inlay card to prove you have bought the original.

Contact R.T.Vine, 126, Aerial Avenue, Bexhill, Essex BN21-2BT.

WANTED!!! Contact with anyone using a Dragon for medical or nursing applications or study, to help me make use of my Dragon with Dyslalic/Dyspraxic studies.

Contact Philip Reed at 27, Fieldon Road, Gosport, Hampshire, phone 0754-534346 (evenings).

THE ADVENTURE RELEASE OF THE YEAR! "11th Tank" from ABC Software.

Only 2.50 +25p postage.

ARC, 172, Mearsen Road, Newington Green, London, N78-9LT.

FORTH OPERATING SYSTEM: Simply the best there is. Written by John Payne, and available for Dragon//0 or Double density Belladonna. Available ONLY through the Group. 6.50 inclusive.

Orders/cheques to the Group, G, Navarino Road, Worthing, Sussex.

STICK IT! Dragon User Group self-adhesive stickers available in two sizes, 2.50 x 1.50 or 3.50 x 2.50. Price 1.00 and 1.50 each. Include a stamp with your order please.

Orders to Paul Grade, 6, Navarino Road, Worthing, Sussex.

Circuit Sheets: Available for 632 (most variants), 644, Dragon 32S controller, and Cassie DOS controller. All the same price 1.00 each.

Cheques/orders to the Group, & Navarino Road, Worthing, Sussex.

Dragon Upgrade manual: 25/44 conversion method fully explained so that you can upgrade your 32 yourself without difficulty. Written by Bob Wall and available only through the Group. Price £2.00.

Cheques/order to the Group, 6, Navarino Road, Worthing, Sussex.

Delta DOS utility: A micro utility to copy all BASIC and micro files from disc to tape in one operation. BASIC listing of loader and Hex dump 1.00 or on cassette for 2.00.

J.C. Russell, 33, Tonson Avenue, Clevedon, Avon BS21-7UJ.

0727-975291.

NEW RSP PROGRAM: Up and downloading of files. Any road rates from 50/99 to 549/499/1999/2999 not multiple rates. Up/Download better for 4 to 32 to program will adapt to largest capacity available. All other 6551 options supported. Price £1.50.

Please phone Barry Nunn, 0131-2420806 evenings only.

BRAGGINS EDITION: Easy to use. Two operational modes, examine and edit. Will read and edit ANY disc including those written on other systems. Reclams KILLED files. Accesses and changes files directly on disc. Includes DISK MENU which can be used with any of your own discs. Written by John Cox. Price 6.50 inclusive.

Cheques/order to the Group, 6, Navarino Road, Worthing, Sussex.

BRUNETTE: A graphics drawing program, on tape, which we think is one of the best. Written by R.A. Davis, it must be a bargain at 2.50 including postage. Orders to Paul Grade, 6, Navarino Road, Worthing, Sussex.

BRAGINS EDITION: Your DOS 2764病人 to "patched" V1.4 specification, or to Eurohard V4.0 or V4.1 or to PETER WILLIAMS TRANSLATED & DEREGISED ENGLISH VERSION of V4.1. Price for any version just 3.50.

Compli, 27, Grove Park, Birchang, Hinckley, Leics.LE10-28J.

BACKPACK UPDATE: Copies of all earlier Updates available from either John Cox, 3, St. Peters Road, Portslade, Sussex. (0273-424292) or Chris Channing, Main Road, Dunsby, Nr. Bourne, Lincs. PE10-5BG.
For Sale: New, boxed SID, no leads or transformer...45.00 inc postage and packing. SID, new and boxed, complete with leads and (German supply) transformer...95. inclusive.
Contact Harold Beck, Reiserweg Strasse 42, D-8500 Munich 54, West Germany.

FOR SALE: 16 Panel 8000 RM containing 12 routines to write on the PHONE4 screens. Also supports LIST, EDIT, DEL and OLD commands, plus three printer routines and 25 function keys etc...Price 30.00 DM.
Further information from Clemens Bartordi, Rathaus 12, 5-2200 Kiel, West Germany.

Unused circuit boards for extension port...18.00 DM each.
Edit original design 18.00 DM each.
Dragon Data games cartridges with games 6.00 DM each.
Contact Clemens Bartordi, Rathaus 12, 5-2200 Kiel, West Germany.

Interface for switch type sticks...only 7.00 inclusive postage/packing.
Lightpen (Trojan compatible) with button...7.00 inclusive postage/packing.
SID Upgrade as described in MMG annual...tell us which issue 32 you have and we'll quote you the price for the upgrade.
Contact Alexander Groeschl, Groebstasse 4, 5-0523 Halberstadt, West Germany.

Disc Diary: Program written for the Group by Tony Simons...keep track of dates and events without having to keep track of all those bits of paper you wrote them down on. Available on Dragon Disk for £4.50 at only £1.00 inclusive.

AUTORTAL: 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 modem, and includes a facsimile facility. For use with any modem, or just as a memory dial unit for your phone! NOT DT app. (but only 99p of phone accessory!!-no DMU you'd never dream of offering Telecom), but complete with software for ONLY 13.50 plus postage.
Phone 01-998-858 for further details.

RECORD: Dragoness to OSG file copy utility. Includes 'Telewriter' & Basic conversion filters...£2.00.
COMPUT: OSG comm. program. Random C640 & C640H, multiple upload modes, monitor buffer, function keys and more! Suitable for any OSG system (C64 needs ACIA-Pak) and includes source files...£2.00.
PO-PACK: Selection of useful public domain OSG utilities on one disc...£2.00.
Jason Sherrin, 78, Victoria Road, Parkstone, Poole, BH12 5AE. (0202-722599).

Stop the press, switch off the copier, let the beast out of the treadmill!...We have some late, Late NEWS!.
I've just heard from Jenny Pope that there is to be another London 6809 Show on March 28th. (Saturday), and as usual of course, the Group will be there. Now I know you'll all be attending, so I won't bother to hire the heavy mob to make sure you turn up, but there are a couple of points I'd like to ask you to help with as well...one is make sure everyone who might be interested knows about the Show, and two, I could do with a couple of volunteers, perferably local to Victoria, to give us a hand on the stand. OK?.
Now for the other bit of news...John Penn have just informed me that they are holding a show at OSSETT (Yorkshire) on April 11th, and while it won't be possible for the Group to be there, I hope all of you who can attend will do so...the greater the attendance at these shows, the more chance there is of firms continuing to take the Dragon seriously. Also, if anyone attending attending either show think they could write us an article on it, a nice detailed one preferably, it will be very much appreciated not only by me but by those who might appreciate reports for Dragon User as well."

Sorry there's no crossword or ASCII Corner this month, but they didn't arrive in time for inclusion, but they WILL be back next month. Paul Grade.

VISIT THE NEXT 6809 SHOW
ROYAL HORTICULTURAL OLD HALLS, WESTMINSTER, LONDON
SATURDAY 28th MARCH
10.00 a.m. - 5.30 p.m.
Admission: Adults £2.50 Children £1.25
Reduction for Advance Ticket:
Adults £2.00 Children £1.00
Cheques payable to JPPR
Forward to: 28, Trevarrick Road, St. Austell, Cornwall

Further information from Jenny Pope at the above address