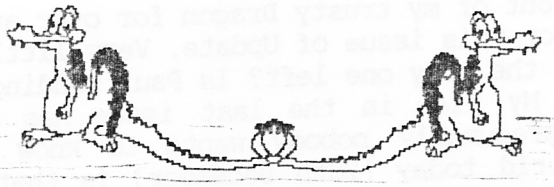
The Newsletter of the National Dragon User's Group

DRAGON UPDATE



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The Gaffer's Bit . . . . . .

I suppose the main question at the moment is whether or not the Ossett Show will be going ahead, but I don't yet know the answer to that one, so you'll have to read the "Late Bit" to find out. Other than that, I'm not sure whether I ought to be pleased or annoyed at the response to my appeal for help in covering the cost of the replacement copier ... the total cash sent in so far is £159.50, but this is from a mere FIFTYNINE members!. Those who HAVE contributed have been very generous, and in several cases have sent far more than the £1 that I suggested, and I greatly appreciate their efforts to keep the Group going ... it's nice to know that SOME are prepared to help out. I can only assume that most of those who have declined to assist simply don't care whether Update is readable or not. Oh well, it's always handy to know how many people are really interested in keeping things running. On the subject of the "new" copier, there have been considerable fun and games ... shortly after completion of the last Update copy run the machine dropped dead!. If you're into copiers, the high voltage transformer supplying the transfer corona gave up, so I decided to return it to the supplier for repair (why should I fix a machine that had done less than ten reams?!). After keeping it a week, he happily informed us that the transformer was dud (real genius at work there!), and reckoned he could fit one from a scrap machine for sixty quid plus labour!. Unfortunately, my sense of humour isn't that good, so after reference to the local Office of Fair Trading and recitations from the Sale of Goods Act, he eventually decided that it might be better to provide a replacement machine (a heavier, higher specification one) for a few quid more. So, we no longer have a Minolta 310, and this is being produced on an Agfa X2. If anyone is thinking of buying a copier, and wants to know which firm NOT to get it from, let me know and I'll gladly give you the details!. Well, that's all there's space for on page one, so check out the "Late Bit" for the rest of the gossip/information/insults. *Paul Grade.*

Important Notice. . .

Kicking off with something of vital importance, and something for which all of you out there should be very grateful. No, I'm not talking about lack of material (well, not for the moment anyway), but lack of operating system, which nearly put the mockers on this issue of Update. In ten years of being Dragon based, I've only suffered two problems. One, three years ago, when the main crystal in my 64 took leave of its senses, and the other last month, when my DOS took leave of its senses and took my number two drive with it, rendering me drive-less, and almost rendering you Update-less. Obviously, because you are reading this, the problem has been solved, but I'm just commandeering this space on the front to express my thanks to Mr.O'Connor and PSE Computers for helping me out of a terminal situation, and providing the means by which to give you lot something to read this month. I suggest that you might like to order something from their extensive catalogue to express your gratitude as well - you owe them for this Update!

Here's something else that made we wonder. Has anyone else noticed the eerie similarity between our beloved Chairman ~~Mao~~ Grade, and the bloke who played Madge Ramsay's father in "Neighbours" some years ago? I Think We Should Be Told!. SW.
(Not that I watch "Neighbours", of course).

PEEKING THE DRAGON (49). MIKE STOTT

I have been sitting in front of my trusty Dragon for over an hour now wondering how I am going to fill a page for this issue of Update. Very little appears to be happening in the Dragon world. Am I the only one left? Is Paul kidding me when he tells me that Update has got readers? My plea in the last issue has brought me absolutely no response whatsoever so presumably nobody wants to know anything. The only news circulating the Dragon world today (28th December) is that there is a rather large question mark hanging over Ossett. Hopefully this will be resolved by the time you read this issue and there will be mention elsewhere that Ossett is carrying on as usual. To me Ossett is the highlight of the year and it would be a shame if it did not go ahead. I hope to see as many of my old friends there as possible. Those of you who have been in the past will know that all the experts in the Dragon world are there, more than willing to help us lesser mortals with the problems that we have experienced since the last show. If you have not been before why not come along. Who knows, you might even pick up a bargain or two. In the last issue of Update I spotted an advertisement for THE NEW MUSIC QUIZ DISC available from the Group so I immediately sent off for a copy. The disc contains a selection of tunes compiled by Dave Cadman and your task is to name as many titles and composers as you can before the closing date at the end of March. From the menu you are able to select which piece you want to hear so you do not have to keep playing them all over and over again.

The winner will receive their money back together with the satisfaction that they have beaten me. Up to now I am not having much joy at all, although all the tunes seem vaguely familiar. I even broke into the program to see if Dave had left any clues lying around, but absolutely nothing. I guess I will have to get out my collection of Dave Cadman music discs to see if I already have any of them. MUSIC QUIZ is available from Paul for only five pounds and has got to be worth that just for a selection of Dave's music even if you do not intend to enter the competition. You could even use this disc for a competition when you have family or friends round. I hope that eventually a list of titles and composers will be printed for the sake of non musicians like me.*[available immediately after end of competition. P.G]*. Mike Townsend sent me a copy of DRAGON WORD. This is a program used by Ray Smith and others to write text and save them as ASCII files for use in UP2DATE. It seems that ELECTRONIC AUTHOR stacks junk lines onto the end of ASCII files whereas this does not. Text files created by this program can be imported into DESKTOP (Version 7) amongst others. Mike tells me he has considerably revised the original program although I do not know by how much as I never saw the original version. DRAGON WORD is public domain and loads up with the 64 character screen of HI-TEXT. Unfortunately it can only be used from disk in its current version.

Files with the extensions .TYP, .TXT and .DAT can be loaded into the program as long as they are ASCII files. So far I have had no success in transferring any files created by this program to TELEWRITER but DRAGON WORD must surely make transfer of files easier, even to other computers. Malcolm Cowan contacted me concerning my write up about PCDRAGON as he is interested in transferring much of his Dragon stuff to a PC. Unfortunately this program is very much in its early stages and cassette software only can be handled at the moment, ruling out FLEX and OS9. Whether this can be got round in the future depends upon what further work is carried out. I would suspect that it would need a group of Dragon experts working together to enable it to be really successful. Why not obtain a copy of the program yourself if you think you might be able to help with its progress. May I take this opportunity to thank all those members of the group who sent me Christmas cards. Jonathan Cartwright has asked me to pass on his best wishes to all his old friends and acquaintances in the Dragon world.

He is now writing games for a wide variety of computers and consoles and hopes to move to America in the near future. I am sure we all wish him every success.

He admits that the Dragon has helped him a great deal in many ways. Finally, make sure that you get to Ossett if at all possible. Without a show there the Dragon is going to find it very difficult to keep going. Support those companies who are still in the Dragon world and I am sure that we can persuade them to carry on supporting us.

EliteCalc...Clive Scott.

The Dragon 32 has never been over-endowed with spreadsheet packages. Abacus and MST Consultants sold very limited ones and undoubtedly the most powerful was EliteCalc - indeed, some features are still not available on more modern packages today. It came on cartridge or disk, and this review will be based on the former. It provided 255 rows by 255 columns, though that would be restricted by the memory available (29K). It was a command driven program, and the menu options were chosen by pressing the appropriate letter of the alphabet, i.e. "C" to copy data. When you wished to enter text into the cells, you preceded it with a " or pressed T to go into text mode, which was exited by pressing Break. Text could be aligned left or right of the cell but not centred - any wider that the column width would overflow into adjacent columns.

Formulas were entered by preceding them with a = sign. It was provided with 20 functions, adequate but not over generous by modern standards. However, you could create up to 26 of your own functions using the constants. Numbers could be formatted in many ways, including graphics which gave a crude form of bar graph. However, date format is not included.

You can alter the width of the columns as well as the height of the rows. Rows can be sorted on any column and you can hide rows or columns if you wish. They can be inserted, or deleted, anywhere in the spreadsheet. You can copy, move and delete cell contents, and cell references could be relative or absolute when copying formulas. Cell contents can also be edited, using an editor similar to the BASIC line editor. When printing the spreadsheet, you can send control codes , and it supports headers but not footers. You can set the page and the line length, although this is not stored when the file is saved to tape or disc.

Although the program shows adequate speed, you can set it to manual calculation if the sheet gets too large. Because it uses the 32*16 screen, you cannot lock rows or columns, which makes navigating around large sheets difficult. It originally cost 45.00, but should be available for a lot less, second hand.

Pic Filename Extensions. Dave Riley

The review of Clipart in Update 89 suggested that graphic filename extensions including CLP be standardised. OK, but CLP files are different in that they represent only a fraction of the standard graphic screen. These files come in all sizes and need special processing before a picture can be shown on the screen, and loaded into any graphic utility other than CLIPART.BAS will not show the picture and most likely give rise to a breakdown in that utility. CLIPART enables the CLP files to be put anywhere on a new blank screen or existing file with any extension. The resulting picture can then be saved as a standard graphic file with any extension you fancy. So do what you like with the standard graphic files, but don't change the extension of the CLP files. Another way of getting around the filename extension problem is to modify all your graphic utilities so that they do not clear the graphic screen or scribble anything on it as they are RUN after loading. Then you can load your picture with a command line or with the utility using your preferred extension. After loading you can of course run in turn as many utilities as you like around the picture. It certainly saves creating no end of temporary files. Be careful if you have to cold start the machine to clear a utility from memory as three or four bytes in the PMODE4 screen are rewritten by this.

CORRECTION NOTICE

It seems that somehow some line number errors crept into the "Shaper" article by Keith Nash (Issue 92, Page 5), and some lines ended up with negative value line numbers!. I haven't a clue how it happened, but Keith assures me that if you add 65536 to all such line numbers, all will be well again. My apologies to those of you who went mad trying to work out why the listing produced peculiar results!. Paul Grade.

A Forth Utility. . .John Payne

If you have a favourite Forth program, but you don't like the wait for it to LOAD, here is a set of utility words that give almost instantaneous loading. When you use the Forth word LOAD, it extends the Forth dictionary, by compiling the word definitions that make up your program. Compilation takes time, as each word of the program has to be looked up in the dictionary. With this utility, compilation is not necessary once you have the final debugged version of your program. The word SAVEXT saves the dictionary extension (ie the compiled program) onto disk, so that later LDXT can load it (without compiling).

Among other things, I use it to load the Forth editor, so I'll use this as an example. I'll assume that you've typed in the listing and saved it to disk on screens 175 to 178. BOOT Forth and then LOAD the extensions that you want to save e.g. 600 LOAD for the editor. Then enter 175 LOAD to define SAVEXT. Choose an empty area of disk to save to e.g. screen 180 on, andnote the first screen number. Then enter the screen number followed by SAVEXT e.g. 180 SAVEXT. SAVEXT now shows you which disk blocks will be used e.g. 180 - 184 and asks if it is OK to write on them. If you type Y the dictionary extension is saved. You need to note the first and last screen numbers and the values of HERE and LATEST as these have to be put into the load screen for the extension. Copy the template load screen to another screen e.g. screen 4 which will be the screen that loads your extension. Replace the items in brackets <> with the numbers you noted earlier, and FLUSH the load screen to disk. Now, whenever you BOOT Forth and LOAD this screen, your program will be loaded as fast as sectors can be read off the disk.

A word of explanation. The word is R/W which expects adr blk flag on the stack in that order. If flag is non-zero (true) R/W reads the sector numbered blk to the memory at address adr. If flag is zero, R/W writes 256 bytes from adr to the sector numbered blk. SAVEXT uses R/W to write the chunk of memory that holds the dictionary extension onto the disk. LDXT uses R/W to read the extension back into memory again. LDXT also has to link the extension to the rest of the directory. This is why the fiddling with CURRENT and DP is necessary. Of course, when you BOOT Forth, LDXT is not in the dictionary, so an extension specific version of LDXT is defined on the LOAD screen and immediately used to read in the extension.

```
SCR £175
 ( SAVE COMPILED FORTH PROGRAMS )
 HERE CONSTANT EXTOP ( 1st unused
 after EXTENSION)
 30 +ORIGIN @ CONSTANT COLD.HERE
 : INFO ." On Load Screen put:"
    CR EXTOP . ." in <extn.HERE>"
    CR ' EXTOP LFA ?
    ." in <extn.LATEST>  "  ; -->
SCR£ 177
 : SAVEXT ( 1st.sector£ --  )
    SCHK 1+   INFO  OVER OVER . .
    ." are <last.scr+1> <first.sc
 r>"    COLD.HERE   SWAP ROT
    ( Cold.HERE last+1 1st )
    DO DUP  I OFFSET @ +  0 R/W
     B/BUF +  LOOP ;
```

```
SCR £176
0  : SCHK ( 1st -- 1st last )
1  ( check sectors to be used ) DUP
2     EXTOP COLD.HERE -  1- B/BUF /
3   ( sectors.needed-1) + OVER OVER
4     INDEX CR ." will use sectors
5  "  OVER .  ." to " DUP . ." OK?"
6     KEY BL OR ( lowercase)
7    121 ( Y) - IF QUIT ENDIF ; -->
 SCR£ 178
0  ( TEMPLATE for LOAD SCREEN )
1  <extn.HERE> DUP  B/BUF + DP !
2  : LDXT 30 +ORIGIN @ ( cold.HERE)
3     <last.scr+1> <first.scrn>
4     DO DUP  I OFFSET @ + 1 R/W
5      B/BUF +  LOOP
6     <extn.LATEST> CURRENT @ ! ;
7  DP ! LDXT ( do it! )
```

Addendum...

Dear Readers, John Payne is considering writing further FORTH articles, but wonders if any of them are worth doing - so, if you'd like your opinions to shape future Updates, let John or myself know! He had just ONE response to his deliberations last time, so if you want to contribute to the shape of Update, say so!
P.S. I ran "Sonata", John, because I HAD tried it! S.W.

DON'T LET THE TAPE VERSIONS OF FORTH PUT YOU OFF .... THEY WERE O.K, I SUPPOSE, BUT NOTHING LIKE AS GOOD AS JOHN PAYNE'S VERSION, AS MARKETED BY THE GROUP!. BUY IT, AND TRY IT ... YOU COULD WELL SURPRISE YOURSELF!. *Paul Grade.*

Files . . . Roy Cashmore.

In computer terms, files are lists of similar or related information. They may be held in memory or on magnetic storage (tapes or discs). The simplest form of a file, but the least useful,is held by a list of variables.

```
A$="CABBAGE" : B$="CARROTS" : C$="POTATOES"  etc
```

Arrays are more useful. These are lists, and if they are longer than 10 files long they have to be DIMensioned before use. Dragon BASIC supports one, two, or three dimensional arrays, the first two of which are more common and can be illustrated thus:

SINGLE DIMENSION A$(x) where x is the number of 'lines" to the list

First, DIM A$(19) allows up to 20 items to be filled.

The array can be visualised as a list called A$:

```
    0 = CABBAGES     note that the items are entered as strings
    1 = CARROTS
    2 = POTATOES
    3 = etc          each line can hold up to 255 characters
```

The command PRINT A$(1) would give CARROTS.

The information can be put into the array by either:

```
FOR X=0 TO 19
INPUT A$(X)
NEXT X          which requires entry from the keyboard, or:
FOR X=0 TO 19
READ A$(X)
NEXT X
DATA CABBAGES, CARROTS, POTATOES, etc   to READ a file.
```

Parallel one-dimension arrays can be used, e.g. for an address database:

DIM N$(19, A$(19), T$(19), C$(19), PC$(19), TN(19) which would hold names, addresses, towns, counties, post codes, and telephone numbers. Each index number would correspond to the same person.

TWO-DIMENSION ARRAYS

DIM AD$(19,5) would give an array which can be visualised as a table of 6 (0 to 5) columns, each of 20 rows (or lines) which could be used, as above, for an address database. Information could be input from the keyboard like so:

```
100 FOR X=0 TO 19                        120 LINE INPUT AD$(X,Y)
110 FOR Y=0 TO 5                         130 NEXT Y,X
```

In order to remind the user what information goes into hich slot, the following can be used:

```
90 DIM C$(5)
95 C$(0)="NAME":C$(1)="ADDRESS":C$(2)="TOWN":C$(3)="COUNTY":
   C$(4)="POSTCODE": C$(5)= "TEL NO."
115 PRINT C$(Y)
```

Next time, magnetic files.

Of This And That . . . . . Dave Riley

Top end PCs are getting faster and those that are not quite so quick seem to get cheaper every day, so it would appear eccentric to be persisting with a Dragon 64 now that relatively modern hardware is available at such a low initial cost. With this thought in mind, the Dragon had been fitted with a 3.5 inch drive 3, with the intention of communicating with a newcomer. I had sorted out a PC option and was about to spend money when I asked myself what I thought I was up to. Apart from backing up my lousy memory and providing me with amusement, my computer's main jobs are to writ my letters and look after all my doings financial. A fair proportion of my working software is custom built, i.e. I wrote it myself for my own specific requirements. I doubt if it would be of much use to anyone else, so my chance of buying useful PC software is remote, and a rewrite is too much trouble just for a slightly faster result and a prettier display. The new 80 track drive can read a PC disc but rarely holds other than the disc I made up containing a load of frequently used programs as diverse as DRAGDRAW and COPYCAT, and is treated as I imagine a hard disc would be on a PC. This has made the Dragon even better! Admittedly, the screen display is a bit grotty, but only I see that. To pass information on I do not invite people to view my screen, I give them a printed copy. What is really important is

accuracy and the quality of the printed output. The accuracy is good enough for me at present, and to improve the printed output something better than the current 9 pin dot matrix will have to be bought. Both laser and inkjet printers have running expenses that preclude my practice of running off frequent draft prints, so the 24 pin dot matrix must be favourite. It doesn't need a PC to run that. Some time ago I bought a Tandy CoCo 3 uprated to 512K, which I hoped would effectively be a super-Dragon, but I was disappointed. Pity is that Dragon Data were no longer around to engineer the thing properly. On the Dragon I see OS9 solely as a medium for running the admirable Stylograph word processor. Other than that, it is a life test for disc drives,so it was a while before I got around to looking at the OS9 level II software that came with the CoCo. What a transformation! No longer was the CoCo stuck with that awful single sided 35 track disc. Obviously OS9 can do nothing about the similarly awful serial printer port, but you can't win them all. The disc churning previously associated with OS9 became optional as now there is memory to spare, making all the OS9 facilities more practical. OS9 like this must be preferable to MS-DOS (what isn't?). Tandy have lost interest in their own computers and the Rainbow magazine is dead, yet it seems that across the pond there is a sizable band of CoCo3nuts with ambitions similar to mine (except that the Dragon does not feature over there). A new magazine called 68' Micros has emerged to cover machines using any 68xx or 68xxx with a bias towards the CoCo and OS9. Advertisements are sometimes seen for CoCo3 upgrades using the Hitachi 6309 (an enhanced high speed version of the 6809) and even the 68020! The future looks as if it could be exciting, and I shall keep a hopeful eye on developments, but Dragon experience leaves me prepared for possible disappointment. Join the common herd and buy a PC? Not likely! Not yet anyway. An RGB monitor for the CoCo, a 24 pin printer for the Dragon, and a pile of OS9 books are my next purchases, which I hope will be better value for money than that PC system. Maybe that book I bought on 68000 assembly language ages ago will eventually be useful. For any CoConuts who may be looking, DragonDOS isn't all that wonderful. The CoCo's handling of text files is very much better, which possibly accounts for the success of TeleWriter on the CoCo and the failure of any single WP to gain a prominent place in the DragonDOS arena.

Letter from Roland Hewson.

We are always being called upon to write something for others to read, but how many do?. What is the problem, is it apathy or a feeling of inferiority that anything one might say may be laughed at or ridiculed?. It may well be that one cannot think of anything to say, well go on force yourself, or write in and say what a load of old rubbish I am writing. (Well, at least it's different rubbish from that of our esteemed Chairman and Editor!).

During my short break this Christmas I have been tidying up my "office" (a converted coal shed), sorting my discs, filing, and putting up a couple of shelves to house a few more of same. Needless to say, one gets sidetracked and I found myself rereading those early editions of "Stop Press", which if you remember were circulated to all those Dragon owners who had returned their guarantee cards to the manufacturer. Issue 1 said "The Dragon home computer was launched in August 1982. Since that date it has become the best selling home computer in its price bracket. There are now over 40,000 Dragon users in the U.K and by the end of 1983 it is expected to exceed 150,000." After five editions of this circulation it was replaced in December 1983 by "Dragon World". An independent magazine exclusively for the Dragon had also been launched, called "Dragon User" and in addition two fellows called Paul Grade and Jeremy Hoyland had launched a User Group. They were uncertain what to call this, and indeed there was an early indication of the humour of "He Who Must Be Obeyed" in as much as there was a tentative suggestion in Issue 2 to call it "Poke 65495,0 For A Good Time" [that definitely was NOT a suggestion from ME!. P.G.]. It is also worth recalling that the subscription then was only £7.50, so although Update is now bi-monthly it has hardly increased at all when you compare the cost of postage and materials then and now!.

Returning to my theme, however, success built on success and even a commercial firm called Microdeal joined in with the launch of their first "Cuthbert Chronicle" in JUne 1984. Nether the less the peak HAD been reached and passed without anyone noticing until too late. In issue 5 of the said Chronicle page 4 showed pictures of a new case for both Dragon and disc drive, the article began "Dragon owners are a hardy

breed" (Aren't we just!!). Cuthbert Chronicle gave way to the Microdeal Catalogue in Autumn/Winter 1985 and from then on it was all downhill. We, it seems, are the last of the few. Cuthbert has had his last stand, but we are of sterner stuff!, and those who are left should continue to support the activists. I have no axe to grind other than I want to support my fellow Dragon users, and I hope that they will support me. The best way of doing this is to listen to the exhortations, write something, and even if you cannot, send Paul a quid towards the cost of the copier, so that we can continue to read the articles that are written now.

Well, by the time you read this it will be freezing February and it wont be worth going out, so play with your Dragon and send the results to Stephen. I'm sure he would be grateful. Oh and by the way, a "Belated Happy New Year" to you all.

CALL GHOST BUSTERS?. *Dave Cadman*

Everyone likes a ghost story, especially at Christmas time, but this one although experienced before Christmas, was too late for the December Update. You might ask what this has to do with computing, if so, read on .. if not, well, read on anyway!.

Recently I received a request from Paul Grade to supply labels for my Classic Quiz. These were duly printed, put in an envelope, sealed and put into another larger envelope along with a covering letter, sealed, stamped, and posted to H.R.H!. A few days later came a letter from P.G saying "nice letter, but can't find the promised labels!" Panic!!. And extended search of the premises revealed many things thought to have been lost years ago, but NO labels!. Since it was the only letter posted that day they could NOT have been put in another envelope. My only suggestion when I sent another supply to P.G was that it could be our ghost up to his tricks again ... and of course he wanted to know more...

It first made its presence known the day we moved in. I was in the pantry stowing away the home made wine (unsampled!) when I heard someone run down the stairs overhead, straight out of the open front door onto the drive, shouting "HELP!", accompanied by the sound of rushing water. I dashed outside, only to find Carol walking up the drive with an armful of cardboard boxes, asking what the problem was, and why I looked so white!. Investigation showed NO wet stair carpet, and nothing amiss upstairs.

Since that time it has shown an aversion to anything hanging on walls, particularly dogs (pictures of, that is!). First it pulled the coat rack off the wall in the hall. Next to go was a picture, a pencil drawing of one of our dogs, in the front room, quickly followed by an oval mirror in the same room, which fell onto a tiled hearth. Neither the glass in the picture or the mirror was broken. Our present two dogs are not comfortable in this room. They don't howl, or raise the hair on their backs in true Baskerville fashion, but stand by the door wanting to be let out. Then it took to smoking, in one room in particular. Since neither of us smoke it was instantly detectable. On occasions in this same room, just before midnight, we are conscious of a draft of air which is below room temperature. It can't be termed an "icy blast" exactly, but it IS noticeable, providing, by this hour, you've not dropped off in front of the box. It's next move was to take three pictures off the same wall at the same time in yet another room. The noise brought instant response from both myself and the dogs. On investigation it would appear that a lot of downward force had been applied to all three picture anchor points, at the same time, to a point that the cords had slipped off the downward facing pins in accordance with Mr.Newton's Theory. It might be worth noting that one of the pictures to drop was the same one that had dropped in the front room, another was a similar drawing by the same artist of a more recent dog, and the third was also a print of a dog!. Once again, no damage resulted from these dog droppings, if you pardon the expression!.

So, as result of the forgoing, I suggested to P.G that the ghost had nicked the aforementioned computer generated labels, and he asked me to write an article for Update outlining my experiences to see if anyone can top it!. As a matter of interest, this property was built in 1905, the year my Dad was born ... I wonder if that is of any significance? ... but he always liked dogs, 'though had an aversion to the RAM his sister used to keep!!.

*** Well, CAN anyone come up with (a) an explanation, or (b) a still better Ghostly Tale?. If so, let us know. As to Dave's pet Ghost nicking labels, fair enough, but what does he/she/it USE them for? ... I know about Ghost Writers, but Ghost Software Publishers??!. Anyway, happy haunting, I'm off to commune with the Spirit of Pierre Smirnoff. Paul G.*

Illegal Op-codes...Keiran Anscomb

Whilst looking through your "Inside The Dragon", you may have come across the bit under TFR/EXG where it says "...all other combinations are undefined and invalid..." Fair enough, looks like a reasonable restriction... WELL IT ISN'T! It's a plot by Motorola to force you to pay attention to what they say! You CAN use other combinations (or at least, you can on mine), and the functionality is as follows: When transferring from register M to register N, as many bits are filled from bit 0 in N as can be obtained from M, and the rest (if any) are filled with 1s. So, transferring A to B transfers the 8 bits of A into the lower 8 bits of B, and that's it...nothing left to fill with 1s. BUT, transferring B into Y, for example, would take the 8 bits of B and shove them into the lower 8 bits of Y, and since it has run out of B, would fill the upper 8 bits of Y with 1s. Transferring X into A would mean A equals the lower 8 bits of X. Good, eh? Useful? No? Well, what about when you're using X as a screen pointer, and need to know how far along you are? Usually, you might PSHS A, TFR X,D ANDB $1F--- and B would then be the amount of character positions across the screen you were. You then, of course, need to PULS A again (assuming B is a scratch var, so doesn't need value stored). But, using illegal transfers, all you have to do is TFR X,B, ANDB $1F--- ...EASY! There is, of course, one slight snag, and that is that Dream will chuck out any transfers where the registers are of unequal size, so to get round that you have to include a line saying something like FDB $1F19 ; TFR X,B which directly includes the code for TFR ($1F) and the parameter X,B (X=1, B=9). Look at your data sheet for register values. For an EXG, you would just use $1E instead of $1F...EXG operation follows the same guidelines as TFR. Another useful hint is that an undefined register value (say 7) is treated as a register of 0 bits, i.e. FDB $1F72 (transfer reg 7 into Y) would act the same as LDY $FFFF, but in one less byte. The disadvantage is that the transfer takes two more clock cycles, so is slower - decide which trade-off you want for the application you have in mind. Also, I think that executing $3E (undefined in data sheet) calls the reset vector ($FFFE/F) in a similar way that SWI ($3F) invokes the SWI vector ($FFFA/B). Can't really think of any uses for this except if you needed to automatically reset the machine to install something.

**SW* If none of this makes any sense, then blame the author, not me. I only edit this stuff, I don't write it, and I can't be held responsible for whether or not Keiran knows the difference between upper and lower case letters. Also, he seems to be in possession of a printer which prints pound signs and hearts instead of something more recognisable, and in the absence of notes to explain what these things actually MEAN, I've had to put my mediocre use of machine code into use...and guess. Complaints, please, to kja3uk.ac.aber. That'll teach you to use stupid pseudonyms!.*

Bat Chat...

OK, so make that THREE - halfway through typing in the Minesweeper program, the semi-colon on my 64 keyboard decided that it didn't want to play anymore and went off in a huff (ie it's not working), so I've been forced to use the 32 to finish things off. AND IT'S HORRIBLE! Ugh, it's all heavy and stiff, and you need to whack the space bar with a sledgehammer to get it to move. OK, so the serial port is useless, and no-one with disks ever uses the extra memory, but come back Dragon 64, all is forgiven. Ah well, I should have it fixed in time for the April Update. Although whether we have an April Update is once again down to you, because articles are VERY thin on the ground now, and unless some more of you out there start writing something, ANYTHING, a two-page Update may be all you get - one page of which will be me ranting on about not having enough articles! It is not good enough to rely on the few who DO write material to keep on doing so - like Dave Riley, who has two pieces in this issue, and especially Chris Jolly, who someone manages to send me something more or less every month (Many, many thanks, Chris). We still have enough members to ensure that Update could be full every time if you all wrote just one piece a year, but it's just down to you. I can't moan at you, because when Update ceases it will be down to those people who have never done anything, but I'm asking (nicely) you to consider the future of Update, which you all seem to like reading - whether you can still do so in the future is down to you. Coming up next time is stuff from Jonathan Bird, David Linsley, ROy Cashmore, Chris Jolly, Keith Redhead...but after that (ie June), who can say? You want to risk it?

Oh, and Keiran...it usually get very, VERY cold in Aberystwyth in February. And don't climb up Constitution Hill if (a) it's raining or (b) you're drunk. Trust me. Big Bad Bat.

Framer for Basic 42...Keith Redhead

Users of Bob Harris' Basic 42 operating system will know that the only way to put non-destrucive information on screen is to use Window 9. This "Framer" utility was written to expand that facility by allowing the user to put non-destructive messages, prompts, etc, in any pre-defined window, contained within a shadowed box. Messages or prompts are automatically centred within a chosen window, and the position of the frame automatically calculated. Provision is also made to cope with normal or inverted windows. The listing for Framer is given below. Save it on your system disk as "FRAMER" and next time I'll show you how to use it with a simple demonstration program.
*(**Keith...Many thanks for supplying the program on disk...Much appreciated, as it saves me a lot of time!...SW**)*

```
10 REM PROGRAM: FRAMER (BASIC VERS.).CLASSIFICATION:BASIC 42 UTILITY. COMPUTER:DRAGON
   64, 2 DRIVES. K.REDHEAD. DATE 23.12.93
80 DIM SM$(5),C(5),A(1229):GOTO 400
90 REM CLEAR OUT MESSAGE ARRAYS
100 FOR I=0 TO 4:SM$(I)="":NEXT
110 REM SPLIT MESSAGE INTO SEPARATE LINES
120 C=0
130 FOR I=1 TO LEN(N$)
140 IF MID$(N$,I,1)="^" THEN C=C+1:GOTO 160
150 SM$(C)=SM$(C)+MID$(N$,I,1)
160 NEXT
170 REM CALCULATE LENGTH OF LONGEST LINE
180 FOR J=0 TO C=1
190 IF LEN(SM$(J))=>LEN(SM$(J+1)) THEN LN=LEN(SM$(J)) :ELSE LN=LEN(SM$(J+1))
200 NEXT
210 REM CALCULATE POSITION IN DESIGNATED WINDOW
220 TP=(-C)/2:IF TP<>INT(TP) THEN TP=INT(TP)+1: TP
230 LP=(/2)-(LN/2):IF LP<>INT(LP) THEN LP=LP+0.5
240 REM CALCULATE AREA TO BE SAVED INTO ARRAY
250 WL=(PEEK(59768)-1)*6:SX=WL+((LP-1)*6):FX=SX+(LN*6)+8
260 WT=(PEEK(59767)-1)*8:SY=WT+((TP-1)*8)-3:FY=SY+(C*8)+11
270 GET(SX,SY)-(FX+2,FY+2),A,G
280 FOR I=0 TO C
290  TP: LP:PRINT STRING$(LN+2,32);
300 PP=((/2)-LEN(SM$(I))/2)+1:IF PP<>INT(PP) THEN PP=PP+0.5
310  PP:PRINT SM$(I);
320 TP=TP+1:NEXT
330 IF PEEK(59771)=0 THEN COLOR 0,1 :ELSE COLOR 1,0
340 LINE(SX,SY)-(FX,FY),PSET,B
350 LINE(SX+2,FY)-(FX+2,FY+2),PSET,BF:LINE(FX,SY+2)-(FX+2,FY+2),PSET,BF
360 RETURN
370 REM RESTORE ORIGINAL WINDOW DISPLAY
380 PUT(SX,SY)-(FX+2,FY+2),A,PSET:RETURN
```

A Voice From The Past!.

No, not Dave's Ghost getting in touch to join the Group!, but something almost as unusual ... a letter from Simon Jones. What do you mean "Simon Who?"?? ... you mean to say that you don't remember Simon, founder of 6809 User and Drag Mag!, purveyor of Dragon Baseball caps (I never could quite see the connection myself), and primary Insulter of Your Esteemed Chairman?!. Anyway, Simon is alive and well and still trying to make a living from journalism, although no longer in connection with Dragons, I'm afraid. More to the point, he is trying to obtain copies of "Drag Mag" and "6809 User" for his own collection (like most of us, he never got around to keeping a set of file copies!), so if you have any that you no longer want why not get in touch with him and let him know which ones you can offer?. The address is still the same, 37,Collins Meadow, Harlow, Essex.CM19-4EN. The Dragon scene would have been a lot less fun without Simon, so see if you can do something in return. OK?. Paul Grade .

Minesweeper . . . Chris Jolly

Those of you unfortunate enough to have used Microsoft Windows have probably seen this game - it came free with Windows version 3.1, probably the best bit of it. The good news is that if you type in the listing (or send me a disk or tape plus SAE) you can avoid the inconvenience of spending thousands of pounds on a PC, MSDOS, Windows, applications, cables, hard disks, mice, upgrades, and wasting the time it takes to discover that none of this actually works properly and that when it does work it doesn't actually do anything. Minesweeper is a deceptively simple game. At the beginning all the squares are covered. Hidden under the squares are 50 mines. The cursor flashes to show which square you are on-this can be moved by the arrow keys. You can either uncover the square by pressing the space bar, or you can mark the square as being mined by pressing @. When you uncover a square, if there is a mine it blows up and you lose the game. If there is no mine, but there are mines in adjacent squares, the number of adjacent mines is shown. If there is no mine and no adjacent mines then the square is blanked out and all neighbouring squares without mines are uncovered for you - this may take a few moments. If you mark the square as being mined, the counter at the bottom decreases by one to show you how many mines there are left to mark (this figure may not reflect the actual number of mines left if you mark a square that in fact has no mine). When you have correctly marked all 50 mines the game is over and your time is reported. The program is straightforward, the only subtle bit being the automatic uncovering of neighbouring squares (lines 740-870). This routine is recursive (it calls itself) and works by checking the current square and then calling itself to check adjacent squares. The behaviour on screen is quite interesting.

```
10 DIM M(13,31)
20 GOSUB60:GOSUB180:GOTO20
60 CLS:PRINT@267,"PLEASE WAIT":'INITIALISATION
80 HD=50:RM=50:FOR X=0 TO 13:FOR Y=0 TO 31:M(X,Y)=0:NEXT Y,X
110 FOR I=1 TO 50
120 X=RND(14)-1:Y=RND(32)-1
130 IF M(X,Y)<>0 THEN 120
140 M(X,Y)=1:NEXT I
150 CLS:PRINT@10,"MINESWEEPER":TIMER=0:RETURN
180 CX=15:CY=7:'THE GAME
200 IF RM=0 THEN GOTO 800
210 PRINT@480,"MINES HIDDEN: ";HD;"    ";:CP=&H400+CY*32+CX
230 C=PEEK(CP):F=C
240 FOR I=1 TO 50:K$=INKEY$:IF K$<>"" THEN 280
250 NEXT I
260 IF F<64 THEN F=F+64 :ELSE F=F-64
270 POKE CP,F:GOTO 240
280 POKE CP,C
290 ON INSTR(1,CHR$(94)+CHR$(10)+CHR$(9)+CHR$(8)+" @",K$) GOSUB 320, 340, 360, 400,
    560
300 IF HD=-999 THEN RETURN
310 GOTO 200
320 IF CY>1 THEN CY=CY-1:RETURN
340 IF CY<14 THEN CY=CY+1:RETURN
360 IF CX<31 THEN CX=CX+1:RETURN
380 IF CX>0 THEN CX=CX-1:RETURN
400 I=CY-1:J=CX
410 IF M(I,J)=1 THEN GOSUB 690:HD=-999:RETURN
420 GOSUB 450
430 IF N=0 THEN GOSUB 740 :ELSE POKE CP,48+N:RETURN
450 N=0
460 IF I>0 AND J>0 THEN N=N+M(I-1,J-1)
470 IF J>0 THEN N=N+M(I,J-1)
480 IF I<13 AND J>0 THEN N=N+M(I+1,J-1)
490 IF I>0 THEN N=N+M(I-1,J)
500 IF I<13 THEN N=N+M(I+1,J)
```

```
510 IF I>0 AND J<31 THEN N=N+M(I-1,J+1)
520 IF J<31 THEN N=N+M(I,J+1)
530 IF I<13 AND J<31 THEN N=N+M(I+1,J+1)
540 RETURN:RETURN
560 C=PEEK(CP):MN=M(CY-1,CX)
580 IF C<>96 THEN 620
590 POKE CP,42:HD=HD-1
600 IF MN=1 THEN RM=RM-1:RETURN
620 IF C<>42 THEN RETURN
630 POKE CP,42:HD=HD+1
640 IF MN=1 THEN RM=RM+1:RETURN:RETURN
690 CLS:PRINT@270,"BANG!";:PRINT@332,"YOU LOST";:'TERMINATE
710 PRINT@450,"PRESS ANY KEY TO PLAY AGAIN";
720 IF INKEY$="" THEN 720
730 RETURN
740 RP=&H400+32+I*32+J
750 IF PEEK(RP)<>96 THEN RETURN
760 GOSUB 450
770 IF N>0 THEN POKE RP,48+N:RETURN
780 POKE RP,32
790 IF I>0 AND J<0 THEN I=I-1:J=J-1:GOSUB740:I=I+1:J=J+1
800 IF I>0 THEN I=I-1:GOSUB 740:I=I+1
810 IF I>0 AND J<31 THEN I=I-1:J=J+1:GOSUB740:I=I+1:J=J-1
820 IF J>0 THEN J=J-1:GOSUB740:J=J+1
830 IF J<31 THEN J=J+1:GOSUB 740:J=J-1
840 IF I<13 AND J>0 THEN I=I+1:J=J-1:GOSUB740:I=I-1:J=J+1
850 IF I<13 THEN I=I+1:GOSUB740:I=I-1
860 IF I<13 AND J<31 THEN I=I+1:J=J+1:GOSUB 740:I=I-1:J=J-1
870 RETURN
880 CLS:PRINT@201,"CONGRATULATIONS";:PRINT@265,"ALL MINES FOUND";
900 PRINT@326,"TIME =";TIMER/50;" SECONDS";:GOTO 710
```

This listing has had to be condensed for reasons of space. It HAS been tested, and appears to still work exactly as Chris Jolly intended, but if there SHOULD be any errors please blame (and contact) Paul Grade, NOT Chris!.

DRAGON DETOUR DEFEATED!!.

Yes, it really has finally happened ... the inscrutable has been screwed, the impossible did, and Detour has been solved correctly!. Tim Lees can now rejoice in the knowledge that his name will go down in Computer History alongside those of the now legendary winners of Pimania and Quest. (Who were they? ... damned if I can remember, but someone or other must have solved 'em!).

This does NOT mean that you have any excuse at all for using your Detour discs for standing the coffee cups on, in fact it ought to provide yet more incentive for you to complete the game .... at least you know now that it CAN be done!. For that matter, some of you STILL don't even own a copy of Detour, so I'll be quite exceptionally generous and reduce the price to a mere £3.50 per copy. OK, so you can't win a tenner any more, but does that worry you? ***(WHAT DO YOU MEAN "YES"?!, DON'T TALK RUBBISH!)*** ... is your reputation as a solver of adventure type games worth less than three and a half notes?!, can you really afford NOT to buy a copy?.

Anyway, Tim very generously contributed his winnings towards the "copier fund", so the Group is better off by a tenner, and Tim can bask in the glory of being renowned for his altruism and generosity as well as for his genius. (Is that enough grovelling, Tim?, or should I continue it in the next issue?).

By the way, a couple of unscrupulous types were foolish enough to ignore my warnings and submit solutions that were (a) incorrect, and (b) could ONLY have been obtained by LISTing the program!. Sorry, but I TOLD you it couldn't be done that way ... LISTing will give you a dud answer every time ... it's far easier to work your way through the program, honest!.

Paul Grade.

****

The Late, Late Bit ...

Which do you want first, the good news or the bad?. Bad?. OK, *there will be NO Dragon Show at Ossett this year.* Bob Preston telephoned me half an hour ago and explained that he would have to cancel the event owing to lack of exhibitors. The position is that it costs him £200.00 to rent the hall for the day, and this cost has to be recovered from stand fees and admission charges. Having checked around he discovered that the only exhibitors would be himself, PSE, and the Group, or to put it simply, ONE paying stand!. Using attendance at the last Ossett show as a guide, this would mean that he would be roughly £100.00 out of pocket before he even started. As there has been very little new to offer in the past year, profit from sales would probably not even cover his travel costs, and like most of us, there is no way that he can stand that kind of loss, so regrettably, the show has to be cancelled. A couple more paying stands, or the prospect of more people attending would have made it just possible to continue, but without that it just couldn't be done.

Want the GOOD news now?. Mike Stott is considering trying to arrange a small show later in the year. If it goes ahead it will be in the Liverpool area rather than Ossett, and obviously nothing is definite yet, BUT, given enough support from YOU ... and that INCLUDES you doing everything you can to get the remaining Dragon suppliers to attend, as well as just attending yourself ... there is a good possibility. So, firstly why not let Mike know that if he can get something organised you will be there?, and secondly, get on to every supplier you know and ask them to attend ... if you can convince them that there will be customers, then they will make the effort to be there, if you can't, they wont. It's up to you now, you've had the bad news and the good ... do something about it, because if you don't the Last Dragon Show will have already happened!.

By the way, as mentioned earlier the "copier fund" contributions still have a long way to go to cover the cost of replacing the old Toshiba ... so it would be of great help if those of you who haven't yet got around to parting with a quid towards the cost were to do so ... otherwise the Group life expectancy will be several months less than it otherwise would have been ... and complaining after the event will be less than useful!. Very many thanks to those of you who have already contributed ... I hope that you like the improved print quality of Update now .... it should save you a fortune in reading glasses if nothing else!. (I WAS thinking of trying to reclaim the cost of the new copier from the NHS, but somehow I don't think we'd get away with it). Thanks too for all the cards that turned up at Christmas ... apologies for not replying to everyone who sent one, but the postage would have left ME broke, let alone the Group!.

On to other matters ... I keep getting enquiries about OS9 software, so please note that Bob Preston has the following OS9 programs (with manuals, of course) in stock: BASIC09, "C" COMPILER, CASH BOOK/V.A.T, STOCK RECORDING SYSTEM, and RECORD MANAGEMENT SYSTEM. all are priced at £5.00 each plus £1.50 postage and packing. Considering that the OS9 software was advertised by H.C Andersson a couple of years ago at three figure prices, this has to be an absolute bargain offer. (Have you seen the price of "C" for the PC machines???!). For more details phone Bob on: 0656-880965.

Before I forget to mention it, or run out of space ... I'm STILL looking for ANY dead or unwanted "PC" boards and cards for use in teaching brats how to fault trace and repair without risking permanent damage to my own antique IBM ... so if you have any around that you no longer want, please let me know.

Well, I suppose it hasn't been a very good start to 1994, but things COULD improve (the Government could all resign, for a start) ... after all, there might still be a Dragon Show, the Group still keeps running, Update is readable once again ... at least that's a start in the right direction, surely?. There's one "STOP PRESS" bit of news .... I'm told that Bob Preston and Brian O'Connor will almost certainly be at the Stafford Show (Bingley Hall) on Saturday 16th.April, so the Dragon WILL be represented there this time around, and at least there will be ONE show in April for you to go to. OK, so it's mainly PC's there, but you never know, you might be able to persuade some of the punters that they should buy a D32 instead of a Pentium!. (At least there'd be more chance of them being able to program the D32!). *Paul Grade.*

P.S: Message to Mrs Stott ... Eddie Freeman DOES really exist, honest!, He was NOT invented as a character for Dragon Detour!!. Ask Mike if you don't believe me!.

P.P.S: Tony Davis and Johnny Brown .... get well soon, the Group needs you!!.

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TWO DRAGON 32s, ONE STILL BOXED AND UNUSED; DRAGON DATA DISC DRIVE, RIBBON CABLE, AND DRAGON DOS CARTRIDGE; FOUR JOYSTICKS (TWO UNUSED); EDITEXT W/P ON TAPE, DRAGON BASIC TUTORIAL, LIGHTPEN & SOFTWARE, PERSONAL FINANCE TAPE, "INTRODUCTION TO DRAGONDOS", PROGRAM BOOK, PLUS BOX OF DISCS AND 22 GAMES TAPES. ASKING £110.00, BUT WOULD CONSIDER ANY SENSIBLE OFFERS. PLEASE CONTACT:-
Mrs.S.FAIRMAN. 4,ANGWIN AVENUE, St.AGNES, CORNWALL.TR5-0TS. Phone: 0872-552103.

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HAVEN'T YOU WRITTEN THAT ARTICLE YET?!