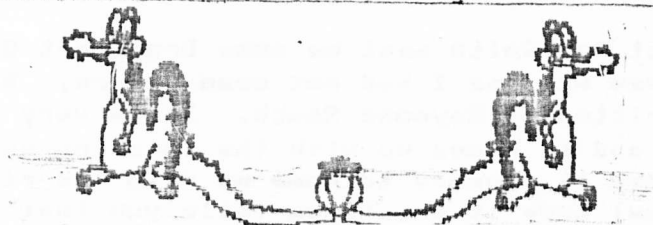


DRAGON



UPDATE

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# CHAIRMAN: Paul Grade. 6, Navarinn Road, Worthing, Sussex. Phone: 0903-207585 #  
# EDITOR: Stephen Wood. 52, Downsway, Springfield, Chelmsford, Essex. CM1 5TU. #  
# S/WARE EDITOR: Mike Stott, 10, Mellor Close, Prescott, Merseyside. 051-480-7712 #  
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### THE GAFFER'S BIT - - - - -

Being dedicated to doing things the wrong way around, this page is the section of Update that I write last of all, and this time, there being absolutely nothing new on the Dragon scene, I seem to have run out of computer type things to write, so you'll just have to put up with more irrelevant garbage. Have just been watching the news on BBC1 ... is it just my warped little mind that finds the phrases used by news readers (and media generally) totally absurd? Am I the only one who gets an image of Eastwood gunning down the Third Shredded Wheat whenever I hear the phrase "Serial killer"? and isn't the concept of "single parent" a biological impossibility? (OK, it HAS been suggested that I make the attempt, but even that would be physically difficult!), and what about "car crime"? ... can you imagine a Judge proclaiming "Society must be protected from vehicles like you" and sending a poor innocent little Skoda down for five years or so? And where do "Ethnics" come from?, the Republic of Ethnicker? And what's a "Heritage"? ... can you buy one at a Heritage Centre?, and if so what do you do with it (all suggestions, on a postcard please, to your local MP). And does "Peace Keeping" (as in UN) mean "we'll keep that piece"? All most confusing. It's almost as bad as "inner cities" ... where can I find an outer one?, and why do "weather fronts" have no backs (one dimensional impossibilities, perhaps?!). OK, YOU work it all out, I'm going to have a drink. Paul. *Paul*

### Happy Birthday To Us...

Indeed yes, the observant among you - or, more unlikely, anyone who's been with NDUG since the beginning of time - will have realised that this issue marks the Group's ninth birthday. A remarkable feat, when you consider that The Humble Beast was born in the era of the Lynx and the BBC Model A and the Vic-20 (all currently residing in the "Where Are They Now?" file), but an even more remarkable achievement when you remember that for the past three years Update has been bi-monthly only. Anyway, much as Paul would dearly love you to congratulate him on being suicidal enough to steer the Group into it's tenth annum, the real reason why I'm drawing this to your attention is to remind you all of the frail state of Update these days. Apart from a select few people, nobody is bothering to do a scrap of work with regard articles. I've said it before, I'm saying it again, and I'll go on saying it until one of three things happen: 1) Some more of you send me some material to use; 2) Update has to go quarterly to preserve a full issue every time; or 3) The Group closes due to lack of support/interest. Things are more desperate than you may realise, and the danger of insufficient submissions is a very real one, so please please try and make an effort in Update's direction. Otherwise, I sincerely doubt whether I'll be here in 12 months time in party mood. And, it's not true that the last nine years have been Paul's anni horribili. Oh, all right, it IS true. Bart Simpson. (Work THAT one into Detour 2! [joke, joke])

PEEKING THE DRAGON (46) BY MIKE STOTT

The day before Ossett Ray Smith sent me some Dragonart Graphic Library disks to sell. Among them was one I had not seen before, BRITISH TELECOM CODES SEARCH PROGRAM, written by Raymond Roach. It is very simple to use. Just input the BT code and it comes up with the location before you can blink. With legitimate codes it appears to come up with the right answer every time but with an illegal code it sometimes tells you that it is not used and sometimes just asks you for the next code. A very minor irritation you will agree for such a useful program. I have had a similar PC program for several years but now I can get my answer quicker on the Dragon than it would take me to get the C: on the PC. Very useful for readers of Micro Computer Mart who want to know where the advertiser lives who has got a fifty gigabyte hard drive for sale for ten bob. Robin Golding from St Teath has written to me asking for help with wiring a joystick. I have passed your letter on to someone who should be able to help. Stuart Parnell from Benfleet has come up with help and a wiring diagram for a SCART connector for the Dragon so I have passed these on to Bill Saxelby whom I am sure would like to say thank you. He has got a problem himself concerning transferring cartridge software to disk. Most work but METEORIDS hangs up after a short while (every time I have tried with this game it does exactly the same) and COSMIC INVADERS is stuck at screen/level one (I have not got this one). Can anybody help Stuart (and me) with these particular games? At Ossett Richard Axe told me of a problem with TELEWRITER using Superdos E5. With only 5 or so different files on disk he gets a 'disk full' error. The disk does not seem to fill up as fast when the same file is saved several times. Obviously the reason for the latter is because the latest version always overwrites the earliest version and the next one is then renamed .BAK. The trouble with this is that eventually you get bits of a file all over the place. I was asked by Ray Smith to send him something for the "Dragon Hall Of Fame" for UP2DATE so I decided to use TELEWRITER (with Dos 1.5 which is the normal Dos that I use). My computer crashed just as I tried to save the file and then did exactly the same thing when I had retyped it. Next time I was more cautious and saved it more frequently as HALLFAM1, HALLFAM2 etc. It just would not reload the files. In despair I changed the latest version to HALLFAME and in it went as easy as anything. It should work with numbers as well as letters according to the manual but it would just not reload them for me. Eventually I called my attempts ONE, TWO etc and everything was fine after that. Have we any experts out there who can help Richard and/or myself. I can assure you that it is not just Dragons that cause problems, in fact if anything they probably give less trouble than most computers. In work I have just spent the last couple of days recovering my last fortnight's work concerning the company stock. Luckily we take complete backups of all our computers' hard disks every Friday. As the previous week's backup showed a corrupted file I went back to the previous week and rebuilt everything. In future that computer is being backed up every night. This is as well as storing the current data on floppy as well as hard disk. I cannot stress enough that it is really important to always have at least one working copy and at least one backup of everything that you do not want to lose. You may not be as lucky as I was to get the information back. There is not much new software around for the Dragon nowadays but even Mega Drive owners are complaining that nothing is original. The new releases are slight variations on earlier games. Has anybody else watched Games World on Sky? Has anybody else been daft enough to get Sky? Each time I have seen it there are games on that are similar to old Dragon games. The other night there was a CUTHBERT GOES WALKABOUT lookalike. Even PACMAN and SPACE INVADERS appear to be going through re-incarnations. At the time of writing this article (June 25th) DRAGON DETOUR has not been solved, as far as I know, but maybe somebody will have cracked it by the time you read this. I enjoyed it very much, especially when I met myself. Perhaps somebody out there will be inspired by DRAGON DETOUR and write something for the rest of us to enjoy. If you do not then I am going to, and, believe me, that is a threat, not a promise.

DIY Disc Drives... Ian Jones.

New disc drives still tend to be overpriced, although prices have come down considerably over recent years. The next choice is to buy secondhand, and there are bargains to be had here too. By far the cheapest way of setting up, though, is to buy 'bare' drives, i.e. without any power supply or case, and this is the subject of this article. The drives should be suitable for the Dragon, i.e. having a standard "Shugart SA400" interface (the part the IDC cable connects to). The drives will require voltages of +5 and +12, and a ground connection which again should have a standard four pin power connector. The first drive I made up was about five years ago, as a result of a visit I made to see Martin Cleghorn, who was making up a 3" disc drive which he had bought new from J&N Bull in Hove. It was a bare drive which costs him 29.00. The 3" drive had the same capacity as 5.25" single sided double density 40 track drives, but the discs could be flipped over and used on both sides. This is the type of drive that Amstrad used at one time, and was all set to be the new format to follow on from 5.25" until IBM decided that as they set 'industry standards' the new size would be 3.5". I bought one and also a suitable power supply which was another 11.00, handed it to my brother who knew what to do with it, and he made it up for me in an aluminium case painted blue. Very neat, very compact, very reliable, and very incompatible with anything anyone else had. At the time I thought that I could always buy tape software and convert it to disc, but it isn't as straightforward as that, is it? When eventually I decided to acquire a 5.25" drive, I got it all wrong. I bought a bare second hand double sided 40 track drive, but it only worked when it felt like it. There followed two more duff buys from radio rally stalls, one a new IBM drive which works perfectly (I think, if anyone want to buy it, contact me) but it wouldn't work with the Dragon. The other would work, if only the stepper motor would move. The lesson is watch who you buy from and always be in a position where you can go back. Eventually, I ended up at the Alternative Micro Show two years ago; the Dragon was as well (if not better) represented than the rest. I bought a bare secondhand 5.25", 40 track double density single sided drive for 15.00 from PSE. This time I made up the system myself. The power supply I had bought for the 3" drive could also supply a second drive so no further expense there, all I needed was something to put it in, so I bought an aluminium case from Maplins (AB15, about 4.00). These are in two parts which screw together and are covered in protective plastic, which is also handy for marking on the cut outs. I marked the front a little on the tight side so that I could use an electric jigsaw to make the cut and then a file to smooth out the rough edges. I used a set of needles files to perfect the fitting, and at the rear of the case I made rectangular cut outs large enough to allow the connectors for power and the disc controller to be easily accessible so eliminating the need to open the case if I need to remove the drive for any reason. Now all that was left was to connect it up. The circuit board on the disc drive was marked with which terminals took the +5 and +12 supplies as well as the ground connections, so hooking up to the power was no problem. I had a good length of IDC (ribbon) cable already connecting the 3" drive, so I placed an IDC connector part way along the cable to make the connection for the 5.25" drive. These IDC connectors, I don't know how you're supposed to put them into the cable, but I used a pair of pliers with some cardboard shielding the teeth, then a fine bladed screwdriver to push each wire fully into place. It took several attempts before I got it right, and I found it very irritating to say the least, but it finished the job off and I haven't had any problems with it since. Both drives performed perfectly. I prefer the 3" drive for its compactness and "flippy" discs, but the discs cost about 1.20 each. The 5.25" drive is faultless, and though it is not quite my favourite it does allow me compatibility with other systems. Well, that sums it up, plenty of money to be saved especially if you learn from my mistakes or have more of an idea in the first place. Once you've done one, though, it doesn't seem all that difficult, and I hope that my experience is of benefit to anyone considering setting up or adding to a disc system.



Series Impedance Circuit-Chris Jolly

Concluding last month's listing.

```

280 IF FE AND FR AND FC AND FX THEN 420
290 IF FE AND FR AND FL AND FX THEN 430
300 IF FE AND FR AND FL AND FC THEN 440
310 IF FI AND FR AND FC AND FX THEN 450
320 IF FI AND FR AND FL AND FX THEN 460
330 IF FI AND FR AND FL AND FC THEN 470
340 IF FI AND FE AND FC AND FX THEN 480
350 IF FI AND FE AND FL AND FX THEN 490
360 IF FI AND FE AND FL AND FC THEN 500
370 CLS:PRINT@256,"UNABLE TO CALCULATE; PLEASE"
380 PRINT"REFER TO HELP SCREEN"
390 PRINT@480,"PRESS ANY KEY TO CONTINUE";
400 A$=INKEY$:IF A$="" THEN 400
410 RETURN
420 L=(X+1/(W*C))/W:GOTO 670
430 C=1/(W*(W*L-X)):GOTO 670
440 GOTO 670
450 L=(X+1/(W*C))/W:E=I*SQR(R*R+X*X):GOTO 670
460 C=1/(W*(W*L-X)):E=I*SQR(R*R+X*X):GOTO 670
470 T=W*L-1/(W*C):E=I*SQR(R*R+T*T):GOTO 670
480 L=(X+1/(W*C))/W:R=SQR(E*E/(I*I)-X*X):GOTO 670
490 C=1/(W*(W*L-X)):R=SQR(E*E/(I*I)-X*X):GOTO 670
500 T=(W*L-1/(W*C)):R=SQR(E*E/(I*I)-T*T):GOTO 670
510 CLS
520 PRINT"THIS PROGRAM PERFORMS CALCULAT-"
530 PRINT"IONS RELATING TO A SERIAL COMBI-";
540 PRINT"NATION OF A RESISTOR, CAPACITOR"
550 PRINT"AND INDUCTOR. TWO SETS OF INPUT"
560 PRINT"PARAMETERS ARE AVAILABLE:"
570 PRINT"I (CURRENT)          L (INDUCTANCE)"
580 PRINT"E (VOLTAGE)         C (CAPACITANCE)"
590 PRINT"R (RESISTANCE)       X (REACTANCE)"
600 PRINT"TWO VARIABLES FROM EACH SET MUST";
610 PRINT"BE SUPPLIED BEFORE STARTING THE"
620 PRINT"CALCULATION"
630 PRINT@480,"PRESS ANY KEY TO CONTINUE";
640 A$=INKEY$:IF A$="" THEN 640
650 RETURN
660 CLS:END
670 X=W*L-1/(W*C)
680 Z=SQR(R*R+X*X)
690 I=E/Z
700 T=ATN(X/R)*57.29578
710 Q=COS(T*.01745329)
720 P=E*I*Q
730 G=W*L
740 VL=I*G
750 J=1/(W*C)
760 VC=I*J
770 VR=I*R
780 M=1/(2*3.14159265*SQR(L*C))
790 CLS
800 PRINTUSING"VOLTAGE          ##.##^";E
810 PRINTUSING"RESISTANCE      ##.##^";R
820 PRINTUSING"CURRENT        ##.##^";I

```



```

830 PRINT USING "INDUCTANCE"      ##.##^####";L
840 PRINT USING "CAPACITANCE"     ##.##^####";C
850 PRINT USING "REACTANCE"       ##.##^####";X
860 PRINT USING "IMPEDANCE"       ##.##^####";Z
870 PRINT USING "PHASE ANGLE"     ##.##^####";T
880 PRINT USING "POWER FACTOR"    ##.##^####";Q
890 PRINT USING "POWER"           ##.##^####";P
900 PRINT USING "INDUCTIVE REACTANCE" ##.##^####";G
910 PRINT USING "CAPACITATIVE REACTANCE" ##.##^####";J
920 PRINT USING "INDUCTOR VOLTAGE" ##.##^####";VL
930 PRINT USING "CAPACITOR VOLTAGE" ##.##^####";VC
940 PRINT USING "RESISTOR VOLTAGE" ##.##^####";VR
950 PRINT USING "RESONANT FREQUENCY" ##.##^####";M;
960 A$=INKEY$:IF A$="" THEN 960
970 CLGO
980 FOR I=0 TO 63:SET(I,16,3):NEXT
990 FOR I=0 TO 31:SET(32,I,3):NEXT
1000 FOR I=0 TO 31
1010 U=32+I:V=INT(16-(I*X)/R)
1020 IF U<=V AND V<32 THEN SET (U,V,2):NEXT
1030 PRINT@448,"impedance";
1040 PRINT@480,"diagram";
1050 A$=INKEY$:IF A$="" THEN 1050
1060 RETURN

```

## TYENKO - REVIEWED BY PHIL CHATFIELD

### AT LAST! - A CHALLENGE FOR YOUR IMAGINATION.

I certainly do mean at last. I am sure that every reader is under no illusions about how much new, let alone original, software is available for our dear old fire breathers. At last - here is a challenging and versatile amusement that has the same level of interest and enjoyment potential as 'Shanghai' which I also thought was great!

On booting up Tyenko you are given the options of loading the screens that come with the disc or embarking on creating your own. Selecting the load option gets you started on screen one. Completion of this screen will give you the password to the next screen etc., etc. I found that all of the screens required some thought, two required considerable thought, and one completely flumoxed me! I rang up the author to rescue me and saw the way after about ten words of explanation (and could have kicked myself for not seeing it myself).

The screen consists of the objects you move around, several objects (diamonds?) that you have to collect, a variety of nasties (all deadly), and a larger number of blocks that are the encumbrances to your goal. It is these blocks that really generate the interest factor in this game. There are 29 different blocks to create screens with which include walls, magnets (very useful), mobile arrows, moveable blocks, one-way blocks (doors), transporter blocks (that transport you and destroy nasties), diversion blocks (that cause mobile blocks to change direction) and more!

The only limit to this game is your imagination. I love it. FIVE FIRE-BREATHING DRAGONS without a doubt.

TYENKO is available from Chris Jolly, 9 Goldfinch Close, Chelsfield, Kent, BR6 6NF. Send Chris a disk, return postage and SOME MONEY and you will receive the game and printed instructions. The money collected will be donated to Action Aid.

## The Dragon and The Which-Roy Cashmore

Once upon a time, a clutch of Dragons was hatched in a land where rain and cloud often shroud the tops of the hills. They were an intelligent race with memories much bigger than those of many other rational machines. A Which? had been looking out for these developing forms of intelligence and had reported on some, which she called 'home computers', in 1981. The list included ones that could be bought from 73.00 (Acorn Atom) to 799.00 (Apple II Europlus)! the size of their memories varied from 1K to 16K (respectively). There WAS one with a memory of 48K which cost 484.00 (DAI, made in Belgium; "little software available at present"). Then, the new race, the Dragons, was hatched. They had a memory of 32K. Would the Which? be waiting for them? Before long, they came under the scrutiny of the Which?, who reported on them in 1983. You could buy one of these Dragons for 200.00; the keyboard was "liked by users", and it was "widely available including high-street stores such as Boots and Dixons". Two years later, in 1985, a Dragon as pictured by the Which? in full colour on the cover. A Dragon then cost, despite the going rate of inflation, 160.00 and was listed in the report among the "Front Runners". In the comparison table, memory, BASIC, instructions, and graphics were above average; expandability below average, and keyboard, display, software, and sound all average with the verdict being "good performance at the price". It was also above average in the 'benchmark' tests. It was, together with the Acorn Electron and the Commodore 64, one of the 3 computers considered "worth thinking about". Was the Which? waiting to destroy the Dragon, or would she continue to give it favourable reports? The next report I have is late 1985. The Dragon was mentioned: below a list of "Not Recommended" computers, it said "and these we've tested which have been superseded or discontinued, or about which there were uncertainties over their supply or distribution at the time we went to press."! and amongst the list was "Dragon 32K". So, did the WHICH? bring about the downfall of the Dragon? As most of us know, the answer is 'no'. The Dragon was doomed because of what had been happening back in its original habitat. Those who had reared the Dragon with such care had let things go wrong. New Dragons ceased to be hatched, and the whole race would have been doomed to total extinction had it not been for a Group who have cared for those Dragons which survive and those who have continued to provide the necessary software for them. By supporting the Group and the providers of software, you can help the Dragon's survival.

VIVAT DRAGON!

## Looking At DASM, part 2...RAD.

A decimal number is just 1234, etc, a hexadecimal number is \$1234, etc, a literal constant is preceded by !, e.g. !C which would mean 67 or \$43. the current address is noted with \*, the asterisk. A label uses the @ characters - @START, and any simple sum may be formed using the above symbols. DASM checks the assembly and produces error messages with explanations. LABEL? would indicate not a valid label. INSTRUCTION? indicates an error in 6809 or DASM instruction. OPERAND? operand omitted, incorrect, or invalid. DUPLICATE LABEL same one used twice. NEED LONG BRANCH too big a branch for 8 bits, use the long format LBRA LBSR etc. Can also mean Label not found. LABEL UNDEFINED possibly a label you intend to use later in the program or mis-spelling. OPERAND TRUNCATED needs investigation as too large for 8 bits. LABEL TABLE TOO SMALL you have run out of CLEARED space. NOT RAM you are trying to assemble into ROM. This, and the normal BASIC error messages. Saving and loading are as usual, and inserting, deleting, editing, renumbering etc, are all carried out just as in BASIC. What more could you want?

BASIC Wordwrap Routine...Roy Cashmore.

The following routine was (inaccurately) published as a letter in the final edition of Dragon User in January, 1989. It provides a simple way of preventing words from wrapping around to the next line on screen. It saves tedious editing when writing program instructions or text adventure programs. A modified form of it is included in my program, "Poster"). Two alternative input segments are included here, but others can be devised. The main subroutine is numbered from 3000.

95 'input routine 1

100 FOR A=1 TO B:REM B IS NUMBER OF DATA ITEMS

110 READ A\$

120 GOSUB 3000

130 NEXT A

140 DATA first sequence; second sequence, etc.:REM NOTE space AT END OF EACH DATA ITEM IS ESSENTIAL

95 'input routine 2

100 W\$="first sequence"

110 X\$="second sequence"

120 Y\$="etc":REM NOTE space AT END OF EACH IS ESSENTIAL

130 A\$=W\$:GOSUB 3000

140 A\$=X\$:GOSUB 3000

150 A\$=Y\$:GOSUB 3000:REM etc

200 STOP

2995 'WORDWRAP ROUTINE

3000 Y=INSTR(1,A\$," "):REM NOTE space

3010 B\$=LEFT\$(A\$,Y)

3020 IF LEN(B\$)=0 THEN 3100

3030 IF LEN(B\$)>31-POS(0) THEN PRINT CHR\$(13);B\$;GOTO 3070

3040 L=LEN(B\$)-1

3050 IF RIGHT\$(B\$,1)=" " THEN B\$=LEFT\$(B\$,L):REM NOTE space"

3060 IF POS(0)=0 THEN PRINT B\$; ELSE PRINT PRINT CHR\$(32);B\$;

3070 X=LEN(A\$)-Y

3080 A\$=RIGHT\$(A\$,X)

3090 IF A\$<>" THEN 3000 (or 3090 IF LEN(A\$)>0 THEN 3000)

3100 RETURN

NOTES:

Strings of any length up to 255 can be used. The subroutine can be called repeatedly (e.g where test is required at several points in a program). This is best done by using routine 1 as a subroutine which can be called when required and putting all the text into DATA statements. It can be modified to print columns on a printer; use PRINTW-2 instead of PRINT and POS(-2) instead of POS(0), and the value of 31 in line 3030 would be altered according to the column width required.

If you have any problem with this or subsequent articles, write to me (enclosing SAE) at Church Farm Cottage, Blaston, via Market Harborough, LEICS, LE16 8DE.

Hello Readers...

So, you don't like the way this issue is arranged, eh? Well, neither do I, but fear not, for help is at hand. There are two ways out of this dilemma: 1) Complain to Paul behind my back, as per usual. Or, 2) Write some stuff of your own and send it to me so that I have enough material for future Updates. Who's for (2)?



Top Ten Dragon Faults 2...A.N.Martin

7) MY DISPLAY SHIMMERS. Why is it that no-one talks about this anymore? The Dragon display really is atrocious! This is a basic design problem with the Dragon. It is a problem with the way the PAL colour signal is produced. High frequency components of the luminance (brightness) interfere with the chrominance (colour), because there is no luminance filter and associated chrominance delay in the Dragon. The shimmering effect is due to the lack of phase locking between the VDG clock (14.21875MHz) and the colour subcarrier (4.433619MHz). The PAL system depends on a precise number of cycles of the colour subcarrier in each line; if this shifts, the effect is undefined. If you're using a TV, don't rush out and buy a monitor; it's the same. The problem ought to be solvable with a modification, but one solution is to use a Commodore monitor or SVHS compatible TV and feed the chroma and luma signals in separately - this definitely works miracles, but requires modification to the computer. Alternatively, take an aspirin and turn down the colour.

8) DISK DRIVE HEADS OUT OF ALIGNMENT.

This can be caused by bugs or faulty directory data making the heads go beyond track 40 (or 80) and banging on the end stop. If the drive won't read disks which it would previously, then the heads may have shifted out of alignment. Be sure that nothing else is wrong before deciding this is the problem. Fixing this fault is best left to experts with the right equipment.

9) MY CASSETTE PLAYER NEEDS ADJUSTING.

Basic maintenance called head cleaning should be carried out before touching the adjustments. Use a cotton bud and head cleaner fluid to really get the dirt off of the heads and rollers. Cleaner tapes are quite useless. Heads may need demagnetising but this is rare. Heads should not need adjustment unless they have been fiddled with or the screw is loose, or a tape has been jammed in wrong and bent it. Make sure no tape fragments (or anything else) are tangled in the head, capstan, or pinch roller. To adjust the head, a screwdriver hole is usually provided. The cassette door or a label may need to be removed to get access. Tweak for max. treble using a suitable music tape (one on which you can hear lots of treble). The motor speed should NEVER be a problem. The Dragon tells the difference between 1s and 0s by timing each cycle of the tones on the tape. A 0 takes twice as long as a 1. If you put a decision threshold midway between these times, it is clear that the tape speed must change a lot before 0 is read as a 1 or vice versa. Unless tape speed varies wildly or sounds like Mickey Mouse, leave it alone. Most tape recorder problems stem from badly behaved ALC circuits on record, poor frequency response, crossover distortion, or clipping. Hum can be a problem, particularly with battery cassette players used with a mains adaptor. Electrical noise from the motor may also prevent good recording and playback. I have been using cheap personal stereos to load a number of Dragons simultaneously, with only one problem - flat batteries!

10) YOU FIDDLED WITH IT!

As the owner of a considerably modified Dragon, I have more trouble when my own modifications come unstuck than with anything else. Even "experts" can't predict everything until after the prototype is assembled. We have a fault-finding flowchart in the Engineering department (at Marconi in Chelmsford, designing the world's best radios. A plug for my home town, there!...SWX\*). It starts "Does it work?...Yes...Don't bugger about with it!". Seriously, make your modifications reversible, that is, unpluggable. It makes the machine easier to dismantle and enables it to be returned to the "baseline" for fault finding. And a Dragon case won't cope with more than 25 watts of dissipation without a fan! This is a good point to finish on, as this article has been delayed while reliability problems have been sorted out. The internal switch-mode supply was causing interference to the disc drive, and

the serial port board kept springing out of the socket! The flimsy coke can aluminium screening has been replaced by a completely enclosing Heinz tin screen with soldered seams. And a complicated metal bracket has been fitted to keep the serial board in place. The fan speed controller still needs fixing because it never did work and was bypassed the day after it was made! I am prepared to fix Dragons or give my help/opinion on any electronic-related matters. Mr. A.N. Martin, 0245 496247.

### Bat Chat...

Well, after 'The Editor's Late Bit', 'Editorial Afterthoughts', and 'This Is Rumour Control', I thought it was time for a name change. The nocturnal airborne reference may annoy a few punters, but they're the doubters, they're the non-believers.

Seeing as I've spent most of the front page moaning, I shan't do so here. Oh, all right then, seeing as you asked [for it] so nicely. Articles, PLEASE! I'm Batman, right, NOT Superman, and try as we might my 64 and I simply CANNOT churn out Update, even bi-monthly now, without some more input from you, and pretty damn sharpish too. Last issue and this issue have had to be slimmed down to preserve some material for next time, but even so stocks are now thin on the ground. Issue 91 in October will feature stuff from Roy Cashmore, A.N. Martin, and Stephen Ross, but what about the rest of you? When we go under due to lack of support, anyone moaning about our absence will be decidedly persona non grata, so PLEASE do something NOW before it's too late. You have one month upon receipt of this issue before the next deadline, so put it to good use and WRITE SOMETHING.

Hmm, Games World on Sky. Not that I watch it, you understand, after all it's been some time since a Dragon was featured on a TV show - although I do vaguely remember a Computer programme on ITV broadcasting a Dragon program "over the airwaves", early 80s ish. An odd idea, having the dulcet tones of the Dragon tape loader coming out of your TV speaker, although of course it was reprised some years later when "Neighbours" started. Still, Games World, glitzy, pacy, but not really very informative, and you might just, just, be able to detect a glint in the eye of the presenters when they tell you exactly how much the games cost, safe in the knowledge that they've played them for free and gratis. At least Gamesmaster on 4 has got Patrick Moore on the staff. "The Simpsons" is the only thing worth watching on Sky, anyway. Even UK Gold hasn't got round to showing "Blake's 7" yet. Still, at least the movie channel shows "Batman". Aahhh.

### DRAGON BOOK REVIEWS by R.A.D.

A Pocket Handbook for the Dragon by Peter Gerrard and Danny Doyle. Published by G. Duckworth & co. 1984. #3.

A collection of facts and figures in 91 pages, ranging from ASCII tables through mnemonics, Basic commands, conversion tables, flow charting, hex/dec/binary, hyperbolic functions, IEEE standards, input and output and machine code interfacing to musical note values, applicable to both the Dragon 32 and the 64. It contains memory maps, detailed notes on graphics, basic, error messages - some not included in the manual - with a final 2 pages of hints and tips on how best to use some of the information given. There are also descriptions of the printer port, centronics standards, the edge connector, RS232 standards, the cassette port and joystick slots. There is even a list of all the Disc commands for DOS. A useful little manual.

THE GREAT DETOUR MYSTERY . . . .

Two mysteries, actually ... the first is a simple one to solve, "why haven't the rest of you bought your copy of Detour yet? ... don't you WANT a chance to win double your money back?!" .... but the second one is far more mysterious .. "why has no-one claimed that tenner yet?". Surely all those Adventure Experts can't have been baffled by a simple tour around London?, or is it that they can't cope with adventures that have no spells, trolls, wizards, etc in them?. It is a difficult game to solve, I admit, but if I could do it (and I did, when testing the various stages) ANYONE should be able to. So, if you don't have your copy, buy it now, and if you DO have one, complete it and make a profit!. This could go on for longer than the dreaded Legendary Pimania!. Paul.

THE GREAT SOUTHERN ROBBERY ! .

Well, I don't know about you, but I get the distinct impression that a lot of computer suppliers this side of Watford are into larceny on a VERY grand scale. Let me tell you a little tale to illustrate the point: once upon a time, (last week to be precise), I decided that my old Shinwa printer was showing signs of age and decrepitude, and that I ought really to break all the rules and spend some money on a new one. Having read through all the ads and decided that the lasers and BJ's were all over-priced and over-rated, and that most of the current 9 pin units lacked such features as tractor feeds and similar useful items, the choice eventually came down to an Epson LQ570, which looked as though it ought to do all I required without costing more than one arm and a leg or two. Next step was to find a supplier, and having checked through all the ads I could find and worked out that the average price was 203.00 plus v.a.t it seemed logical to buy one locally rather than resort to the extra expense of mail order. Sensible, you agree?. Now for the catch ... there seems to be a North/South divide when it comes to profit margins ... although I could easily find a couple of dozen firms the other side of Watford Gap that were more than pleased to offer me a 570 for around 250.00 inclusive of v.a.t and delivery, all the firms this side of London seemed to think that they were doing me some kind of favour by quoting prices in excess of 280.00 PLUS v.a.t!!!. Now I appreciate that business overheads in this area are high, but against that incomes are bloody low (there's a lot of people around here that take home less than a hundred a week, and they're the lucky ones, most are on DSS), and as the computer game is virtually dead I would have expected traders to keep prices competitive rather than jack them so high that no-one would be stupid enough to pay them, wouldn't you?. Epson prices ought to be pretty well standardised ... a few pounds variation between the bigger and smaller firms would seem reasonable, but almost 90.00 difference on a 200.00 machine seems like a severe case of liberty taking to me, and somehow I don't think I will be supporting my friendly local retailer after all ... it's too damned expensive!.

OK, so this is nothing new ... when I moved back down here from Lancs several years ago the first thing I noticed was that prices were doubled and incomes were halved compared with "up North" (not that you can make anyone believe that until they see for themselves!) ... but it seems to be getting even more pronounced recently, as though the Thatcher "rob 'em all" policy still hasn't worn off, even though no-one has anything left to rob!. There's no way that retailers can blame the recession for THIS, greed and stupidity possibly, business incompetence definitely, but whatever the "reason", there's no way that I am going to pay their inflated prices, and I'd advise you to shop around when considering purchases too. When I get around to writing the cheque it will be made out to the firm that offers the best deal for the money ... not the biggest rip-off!. Too many retailers still seem to think that computer owners have money to throw away .... and most of them seem to be in the South coast area!. Paul.



THE LATE, LATE BIT .....

I suppose it won't do any harm to start off this time by making some nice comments for a change ... though don't expect me to make a habit of it!. Firstly I would like to say a very sincere "thank you" to those Group members who keep things going. I don't mean "the staff", although we'd be in a right old state without all their work, but the few "regulars" who still put in a lot of time and effort to write articles for Update, and of course the Group software. They don't make a damned thing out of it, and in many cases refuse even to accept expenses, and they are the people who have really kept the old Dragon going all these years. I am not going to list names, but you all know who they are as well as I do, and I hope you appreciate that THEY are the ones who enable you to keep your machine and the Group running. Second "thank you" has to be to those of you who have been "rounding-up" your cheques for orders and subscriptions by adding a bit extra towards Group funds .... as anyone should be able to work out, at 8.00 per year we HAVE to rely on sales to break even, and with numbers well down now sales are similarly low, so those "extras" make all the difference ... thank you, you're making the job of balancing the books that much easier, and doing a lot towards extending the life of the Group. Much appreciated.

Right, revert to normal "Mr. Nasty mode" once more!. Regardless of the efforts of the "regulars" we do NOT have anywhere near enough material to keep Update at normal 14 page length ... as you will have noticed, this issue is well padded with waffle from me, for the simple reason that Stephen could make up a mere EIGHT pages (including his own "bits") this time around, and the reserve supply for the next issue is virtually non-existent, so unless some more of you stop lazing around getting fat and sun-burned and make time to get something written a bit sharpish the next issue will probably be around four pages long!. As has been stated many, many times before, you do NOT need to be an "expert" on anything in order to write something interesting ... most of us aren't ... and for that matter you don't even need to own a computer or a printer ... you can write it in pencil on a roll of loo paper if you like (at least we can recycle that after it has been transcribed!), and you don't even need to learn joined up writing, Steve and I can read upper case when we have to, so there's no excuse at all ..... WRITE!.NOW!.

Have you noticed how many of the original Dragon writers have become "PC Experts" now? .... and how they have all become so disparaging about slow 8 bit computers and anything with less than four Meg of RAM on board, a SVGA screen, and at least a 486/60 CPU?. Funny, isn't it?. OK, I know they have to make a living, but is it REALLY necessary for them to run down the older, more basic machines in order to do so?. If you read the Mike James Gazette (sorry, Computer Shopper) for example, you could be forgiven for thinking that Mike had never used anything less than a 486 system ... yet he was one of the leading Dragon writers once, books, articles for Dragon User (back in the days when Sunshine Publications paid real money for articles!), you name it ... and he isn't the only one by quite a few. Some people must have very short memories, either that or they'll write anything at all for money.

I was wondering, do you think that we could get contributions to Group Funds in the same way that political parties do? .... we could have our own Honours List and flog off the odd Order of the Plastic Dragon at a couple of grand a time, or maybe it would be better to charge our own tax on all Group products ... we could call it V.A.T, Vodka Acquisition Tax, or something like that perhaps?. Of course, we would have to guarantee not to disclose names of anyone making donations, or anything like that, or the SFO would be complaining about having to work overtime. Have to watch it though, we wouldn't want our benefactors emigrating to Cyprus, or Ford nick!. Any ideas? ... then write them up and send them to Steve as an article for the next Update!. Paul.

DON'T JUST WATCH THE BOX ... BUY DETOUR AND GIVE THE BRAIN CELL SOME EXERCISE

WORD SQUARE

Yes, I KNOW it isn't a crossword, but we're fresh out of those, so try this for a change!

Somewhere in this lot you should be able to find the names of TWELVE firms that are or have been connected with Dragon hardware or software .... names can be in any direction .. up, down, diagonal, horizontal or vertical, but they ARE there!. Find them and you are one of the first three to send me the list you can pick one of our advertised programs FREE!. Paul Grade.

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V Z Z N B C W G C M I C R O D E A L H S
M Z W U A L S W B O Y I Q L W H I M U L
N S I T I G E M W Z N L H Y O F O H Z V
R G D N H N B O F U R P K P I K D I S E
O R H I G B L X S J E Y U M Q E D M C L
N D N C V F A P W F D L U S R M C K I H
E U A A F U B U X X N U S U E T M Q K I
V R Y Q F K Y Q M R A C R P T N G B F M
S X X O L X P J X A N I X M V V S Q R A
O D R A G O N D A T A D P R E M I E R R
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G W I A N X C R O Q A T Q T A P N G X
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N F F D R M E W W R C U S C N J D K R Z
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M U W B G D W Q T B Y V P U K Q L A T V
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V B I N F A Q G R Y V V P P R N L D N G
M W C Q R O B Y I E N E O X E F M D Q O
B X U N G P E N J M O R R I S O N J T X
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BOOKS REVISITED ..... BY RAD.

THE DRAGON 32 BOOK OF GAMES. by Mike James, S.M.GEE and Kay Ewbank.  
Published by Granada.

Released in 1983 at #6, it is a collection of twenty-one games for the Dragon 32 in 132 pages. Each program has a detailed description and most have samples of the screen display, but in black/white which is not quite as good as the real colour of the display. Sound effects are included. The listings do not fall into neat categories, being so varied, some of them familiar favourites of the early days, from Treasure Island to Dragon Talk, the latter similar to the well-known Eliza. Around 21 programmes use moving graphics, and are more uncommon. The book was not intended solely as just another collection of programs, but also as an attempt to cater for those who wished to improve their knowledge, starting from simple beginnings. Each listing is accompanied with an outline of its subroutine structure, details of special techniques used, and suggestions for improvements. With just one exception, all the programs are Basic, and the authors claim that they have been thoroughly tested and printed directly from working versions to make them bug-free. As even the best of us make mistakes, there are also some hints and tips on de-bugging your own attempts. When I first tried to learn Basic, I would have appreciated such a book, but never found one, and there is always something new to learn from others, especially if you can read through a listing and understand it. A good source for now extinct Dragon Books is the 'FOR SALE' shelf of your local Municipal Library, where you can pick up a book worth #7 for around 50p. It was years before I discovered that the Library arranged the computer section to follow on from the Supernatural and Supernormal section!.

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Which reminds me ..... has anyone ever seen a good Eliza type program for the PC machines? ... you'd think that will all that memory to play with, plus the current "faster than light" CPUs, someone would have written one that really worked properly, rather than just being good for a giggle, wouldn't you?. If anyone ever finds one DO please let me know ... I'd love to see just how good it really was. Paul.

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