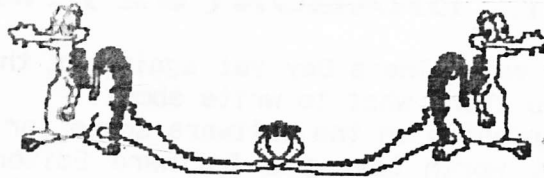


The Newsletter of the National Dragon User's Group

DRAGON



UPDATE

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THE GAFFER'S BIT

Yes, this is another of those Special Slimline Non-Fattening Updates which result from an almost total lack of Update type material landing on the Editorial doormat, so PLEASE don't complain about it there is a limit to just how much "padding" I can write/exhume for any one issue, and if you want a full size, value for money Update with Added Interest etc, then you really WILL have to do something practical about it like writing something for us, for example, or failing that you could always send us a few hundred quid so that we could employ some professional writers, I don't really mind which, but please try one or t'other!. Reading blank pages is going to get very boring.

Having just read through this month's Up-2-Date disc I see that Ray Smith is suffering from the same complaint lack of material. At this rate we'll be filling up the blank spaces in our respective publications with such newsworthy items as "Mary had a Little Lamb", RAM says 'I was only being User Friendly', or "Bill Gates falls through Windows", or similar garbage.

News? ... well, if you discount the above samples as being speculative journalism, then the answer has to be that there hasn't been any so far, certainly not on the Dragon scene. For that matter the Windows Box scene doesn't seem to be much brighter, just more expensive. I actually looked through one of the (cheaper) PC magazines last week, and apart from the usual grovelling "reviews" of Windows 95 the main point of interest seemed to be that the 2 speed CD drive you all rushed out and bought a couple of months ago is as obsolete as the Vic 20, and even the 4 speed you got last week in a futile attempt to keep up with fashion is only fit for the car boot sales. THIS week you need a SIX speed thingy, although by the time your cheque has cleared you'll almost certainly have to junk it and try to buy an 8 speed before they become obsolete too. Oh yes, and you really DO need at least a Pentium 160 now, with a minimum of 2.5 Gig h/d space and at least 32 Meg of RAM. Sorry, there was no mention at all of 8 bit 32K machines!. Perhaps because there are no real programmers left to write for them?

The Editor's Bit...

OK, so we know that the Dragon scene is not exactly bubbling hot these days, but it would be nice to have something for me to edit, for Paul to print, and for you and all the other Group members to read. Doubtless the tired reasons such as "I can't think what to write" will be wheeled out from time to time, but Paul and Mike have to think about what to write as well, so if some of us make the effort occasionally, everyone else will benefit. After all, as Dragon owners, are you not Dragon USERS? And if you actually use your Dragon, chances are you use it for something interesting, yes? Thought about sharing it with us?. Ah well. Our revered Chairman gleefully(?) predicts that Update will be with us throughout this year, but unless he has managed to pad this issue out with something approximating a BR timetable, the slimline contents should be enough warning that the light at the end of the Dragon tunnel is in fact a grain of wheat bulb powered by an exercise bike ridden by someone not too fond of exercise. S.W.

PEEKING THE DRAGON(62).MIKE STOTT

February 14th 1996 - St Valentine's Day yet again but, there is not much love in my heart as I struggle to think what to write about.

Absolutely nothing is happening in the software scene for the Dragon and I wonder yet again whether it is worth having a Software Editor when there is no new software available and nobody seems to want to know anything about any of the old software. There is nothing happening on the Skycard scene either as the new software has not appeared although everybody seems to think that it will not be long before it becomes available. I will let you know as soon as I hear anything. Even if it does not appear I will not pay out ridiculous subscription fees for Sky television. I know of a lot of people who are now cancelling their subscriptions after seeing the way they have ruined sport in particular.

Not long ago I wrote that I would be compiling a list of all the Dragon software that had ever been written but I am now having second thoughts about this as hardly anyone responded with lists of their software which means that a lot of titles would be omitted. Also I think that it would be very boring for my article to be just a list of software titles. What I might do is to just list a few every month within the article. What I will find to fill out my page with every month I do not know. How do Paul and Stephen manage to think of things to say?. My heart goes out to Ray Smith thinking of how to fill a disk every other month.

February 29th 1996 - Could not resist finishing my article off today as it is only once every four years that anybody gets the opportunity to use this date.

On Sunday I returned home from a few days away in Blackpool to find a message on my answerphone from Carl Stockdale of Huddersfield who had a small problem concerned with Superdos E6. Hopefully I have sorted out his problem as I have had no comeback up to now. It was nice to hear from Carl again as he always supports Dragon shows and was one of the few who came along to the show I organised in Huyton. Three more articles after this one will bring me up to number sixty five and I am told that everybody is entitled to retire when they reach sixty five so does this mean that I have only got another three pages to fill?. The problem is how much pension will Paul pay me. Will I be able to afford to retire?. Could I soon be living on the streets and begging for crusts?. Maybe I should renumber this article to twenty one or something in case I have to go. No, we all know how generous Paul is and I am sure that I will be able to afford a trip round the world and then move into a really comfortable bungalow with the golden handshake I will receive.

Thanks to Ken doing such a good review of TETRIS by John Payne. I am afraid that I had been spoilt by the unreleased version by Paul Burgin and I am the first to admit that I did not do a very good job of reviewing this latest version of the game. Anybody who wants a copy of this very addictive game can order it from Paul at the reasonable price of only three pounds. Do not forget that the group has a very wide range of software available at very reasonable prices. If you look at the back of this Update you could well find yourself a very useful piece of software. While I am plugging the group stuff do not forget UP2DATE which is a disk based magazine issued bi-monthly between Updates and is available from Ray Smith for two pounds per issue. This is a very well produced disk which features letters, tips, programs, pictures etc. I always look forward to the sound of this arriving through my letterbox as it is always full of useful information.

One question that I have asked before in these pages is "Has anybody been able to get a deskjet printer to work with a Dragon?". As I have never had any response and so many people have asked me this question over the last few years I am bringing the subject up again. If anybody uses a Deskjet printer why not write an article for Update explaining how you achieved it. Maybe, if you have been unsuccessful, you could write an article explaining what you have tried. Hopefully this would then inspire somebody to crack the problem that has been facing so many people for so long. If you are unable to write an article then why not write to me and I will then tell the readers what you have (or have not) been able to do.

2001 : A Pace Odyssey... Clive Scott

I was recently reading an article in the Byte computer magazine about the successor to the Pentium processor, the P6. Apparently, it will have 5.5 million transistors, run at 133MHz, and has been bench tested at 200 SPEC int 92. The 100MHz Pentium, by comparison, achieves 112.7. More interestingly, though, it gave an insight into the development of processors over the next six years. It is forecast that AMD will bring out a K8 processor in 2001 that will have 20 million transistors, run at 600MHz, and will achieve 1000 SPEC.

Reading that article made me wonder what software we will be using in 2001 which will tap that enormous processing power. Business software (word processors, spreadsheets, databases etc) cannot progress much further. I foresee that they will be more intelligent and automate more work for you, and we may see more blurring of the distinction between the main program types e.g. word processors with full DTP, spreadsheet, and database facilities. Possibly it will have presentation graphics too, with animation and sound which you will be able to transmit over the Internet. However, getting data into computers in the first place will be the main bottleneck. Even my Dragon can keep up with my typing speed. There is a limit to how fast you can type data in through the keyboard. That processing power will make speech input a realistic alternative, and speech recognition software is becoming more sophisticated all the time. Perhaps in the more distant future we may see direct cerebral input i.e. thought input.

The main areas which will be able to use the power of these new processors are graphics, especially animated and digital sound processing. Moving images with sound that will equal the cinema and hi-fi will become a possibility. These are very specialised fields, however, and we are more likely to see the benefit in computer games, especially virtual reality simulators and TV and cinema animations e.g. Babylon 5. However, we are at the mercy of the programmers who may write more and more inefficient program with even more facilities that we will never use that will slow even these processors down to a crawl.

Dragons In Ham Radio. Johnny Brown

This time, we shall look at slow scan TV (SSTV). This was a method of sending pictures using normal amateur radio bands. As it was a still picture, it took approximately 8 seconds to scan it from top to bottom.

Using an ex-radar cathode ray tube, a quite well detailed picture could be obtained using this 8 second scan, and it also lent itself well to being done by 8-bit computers. The SSTV is really quite similar to fax, using three different frequencies, although the detail of the transmitted pictures is limited to the detail of the original. The introduction of computers such as PCs, with larger memories, means that the detail can be greater improved.

The BMK program, on tape or disc, allows the display of received pictures with fairly acceptable results. It also allows printout of the picture, colour reverse, freeze frame, and many other options which are selected from a menu displayed on screen. Naturally, it uses the old 8 second method, but it does allow you to save the pictures afterwards. Most SSTV now appears to be computerised, using many very modern programs. Some can even supply pictures in colour and produce marvellous results, and can even re-transmit back to the original sender, although of course it does all cost money.

Using the tape based program, the EAR socket is used to load the SSTV program, and it is then transferred to the receiver's loudspeaker output. With a minimum of volume, the picture will appear on the monitor. Even if you are using the disc version, the EAR lead is still used as the input. If you tune to about 14,300 you will hear the warbling sound, and with careful tuning you will get the picture to appear. Using a selectable sideband receiver, USB is selected for HF, and LSB for LF, with HF being 20, 15, or 10 metres, and LF being 160, 80, or 40.

Serial I/O under OS/9. Chris Jolly

This article brings you some good and bad news. The good news is that you can access all the settings of the 6551 ACIA that controls serial communications in a Dragon 64 using the standard ACIA51 device driver, despite what you may have read in the documentation. The bad news is that because of the way OS9 is designed and ACIA51 is implemented, you can't get true multitasking serial I/O.

In the hierarchy of OS9 modules to do with input and output, the drivers provide the basic device dependent code, while device descriptors provide parameters for specific devices. For example, ACIA51 will control a 6551 at any location in the memory map and device descriptors such as P1 and T1 provide the correct memory address and other information for particular 6551s in the system. Device descriptors can be configured in a number of ways. You can create them using assembler, or you can use the standard ones and modify them as you go using the XMODE command. Alternatively, programs can modify them in memory by finding the address of the descriptor, which is just a standard memory module. If you look at the various ways of doing this, you will find references to two parameters in particular. The first of these is referred to variously as type, initialisation, or parity, and the second as baud. The Dragon documentation is completely incorrect about the meanings of these parameters, but you cannot use the serial port unless you get them right. In fact, the parameters are loaded almost directly into the 6551 configuration registers. This means that you need to know the meanings of the various configuration register bits, and in particular the documentation of the baud parameter to the XMODE is wrong.

The 6551 has two configuration registers, the command register and the control register. The command register bits that you need to know about are:

| | |
|----------|---|
| 00X0XXXX | odd parity |
| 01X0XXXX | even parity |
| 10X0XXXX | mark parity transmitted, parity check disabled |
| 11X0XXXX | space parity transmitted, parity check disabled |
| XX00XXXX | parity disabled |
| XX10XXXX | parity enabled |

The command register is loaded from the initialisation setting (the type parameter to XMODE), but first the bottom four bits are ANDed off so it doesn't matter what you put there. Bit 4 must always be zero. Using XMODE the type parameter is specified in hexadecimal so, for example, no parity would be specified as type=0 and even parity would be type=60.

The control register bits you need to know about are:

| | |
|----------|--|
| 0XX1XXXX | 1 stop bit |
| 1XX1XXXX | 1.5 stop bits (word length=5, no parity) |
| | 1 stop bits (word length=8, parity) |
| | 2 stop bits otherwise |
| X001XXXX | 8 bits |
| X011XXXX | 7 bits |
| X101XXXX | 6 bits |
| X111XXXX | 5 bits |
| XXX10001 | baud rate: 50 |
| XXX10010 | 75 |
| XXX10011 | 110 |
| XXX10100 | 134.5 |
| XXX10101 | 150 |
| XXX10110 | 300 |
| XXX10111 | 600 |
| XXX11000 | 1200 |
| XXX11001 | 1800 |

(Continued on page five)

| | |
|----------|-------|
| XXX11010 | 2400 |
| XXX11011 | 3600 |
| XXX11100 | 4800 |
| XXX11101 | 7200 |
| XXX11110 | 9600 |
| XXX11111 | 19200 |

The control register is loaded from the baud setting verbatim. Using XMODE the baud parameter is specified in decimal, so you will have to convert from binary to decimal e.g. 8 data bits, 1 stop bit, 2400 baud is specified as binary 00011010, hex 1A or decimal 26. The XMODE parameter would be baud=26.

The bad news isn't really as bad as all that because I've never come across any program that tried to do proper multitasking serial I/O under OS9. The problem is this: the obvious way to write a program that does serial I/O, say a terminal emulator, is to have it go round a loop polling the keyboard to see if there is a character to transmit then the serial port to see if a character has been received. You can do this with ordinary OS9 system calls as long as you have the correct device descriptor settings as above - without any need for direct hardware access - and it will work fine. The trouble is that when no characters are being received or transmitted the program is still using all the CPU time polling so that no other tasks will get much of a look in - if you were trying to do some background printing, for example, it would pretty much grind to a halt. The traditional solution to this problem in multitasking systems is to split the terminal emulator into two separate concurrent tasks: one which transmits and one which receives. One task reads from the keyboard and outputs each character to the serial port and the other reads from the port and outputs each character to the screen. The trick is that using a read actually causes the operating system to suspend the process until a character is available. While it is suspended the system will schedule other tasks, such as your background printing, for execution. This means that when no characters are received or transmitted, literally no CPU time is being spent. Unfortunately, all this beautiful scheme falls apart with ACIA51 because it is really two device drivers in one; one that reads the serial port and one that writes it.

The design of OS9 is such that the device storage contains only one place for the identifier of a process that is waiting for I/O completion, so, for example, the receiver process asks for a character, there isn't one available, so the driver stores its process ID and the process is suspended. Then the transmitter comes along and queues up some characters. While the first one is transmitting the second one is put in a transmit queue and the process ID is stored, overwriting the receiver process ID. The receiver process can now never be woken up and the whole program comes to a grinding halt.

There are several workarounds for this problem; you can write a program that polls the devices and wastes the CPU time anyway - it's probably not the end of the world. You can write a new 6551 driver, or maybe a pair of drivers so that each has its own sleeping process slot. You could find a better way of doing the whole thing and tell me about it.

A Case for the X Files?

Agent Stephen Wood has submitted a report that there have been at least two recent cases of Dragon Update contributors disappearing without trace. It is the opinion of this Department that they have been abducted by alien beings, possibly in order to save Mankind, but more probably because of their outstanding ability as writers of interesting articles for publication.

Sotos Mandalos, who as you all know, was busily chronicling the history of the Dragon scene, has not been heard from for at least two issues now, and more recently Bob Smith has failed to file his now overdue continuation of the HenceForth series. Hopefully they will be returned to this planet in time for the next issue. Meanwhile any sightings should be reported to this Department. PG.

Machine Coding 3..Tony Shellard

SCNINV4, listed last time, is thus far unique in that it assumed the size of the screen to be fixed. The previous versions acquired the start and end locations from the operating system workspace, which in itself makes the assumption that you used the BASIC commands to define the graphics mode in use. If you have used a machine code routine to achieve this you must set up the zero-page locations yourself, or devise your own means to pass the information across. A method for finding the current screen length is shown in SCNINV4A:

```

*      SCNINV4A
@      LDD      <$B7      *get screen end-1
        SUBD     <$BA      *subtract start
        ADDD     £$01      *add one
        RORA      *halve length for
        RORB      *two-byte process
        TFR       D,X      *TransFER to pointer
        LDU       <$BA      *get screen start
LP1     LDD       ,U      *get screen bytes
        COMA      *COMplement one
        COMB      *and the other
        STD       ,U++     *replace & increment
        LEAX      -1,X     *decrement counter
        BNE       LP1      *branch if not done
        RTS          *finished

```

The first three programs had the property of generality i.e. they would work on any screen resolution without modification. The last has an a priori knowledge of the screen size and would need modification to work in lower resolutions. Many books advocate generality as a fundamental rule but it often requires extra processing to cater for all possibilities. You have to make a choice early on; will your program need to work under all foreseeable circumstances, or only in specific situations? A general solution can be used anywhere without alteration but is typically slow and inefficient. If you only need a routine for one purpose you can tailor it for optimum performance. When building knowledge into a program, use copious comments to explain its meanings to posterity, lest modification become more troublesome than a total rewrite!

SCNINV5 uses the popular BASIC technique of nested loops to a small speed advantage. Sadly, table 1 shows that this minor improvement is paid for by a relatively large growth in size. This suggests that the method is too sophisticated for such a simple problem, the speed increase resulting from the subtle use of flags in the BPL instruction and shortcuts like ABX.

```

*      SCNINV5
@      LDX       <$BA      *start of screen
        LDB       £$80      *pointer adjustment
        LDY       £0030     *initialise counter
LP1     CLRA      *zero offset
LP2     COM       A,X      *COMplement byte
        INCA      *INCrement offset
        BPL       LP2      *until offset negative
        ABX       *update pointer
        LEAY      -1,Y     *DECrement counter
        BNE       LP1      *until done
        RTS          *finished

```

***** Please remember that in ALL listings in Update, the # sign will be represented as £, owing to printer configuration. Sorry about that, but nowt I can do. PG.**

Dynafast...Clive Scott

Dynafast comprises three programs:

Dynafast - a basic compiler
Dynamiser - a program compactor
Dynaref - a cross reference utility

They are all selected from a opening menu. Dynafast compiles a BASIC program into a mixture of machine code and BASIC which, while not as efficient as a program written in assembler, runs much faster than a BASIC program.

To gain the maximum speed advantage, all integer variables should be declared at the start of the program by naming the variables and the location in memory for them to be placed in e.g. 30000 A B C

There are four alternative modes of compilation: normal, fast, step, and print. Normal mode will display the progress of the compilation but slowed so that it can be read. Fast processes it as fast as possible. Step will stop and wait as each variable/line is processed, and Print directs all output to the printer.

Compilation is done in three passes. Pass one displays the integer variables that have been declared. Pass two processes each line and indicates whether it was able to fully or partially complete the line, and pass three is a tidying up process. Compilation can be paused or aborted at any time.

The compiled program can be automatically saved under a specified name but the start, end, and exec addresses are displayed at the end of the compilation and can be used for future reference. The compiled program can now be run by typing EXEC.

Dynamiser compacts a program in three passes by first deleting all redundant characters and spaces, then deleting all unnecessary REMs, and lastly by combining as many lines as possible into one long line. In all three programs a progress report is displayed as each line is processed. It is advisable that the program be saved under a different name as it can be difficult to read an edit the compacted version.

Dynaref runs through your BASIC program and produces a table of all variables and constants together with all the lines they appear on. This can be output to the screen or the printer. The table can be restricted by setting limits in the EXEC statement e.g. EXEC:AZ will only produce a table of BASIC variables.

It is invaluable for checking the variables that have been declared, particularly when modifying a program prior to compilation by Dynafast.

This is a trio of programs that will compliment any user's collection of programming aids.

Anyone going to Scotland?

No, this is NOT another Haggis joke, it's a very serious offer from a former Group member, one John Pentland. If anyone can arrange collection he is willing to part with a Dragon 64 with green-screen monitor etc, and a pair of Dragon 32s, plus a lot of software, all for virtually nothing!. He no longer uses the machines himself, but reckons they ought to go to a good home where they will be used and appreciated rather than disappear to the local car boot sale, so if anyone is in a position to collect, or just possibly arrange carriage, then there's a bargain waiting for them!.

The address is: John Pentland, 5,Dallas Drive, Kirkcaldy, Fife.KY2-6NE.

Offers like this don't turn up very often, so if you are interested I would suggest you contact John without delay. P.G.

Hardware Experts Wanted?

I've recently had several people asking for information on interfacing the Dragon as a control unit for various external devices. Anyone care to write us some helpful hints on the subject?. P.G.

Got the Boot yet? (Another one from the Archives!)

Last issue we printed a disc MENU type program, which would be ideal for use with this routine after all, what could be simpler than BOOTing your disc straight into a menu?. Of course, you don't HAVE to do it that way, you can BOOT into any program you wish, the choice is yours.

This routine was written ten years ago by "Mad Max", our one and only Austrian Group member, who moved on to bigger (if not better) machines long ago, but he did give us permission to make whatever use of it we wished, so help yourself. It was designed to work with either Cumana or DragonDOS V1. versions, so it may need a couple of small changes for other variants but that should give you "Superdos" types a chance to demonstrate your programming abilities!.

```

10 CLEAR2000:CLS:PRINT"  BOOT V1.1 - (C) MHSOFT, 1985
20 PRINT:PRINT"THIS PROGRAM ALLOWS YOU TO START A PROGRAM JUST BY TYPING
   'BOOT'.THIS FACILITY WILL COST YOU 256 BYTES DISKETTE STORAGE CAPACITY.
30 PRINT"INSERT DISKETTE TO BE PROVIDED WITH A BOOT AUTOSTART SECTOR- INTO
   DRIVE 1.
40 GOSUB300
50 SREAD1,20,1,A$,B$
60 IFASC(A$)AND4THEN180
70 SREAD1,0,3,A$,B$
80 IFLEFT$(A$,2)="OS"THEN130
90 PRINT"I AM SORRY ..."
100 PRINT"THE BOOT SECTOR ON THIS DISKETTEIS ALREADY USED BY A FILE ON
    THEDISKETTE.
110 PRINT"TO OVERCOME THIS PROBLEM, FORMATA NEW DISKETTE AND PROVIDE IT WITH A
    BOOT SECTOR (BY USING THIS PROGRAM) before STORING ANYTHING ONTO THE
    DISKETTE.
120 GOSUB300:END
130 PRINT"THIS DISKETTE HAS ALREADY GOT A BOOT SECTOR.
140 PRINT"DO YOU WANT TO OVERWRITE IT? ";
150 EXEC48053:A$=INKEY$:IFA$=""THEN150
160 PRINT:PRINT:IFA$="Y"THEN180
170 END
180 SREAD1,20,1,A$,B$
190 MID$(A$,1,1)=CHR$(ASC(A$)AND251)
200 SWRITE1,20,1,A$,B$
210 PRINT"WHAT IS THE NAME OF THE PROGRAM YOU WANT TO AUTOSTART (INCLUDING'.BIN'
    IF IT IS A MC-PROGRAM) ?
220 PRINT:LINEINPUTF$
230 A$="OS"+CHR$(&H86)+CHR$(34)+CHR$(&H8E)+CHR$(&H26)+CHR$(&H0C)+CHR$(&H9F)+CHR$
    (&H1A6)+CHR$(&H7E)+CHR$(PEEK(&H195))+CHR$(PEEK(&H196))+CHR$(34)+F$+CHR$(34)+
    CHR$(0)'GET RUN VECTOR FROM $195/196
240 B$=STRING$(128,&H12):A$=A$+B$:A$=LEFT$(A$,128)
250 PRINT:PRINT"JUST A MOMENT, PLEASE ..."
260 SWRITE1,0,3,A$,B$
270 PRINT:PRINT"THE DISKETTE CONTAINS A BOOT SECTOR NOW.
280 PRINT"TO ACTIVATE THE BOOT PROCESS, TYPE boot AND PRESS [ENTER]. OF
    COURSE, THE PROGRAM YOU WANT TO AUTOSTART MUST BE ON THE DISKETTE, TOO.
    SO IF IT IS NOT ON IT YET, COPY IT ONTO THIS DISKETTE AS SOON AS
    POSSIBLE.
290 GOSUB300:END
300 PRINT:PRINT"PRESS A KEY ... ";:EXEC41194:PRINT:PRINT:RETURN

```

More Books Revisited. R.A.D

TRS-80 Color Computer Assembly Language Programming. By William Barden Jr. Published by Radio Shack. 294 pages.

Originally a very expensive volume, the sharper eyes found it redundant on the shelves for about £1 in later years, with many other older Tandy Books. This uses the Tandy EDTASM package for assembly and is intended for tuition with that Editor / Assembler / Debug system. Allowing for the differences in the commands between that and the DASM assembler for the Dragon, the book is very easy to follow, taking the reader through the 6809 step by step in all facets of its then powerful capabilities from the ground up. The first 18 chapters cover assembly language basics, the instruction set of the 6809, and use of assembler. The following 3 chapters show how to link the results with Basic programmes, how to pass parameters, and where to put the Machine code in Ram. Chapter 22 explains how to use some of the Basic ROM with assembly language routines, and Chapter 23 delves into the more advanced addressing modes of the 6809. The next two Chapters are classed as 'fun' with some graphics and sound assembly while the final one, Chapter 26 is devoted to guidance on making larger programmes. There are six Appendices of useful data to conclude.

6809 MICROCOMPUTER PROGRAMMING AND INTERFACING. by Andrew Staugaard, Jr. Published by Blacksburys. £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.

What do YOU think?.

Paul G.

Your opinion is urgently required on a suggestion I recently received regarding the Group. I'm quite willing to go along with virtually ANY idea if it's what the majority of you really want (except the physically impossible, of course!), so tell me what you think about this NOW, either by letter, or in the form of a brief article for publication if you DON'T, then don't blame me if things turn out in a way you don't like.

It was pointed out that as well over two thirds of the present Group members also own or use (from necessity or choice) a PC type machine as well as their Old Faithful Dragon outfit, and that it might help prevent members from "dropping out" of the Group if we also gave some coverage in Update to PC hardware/software snags, hints, etc, while still remaining a primarily Dragon Group and publication. Personally, so long as the PC angle was not allowed to take over from the Dragon, then I have no serious objections I use the damned things myself, so I'm in no position to complain!. However, this was started as a "one make" Group, and I'm sure some of you would prefer that it should remain so, and if that is the view of the majority, so be it. Either way, we would still need material for publication, so PC coverage wouldn't let any of you off the hook so far as writing articles is concerned although it might give you a slightly wider choice of subject matter, I suppose. The choice is entirely YOURS, so let me know as soon as you canO.K. Paul Grade.

Suggestion

How about a review or two of the current computer magazines? how good/bad/over-priced/etc you think they are, and whether ANY of them are more than just a commercial advertising rag?. P.G.

The Late, Late Bit

Anyone else noticed how boring the whole computer scene has become?. I don't mean just the "antique" side of things Orics, Dragons, Aces, Pets and similar beasties, most people who bought those have long since learned just about all there is to know about them, and no-one could reasonably expect any commercial support for them after all this time, but the PC-type machines (and I'm including the Macs in that statement), the current stock "home computer" in all its variations. There hasn't been anything really new for years the Pentium and the 686 are only bigger and faster versions of the original 8088 IBM PC, and they can only do the same old things most still run padded out versions of the same old software even. Sure, I/O styles have changed a little, but only in detail the 10 Meg MFM hard drive has given way to the 9.6 Gig EIDE one, the "Read only" cartridge has turned into a CD ROM disc, and the floppies have shrunk in physical size and increased in capacity, while tapes are still in use, just referred to as "backup devices" now, is all. What HAS changed is the gullibility of the average user fifteen years ago anyone attempting to sell a machine that was as ridiculously difficult to program as the average PC would have been laughed out of the market. Anyone attempting to persuade people that a simple "Pacman" clone needed 4 Meg of RAM in order to run would have been referred to the nearest psychiatrist, and hasn't anyone noticed that the task of writing a letter, which they used to do easily on a 32K machine, now requires at least eight Meg of RAM and sixteen Meg of hard drive space?. Odd, isn't it?. Way back in the days of CP/M, Wordstar used to work easily in 12K and took up almost 48K of disc space, and the w/p I used on an ancient pre-Pet Commodore used to amble along perfectly well in 3K and did exactly the same job as the current stuff and wasn't appreciably slower, either!. There was a machine called the Dragon that was pretty good, too ... anyone remember it?. The whole thing is getting dafter the software mob are padding their inefficient programs out to make them look more than they are (a sort of digital codpiece, perhaps), and the hardware types are producing bigger and faster machines to deal with the stuff, but commercial software is a variety of rubbish, and like all other kinds expands to fill the available space, so you need yet bigger and faster machines, which are immediately filled up with the even more padded out garbage software, so you need still bigger the cycle would be infinite if it wasn't eventually governed by the size of the punter's credit limit!. Its a bore!. The machines are a bore!. The software an even bigger one!. Will someone please invent a computer so we can have something new to play with, and then maybe there will be Computer Enthusiasts once again!. There ARE no computers now, just Magic Boxes that are a kind of "home entertainment centre". There are no programmers now, just Garbage Recyclers. I wonder how long it will be before someone realises that Gates & Co are directly responsible for killing off the home computer?.

Anyway, all this talk of computers and PC thingies reminds me that I have a request for all you secret PC addicts out there a few weeks ago I acquired as part of a deal, a quite nice little Fax/Modem card for stuffing up my Old Peculiar PC a neat little card, and the modem software that came with it (by Mustang Software) works pretty well too, but the Fax software, the much advertised DOSFAX, is the biggest load of rubbish this side of the Council tip!. So, does anyone have any DOS based (non-Windows) Fax driver software that I could scrounge?. I'd like to test the card properly, but it seems most unfair to judge it's performance when it is hampered by some of the grottiest software ever written!. Before you ask, anyone wanting their copies of Update faxed to them will have to contribute VERY generously towards my phone bill!, and no, I do NOT have the slightest intention of forking out for a Net server subscription, so you won't be seeing Update on WWW or anything like that!, I just happened to get this card for a ridiculously low price and I'd like to find out exactly how good it really is. [If you really want to know, it's a DSI 19,200, that also thinks it's a Class 1 Fax. OK?]. Well, that's all for this page PLEASE send me something to print in time for the next Update ... so far we have ONE page!. Paul G.

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Paul Grade.

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