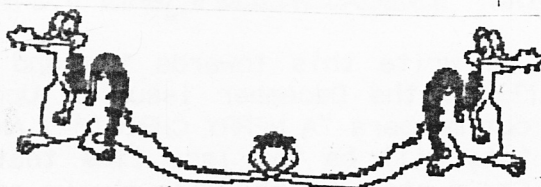


The Newsletter of the National Dragon User's Group

DRAGON



UPDATE

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ISSUE 104 Christmas Already?? DECEMBER 1995

THE GAFFER'S BIT - - - - -

Here we go again, another Christmas and Update is STILL here to haunt me!. I've been kidding myself that "this will be the last Christmas Update" since before Father Christmas needed a shave, but Update and the Group are harder to get rid of than a Conservative government!. Anyone want a slightly used User Group as a Christmas present? ... no?, I might have guessed!. Pass the vodka!.

Well, I hope you've done all your Christmas shopping, and stocked up on all the usual essentials two dozen packs of indigestion pills, a stock of video films so you don't have to watch the standard "Christmas Spectaculars", strychnine flavoured sherry for the relatives you've been avoiding all the year but who just HAVE to call in at Christmas, ear plugs so you can happily ignore the screaming kids and demands that you should assist with washing-up, etc. You've cleared the necessary space for the ten pairs of socks and fifty bottles of cheap after-shave that you'll be presented with, of course?, and selected suitable gifts for everyone? the self-locking handcuffs for the kids, the lawnmower for Uncle Fred (the one who lives at the top of the tower block), a new razor for Auntie Ethel, etc?. Good, now you can sit back, relax, and read Update, confident that nothing can possibly go wrong to spoil your holiday. You can, can't you?. Before you do, though, just have a look through the rest of the post those can't ALL be bills, can they?, and that dripping sound can't really be the central heating boiler leaking, and the burning smell is probably nothing at all, and that police car probably has a perfectly good reason for stopping outside your house, doesn't it, and never mind, it will soon be next year, and THAT can't possibly be as bad as this one has been, can it?!. Oh well; have fun, and don't do anyone I wouldn't. Paul Grade.

Bah, Humbug. . .

OK, so it's Christmas once again, and the Group bids farewell to another year which many people thought we wouldn't even be here to bid farewell to. (There, that almost makes sense). And we can put 1995 to bed with the warm, glowing reassurance that Update will be here until at least Easter 1996, thanks to the varied contributions which have arrived at my door recently. Some of the fruits are on display inside, some will be welcoming you into the new year over the next few issues of Update. Genuine thanks from me to everyone who has written and sent in articles for us recently - it is appreciated. You think I like sitting here grumbling about having nothing to print, don't you? But no, I'd rather sit here and say thank you to the members of the Group who put in sufficient effort to see us through some more months. If this all seems a bit cheerily nostalgic and reflective, it's because I've just come across a sobering thought. This is issue 104 of Update, and my two stints in the hot seat have seen me edit a statistically-interesting 52 editions of our favourite rag. Nurse, the screens... SW.

PEEKING THE DRAGON(60) . MIKE STOTT

Although I am starting to write this towards the end of October I have just remembered that this will be the December issue of Update so may I take this opportunity to wish all our members "A MERRY CHRISTMAS AND A HAPPY NEW YEAR."

Each year I wonder if this will be the last time that I will say this in my article but somehow the Group staggers on, with thanks mainly due to Paul.

I do not know how he has managed to keep it going for so long especially as nowadays there is nothing new coming out at all for the Dragon. (Nor do I!. P.G.) Yet again I am really struggling for something to say as nothing appears to be happening on the Dragon scene. The only item of news I have that is even remotely connected with the Dragon is that Jonathan Cartwright's move to America is off as he has been offered promotion within his own company and has decided to accept. I am sure we all wish Jonathan every success in this new position, and I for one will be examining every new item of software I see to see if his name appears anywhere in the credits. I have been amazed to see many of the old Dragon names appear within the credits for PC software in the past.

Right I suppose I had better move on to that popular subject - Sky smartcards.

I told you in my last article about one of the lads from work who had bought one which had then given him trouble. He obtained a copy of the latest software and then had no problems with the card. However he decided to sell it as he could not use his computer when he wanted to watch Sky channels. As I said in my article I had a thirty day free trial of Sky and they told me before it started that it would cost 22.99 per month if I decided to keep it and they would assume I was keeping it unless they heard from me. On the thirtieth day I received a letter from Sky telling me the cost was going up to 24.99 from 1st November, and they also sent me a more modern card as the signal was about to change. I immediately rang them and cancelled the card. Shortly after that I visited a computer show and purchased a CRYPT KILLER for 30.00. This comprises a board with a couple of chips, two LEDs and a few other items. This connects to the mouse port of my PC via a lead which was supplied. You boot up the computer with the supplied disk in the A drive and every Sky channel can be received. I have used it for several weeks now and have not encountered any problems whatsoever, despite the fact that the signal should have changed by now. This particular card is available for use with PC, Amiga and Atari ST. The software provided is Public Domain and a BBS number appears on screen saying that new software can be obtained from them when it becomes available. Several stands were selling Sky smartcards at the show but I purchased mine from a stall-holder that I knew went to most of the shows that I go to even though he comes from Gwent in South Wales. Normally I have only seen him selling computer systems. His leaflets advise you that the card must only be used where a subscription payment is being made and must not be used to avoid subscription. I do not feel guilty as I tried three times to get Sky to quote me for a lower priced package as it is really only the sport that I am interested in, but they still have not responded. Once you have started the computer there is not much to see on the monitor so I turn mine off to save money and wear on the screen. Really all you need is a base unit with one floppy to get it to work and I have seen 286 units going for 50 pounds and less at car boot sales.

This would then get round the problem of tying your computer up running the software to unlock the videocrypt encoded programs on Sky. As yet I have had no feedback from the people who rang me to enquire about the cards so I do not know whether anybody else has had success with these cards. I wonder if Windows95 would enable you to use the Crypt Killer while you do other work on the computer as I have seen a Pentium P90 in work doing three tasks at once. I would doubt it as the LEDs appear to be flashing almost continuously as the program runs.

Let us hope that 1996 will see me being able to write something about the Dragon again. Maybe some bright spark will come up with a Skycard that will run off a Dragon. Is it possible?. Somebody out there must have the know-how so how about it?

HenceForth(21) . . . Bob Smith

If you are one of those souls who has everything under control on the Forth disk, then you had better turn to a more useful article in this Update. If, however, like me, you have programs scattered all over the disk, then the little routine described here may be for you. My problem is that several projects are being worked on simultaneously, and this means that I have to choose a suitable place to start for each program and guess how many screens I will need. This often means that I run out of screens and have to copy the program to another area with more available screens, and then blank out the original screens. I may also use fewer screens, and this means that I have one or more blank screens sandwiched between two programs. After much cogitation, I found the answer was to write a Forth word that would replace --> and let you define on which screen you wish to continue. I have called this word +-> and you have to define the screen number(s) you require as input to this word. The screen number(s) are input in the form of an array (NEXTBLK) where the latter is filled by a word (PS) until it finds a negative number on the stack. NEXTBLK is defined with maximum 30 elements, but this can easily be redefined if necessary. The screen numbers have to be given in the reverse order, e.g. -1 12 17 9 PS will cause the compiler to jump from the first screen to screen 9, then 17, and finally to screen 12. To avoid mistakes it is best to include the list of screen numbers followed by PS before the first +-> is encountered. A single variable (SF) is used to store the next element of the array that is to be used. This is automatically set to element no. 1 when PS is started.

One interesting aspect of this word is the possibility of using code on one screen in several different programs. When starting programs it is usual to have title screens that ask the user to "press enter to continue". This and similar phrases take up a lot of screen space on your disk, especially when they are repeated ad nauseam. +-> allows you to keep just one copy on a shared screen. The shared screen number is then used in the list of screens and it will be included in the final program just as though it had been specially written.

To use the system, type in the screen given below and load it. This will give you four new words: NEXTBLK (array), SF (next element in array), PS (the word that loads your list into the array), and +->. It is a good idea to include the loading procedure into your starting up procedure. When you are ready to write a program that will include +->, then include the information on the first screen. As an example a program that uses screens 7,9,17,12 in that order will need this line of code on the first screen: -1 12 17 9 PS. Then to load the program type 7 LOAD and your program will be compiled.

Next time, the improved version of DIR that I promised.

SCR £10

0 (SCREEN JUMP WHEN COMPILING)

1 30 1ARRAY NEXTBLK 1 VARIABLE SF

2 : +-> ?LOADING 0 IN ! SF @ 1 SF

3 +! NEXTBLK P BLK ! ;

4 IMMEDIATE

5 : PS 1 SF ! 31 1 DO DUP 0 (IF

6 DROP LEAVE ELSE I NEXTBLK !

7 ENDIF LOOP ; ;S

The Year 1988... Sotos Mandalos.

I think this year started with several "after Xmas" offers from a number of software houses. I managed to buy quite a few because at that time, I was in fact resident in England. I had left sunny and smoky Athens and followed my Mancunian wife in rainy England. But I came to a powerful PC company and I am still enjoying myself with them. So why did I keep the Dragon?, and do I still use it? I leave you guessing. A lot of work was done on the Dragon by Harris Micro Software and as it happened he was very close to me in Hounslow. I never visited him and I never bought anything from him, but I heard that all he did was great, things like BASIC 42 and KLIK and all the other utilities for fantastic prices. I don't know how he did it. Bob Harris was in fact a dramatic figure for the Dragon world, but I'll tell you about that in the next year. One thing that I really enjoy in Dragon Update has been all the letters published. A lot of information could be acquired and I got to know details about the design of the Dragon. I must admit I did not know much about Barry Carruth, but during that period the Update was better than ever. Some of the important contributors were still around, although people like Pam D'Arcy started wondering about Dragon's future. But the shows kept on coming including one in April at Ossett organised by John Penn. This was the year that David Hitchman's Quickbeam quit the Dragon. Mr Harry Massey of Computape took over the stock. Quickbeam's software has always been more expensive than most other original software, but the quality was very good, and I did not mind supporting Quickbeam because I felt that if Dragon owners don't, then we are risking our support for the Dragon. David's software was sometimes criticised heavily by reviews in Dragon User, however, I felt some of them were definitely out of order and I did not agree with them. Quickbeam was my favourite and they were one of the best. Orange Software came late in the Dragon scene and they did extremely well. Their software titles such as Matchmaker, Supa Nova, Forest of Doom and many others were well designed and the quality produced outstanding. It is amazing what one could do on the limited Dragon. By mid-1988 we have had a great change in the Dragon world, in that Dragon User was in fact taken up by Bob Harris of Harris Micro Software. Bob Harris was enjoying at that time a lot of sales from the Dragon on a lot of utility and operating software that I mentioned earlier. So that was the end of Sunshine Publications and nearly of Helen Armstrong too. However, Helen agreed to remain and things looked good. No such problems with the Dragon Update though, Paul Grade is still responsible! In the meantime other small editors of very little known publications such as Dragon Logic of Donald Morrison and 6809 User of Simon Jones were making some waves to try and get some sales. Dragon Logic did not do very well, despite my contributions with a Postscript series of programming, but the 6809 User did carry on for sometime until the sales dropped off and died a death. Simon left and Roger Quaintance took over. They both spoke to me and finally we produced an A5 newsletter printed on a Laser printer and using an AST Premium 286 PC to do all the desktop publishing. It was good and I enjoyed it, but I'll say more about it in the next article. Paul's show in Brighton was also good. It was the only one he ever had the courage to organise.

**** I DID put on a second Hove show the following year, in response to general demand. However, so few of the "demanders" bothered to attend that the Group made a considerable loss out of it, so I decided that from then on, if anyone else asked for a Dragon Show they could put the damned thing on themselves and see how THEY liked doing a large amount of work in order to lose a large amount of money!. Paul Grade.*

More Favourite Utilities . D. Cadman

DISKILL. There are times, when working from tape with DOS in situ, that you need the first graphic page area (taken up by DOS) to get the program in the computer. This is an old problem and several different programs have been written to overcome it. My favourite is Diskill, a short m/c routine which does not produce any text on screen when loaded and exec'd, thus you can use it within a program to kill the DOS if you come up against a tape program you wish to convert to disc which will not allow you to start at the second graphics page. Simply put DISKILL on the disc and add a line at the start of the program RUN "DISKILL.BIN"

OS9 I/O Redirection... Chris Jolly

One of the very useful features of the OS9 operating system is the ability to redirect input and output. Using this scheme it is possible to write general purpose programs that read from one character stream, do their processing and write their results to another stream. Because of OS9's device-independent I/O system, the program does not need to know anything about the devices providing the streams - the input stream could be a disk file, the keyboard, the RS232 port for example, and the output stream could be another disk file, the monitor, the printer, and so on. It is very easy to invoke this feature using the shell. For example, the program LIST copies a file to its standard output. To redirect this to the printer (ie print to a file) you just use the shell redirection character '>' thus: `list myfile >/p`. In none of the Dragon OS9 documentation in my possession is it explained how to perform the same redirection from within a program. In fact it is very simple (it works in the same way as Unix and MSDOS) and relies on an undocumented feature of the operating system. When you open a file (or other device) the operating system gives you a 'handle' to refer to it - this is just a small integer. Handles 0, 1 and 2 are the standard input, output, and error respectively. The handle numbers are specific to a process (that is, one process's standard can be different from another process's). When one process forks another process, the child process inherits a copy of the parent's handles. The big secret is that when you open a file or device the operating system always gives you the lowest unused handle. This means you can use the following scheme for a child process with redirected output (the same scheme works for input too):

1. Duplicate handle 1 and save the duplicate handle.
2. Close handle 1 (the file or device is still open as you have a duplicate handle).
3. Open the device to which the child's output is to be redirected. The operating system will use handle 1 as it is the lowest unused handle now.
4. Fork the child process.
5. Close handle 1. This only closes it in the parent because the operating system gives the child a copy rather than access to the original.
6. Duplicate the saved handle from step 1. The duplicated handle will be 1 as this is now the lowest unused handle.
7. Close the duplicated handle as it is no longer needed.

This process is illustrated with the two following short C programs. Program B is the child program and just prints a diagonal row of asterisks to its standard output. If you run this by itself you will get the output on the monitor. Program A forks program B with its output redirected to the parallel port. It redirects its own standard output back to whatever it was when the program started (normally the monitor) and prints the message "all done" which demonstrates that after the child process is forked the two programs have their own standard outputs and that closing the parallel port (step 5 above) in the parent does not affect the child.

Program A:

```
main()
[
    int h;

    h = dup (1);
    close (1);
    open ("/p",2)
    os9fork ("b",1,"\n",1,1,0);
    close(1);
    dup(h);
    close(h);
    printf("all done\n");
    return0;
]
```

Program B:

```
#include <stdio.h>

main ()
[
    int i, j;

    for (i = 0; i < 10; i++) [
        for(j = 0; j < i; j++)
            putchar('*');
        putchar('\n');
        fflush(stdout);
    ]
    return0;
]
```

Dragons In Radio... Johnny Brown

The term "terminal unit" has been mentioned a few times. This is the device that interfaces between the radio receiver and the computer. It can be a simple transmitter or a very complex unit. All it does is to convert the received radio signal into something the computer recognises as an on or off signal, i.e. 6 or 5 volts, which in turn actuates one of the in/out chips in the computer.

In some cases, the audio from the receiver gets converted to the required change, and at other times some digital device is used to produce the change. In fact, a modem is little more than a dolled-up terminal unit.

There are a few cases where the program is used to convert radio signals without the need of a terminal unit, via some cleverly written software, and these work well when correctly tuned in.

The transmit side can be done by either sending tones (AFSK) or shifting frequency (FSK). The first of these needs some sort of audio oscillator that feeds the mic socket, and can be used on SSB transmitters, although with AM transmitters remember that the duty cycle is 100%, which means that the carrier is always present, so great care is needed when tuning up the transmit side. This is also true for SSB transmitters, but slightly more so, as the PA side runs with quite high voltages and mechanical meters are sluggish in use, so the peaks of current are much higher - PA valves and transistors are expensive, and can be easily ruined if not careful.

BARTG produce terminal units in many guises, from a bare PC board to the ready built unit, however it all depends on the computer being used. Should you have a PC, care is needed. Consider:

1. How much you want to spend
2. Get the correct program

Many people get gear from rallies, including programs and hardware, but buying from someone you know is the safest way.

I have used various home built terminal units, from a single transistor to the most complicated set ups, and all work well in their own way. Amtor and Packet need a bit more specialised gear, so are best left alone until you have broken the ice. I suggest trying RTTY first, and spending some time receiving until you get used to the workings of it all. Morse (CW) needs very careful use, careful tuning in with a drift free receiver, and even then the screen can show lots of Ts and Es from interference and bad tuning. Most programs contain tuning aids on screen which still need some care. I find it best to watch these whilst also listening to the sending tones, which you can remember with time. Some terminal units, like the BARTG Versaterm, contain tuning aids like LEDs, and have provision for use of an oscilloscope, with the space signal as a horizontal trace and the mark signal as a vertical trace, giving what is called the Cruciform display. BARTG also do PC boards for tuning devices, and so on, and you can contact them at the British Amateur Radio Teletype Group, c/o Ian Brothwell, 56 Arnot Hill Road, Arnold, Nottingham NG5 6LQ. More next time. G3LPB.

More Utilities... Dave Cadman

UTIL. A multi-menu program, written (or converted up to a point) by the late Chris Foster. There are 8 choices on the menu screen: DSKINIT, DIRECTORY, COPY, PROTECT, DISK OPERATION, DOCTOR, CONTROL CODES, and RENAME. The ones I find useful are copy and protect, but only if I have a number of programs to deal with. Copy, as well as copying the whole disc, allows you to copy selected programs by title or extension, so a DIR printout of the source disc is handy to make sure you transfer all the files you want. Protect gives you the option of protect on/off and recover, as it lists current and KILLED titles on the disk, and can reinstate an inadvertently KILLED program. Dskinit only caters for single sided 40 track, Directory and Rename are only really useful when already in the program, and the remaining three facilities are best served by dedicated programs. A similar program is Disc Utility by K.Grant, in Up-2-Date number 13.

Satellite Decoders... Paul Burcin

With both Mike Stott and our gracious chairman talking of Sky decoder cards in Update, I thought a small piece on the subject might be in order. Perhaps I should say before I start that I do not have one of these interfaces, but have gained information about them by browsing through the Internet newsgroup alt.satellite.tv.europe over the past year. If you are interested in the subject, this is a useful source, as is the newly formed alt.satellite.tv.crypt. These newsgroups can also lead you to a source for the equipment that you need, as adverts are regularly posted there, and indeed the competition between the suppliers means that the prices offered are affordable. In the past week I've seen prices for the card interface ranging from 15.00 to 25.00, fully assembled and tested. In most cases the interface consists of a cable 2 metres long with a 'fake' smart card on one end which you insert into your decoder in the same manner as a genuine card. The card has contacts on the top which are used to communicate to the decoder in a way which simulates a genuine card, and is usually slightly longer so may stick out a bit. On the other end of the cable will be a standard RS232 serial connector which you connect to your host computer. Variations on this hardware are also available, such as boards which can be permanently installed inside your decoder. The use of RS232 comms is very convenient, because you can then theoretically use any reasonably equipped computer to host the software. I've heard of people using Macs, Amigas, and Sts for this (who knows, maybe even a Dragon is possible, but would probably be too slow. However, it appears to be that most users have PCs. Once you're connected up you'll need some software to emulate the smart card. For PCs this is usually released with a title beginning "season" (for Videocrypt decoding) and will work for all of the videocrypt I channels (ie all Multichannels, Sky premiums, and others like TV Asia and Adult channel). I think it may also work for the few foreign channels broadcast in videocrypt II, but I'm not certain of this. Apparently, the same card interface will usually work for the D2MAC encoded channels, using software call 'Macaccess', but obviously a D2MAC decoder will be needed. So far as the "season" program goes, you will need to run this whenever you wish to decode one of the channels, and leave it running throughout the broadcast. This is because the decoder will ask the host computer a question every 2.5 seconds. If the software responds with the correct answer then the decoder will operate for the next 2.5 seconds and the picture will be clear, so as long as the "season" software is working correctly your viewing should be uninterrupted. Good, eh? So where's the catch?. Well, in fact there are three. Firstly, buying and selling the equipment is legal but actually using it is illegal. Secondly, every month or so BSB broadcast a control message known as an ECM which changes the algorithm that needs to be implemented by the smart card emulator software, so you'll need to obtain an updated copy of "season" after every ECM. There's usually an explosion of discussion on the newsgroups after this happens, and a new version is made available via the Internet within a day or so, but if you don't have Internet access or are not using a PC host, then getting an Update could be quite a problem. Thirdly, the interfaces are currently designed to simulate the architecture of decoder cards known as 'series 09', but BSB periodically change the card architecture and issue subscribers with new cards. It has long been rumoured that a series 0a will be released which may make the pirate interfaces useless. A year ago there was a change from series 07 to 09 which didn't have much impact, but rumour has it that the series 0a will be much more advanced, possibly involving interactive use of the as yet unused authorisation button. But who believes rumours?. As a closing comment, there is another way to decode broadcasts without a subscription, which is by obtaining a clone card. This is basically a copy of a legitimate card with all of the channels enabled. Such cards may or may not be turned off by ECMs or other BSB tricks, and therefore are a bit of a lottery (and usually cheap). Similarly, there's the 'two-view' systems which allows more than one decoder to be used with a single legitimate card.

Machine Coding(1) . . . Tony Shellard

Fear ye not, this isn't another series with interminable parts about number bases and two's complement notation. Instead I'll concentrate on writing, evaluating, and improving machine code. For my example, I'll take the simple but omitted feature of swapping the black and white pixels on the graphics screen. I've used the Motorola MC6809 instruction set summary for information, which exists as a reference card and in the appendices of most machine code books.

SCNINV1 show a short, obvious routine using the x index register to COMplement each byte in turn. It uses two of the zero page locations set up by BASIC to find the start and end of the graphic screen in use of the time it is EXECuted, and the auto-increment mode to step through the screen memory locations.

```

*      SCNINV1
@      LDX      <$BA      *Start of screen
LP1    LDA      ,X        *Get byte into A register
        COMA      *COMplement it
        STA      ,X+      *Replace and increment
        CMPX     <$B7      *End of screen?
        BNE      LP1      *branch if not
        RTS          *Finished!

```

It's simple, it's machine code, and it works, but is it any good? The answer depends on what you're writing machine code for; generally, either speed or compactness. SCNINV2 is the first improvement which combines the Load and Store instructions with an indexed form of COM. As well as the obvious size reduction, this routine also gives a surprising increase in speed. Table 1, next issue, will show the comparative performance of the two programs.

```

*      SCNINV2
LP1    LDX      <$BA      *Start of screen
        COM      ,X+      *COMplement byte
        CMPX     <$B7      *End of screen?
        BNE      LP1      *Branch if not
        RTS          *Finished!

```

Although a short program will obviously execute faster than a long one, the number of bytes occupied is not necessarily the most crucial factor. For speed considerations the number of clock cycles taken for each instruction is more important, with the caveat that each byte of the instruction must take at least one cycle to process. Iteration (posh word for going round in circles) means that a short section of code may be repeated many times, multiplying the duration of execution. It is often worth spending extra bytes to set up a loop in order to save a few within since they are not multiplied. By counting the number of cycles used in each routine, multiplied by approximately 1.1 microseconds, we can calculate the execution time for table 1, which assumes the use of PMODE3 or 4, i.e. 6144 screen bytes to process.

The auto-increment instruction in SCNINV2 is powerful but slow, taking 8 cycles. The improvement is because it replaces 12 cycles worth of smaller instructions. The memory saving is an added bonus. *[Continued in next issue]*

Up-2-Date Service

Some Up-2-Date subscribers have queried the use of "protect" tabs on recent discs. These are being used in an attempt to avoid discs becoming corrupted in transit, as it has been found that when discs are shaken about by the Post Office sorting machinery, data can be vibrated loose and fall out of the write enable notch, eventually being thrown away unnoticed in the envelope. While it is hoped that the use of tabs will solve the problem, please check your disc envelopes in case any data has managed to slip out of the hole in the middle, and return any found to Eddie Freeman for re-use.

DRAGONS IN HAM RADIO. John Brown. *The latest.*

Due to medical problems, insurance problems, having photographs taken etc., my advice - NEVER GET INVOLVED IN AN AUTO ACCIDENT. It's a nightmare in every way with no transport. Even with the Tory privatised system, charges show large profits for the "fat cats".

Anyway, here we go. First, a belated thanks to Gareth (for the parcel), and to the many who seem to be interested in the Dragon in Amateur Radio. Apologies for taking so long to get replies off, but due to the first paragraph, things took longer than expected, what with cassettes, discs of programs and having to "loan" the instructions for others to photocopy. We are now up to date.

Many friends have been made, and the Dragon will maybe get pushed into use in another way by the users. Bequests from "The Land of my father's" (no, not my dadland) gave me ideas. The Dragon in GW land is still very much used which is good. 73 to Eric in GW land, hope all is well with you (Eric has not been well, and like us all, getting older). Maybe the new government will increase pensions, and allow us all to be better off???. The political silly season is at the moment in the vogue, promises galore, even to using the silly lottery money to prop up these ideas. There was mention of folk buying lottery tickets etc. and food being the last thought for the families. Is it greed, or hopes??. (no, just stupidity. Paul).

I was interested to read Dave Cadman's write-up on the Spectrum Analyser. Maybe for the cassette user we could arrange for a setting-up tape for the heads on recorders. I did notice from requests, some had problems in reading the information on tape. This is due to the head alignment or dirty heads, mostly. Mine were recorded on a "pro" machine, so were on a standard setting. The heads are fitted to the recorder using two screws. One holds the head directly to the mechanism, the other is fitted with a compression spring and screw. Moving this screw clockwise or anti-clockwise causes the head to move down or up. This is known as AZIMUTH adjustment, and is usually sealed with a little adhesive. (This dries up in time and allows the screw to move.) The output from a head which is out of adjustment gives a different reproduction from the original recorded program. I am sure many others have had this problem from the old days, pre-disc times.

That's the story so far, With summer gone, shortages of water, the S.W. Water authority being the most expensive in the country, we now need rain to replenish the dried out reservoirs as the rivers are also so low. Keep fingers crossed, trust all the leaks were repaired, maybe the money will be REINVESTED??? Time will tell. Regards to everyone, keep the flag flying. If I can help by all means ask. Replies may take a while (due to the bionics) as it all has to be done in stages, short bursts. 73 to the clan, best wishes to the others. G3LPB.

MORE BOOKS REVISITED. R.A.D.

6809 MICROCOMPUTER PROGRAMMING AND INTERFACING. by Andrew Staugaard, Jr.
Published by Blacksburgs. £12.00. 270 pages.

This book is meant to be a tutorial for first experience of the 6809 or other high performance devices in general of that era. However, it is assumed that the reader has an understanding of the fore-runner, the 6800. Each chapter starts with a set of objectives, followed by review questions and answers. The text is illustrated with numerous examples demonstrating important software concepts. There is a chapter on the 6809 addressing modes, of which there are 19, and understanding these is stated to be the secret of the 6809 software concepts. The four appendices include some Motorola Specification Sheets and a summary of the instruction set. Not a volume for the tyro.

ALL THE BEST FOR CHRISTMAS AND THE NEW YEAR FROM "THE MANAGEMENT!"

Why it didn't work!

You're still wondering why the Lottery Number Generator listing in the last issue didn't win you a couple of million, aren't you? Well, Now It Can Be Told the cause is a slight case of Editorial Finger Trouble, which resulted in a typo error in line 30, which SHOULD have read:-
 30 X\$=INKEY\$: IF X\$="" THEN 40 ELSE PRINT @ 200,Y\$;
 I look forward to receiving your cheque for 10% of your winnings in the very near future. Paul G.

The Legends Linger On . . .

Computers have been around for quite a while now, and you'd think most of the old "horror stories" would have died of exhaustion by this time, but it's surprising how many survive.
 How about the one that claims that even non-hard drive machines like the old Dragon can get infected by the Dreaded Viruses (virii?). So OK, someone sends you a disc with computerised influenza hidden on it so what?. The worst it can do is muck up the software on that particular disc, there's no way it can get at the ROM, so as soon as you reset or cold start it disappears completely, but I STILL get people complaining that their machine has picked up a virus from someone's contaminated disc!. How about the REAL experts, as seen on TV News a few weeks ago a Bank Computer Manager and a Lecturer from some Uni or other both happily explaining that although some nasty felon had nicked all the bank's SIMMs, customers should fear not, because a Special Device had been installed in their computers to ensure that all customer data on the SIMMs would be erased if they were removed from the machines!. Bugged if I know how you get data to stay on a SIMM anyway, once the machine is powered down their machines must run out of memory at a terrific speed if all data stays permanently in RAM!. Same types were demonstrating how simple it is to steal a Pentium CPU from a machine which was odd when the chip they were showing was clearly marked as a 486 (complete with heatsink and clip-on fan!). Isn't it simply wonderful to know that people understand all this sophisticated technology so well?. I wonder how they do it. Paul.

MORE BOOKS REVISITED. R.A.D.

Dragon 32 Programmer's Reference Guide by J. Van der Reyden.
 Published by Melbourne House.

A reference source of 143 pages for programmers who want to make the most of the Dragon for business or games applications. Costing £7, it is not designed to teach Basic programming, which is a change from most books, but as a fairly comprehensive guide. In fact the author himself recommends that should you wish to learn Basic, you must consult some book other than this one. A complete Basic dictionary, with all the commands, statements and functions with a detailed description of each, plus examples on how best to use them and the average time they take, is the major part. There is also an introduction to machine code programming and how to use it from Basic, with a complete listing of the 6809 instruction set. The Dragon ports, and how to use them, are explained in a peripherals chapter. There is also a list of routines and memory locations which can be accessed from Basic or machine code. Several useful listings are provided to assist you in your own programming efforts. Some of these seem familiar, and they probably had their origins in this book. The Hints and Tips chapter is good, with some demonstration listings, and is followed by no less than ten very sound Appendices. The copy on my shelf seems to have been picked up at Ossett for just £1. What a bargain! R.A.D.

E.E.C WARNING

Please note that to comply with new Metrication legislation, there will be only TEN days of Christmas this year, and none at all in future, as all years will consist of TEN months only, and November and December will cease to exist.

The Late, Late Bit

You think I'm going to write a page full of "Merry Christmas" type garbage, don't you?, but why should I?. I don't HAVE to sit here writing this stuff, I could get a proper job as a Village Idiot (although there may not be any vacancies until the next General Election), or a glove puppet (interesting position, but likely to become a right pain in the anatomy), or Bugs Bunny's stunt double something interesting and more worthy of my remarkable talents. Come to think of it, have you ever wondered how some people chose the jobs they did?. I mean, imagine John Major, age five, asked what he was going to be when he grew up "I'm going to be a politician, Auntie, and then I'm going to be Prime Minister" why didn't his parents wheel him along to the local psychiatrist straight away?. Or traffic warden what sort of ambition is THAT?!. I blame it all on the parents myself after all, if they hadn't met they could never have produced such peculiar brats, but then ALL parents are odd anyway when YOU were a kid, didn't you ever wonder how such paragons of innocence and virtue had ever managed to survive?. I mean, if sex was as dirty and disgusting as they reckoned it was, where did they think YOU'D appeared from?, and if they'd never done anything wrong when THEY were kids, how come they seemed so suspicious about everything YOU tried to do?, and if they never bunked off school, always studied hard, and were always as perfect as they claimed, how come it did them so little good?. It's enough to convince any kid that his parents must either be aliens or compulsive liars!. Confusing, isn't it?. Anyway, enough of this kind of rubbish, lets try a different variety. I keep hearing from people who have, for various reasons, bought themselves a PC type machine usually something wildly over size and over gimmicked, and invariably purchased "With Windows pre-installed!" I wonder just how popular the World's Grottiest GUI would be if it wasn't thrown in as a freebie with almost every PC sold? good fiddle, isn't it?, sell everyone a machine configured so that it needs loads of additional RAM, bigger and bigger hard drives, more expensive versions of software, and then don't even explain to them that the machine would work a lot better and a lot cheaper if they wiped the Windows completely and reconfigured for plain DOS!. I wonder what difference it would have made if the old D32 had been sold with OS9 "pre-installed"?. Oh well, at least most of the new PC owners seem to be determined to retain their Dragons as well, which is VERY sensible of them, but very few seem to have considered the advantages of linking a D64 to a PC via the serial ports ... a simple cable, a couple of connectors, and some basic (literally, if you like!) up and download software and you can make a big improvement to BOTH machine's abilities. Would anyone care to write us an article on a link-up of this kind to encourage more people to try it?. Go on, you can do that over Christmas!. Have fun ... see you next year!. Paul G.

Too New For The Ads Page!

Something old, something new, I've got a copy, why ain't you?. Well, the game itself is TETRIS, and they don't come much older than that!, but this version is so new that I couldn't even include it in the ads page for this issue!. What's so new about it?, for a start, it's written in FORTH by the man who does everything using FORTH (well, I haven't asked his wife, so I'm not sure he does absolutely EVERYTHING that way!), John Payne, so it just HAS to be the best version around, doesn't it?. It's fast, you've a choice of colour or mono screen display, of music or the sound of silence broken only by your cursing, etc in other words, it's better than any grotty version that anyone else may have written, and anyway, when did you last buy your Dragon a new program?!. Sorry this one has to be disc only, but at a mere £3.00 inclusive it isn't the most expensive Dragon Christmas Present in the world, is it?, so treat the poor old beast to a copy NOW, it will probably enjoy it as much as you will!. (And no, you don't need FORTH in order to run it, just a Dragon and a disc drive (DragonDOS, of course!). Send your order to Paul Grade NOW.

I waited, honest!

Well, Rob Preston DID promise to send me some material for an advertisement in this issue, but either Postman Prat forgot to deliver it or the Welsh Border Guards refused to allow it through, or something, because it still hasn't arrived here, and if I leave completing this issue much later it won't reach you this year, so I suppose I'll have to improvise (it's OK, they can't nick you for it!). Anyway, the Preston establishment STILL has vast stocks of Dragon software, on tape, disc and cartridge everything from games tapes to OS9 programs and just about everything in between as well, and he really would like a chance to sell some of it to you at absolute bargain prices before it acquires antique value and he has to get Group 4 to haul it up to Sothebys for auction!. So, why not try buying some NOW, rather than wait until you have to pay thousands for it at auction?!. You don't think it could ever happen? nor did that prat who splashed yellow paint on a bit of secondhand canvas and flogged it to a local village idiot as a picture of a couple of wilted sunflowers in a vase rumour has it he was laughing all the way to the boozer because he's managed to get the price of a drink out of the deal if anyone had told him that someone would eventually be daft enough to pay millions for the thing he'd have thought they were insane, so what's the chances of an original Cuthbert tape fetching even more in a few years time?!. Can you really afford to miss out on such a valuable investment opportunity?. Long term it HAS to be better value than a couple of lottery tickets!. To find out exactly what software is available, write to :-

R.PRESTON SOFTWARE, KINGS HALL COURT, St.BRIDES MAJOR, MID GLAMORGAN.

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FOR YOUR INFORMATION

Boeing confirm that their newest aircraft will be controlled by Pentium computer systems as soon as they can discover where the prototypes disappeared to on their test flights.

Windows '95 is a total waste of money, as it is due to become totally obsolete in three week's time when the year changes to '96.

The true reason for making vehicles over 25 years old Tax exempt is to increase the police arrest figures 'cos it will still be a nickable offence not to display a Tax disc!.

Drink and be Safe!. According to official statistics, 12% of all road accidents involve drivers who have been drinking, which according to my calculator means that 88% involve totally sober drivers (wonder what THEIR excuse is?) so it is obviously more than seven times safer to be drunk than sober!. Cheers!.

Help the Environment people keep insisting that there is too much carbon dioxide pollution in the atmosphere but as most of it is caused by people breathing, surely they should stop at once and solve the problem?.

The real reason that crime figures have doubled in the last ten years might just be connected to the fact that, thanks to a policy of continual legislation, there are now twice as many offences to commit.

If smoking is REALLY so dangerous to health and this isn't just an excuse to constantly increase the tax and Excise duty on fags, how come so many people over eighty years old are still heavy smokers?. We're all being conned, perhaps?.

And finally, if Christmas is the Time of Peace and Goodwill, how come the murder rate always triples during the Christmas period? or perhaps you should wait until New Year before answering that one.

Paul Grade.

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