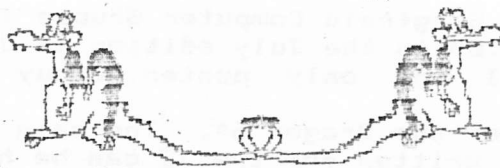


The Newsletter of the National Dragon Users Group

DRAGON



UPDATE

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The Gaffer's Bit . . . . .

There *SHOULD* have been an "Editorial" bit this month, but I can't get it off the disc! Sorry, Editorial One, but I *HAVE* warned you about getting new belts for those drives of yours, and there isn't time to get a fresh copy from you and still get this issue out on time. Oh well, there's an entire page of Editorial comment later on, so it isn't a total loss. I suppose that, this being the December Issue, I should be making with all the usual Christmas type hype, but it's difficult without incurring the wrath of H.M. Government's "Experts". How are you supposed to have a "Happy Christmas" for example when food is alleged to be poisonous, and drinking or smoking is supposed to be even more dangerous and anti-social, you can't buy anything because it will ruin the economy, you can't go anywhere because it's too dangerous to go out, and anyway vehicles damage the environment, you can't stay at home because the type from the building society is due round with a repossession order, you can't watch the "box" because you can't afford the licence and you saw all the programs last year anyway, and that old stand-by, sex, is out ... far too risky, and .... Well, if you can figure out a way to achieve it, Happy Christmas! (Let me know how you managed it!). Me?, I'm going to ignore all the "experts" (they've never been right about anything yet), and carry on as usual ... I happen to *LIKE* things that are anti-social, immoral, bad for the health, subversive, and carry a Government Health Warning. Send Thatcher a crate of Paxo this Christmas ... see if her experts can tell her where to put it! To get back to more Dragon related matters, Ian Burford has asked me to mention that he has now received his order from the Siegfried Gruppe, and would like to say how much he appreciates their honest business methods, and regrets their closure .... I can only agree with him on both points. Dragonfire Services software has now been taken over by Robin Hemmings (see Andrew's piece later in this issue). Simon (Journalist) Jones promised to send me a copy of the rag publication he is now working for, but so far it hasn't arrived, so I can't tell you whether the standards set by 6809 User are still being maintained! Group sales have markedly improved during the past couple of weeks, which helps the funds considerably, many grovelling thanks to all Our Esteemed Customers. Here endeth the news. One small point I think I ought to mention is that *ALL* opinions expressed in Update are those of the person writing them, they are *NOT* necessarily mine, Stephen's, Mike's, or the cat's (unless we happened to write them!). While I accept full responsibility for my own comments/insults etc, I get peevish when blamed for other people's statements, so *PLEASE* address all complaints to the relevant person. OK?. Well, that should be about the lot for now. Next month I will review the Outstanding Events of 1989... that should fill half a line at least. Have fun, before it becomes totally illegal, but remember 90% of people are caused by accidents, so be careful!. Paul.

Late Extra!.

I've just been informed that there *WILL* be an Ossett show next year, probably in mid-April, organised as usual by R.Preston, so there will be at least TWO Dragon shows in 1990 ... Ossett and Hove.

Paul

CREDIT-The Visual Editor...Dave Riley.

This program from the Siegfried Computer Gruppe (R.I.P) was offered for the very reasonable price of 3.00 in the July edition of Update and has not been mentioned since. Was I the only punter to buy it, Paul? (No, & it's still available).

The program is written for the Dragon 64. The main drawback is that whilst using it, only software written for the 32 can be handled by the 64, but this is offset by some very handy enhancements to the BASIC Operating System:

(1) All BASIC program lines can be edited by overtyping. Simple and effective "insert" and "delete" commands are available. An incorrect direct statement can be edited and re-entered.

(2) There is a facility for finding each occurrence of a BASIC instruction or a given string in a loaded BASIC program.

(3) All BASIC instructions can be entered in abbreviated form, eg L<SHIFT> enters LIST, L O<SHIFT> for LOAD etc.

(4) When a program halts through a BASIC error, the cursor is displayed over the part of the line where the error was detected.

(5) The terse Dragon error messages are accompanied by an explanation, unfortunately in German. The messages can be translated with no knowledge of the language, and the ASCII files on the disc altered accordingly using a disc repair program such as DISKFIX. The German message is usually much longer than its English equivalent, making this rather messy method practical. There are other enigmatic files on the disc, also containing German messages, so make sure you change the right one!

There are other features in Credit that as a BASIC illiterate I have not tested, but be warned by the last paragraph in the manual: "There may be things I didn't describe correctly. There may be even things I deliberately didn't mention. And there may be bugs in Credit."

So far I have not found any bugs in Credit, and it certainly eases the pain when I have to resort to writing or trying to modify existing programs in BASIC.

Meeting The Maker (2)...Alan Cook.The Inside Story Of Duncan Smeed.

By the time Dragon data's R&D team was up and running, Dragon disc drives were already on the market, or were on the verge of being so. Duncan was none too impressed with the disc system - DragonDOS. Developed in America, it was "a disaster", which came from Japan and had problems in the controller chip. Due to a timing problem, the controller sometimes 'forgot' the track and sector numbers which had been sent to it. The reasons for these problems were several: there was a lack of resources; the system wasn't tested adequately; and, quite simply, DragonDOS wasn't deemed "important" in the scheme of things.

After that, of course, came the Dragon 64 which, as we all know, incorporated what Duncan describes as some "interesting" bank switching. This gave the opportunity of using OS9, which was much more stable and reliable than DragonDOS, and which was used to identify and overcome the timing problem with the drives. What's more, it gave access to the whole range of software available, such as BASIC09, which Duncan regards as the best BASIC implementation around.

Before Duncan became a full time employee of Dragon Data, he wrote "Inside The Dragon" with Ian Somerville. The need was identified for "a really good technical book", one which would be both helpful and explanatory, and who better than Duncan himself to provide the technical knowledge? Ian Somerville had written many books before, and he provided contacts within the publishing world, as well as writing the parts of the book which deal with the more general concepts. Duncan dealt with the technical and machine-specific parts, and also persuaded Dragon Data to "approve" the book and to bundle it with an excellent Dragon monitor. This offer was so successful that at one point, the book was actually outselling the Dragon itself! However, as Duncan points out, the book came just too late. If it had been available when the Dragon first appeared, this would have undoubtedly have led to better software for the machine. It's interesting also to learn that an "Inside The Tandy" was considered, but the CoCo was felt to be just that wee bit too old for the book to be worth it.

IN PART THREE - THE ALPHA, THE BETA, WHAT WENT WRONG AND WHAT HAPPENED NEXT!

Fishy Business (8) ... Dudley etc..

Ha ha, yes even the great British G.P.O. can't stop your favourite (only?) gamesplaying goldfish! Despite their disgraceful act of nobbling my last article, I have returned. Incidentally, anyone who fancies a look at the missing column can do so by sending me an SAE and a letter along the lines of "YES, please send me ... copies of 'Fishy Business 5.5 - The lost manuscript'. I am over 18 and enclose a cheque for..." etc.

Speaking of letters, a miracle has occurred. Yes, yea and verily was I swimming through my novelty arch and lo, through the holy portal known as the letter box came three wise letters from the North, speaking words of great usefulness and in one case complete incomprehensibility. Anyway, aquatic thanks to those saviours of this column: Graham "what's the cheat on ROTABB" Kinns (it was in the missing article, but I'll print it next month if you're lucky), Paul "oh what a large list of pokes I've got" Burgin, and R. "what's my first name?" Cleminson (the last name may be slightly incorrect as I couldn't read the signature). So, life returns to stability in the world of piscine computer journalism for the moment. Just keep those letters flooding in to the usual address, and you too could go down in history as a saviour of fishkind.

So, what words of wisdom were contained within these letters? Well, Graham enclosed several useful pokes which will be expounded to you over the next few months. here's one for starters: a tip for using hacking pokes with DragonDOS copies of games made with DupliDisk 2, as follows:-

```
LOAD "name.BIN"
```

```
?PEEK (&HC55)*256+PEEK (&HC56)
```

Write this number down.

```
POKE &HC55,&HB3:POKE &HC56,&HB4
```

```
EXEC 3072
```

The screen should clear and OK appears. Type in your hacking pokes and then EXEC (the number you write down earlier). Ta for that, Graham.

Paul's letter was also full of the usual massively useful pokes etc, which will be appearing soon, so watch this space. And what was in R. Cleminson's letter? Well, a lot of cheap jokes about fish basically, but at least he made the effort to write to me and do it, rather than just sit at home saying "cah, that Dudley thing writes a load of old squat doesn't he". Actually, he also wanted to know how to defeat Darth Vader in Syzygy. well, to be honest I'm not sure. I beat him once and went on to complete the game, but could never manage it again. I think your best bet is to keep your light sabre crossed over his as much as possible, but don't expect amazing results, as it only ever worked once for me. R.C. also wanted to know how I managed to stop myself being electrocuted when using my computer. Simple; I wear rubber fin-gloves, and keep my Dragon in a Gateway carrier bag.

So, finally onto this month's game, BoulderCrash 2, by none other than Paul Burgin. Since I'm running out of space and can sense the ghostly presence of Stephen peering over my shoulder brandishing a pair of Editorial scissors, this'll have to be brief.

BC2 was reviewed a while back in the late, great Dragon User by our very own Mike Stott. It got 3 Dragons, which if you ask me was pretty rough treatment. The game is basically the same as Blaby's original, but there's a screen designer thrown in. I won't bore you with excess details, but what it boils down to is that you can use all your BC faves such as boulders, flappers, slime, brick walls, diamonds, ghosts etc in your own playing area on one screen, with the objects represented by symbols. Necessarily, some of the objects are a bit small, and this can be confusing at first, but once this is overcome you can create some pretty amazing screens. When you've finished you can return to the main screen and play your creation like a normal game (with an option for endless lives - very handy for testing). It's all well thought out and great fun. What's more, at 2.50 it's pretty damn amazing value. What are you all waiting for? Send your cheque now to 18, Moorcroft Rd, Sheffield, S10 4GS.

That's it for this month. Next month I'll have the cheat for ROTABB, some of P.B.'s pokes, and an amusing joke about a bishop, two sheep, and a cucumber (as long as Lord Rees-Mogg doesn't get to it first).

P.S. Merry Christmas! (almost forgot that, after all it's November at the moment!)



PEEKING THE DRAGON (20) - MIKE STOTT

May I take this opportunity to wish everybody who reads my page A MERRY CHRISTMAS AND A HAPPY NEW YEAR (tough on the rest of you). It seems very strange to be typing this in the middle of November but you should be reading it very near to Christmas.

Went to the Alternative Micro Show and looked for Dragon stands....and looked...and looked. Where was everybody? Bob Preston was the only familiar face in that massive hall. Those members who did not go missed our little get together in front of Bob's stand. Thank goodness Prestons are still showing the Dragon's presence because otherwise I think we would have been the only micro not represented. I wore my usual Dragon T-shirt and this brought results. Adventure Soft (UK) Ltd, P O Box 786, Sutton Coldfield, West Midlands, B74 4HG tell me that they still stock all the Scott Adams and Mysterious Adventures for the Dragon although they did not have any with them at the show.

There was just about everything connected with computers and electronics on sale and quite a lot of other stuff as well. I even saw a vacuum cleaner for sale - suppose that would be handy for sucking dust out of keyboards.

R. Cleminson of Motherwell tells me that his list of adventure problems were, in fact, real ones and not just to get response to my plea for these so here goes.

VOODOO CASTLE : How to place the charm on the count prior to following the book's instructions?

WAXWORKS : Is the second pendant a program bug? How to resurrect the mummy in the sarcophagus?

POSEIDON ADVENTURE : How to use the rope to escape the ledge? How to open the cabinet?

13TH TASK : Where do you pan for gold?

STARSHIP DESTINY : I've mapped it and found all the locations but am unable to do anything.

There were also queries on RALLY, ESCAPE FROM PULSAR 7, and SYZYGY but I hope I've been able to answer these queries myself. Come on then, thinking caps on and let's have the answers to these problems.

After Fishy Business by Dudley in October's Update I was inundated with queries about whether the other companies have left the Dragon scene. Put your mind at rest. There are still quite a fair number of companies still dealing in Dragon software. As there has not been even one item of software received this month I will give the addresses of the firms that Dudley omitted.

Knight Computer Services, 76 Etwall Road, Hall Green, Birmingham, B28 0LE.

Sutcliffe Electronics, 15 West Street, Hothfield, Ashford, Kent, TN26 1ET.

Compusense Ltd., 68A Willoughby Lane, London, N17 0SP.

Capri Marketing Ltd., 24A White Pit Lane, Flackwell Heath, High Wycombe, Bucks, HP10 9HR. R & A

J Preston, Kings Hall Court, St Brides Major, Mid Glamorgan, CF32 0SE.

MacGowan Consultants, 3 Beechwood Crescent, Broughton, Nr. Brigg, South Humberside, ND20 0SB.

Sunnysoft, 20 Church Street, Ilfracombe, North Devon, EX34 8HB.

John Penn Software, Dean Farm Cottage, Kingsley, Bordon, Hants, GU35 9NG.

Computape, 27 North End, Southminster, Essex, CM0 7ND.

Dragsoft, 41 Hereford Street, Presteigne, Powys, LD8 2AT.

10th Dimension Software, 18 Moorcroft Road, Sheffield, S10 4GS.

On top of these there is the Group's own software available from the addresses at the back of this magazine. I hope that I have not left anybody out who is still trading in Dragon software. Please let me know if you know of any others. If you write to any of these companies please let them know that you got the address from Update. It will at least prove to them that we have got members who can read.



Here are one or two extra bits and pieces to bring the 256K story (issue 59) up to date.

Since last time, NUUC member Paul Smith has pointed out to me that it's easy to do away with the 6116 static RAM I included (issue 55 - This RAM is used to fill in the gaps which would otherwise occur, at the top of the 64K bank, between XFF00 and XFFFF - the SAM thinks all these addresses are for I/O). The trick is to fool the SAM and so gain access to the memory at these addresses, which is hiding behind SAM's I/O pages. This is done by keeping the SAM's address input A15 low except when the cpu address is above FE00 (ie THE I/O page or the reserved common memory) and taking care of the multiplexing of address lines A15M and A7 to the DRAM's input Z' yourself. Paul has worked out a neat way of doing this for a 128K design, which I'll let him tell you about himself, but it's even easier to do on the 256K design using the other half of IC103 and 3 other gates. I've redrawn the circuit I showed last time to include these mods - and as a bonus, the elusive IC4 at long last makes a first appearance. A complete 256K design thus comprises this circuit, the decoder circuit (1a in issue 55), and multiplexor/mapping RAM circuit shown in issue 54, only.

The new design leaves you with quite a few spare gates - I haven't got the bottle left to go round again minimising the chip count! If using this design, you also need to modify the basic startup routine to copy the basic ROM into RAM before the MMU is switched on. Here's a suggested couple of lines (!) to add at the start:

```
1          DATA          34,7F,1A,50,8E,80,00,B7,FF,DE,A6,84,B7,FF,DF,A7,80,
8C,F0,00,2F,F1,B7,FF,DF,35,FF
2 FOR I=&H200 TO &H226:READ V#:V=VAL("&H"+V#):POKE I,V:NEXT I:EXEC &H200
```

Checking through some of the past episodes I see I've left out a patch for KBVDIO. Here it is:

```
(Change/location/from/to):
c/4e2/a6/96      c/4e3/03/af
c/4e6/63/39      c/4e7/9f/12
c/4e8/00/12      c/4e9/38/12
c/4f3/6e/39      c/4ff/9f/12
c/500/00/12      c/501/6b/12
```

(This modifies the interrupt-service routine in KBVDIO, which does the keyboard scan, to mesh in properly with the patched CLOCK module).

All these patches are a bit of a pain, and fellow enthusiasts will be pleased to know that, provided they SEND ME PROOF THAT THEY HAVE VALID TITLE TO TANDY OS9 LEVEL II, AND A COUPLE OF BLANK DISCS, I'LL SEND THEM MY WORKING SYSTEM - Paul Grade and Rick Applegate also have archive copies, just in case I'm run over by a man from Amstrad.

More good news is that as far as I can see the hardware will work just as well with a CoCo 1 or 2 as with a Dragon (and you could use the disk drivers and OS9BOOT included in the Tandy package).

I thought I'd reveal where the chips and bits come from:-

The wire wrap sockets, especially the 40 pin one for the cpu, are by TI, available from Technomatic in London. Most of the logic is nothing special, and is available for under 50p a chip from one of Watford Electronics, Technomatic, or STC (Harlow) - these last are highly recommended, provided you can find a catalogue to order from! The 74LS189s are a little more special, cost about 1.50 each, from the 3 firms already mentioned. The 6116 SRAMs have got a bit rare of late (they used to be available anywhere for 1.50); Nic Spiers tells me he has a supply of equivalents, though. Similarly, 64K RAMs are a bit elusive, but Nic will sell you eight for about a tenner. 41256s are back on the market at around 2.50/3.00 each - check around for the best bargains. (1 and 4 meg DRAMs are meant to be competitive now, but I can't afford to contemplate that sort of money!)

Finally, if this set of articles has inspired you to think about upgrading the old beast and you need a little more persuading, drop me a line or give me a call (0454 416445). Or, if you want dissuading, talk to my wife!

VISITEXT DELUXE. REVIEWED BY FRANK FISHER

Visitext Deluxe is being reviewed in full by another reviewer. As I had already done Visitext Extra, Mike thought that I would like to do a shortie on the differences between the two. Basically they are both the same, the first difference that will be noticed is that two of the control keys have been redefined. SHIFT + CLEAR used to toggle the faint lines on/off, now you use the control key CLEAR then toggle with ZERO. The other difference is in the EDIT mode, SHIFT + LEFT now deletes the characters to the right and moves the line left and also moves the next word up from the next line, eventually you will create a blank line but this can be deleted as normal. SHIFT + CLEAR does the same but DOES NOT bring up the next line. The next difference is an addition to the MULTIPRINT mode (this allows the setting up of text files for sequential printing), you now have the additional feature of a database used in the same way. I won't go into the use of it as it is a bit involved, (I am struggling to learn how to use it). Personally this is not a feature I would use and I think that it is extraneous, far better would have been a global/single SEARCH/REPLACE option, which this word processor lacks.

CONCLUSIONS?? If you already have Visitext Extra, don't waste your money, perhaps Pulser will do an upgrade service for the Extra owners who want the latest offering.

Visitext Deluxe available from Pulser Software, 36 Foxhill, High Crompton, Shaw, Oldham, Lancashire, OL2 7NQ on DragonDOS disk for 15.00 plus 50p P&P.

KING'S QUEST - REVIEWED BY PETER GENT

Every now and then you come across an idea which makes you wonder why you haven't seen it before or indeed why you never thought of it yourself. Such an idea occurs in the adventure King's Quest. All your input can be sent to the printer as well as the screen. The times I could have used that facility in a maze. The adventure follows the usual pattern of text adventures where you instruct the parser with a verb and a noun. Included in the known words is VLIST which pages up a list of legal words. The only trouble is that as the parser only uses the first three letters of the word, only these three letters are displayed on the list. It takes a while to realize what all of them mean. The scenario of King's Quest is a castle with all the rooms you would normally associate with a castle. There are various characters wandering about who may ignore you completely or attack you without provocation. I have yet to beat one of these characters as it doesn't matter who attacks whom, you never gain the advantage and your life force drains away twice as fast as your opponent. The only thing I have found to do is flee, which puts you at a random location after dropping all you are carrying. One other problem is the Jester who steals items you are carrying, shades of the pirate in Colossal Cave. There are various items you can collect on your travels. As you are limited in the weight you can carry and each item has a weight it is up to you to decide what is useful and at what stage you need it. Not everything is as it seems so a deal of ingenuity and some luck is needed. The things to find are not at random locations so it is possible to map and plan. One word of advice, the game is not idiot-proof. If you do something outrageously stupid, I did, the programme will crash. But it has a save/load facility so all need not be lost. I enjoyed playing this adventure more than most as it is very well constructed. The one thing that bugged me was not being able to win any fights. But maybe I have missed something and you will crack it. For value and playability this game is in the four Dragons class.

KING'S QUEST available from Orange Software, The Garth, Star Road, Nant-y-derry, Abergavenny, Gwent, NP7 9DP on Dragon cassette only for 5.00 + 50p P&P. NOW ONLY AVAILABLE FROM PULSER. P.G.

## EASY MACHINE CODE (7) . . . . . R.A.DAVIS

You recall that I mentioned the 6809's 'own' RAM, known as registers? We are now going to use the A register and the X register to write a small program which will clear the text screen. If you don't have an assembler, you can do it with this Basic listing:-

```
10 DATA 86,60,8E,04,00,A7,80,8C,05,FF,23,F7,39
20 I=&H7000
30 FOR J=1 TO 13
40 READ A$: A=VAL("&H"+A$)
50 POKE I,A
60 I=I+1
70 NEXT:END
```

The code is poked in from &H7000 and occupies 13 bytes. EXEC &H7000 will clear the screen. But.. what are those numbers in the DATA statement? They are all in hexadecimal and if you consult the opcode list which you must have, they read like this;

86 Load the A register.. 60 with the number &H60  
8E Load the X register ..0400 with the number &H0400, which happens to be the address of the first byte of the text screen.  
A7 Store the contents of the A register .. 80 at the address pointed to by the X register and increment the X register by one to point at the next address on the text screen.  
8C Compare the number in the X register with .. &H05FF which is the location of the last byte of the text screen, to see if the operation is completed.  
23 Branch if lower (than &H05FF) or the same .... F7 .. Back 7 bytes to A7 80 and keep going back until the end is reached and the screen is cleared.  
39 Job done (return for next command in M/C or Basic).

The Dragon has of course got its own routine for this in ROM. EXEC &HBA77 will do this and in a M/C program a simple 'jump' to this routine would save you the effort of coding it yourself. If you have got your disassembler, have a look at that address and note how the B register is used instead of the A register.

The assembly listing is:-

LDA #60	Load A reg &H60
LDX #0400	Load X reg &H0400
STA ,X+	Store content of A reg at add. pointed to by X reg
CMPX #05FF	Has X reg reached &H05FF?
BLS #F7	if not go back to STA ,X+
RTS	Finished (return)

Now see the effect of altering the second bit of DATA (60) and loading the A register with say, 9F for a yellow screen, or AF for a blue screen. In Basic you can alter line 70 to EXEC&H7000 and put in 80 GOTO 80 to hold the screen.

### Crossword No.48.

ACROSS: 1A&M1, Chemical name for caustic soda. 1G, You could sing this girls name. 2B, Software producer still supporting the Dragon. 3F, Noisy disorderly crowd. 4A, Small glass container. 5E, Not very clever person with pointed headgear. 5K, Meat cube. 6D, Happily intoxicated perhaps. 7C, Word found on Hungarian stamps. 8B, Sorcery that can be black or white. 8I, Greyish metal. 9A, Arresting landscape artist perhaps. 10A, To put out or expel. 10G, Type of lock or woodworking joint. 11A, Not inner. 11J, Found in the sky. 12A, Number of duties you have to perform for ARC software. 13A, Minute organisms floating in the ocean.

DOWN: A1, Precious metal used in jewellery. A9, Small black waterfowl. B2, Evergreen European shrub used for garden hedges. C3, Personal tape player/radio. D9, Be strict about the back of a boat. F1, Metal, liquid at room temperature. F8, Metal container. F11, Fishing aid. G1, Sea creature. H5, Mans name. H11, Tavern or alehouse. I1, Long flowing outer garment. I5, Bird of prey. J3, Strong fibrous tissue bands connecting the bones of the body. K9, Stringed musical instrument. L8, Gold coin. M1, See 1A. M11, Fishing aid. ##### As it's Christmas I'll be generous, this month EVERY correct entry received before January 14th. wins a games tape!. Entries to Paul as usual.



### Tuition disc . . .

Don't forget you can purchase the Machine Language Tutorial disc, specially written to accompany the "Easy Machine Code" series. See the ads page for details.



PC FONTS - REVIEWED BY GEOFF SMITH

One of the most useful programs I own is McGowan's Printer Control but what I found lacking was the ability to use different fonts. Knight Computer Services have answered my pleas with this program which includes 20 ready made fonts. There is also a font designer included which is easier to use than the CHANGE GRAPHS mode. The fonts included are Default, Bold, Italic, Script, Hitech, Commando, Stencil, LCD, Alphabet, Spyder, D-Height, Halfhite, Graphics, Shadow,>NNLQ, Halfsize, Medium, 6x6, Outlined and Pmode3. the size of printing chosen has a bearing on how the final result appears e.g. Shadow looks really good in the larger sizes but appears to be too crowded in normal size printing.

It would take too long to describe every font but among my favourites are :  
SCRIPT - joined up writing for the Dragon.

LCD - capitals are in the form of characters as used in digital readouts, lower case are only of a similar outline.

OUTLINED - white letters outlined by black. Can be used with a black background on a graphics screen to produce legible text.

SHADOW - similar to the previous one but with extra black added to the bottom and right of the character to give a shadow effect.

Every font has it's own distinctive style and, with a little practise, it is comparatively easy to produce professional looking posters or just improve the appearance of your letters.

PCFONTS is available from Knight Computer Services at 76, Etwall Road, Hall Green, Birmingham, B28 0LE for 4.99 inclusive of postage and packing.

Problems. Problems...

I have here on my desk a letter from Alan Finch asking for help. Tried The Samaritans, Alan? He then goes on to describe some problems he is having with Dragon related things, which I thought I'd put out to tender. So, here they are:

"1. MANSION OF DOOM. I have crossed the pool of acid, found the young woman in shackles and have been everywhere and done everything except finished the \*!?!?## game.

2. THE VORTEX FACTOR. I have been to the various planets, got the acid, crossed the ravine and got the plant, killed the giant spider, but how do I open the grill after getting the plant (yes, I've tried the acid on this one but it still won't open)?

3. BROTHER M-1109 PRINTER. Is it possible to make it draw pretty pictures, more importantly, can I persuade it to draw graphs?

@ 4. MACHINE CODE. I have tried for years to work it out! The theory seems almost logical, but in practice my Dragon throws a wobbly. Yes, I know there is an article in Update but I haven't reached that stage yet. Pam D'Arcy's articles in Dragon User were just about making sense when she deserted us. I have Dream Bug on cassette. "

@ So, there we are. Answers to the usual address, please.  
Stephen.

Crossword 47 Answers.

## Across:

- 1A). Emulsion.
- 2J). Noah.
- 3B). Roast.
- 4A). Distilled.
- 6A). Scare.
- 6I). Mail.
- 7J). Yard.
- 8D). Monopoly.
- 9A). Peruse.
- 10F). Bifocals.
- 11E). Tattooist.
- 12A). Reverse.
- 12I). Pan.
- 13A). Farthing.
- 13I). Black.

## Down:

- A4). Disappear.
- B1). Marie Celeste.
- C4). Scarf.
- D2). Water.
- D11). Set.
- F4). Lupine.
- F12). Si.
- G7). Polite.
- H3). Penny.
- I1). Window.
- I9). Loop.
- J10). Coal.
- K1). Bonzai.
- K9). Rain.
- L2). Anvil.
- M1). The Shadows.

OS9 Information...David Rothery.

Jeff Purcell recently wrote a letter asking for more information on certain aspects of OS9. Most of the answers could be found in the March 1987 issue of Dragon User, but for the benefit of those who came on to the Dragon scene late or have lost their copy I will repeat the information here.

Linefeed and screenwidth modifications.

Offset	Normal value	Change to	Comments
<b>STYLOGRAPH</b>			
3F52	0A	00	Eliminates linefeed
4FA0	7F	FF	Allows control codes above
127			
5060	7F	FF	Needed as well as above
change			
14E3	31	4E	Gives 80 column width
<b>MAILMERGE</b>			
1920	0A	00	Eliminates linefeed
1DE0	7F	FF	Allows print characters
over 127			
1E94	7F	FF	Needed as well as above

**DYNACALC**

The changes shown must be made to DYNACALC.TRM not Dynacalc itself. Since DYNACALC.TRM cannot be loaded as a memory module a disc zap program will be needed. Do not verify after changing it.

010D	18	18	Screen depth
010E	32	50	Screen width

**RMS**

Read file RMS.TRM into Stylo. Alter the first two numbers to the new screen depth and width respectively. e.g. 18 followed by 50 for a 24x80 screen (remember numbers are hex). Save new files as RMS.TRM after deleting old version.

Filters to change Mailmerge's output to drive an Epson printer are available on OS9 user group disk, but cannot be used with Stylo itself. It is possible to rewrite sections of the source code for Stylo in order to make it (and Mailmerge) drive Epson printers directly. This is not an easy job, but if anyone wants me to recompile Stylo to their specifications they can send me a disk with Stylo already on (to make the matter legal!) and let me know if they want 80 col, linefeeds, Epson codes, arrow keys to move cursor or whatever. Also, default settings may be coded for pagelength, linelength, mailmerge character etc (which may be comma commands). I will have to make a charge of 5.00 to cover the considerable amount of time this may take. I will be very happy to advise on all matters appertaining to Stylo if you write to me at 1, Heath Road, Glossop, Derbyshire, SK13 9AY, enclosing an SAE.

Stylograph, in my opinion, is far superior in convenience to many current wordprocessors. Try using View on the BBC and you will appreciate just how good Stylo is. It is as near WYSIWYG as could ever be possible on the Dragon. No 'highlight codes', no missed letters and no having to move the cursor to the beginning of the paragraph and pressing a special reformat key, as in View. Of course, Pipedream on the Archimedes and PCs offers more, but you are spending an awful lot more money.

There was an article not too long ago in Update about running OS9 with a hard disk. Drivers are available, and I have also rewritten the SYSGC module in the bootfile to access the hard disk directly, although the bootfile itself needs to be on floppy disk. Again, I would be happy to advise on this.

Editorial Afterthoughts 64..

Hi. Your Editor here. Now, you guys have said some pretty mean things, some of which ARE true in relation to that fiend Paul Grade. He is a thief. And a terrorist. On the other hand, he has a tremendous singing voice. But he doesn't edit the newsletter. He's left me in charge.

Now, I can be in a bad mood, and maybe a little rough, but one thing that I can't do is include every single article I ever receive in the newsletter. Some of you may not have noticed, but Update is limited to usually either 14 or 16 sides. Only about 10 of these contain user contributions. I had given everyone in the group a high degree of intelligence, but I've been amazed in the last few months by the naivety displayed by some members with regard to articles.

I don't have any "policy" on using articles, but guidelines have been given in the past as to what stands a good chance of getting printed. Large programs -no, articles similar to recently featured ones -no, specific or general advice on DRAGON issues -yes. I could go on. Even if you send in an article which you think relates to the third option, there is still NO GUARANTEE that it will be printed. I have to devote several pages each month to "regular series" articles, articles which I receive from Paul with "immediate" status, and so on.

There is only a small chance of an article being published straightaway, even if it is sent here at the beginning of the month. The only articles I could even consider for immediate publication are things like show reviews or important news, where the information needs to be aired as quickly as possible.

If I waited three months or so to run a report on something which ACTUALLY HAPPENED, it would lose its importance and impact, as it would be "tied down" to the date when it occurred, and if that was 12 weeks ago, its relevance seems to wane a little.

I can see you all now saying "what about the Alternative Micro Show reports?" Well, if you look back a couple of paragraphs, you will see it says "DRAGON issues". From the reports I have read, it seems (once again) that the AMS held very little for the Dragon. True, the Dragon WAS represented, and that is why a report WILL be used next month. But its relevance when compared to the Hove and Weston shows is low. Therefore, it goes on the backburner for four weeks.

Before Bob Hall says anything, I HAVE used his article immediately. The reasoning for this is that his piece is part of a series in Update; a series which "ended" in Update 59. 5 months ago. Series are supposed to run together. Unfortunately, I don't think Bob envisaged writing this piece when he "ended" his series. If a series is interrupted, you lose interest. Therefore, to try to keep the distance between the articles to a minimum, I have used it now, on the off chance that original "fans" of the series will be more interested now than in a month's time.

I'm not trying to justify my use of articles. I don't have to. Call it bigoted, call it selfish, but I edit the newsletter, and simply CANNOT use every single article. If you want me to tell you whether I will use your piece or not, feel free to enclose an SAE. I won't be pressurised into using an article. It may take months for your piece to appear. So try being patient, please.

I was going to mention the naivety of people who comment on how I "continually" ask for articles but "never" use theirs. Maybe they hadn't thought that by having more articles than I need to fill up an issue of Update gives me more choice on what to use. Or that if I refrained from asking for articles until we ran out, the newsletter would be empty for a month or so. But these things obviously hadn't occurred to them, so I won't.

Right, now I got that off my chest and onto a floppy piece of magnetic iron oxide, back to the usual mode of operation. Why "Afterthoughts"? Well, it just struck me that, by the time it reaches Paul, "The Editor's Late Bit" is distinctly early. About 3 weeks earlier than THE late bit. Thus, a change in title. Not very interesting, but there you are.  
Stephen.



Siegfrieds Schraubenzieher, Bernd Neuner

There is a lot of confusion about our company, Siegfrieds Schraubenzieher, so I think I should explain some things. Firstly, the SSZ has nothing to do with the Siegfried Computer Gruppe. The SCG was a German Dragon User Group which died in November of this year. SSZ is a small company. We, four students, founded it to help other Dragon owners and enthusiasts with their hardware problems. Unfortunately, British customers especially have had a lot of troubles with our company. Some letters were not answered, and delivery times were much too long. Being students, we do not have the time to run the company efficiently, so it has been reluctantly decided to close down the SSZ by the end of this year. We want all our customers to know that we are very sorry about all the problems, and if anyone's letter has still not been answered they should contact us again at this address:-

Siegfrieds Schraubenzieher GbR.,  
Bernd Neuner,  
Dina-Ernstberger Str. 23,  
D-8524 Neunkirchen-am-Brand 1,  
Federal Republic of Germany.

Although the SSZ is now officially closed down, RS232 interfaces and Mouse interfaces can still be ordered. The Tastat-Uhr is no longer produced as we had many production problems with it. *B92L*

Helpline List .....

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, Siband Close, Thornbury, Bristol.  
DOS PROBLEMS: Phil Scott, 4, Badgerwood Drive, Frimley, Camberley, Surrey. GU16-5UF.  
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 CM1-5TU.  
M/C (EXCLUDING FLEX & OS9); DRAGON MUSIC; ARTIFICIAL INTELLIGENCE; "C" (UNDER OS9): Chris Jolly, 4, Pinehurst Walk, Orpington, Kent.  
GENERAL HARDWARE AND UPGRADE CONVERSION PROBLEMS: Bob Hall, 22, Cumbria Close, Thornbury, Avon BS12-2YE.  
WORD PROCESSING & GENERAL BASIC PROGRAMMING: F.J. Fisher, 29, Thornham Road, Gillingham, Kent.  
SPREADSHEETS: E. Freeman, 80B, Main Road, Old Duston, Northampton. NN5-6RA.  
MODEMS, BASIC ELECTRONICS, ADD-ONS, and FLEX: Tim Hayton, 36, Laurel Drive, Willaston, South Wirral L64-1TW.  
DELTA PROGRAMMING: Stuart Mills, 49, Templegate Crescent, Leeds, West Yorkshire LS15-0EZ.  
DRAGON HARDWARE PROBLEMS AND REPAIRS: Alan Butler, 16, Barnston Green, Barnston, Great Dunmow, Essex.  
COMPOSER PROBLEMS:- Dave Cadman, 32, Breedon Hill Road, Derby DE3-6TG.  
DRAGON/DELTA DOS PROBLEMS; OS9, BASIC 09, AND GENERAL BUSINESS SOFTWARE APPLICATIONS: M.A.A. Abba, 127, Ankerdine Crescent, Shooters Hill, London SE18-3LE.  
DMP 110 PRINTER PROBLEMS/SCREEN DUMPS ETC.: Dr. J. Hatton, 48, Wern, Llanfairpwll, Anglesey, N. Wales.  
EPSON COMPAT. PRINTER SETTING UP & GENERAL PRINTER PROBLEMS. Gareth J. Sims, 24, Logwell Court, Standens Barn, Northampton. NN3-3TN.  
RADIO AMATEUR PROBLEMS, INFORMATION & ADVICE. Fred Hopewell, 48, Gladstone Street, Loughborough, Leicestershire. LE11-1NS.  
GENERAL PROBLEMS AND MOST REPAIRS. Steve Tate, 22, Fairfield Drive, Wormley, Broxbourne, Herts. EN10-6DY.  
CO-CO HARDWARE & SOFTWARE PROBLEMS: Chris Rouse, 18, Gregson Close, Bridgemary, Gosport, Hants.  
BASIC PROBLEMS, ESPECIALLY USE OF GRAPHICS FROM BASIC, EPSON COMPAT. PRINTER (SOFTWARE) PROBLEMS, SIMPLE PASCAL: Steve Knight, 76, Etwall Road, Hall Green, Birmingham.

\*\*\*\*\*

The Weston Show.

No details yet, but it appears that only around 80 people bothered to attend the Show!. NOT good at all!. To those who DID attend, thank you, and I hope you had a good day there ... to those who couldn't be bothered .... fill in the comment yourselves!. We had an unavoidable problem with the Group stand as Bob Hall had to drop out at the very last moment, but John Payne took over at zero notice and kept things running. VERY many thanks, John, and to everyone else who helped. Paul.

*Paul*

DOSFILES (4) ... Ken Grade.

Before I start this next venture into the unknown, many thanks to Raymond Roach for his phone call following Dosfiles 3. He pointed out that the subroutines at lines 210 and 440 are not separated from the previous routines, and need a RETURN or GOTO - ideally back to a menu, like this one:-

```
[11] PCLEAR 1: CLEAR 2000 [21] CLS: PRINT "ENTER 1-3" [31] PRINT "1-CREATE
FILE": PRINT "2-ENTER RECORDS": PRINT "3-READ/AMEND RECORDS"
[41] INPUT A: ON A GOTO 10,300,440
```

One of the commonest ways of sorting alphabetically is to use the ASCII codes of the first letter of a word. If the database is to be used for names made up of initials and surname, it is simpler to use a searchname, or sortname to calculate its position in a file. This means using an extra entry for each record, but it makes sorting much easier. So a subroutine for this type of sort, in a crude form, would be:-

```
[1000] CLS: INPUT "SEARCHNAME"; S$ [1010] LE=LEN(S$) [1020] L1$=LEFT$(S$,1)
[1030] L1=ASC(L1$)-64 [1040] PRINT "FILE POSITION"; L1: RETURN
```

I did say it was crude, didn't I? The idea is, of course to use the ASCII value less 64 - because ASCII values begin at 65, for letter 'A' - in the calculation to find where to write a given record. Before refining that, it would be best to deal with the file initialisation, which needs to be slightly different to the one for the numerical sort.

```
[10] CLS: "INPUT No.OF HEADINGS"; NF [20] INPUT "LENGTH OF ENTRIES"; L
[30] INPUT "MAX.No.OF RECORDS"; R [40] INPUT "SEARCHNAME LENGTH"; SN
[50] INPUT "NAME OF FILE"; N$ [60] S=L*NF+SN [70] CREATE N$, S*R+20
```

The variables R, S, NF, SN and L are then written to the file, starting from 0, and allowing 10 bytes between each variable. The disc pointer will now be at 40.

Next a prompt for the field headings, which are then written to disc as per the previous program, followed a space of 5 bytes (P=P+5), then the variable for the number of records written so far - NR. The real difference is in the loop to format the file, which needs room for the searchname:-

```
[160] P=P+5: FOR X=1 TO R: FWRITE N$, FROM P, FOR SN; BL [170] FOR I=1 TO NF
[180] FWRITE N$, FROM P, FOR L; BL: P=P+L: NEXT I: NEXT X [190] GOTO 2: 'MENU
```

Next time, I'll deal with record entry. In the meantime, have fun experimenting - it's the only way to learn!

The Late, Late Bit .....

Well, that's the master pages finished, but whether you are reading this in 1989 or 1990 depends on how well the old copier behaves and whether or not the Post Office can find the energy to deliver the things on time. It's December 13th. now, and with any kind of luck this should be ready to go in about another six days, but ..... Anyway, have a good Christmas / New Year / Easter (delete as necessary).

I haven't had a full report on the Weston show yet, but so far it sounds as though Andrew Hill will have been very lucky if he managed to cover his expenses .... a total of 80 people "through the doors" is pretty pathetic, even by current standards, and I would have thought a few more of you could have made the effort to attend ... after all, the shows ARE arranged for YOUR benefit and it's been a long time since anyone made a profit from putting on a Dragon show. Still, it's up to you, just don't complain when there are no more shows, no more user groups, and no more programs for your machine. You can't expect people to keep on spending money / time when there's no response, can you?.

Yes, I am well aware that I should be full of the Christmas spirit, but Smirnoff and typing don't mix very well, and I'm bored with the entire Christmas routine anyway .... all the usual "Buy now!" adverts, the usual "don't drink and drive" campaigns (I don't, but why do they never mention that over 80% of road accidents are caused by SOBER drivers? ... statistically it should be safer to drive when drunk!), and the prospect of having to make polite noises at people I can't stand, who appear to imagine that Christmas means they have to "just drop in" and annoy me!. Oh yes, I almost forgot, the "Christmas Entertainment" on the box!.. All the old films you have tried to avoid watching for the past ten Christmasses!. Now I know why the more sensible life forms hibernate at this time of year!.

New Year Resolutions? .... I intend to continue insulting people in my usual impartial manner, ignore all Government health warnings, disbelieve all experts, make money in reasonable quantities, try everything at least twice especially if it's something alleged to be illegal immoral or fattening, go unto others first, screw the inscrutable, discover why our Editor has such a thing about Batman (personally I think it's those peculiar tights ... or he fancies someone called Robin!), and generally continue in my usual corrupt and depraved (to say nothing of deprived) manner. What about YOU?.

# DRAGONFIRE SERVICES

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Our entire catalogue will now be available from them, who will be trading either under the "Dragonfire" name.

THE NEW MANAGEMENT COMES INTO PLACE ON AND FROM THE 10TH OF DECEMBER 1989.

They will be representing Dragonfire at the Colour Computer Convention on that day.

All orders/enquiries up until that day to us at the above address.

We would like to take this opportunity to thank the many Dragon and Tandy users, who have supported us over the past few years and the companies, too, who have helped along the way, particularly Paul Grade of the National Dragon Users' Group.

### NEW ADDRESS & TELEPHONE NUMBER:

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0533 889860

WE WISH THEM ALL THE SUCCESS IN THE RUNNING OF THE COMPANY!

\*\* PLEASE NOTE THAT WE ARE \*NOT\* GIVING UP THE DRAGON. WE WILL CONTINUE TO RUN COLOUR COMPUTER CONVENTIONS, IF FEASIBLE, AND OUR MAGAZINE, "DRAGON MAGAZINE", WILL BE PUBLISHED BY OUR COMPANY "A-M ENTERPRISES". ADDRESS AND TELEPHONE NUMBER AS ABOVE.

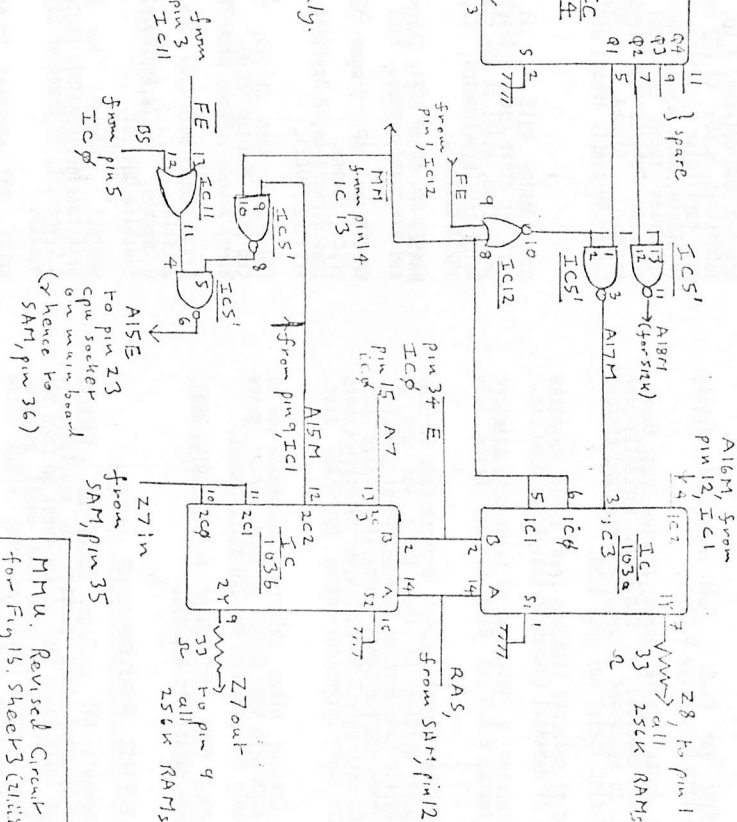
PROPRIETOR - ANDREW HILL.

13

## Circuit diagram for Page 5 article

Chip	Type	QND+5V
IC4	74S189	8
IC5	74LS00	7
IC11	74LS32	7
IC12	74LS02	7
IC	74LS	14
IC	153/253	8
		16

Notes  
1) AISM do not go to main board  
2) Z7 from SAM, pin 35 goes to 11, 12 of IC13 only.  
(iii) 01 pin on all SVs to QND



M.H. Revised Circuit  
for Fig 15, Sheet 3 (cont.)  
R.W.H. 3.11.89



## GROUP SERVICES.

**DRAGONART GRAPHICS LIBRARY.** Contains THE biggest and best collection of graphics screens for the Dragon, all available at nominal charges. The Library also wants YOUR original graphics efforts. Full details and list available from:-  
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The Librarian, 5, Glen Road, Parkstone, Poole, Dorset.

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P.D. Library. We regret that the PD Library service is suspended until further notice. New arrangements will be made as soon as possible.

## GROUP SPECIALS!

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Any particular requests? the above were written to order. Also available, Home Accounts program 3.50, and Facts of the Worlds Countries (also on tape) 3.50. Please specify format when ordering. Details (see please) from:-  
Graham Strong, 78, Coleridge Crescent, Goring-by-Sea, Sussex. BN12-6LT. (Phone 0903-48575).

**DOS ADAPTOR KITS** to fit your DOS inside the Dragon leaving the port for other uses. A fresh batch of these units is now in production, still at the old price of 16.68 each inclusive.  
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**WANTED FOR GROUP USE!** Shinwa CP80 Mk1 printer. MUST be Mk1 ONLY, and reasonably priced. Paul Grade.

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