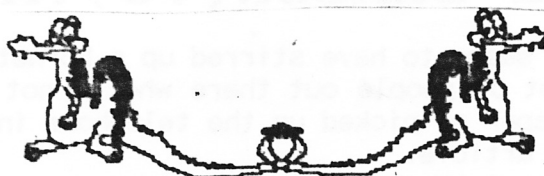


The Newsletter of the National Dragon User's Group

DRAGON



UPDATE

CHAIRMAN: Paul Grade. 6, Navarino Road, Worthing, Sussex. Phone: 01903-207585
EDITOR: Stephen Wood. 52, Downsway, Springfield, Chelmsford, Essex. CM1-5TU.
S/WARE EDITOR: Mike Stott. 10, Mellor Close, Prescott, Merseyside. 0151-480-7712

ISSUE 114 *Win95 can seriously damage your sanity!* AUGUST 1997

THE GAFFER'S BIT

OK, so it's Summer again which usually means that it's raining so hard that even the ducks spring a leak, but just in case things go wrong Worthing Council has issued Awful Warnings about the perils of exposure to sunlight!. Unless I've got it all wrong, if the pollution don't get you then the sunshine will!. According to our Experts, spending more than fifteen minutes exposed to this Deadly Radiation will result in all forms of Long Term Lergies, and even if you manage to escape that fate, the Deadly Pollution from those Dreaded Motor Vehicles will finish you off anyway!. So, I'm busily looking out for the first sighting of a tourist type person wandering along the beach (or what's left of it since they "improved" the sea defences with a couple of million tons of boulders!) wearing a full radiation suit complete with closed circuit breathing gear!. Leaving aside the more obvious absurdity of all this "expert advice", it still seems a trifle odd that the same Council are happily advertising to attract visitors to "Sunny Worthing"!. Oh Hell!, who cares anyway?, with any luck the entire Council will get swept away in the floods next time it rains!. What's any of this got to do with computers in general and Dragons in particular? ... absolutely nothing at all, but I thought it might go some way towards explaining my attitude towards "Experts" and "Authorities" of all varieties, and why I get so annoyed when people are gullible enough to believe them!.
Read something just as daft in "PC Direct" magazine that there's no point in buying less than a x24 speed CD ROM, and that the Pentium 300Mh machines are being made instantly obsolete by the 500Mh Alpha!. So who is going to be thick enough to waste their hard fiddled cash on these faster than light abortions? not you, of course, you've far too much sense to believe the Experts when they tell you that you can't possibly manage with lesser speeds, haven't you???

The Editor's Bit

In the latest BT advertisement, there's a shot of people getting on board a 'plane, accompanied by a voice-over saying "Why are they doing that, when BT's video conferencing systems could make travelling to meetings obsolete...", as if to suggest that business meetings could be a thing of the past if you use the telephone instead.

Just one point. Has anyone actually SEEN the quality of video telephones? About as impressive as some old Atari VCS 2600 graphics and about half as fast, with fewer realistic colours.. Are BT seriously suggesting that business could be conducted with greater efficiency if we all stopped travelling to meetings and squinted at a two inch LCD with barely discernible features instead? I rather think not.

About the only decent portrayal of a video communications screen is the bit with William Shatner in Airplane 2. At least he had the grace to play it for laughs - I doubt BT could manage that. SW.

PEEKING THE DRAGON(70).MIKE STOTT

My last article in verse seems to have stirred up a hornet's nest.

Obviously there are a lot of people out there who do not want a repeat and they have either put pen to paper or picked up the telephone in order to ensure that I do not repeat it in this article.

First I had a letter from Keith Nash who is trying to reconstruct the Dragon PD library following the untimely death of Stuart Beardwood.

He has sent me a list of what the library contained and is trying to find out who has got what titles. He also inquired whether there are any internet sites that have Dragon PD software for downloading. I am not on the internet but I am sure that some of our readers must be and will know of at least one site offering such items. Much of my old software is now in boxes in the spare bedroom and I will have to spend a full day sometime sifting through it for items of interest.

Stuart gave me numerous disks in the past (unfortunately most of it was without any documentation whatsoever) and I know that some of the software was only in the early stages so it will take some sorting out. There were also printed lists of the PD library which I used to take to Ossett and Keith's list does not seem to be as long as the ones that I remember. If anybody can help Keith please contact him at 16 Lansdowne Street, Worcester, WR1 1QD or on 01905 21258.

Dragonfire Services had a PD library for a short while and I have found two disks with their offerings on in my collection. Maybe other people have also got some of their PD software in their collection.

A very old friend of mine, Tim Lees, has written to me. Tim is now living in Bolton which is not too far from where I live. He went for a long while without touching his Dragon but has visited Brian O'Connor on a couple of occasions and his Dragon has been in almost constant use since.

Tim has always been interested in adventures more than any other kind of software and wonders whether anybody else out there is still trundling their way through adventure games. He bemoans the fact that there used to be other adventurers out there to share problems with, in particular Robert Cleminson.

While Tim was checking out his disks he found that errors had crept in on some of them. Although he had backups of most of his software he has lost his only copy of TEN LITTLE INDIANS from either Channel 8 or Adventure International.

I have not got a copy of this myself so I am unable to help him but somebody out there must have a copy. Sotos Mandalos has written to ask if there is any educational software for the Dragon similar to the ones that are currently sold for the Intel Architecture PC systems. He has a five year old child that he wants this type of software for. I am sure that Brian O'Connor will have some software that will be suitable for a five year old. Some of the old Dragon Data products were very good and my younger son learnt his numbers more or less fully from playing a ten green bottles type game on the Dragon. Sotos mentions MR DIG in his letter and another title I would recommend for younger children is CRAZY PAINTER. Okay it is not educational but it is a lot of fun and anything that will get somebody used to using a computer has got to be good. Sotos also asked if there is a graphics version of EL DIABLERO available.

Another old friend of mine, Ian Swift, telephoned me the other week. He no longer uses the Dragon at all but rang up for rather a long chat.

Ian used to control a buggy with his Dragon and also used to connect up his Psion with the Dragon and pass information and programs between the two of them. Now he has a Pentium with 64 megabytes of memory and is mainly using this computer for obtaining graphics and manipulating them. Unfortunately he is finding his present computer too slow for the work he is doing and will shortly be upgrading yet again.

How did we ever manage with about 23k of memory running thousands of times slower than modern computers?.

Machine Coding 7. Tony Shellard

I wasn't really expecting to get this far, but I realise with hindsight that I ought to elaborate on a point made in part 6. The earlier instalments concentrated on streamlining a short section of code and determining some measure of its efficiency but omitted consideration of the larger program structure.

Any of the SCNINV programs may be considered as a subroutine for use in a larger program. If you are using EXEC or USR statements from BASIC there is no problem; the registers are taken care of for you. For those foolhardy souls braving machine code, there is no such safeguard; if you want it done, you have to do it! I'll reduce the how and where to simply PSH and PUL since all good books on the subject explain the use of stacks for this purpose and they really are the natural thing to use for subroutine management. You will have to put the stack out of harm's way where it won't overwrite your program or data storage - I don't know where that is because you haven't written it yet. Try as high as you can, as 6809 stacks grow downwards. Protect the RAM used for this with the second parameter of the CLEAR command; allow as much as possible.

The registers to be kept depend on which are altered by the routine, found by simply reading the source code/disassembly listing and noting the ones changed e.g. SCNINV2 changes only the X register whereas SCNINV4 alters A B X and U. Perhaps the safest method is simply to store all registers for every routine, but this is very wasteful of both time and memory. You could begin this way and then eliminate all the ones not used, a technique most useful if you're being lazy and making up the routine as you go, like all the design methodologies tell you not to, like we all do.

For each register altered you must decide if the value previously held must be kept; only you can know this from your design of the main program. Remember that the calling routine might not need it but the routine which called that one might.

Again, any redundant value eliminates a register from the list.

Having decided what is worth preserving, we must determine the best place to do so. If the routine is only called from one place, perhaps as part of a larger subroutine, we can do it immediately before execution. In this case, we can also assemble the code at this point in order to save the jump/branch/return overheads, knocking out the JSR/BSR and RTS instructions.

If the calls come from several places, it would mean repeating a section of the code, so we would be better off writing it once at the start of the routine and making the calls there. This is generally true but remember that stack instructions are slow, even though they are always two bytes long. If the number of registers to be saved varies from call to call there may be a small time saving possible from only doing those essential for each one. As always, there is a time/memory trade off, which may be useful for the speed-critical sections of your programs.

Hopefully this has been a useful analysis of machine code techniques and will encourage people who have read the "what a register does" articles to have a stab themselves. Although the examples have been rather simplistic (intentionally, for the benefit of beginners) I have tried to use them to put things into a context which can be applied to your own programs. I hope it gives people the confidence to attempt greater things, and look forward to running the results in the near future.

Funny, ain't it?

After Mike's poetic efforts last issue I was expecting at least a flock of obscene limericks about Bill Gates, or even me, or perhaps a listing like the one in Macbeth 4/1, but there's not even been a mad rush of prose for publication so far!. Go on, why not break the habit of a lifetime and write us something?. They can't nick you for it yet!.

Paul.

Roman Numerals - Gareth Uttiett

To most of us, Roman numerals may seem antiquated and odd. How many of us squint at the copyright notice at the end of a TV programme - (C)BBC MCMXCVII ?? I saw a Visual Basic program in a PC magazine, and with very little trouble converted it into Dragon Basic. Unlike our decimal system, Roman numerals use seven letters (M D C L X V I) instead of Arabic-based numbers to represent specific values: M=1000, D=500, C=100, L=50, X=10, V=5, and I=1. The position of the character is important; if a larger value precedes a smaller one, then you add them. But if a smaller value precedes a larger one, then you subtract the smaller one from the larger. If the values are the same, you add them. This is quite straight forward for 2 or 3 characters, but becomes time consuming and error prone when dealing with larger values, for example:

	total	notes
M=1000	1000	
CM= -100+1000 =900	1900	C is lower than M so C becomes negative
XC= -10+100 =90	1990	X is lower than C so X becomes negative
VII=5+1+1 =7	1997	V is higher than I, I is the same as I, so add,

giving us 1997 in decimal.

It is interesting to note that the system only uses two base number values, 1 and 5. Any number can be achieved by adding the required values, it is quite easy to write a program to do this for you. Note that some numbers look different but give the same answer: MCMLXXXVII and MCMXCVII are both 1997. Numbers in Roman numerals are usually written as concisely as possible. Nice system, but can you see the snag? MCMXCVII is 1997, but in hexadecimal it is 7CD and in binary 11111001101. Roman is often as long as binary and is a bit cumbersome.

```

10 REM ROMAN TO ARABIC CONVERTER
20 REM ADAPTED INTO DRAGON BASIC
25 REM BY GARETH UTTIETT
30 CLS
40 CK$="MmDdCcLlXxVvIi"
50 AA=0:ST=1
60 INPUT "ENTER ROMAN NUMBER: ";RM$
70 NC=LEN(RM$)
80 DIM A(NC)
90 FOR I=1 TO NC
95 CC$=MID$(RM$,I,1)
100 S=INSTR(1,CK$,CC$)
110 IF ST=0 THEN 200
120 IF ST>0 THEN ST=1:ELSE ST=0:GOTO 200
125 REM CHECK HERE TO SEE IF EACH LETTER IS LEGAL
130 IF CC$="M" OR CC$="m" THEN A(I)=1000
140 IF CC$="D" OR CC$="d" THEN A(I)=500
150 IF CC$="C" OR CC$="c" THEN A(I)=100
160 IF CC$="L" OR CC$="l" THEN A(I)=50
170 IF CC$="X" OR CC$="x" THEN A(I)=10
180 IF CC$="V" OR CC$="v" THEN A(I)=5
190 IF CC$="I" OR CC$="i" THEN A(I)=1
200 NEXT I
205 IF ST=0 THEN PRINT "ERROR":GOTO 280
210 FOR I=1 TO NC-1
220 IF A(I)<A(I+1) THEN A(I)=A(I)* -1
230 NEXT I
240 FOR I=1 TO NC
250 AA=AA+A(I)
260 NEXT I
270 PRINT RM$+" IN ARABIC NUMERALS IS";AA
280 END

```


Safety In Numbers (6)...Bob Smith

There is a number on the Dragon that increases from 0 to 65535 at the rate of about 50/second (TIMER). The numbers 0-65535 are all the possible combinations of 16 bits (2 bytes). By using the righthand byte, it is virtually impossible to cheat by picking a seed. In principle, we can mask the lefthand byte out by ANDing with zeros, but this is too much for the poor old Dragon (and the PC as well), so it has to be done with arithmetic. However, the numbers go from 0 to 255 in sequence, which is not good for a random number generator.. This is where XOR comes in. By taking the righthand byte and XORing it with a suitable number e.g. 83 (01010011), we still get all the numbers from 0 to 255, but broken up into small groups, thus giving a more random distribution of the numbers. Here's the program. You will also need to append the subroutine given last time (lines 2000 ~ 2210). the easiest way to do this is to read in the program given last time, DEL1-1999 and then type in the program given below, save it under different name, and then RUN it. Answer the questions and you should get random numbers in the range you have specified. Masking numbers with AND, OR, and XOR is one of the tricks of the trade in producing fast shoot-em-up video games; but that's another story.

```

800 DIM N(2)
900 N(1)=83
1000 FOR I=1 TO 2
1010 INPUT "YOUR HIGHEST RANDOM NUMBER";LIMIT
1020 IF LIMIT <1 THEN I=1 :ELSE I=2
1025 IF LIMIT>255 THEN I=1:PRINT"TOO BIG!" :ELSE I=2
1030 NEXT I
1040 LIMIT=INT(LIMIT)
1050 FOR I=1 TO 2
1060 SEED=TIMER
1070 N(2)=INT(SEED-INT(SEED/256)*256)
1072 GOSUB 2000
1074 RAND=INT(RAND/256*LIMIT)
1080 PRINT:PRINT"RANDOM NUMBER=";RAND:PRINT
1090 INPUT "NEED ANOTHER";YN$
1100 IF LEN(YN$)=<0 THEN YN$="Y"
1110 IF (ASC(LEFT$(YN$,1)) OR 32)=121 THEN I=1 :ELSE I=2
1120 NEXT I
1130 END
2000 REM XOR SUBR (1 BYTE)
2020 FOR K=1 TO 2
2030 NUMBER=N(K)
2040 LFTOVER=NUMBER:QUOTIENT=NUMBER:NWNO$(K)=""
2050 FOR I=1 TO 2
2060 LFTOVER=(QUOTIENT/2-INT(QUOTIENT/2))*2
2070 NWNO$(K)=CHR$(LFTOVER+48)+NWNO$(K)
2080 QUOTIENT=INT(QUOTIENT/2)
2090 IF QUOTIENT>0 THEN I=1 :ELSE I=2
2100 NEXT I
2110 IF LEN(NWNO$(K))<8 THEN FOR I=1 TO 8
-LEN(NWNO$(K)):NWNO$(K)="0"+NWNO$(K):NEXT I
2120 NEXT K
2130 RAND$="":FOR I=1 TO 8 STEP -1
2140 X$=MID$(NWNO$(1),I,1):Y$=MID$(NWNO(2),I,1)
2150 IF (X$="1" AND Y$="0" OR (X$="0" AND Y$="1"))THEN RAND$="1"+RAND$ ELSE
RAND$="0"+RAND$
2160 NEXT I
2170 RAND=0
2180 FOR I=0 TO 7
2190 M=ASC(MID$(RAND$,8-I,1))-48:RAND=INT(RAND+M*2^I)
2200 NEXT I
2210 RETURN

```

Answer Forum...Malcolm Cowen

In the last Update, "Idle Gossip" asked how the calendar is calculated, so here's an answer.

The whole thing goes back to Mr J. Caesar, the well known dead Roman emperor. He decided, (before he was killed), to reform the calendar. This was necessary because (a) the existing calendar was two months out of kilter with the actual seasons, and (b) because it gave him a good chance to rename the fifth month as July (or its Latin equivalent) after himself. His nephew Augustus followed suit and renamed the sixth month after himself. For good measure, he also nicked a day from the last month (then February) and stuck it onto August, so that he could have 31 days just like his uncle. This version lasted fairly well, as it was only out by less than a day every century. The only real change came after the Roman empire fell, and the new Barbarian rulers didn't really take to dates AUC (year of the city of Rome), it cramped their style a bit. So they switched from using dates AUC to using dates AD/BC (in the year of our Lord/before Christ). Unfortunately the monk who did the calculations got them wrong, and as a result in the new calendar Jesus was born about 6BC, with a maximum 2 year margin of error. By the time everyone realised this it was too late.

The next real problem came one thousand years later, when they did another adjustment for the last errors, and that gave us the calendar we use today, courtesy of Pope Gregory, who also moved the start of the year back to January instead of March. Catholic countries followed suit immediately, and others caught on later. Today, only two groups use the old calendar in any way; the Russian Orthodox Church, who keep to the old Christmas and Easter; and HM Inspector of Taxes, which still calculates taxes from the old New Year on March 25th, or in the new Calendar April 6th.

Old Dragon Books...Roy Cashmore

In a secondhand bookshop near me they have copies of the following books. If anyone is interested, I will acquire them (subject to availability) at the prices indicated and forward them for the cost of postage and packing, which I estimate will be about 50% of the asked price. There is only one copy of each book, so first come, first served.

Know Your Dragon - Munro 1.50
 Educational Programs for the Dragon - I. Murray 2.00
 35 Programs for the Dragon 32 - Dr. T. Langdell 1.00
 Dragon Extravaganza - R. Valentine 2.00
 60 Programs for the Dragon 32 - Erskine & Walwyn 2.50
 Enter the Dragon - C. Carter 2.00
 Games for your Dragon (Virgin) 1.00
 Dragon Machine Language for Absolute Beginners - J. V. Reyden 3.50
 Language Of The Dragon - 6809 Assembler - M. James 3.50
 Inside The Dragon - D. Smeed and I. Somerville 3.50

If you are interested in any of the titles, please 'phone me on 01858 555338.

Just Curious, but

Has anyone ever got around to attempting to write a scanner driver routine for the D64?. After all, there are a lot of serial scanners on the market, and although most now are sold with "Twain" drivers so that they will work (more or less) with Windows applications, there are still a lot of MS-DOS drivers too, and it is quite possible to use a (mono) scanner on an old XT machine with CGA display hardly "hi-resolution"! So, why not a routine in DragonDOS?. Any of you programmers out there feel up to the attempt?!. Plustek and Logitech (DOS) drivers are pretty crude and basic anyway. Paul.

Evolution of PC-DOS. S.Mandalos

When the original IBM PC-DOS was being planned, most other PCs used an 8-bit microprocessor (just like the Dragon with the 6809E Motorola chip) and their primary operating system was called CP/M (Control Program Microcomputer). CP/M was designed for low-cost, low memory (64KB maximum) systems. IBM wanted the PC operating system to be enough like the CP/M to make it easy to adapt CP/M programs and user's experience to the new machine. Although IBM initially intended to use an updated 16-bit version of CP/M from Digital Research Inc, it ended up using a new operating system from Microsoft. No-one knows the full story, but Digital Research managed to somehow offend IBM and was slow in developing CP/M-86. Seattle Computer Products had developed DOS-86, a variant of CP/M for the 8086 chip. Microsoft picked up the rights to DOS-86, polished it up to meet IBM's requirements, and renamed it to MS-DOS. This quick and dirty operating system was used (and still is, MS-DOS version 6.23 is the latest I think) by millions of PC users. IBM chose to call the operating system PC-DOS on the IBM-PC. Things have changed since then, eh? Let's see. Staying with history for a while before we go to Paul's favourite operating system (Windows 95, eh Paul?) and his favourite company (Microsoft, eh Paul?), another influence in the evolution of PC-DOS was UNIX. Microsoft had experience developing their own variation of UNIX called XENIX (for those that know about UNIX, don't forget Microsoft owns 20% of SCO UNIX now, a UNIX version in Intel processor architecture). There have been significant revisions to PC-DOS since the introduction of the IBM Personal Computer in 1981. Just after version 4.0 was announced, IBM and Microsoft parted company. IBM managed to loose most of the PC market share to Compaq by introducing the Microchannel Architecture, and Microsoft had a vision, not only to create software applications, but also to create a graphical representation of the operating system for the Intel based PCs, like the System 7 by Apple in their Macintosh computers. Long story, they have been suing each other for years. I remember when Microsoft had a problem with SuperStore (doubling the size of your hard drive by using a 'shrinking' algorithm, they bought the company to avoid paying heavy fines!). IBM's original PC-DOS version 1.0 made its debut with the introduction of the IBM PC and supported only single sided disk drives with a capacity of 160K, sad eh? In a short time, version 1.1 was needed to support double-sided 320K diskettes. The second revision of DOS, versions 2.0 & 2.1 were the most predominant operating systems used for a plethora of software applications. Version 2.0 was introduced with the hard disk equipped IBM PC XT, and borrowed features from the advanced operating systems like UNIX to help users to deal with mass storage devices. Hard disks required new organisational tools to be added like subdirectories and utility programs such as RESTORE, BACKUP, FDISK, CHKDSK. DOS 2.0 also included a new formatting routine to yield 360K on a floppy disk. DOS 3.0 revisions are also rooted primarily in disk drive changes. Introduced with the IBM PC AT, the third edition of DOS includes support for AT's 1.2MB floppy disks. DOS 3.1 followed with file sharing capabilities for local area networks. This was probably very significant for the rest of the PC history. We are now heavily involved with 32-bit Network Operating Systems like Novell's NetWare which still run on top of PC DOS (now MS DOS). DOS 3.2 had special support features for IBM's Token Ring Network and the 3.5 inch disk drives. This PC DOS (or MS DOS) development has been slow really if you think that the changes incorporated were more for convenience than functionality and flexibility. Another major stumbling block was the 640KB memory barrier and that a hard disk with capacity greater of 32MB had to be split into logical drives. But now all has been taken care of. Our heroes and millionaires at Microsoft decided to rule the World and give us the Graphical User Interface OS that took all the problems away from administering our PC resources. Although a lot of people do not like it, the time has come. We simply cannot take care of computers like we used to with line commands, no menus, no mice to point and click. My first assembler routine was to get a character and display it on the screen. Read the "Bible", IBM's BIOS book and you will find all that you need on the PC system, but I no longer bother (until the clock goes to the year 2000)!!

Page eight
GROUP SALES (6)

Thanks to everyone who bought books from the "library" from the list in the last issue. This is the stock which is left, which is still a good collection for anyone who wants to learn from scratch.

Dragon Machine Code for the Absolute beginner}	John Vander Reyden
The Dragon Programmer:	S.M.Gee
Dragon Programs:	Nick Hampshire
60 Programs for the D32:	R. Erskine and H. Walwyn.

PRICE: £1.00 each, or £3.00 for the lot.

POSTAGE: 75 pence, (I underestimated last time!)

The next collection is all priced at 50 pence each (£0.50), postage at 75 pence.

Exploring Adventures on D32:	Peter Gerrard
101 Color Computer Programming Tips & Tricks	Ron Clark
The D32 how to use and program	Ian Sinclair
The D32 & how to make the most of it:	" "
The Power of the D32	J.Sharp & D.Bolton
Further Programming for D32	Ian Stewart & R.Jones
The Working D32	David Lawrence

D32 COMPLETE : £10.00 (£14.90 including postage)

JOYSTICKS : 1 PAIR UNBRANDED £4. 1 D.D. JOYSTICK £2.

CARTRIDGES : EDIT+; A hi-res screen editor with extra commands added to BASIC. Upper and lower case on screen.
RAIL RUNNER: Arcade game.

PRICE: £2.00 EACH, or offers for both.

UTILITY TAPES: FILMASTR(database); DRAGON DATA UTILITIES:-Personal Finance(2 copies), Special Selection 2; TELEMED (improvement patch for Telewriter); Electronic Author

PRICE: £0.50 each; will haggle for batches of five and over.

There are also 20 original games tapes, including adventures, like Madness and the Minotaur, Backtrack, Golf (P.S.S.), Stockmarket, Interplanetary Trader, Grand Prix, Graphic Animator, Combat Air Patrol and 10 Spanish programs produced by Eurohard.

PRICE: £0.20 each, or offers for lots of 5 and over.

As always, reasonable offers accepted for any of these.

For more details, phone me on Worthing 207585 most evenings. Ken Grade.

Got a BJ10E?

I've had to repair a couple of BJ10E printers recently, and apart from sundry electrical/mechanical faults both machines had what appeared to be totally dry cartridges. Being too tight fisted to buy replacements, I drilled out the plugs and gave them a five second squirt each with a can of switch cleaner!. Several hundred pages later they are still printing well, and contrary to expectations there are no blots or smudges!. As replacements cost about £15.00 each it could be worth a try when yours finally gives up. Paul G.

New Software???

OK, so it's PC stuff rather than Dragon, but it IS very relevant to everyone who has material on DragonDOS discs which they would like to transfer over to their PC. I know there was the old and bug ridden Compusense program "PC-Convert", and I've used a modified version of that for years, but it has always been clumsy, fussy, and more than a little unreliable, and worst of all couldn't run from hard disc. Now Graham Kinns has come up with a better solution, a set of routines which allow your PC to read a DragonDOS disc and transfer just about ANYTHING on it to the PC. No fuss, no bother, and no lost data, and they will work happily from hard drive or floppy!. The only limitation is the obvious one that you have to have a 5.25 drive on your PC to take the Dragon discs, of course, but that's something you can fit for under a tenner, so shouldn't be any problem at all.

Graham's routines are Shareware, and if you're one of those extravagant types who are "on-line" you can download them from his Web site, but for the benefit of those of you who don't have a modem (and hopefully for the benefit of the Group bank account!) Graham has given permission for me to supply the material on disc. So, anyone interested can purchase a copy for £2.00 inclusive, (and personally I reckon that's a tenth of what the routines are really worth), which covers materials and postage although if anyone cares to add a few extra pence to help Group funds it would obviously be very much appreciated. You've been asking for this for years, now it's available, so take advantage of it!. Paul Grade.

Up-2-Date situation.

I hear that since the mention in the June Update Ray has had a few more subscriptions, but the total is still dangerously low as with Update, it's numbers that count, and if they aren't high enough it isn't financially viable to continue publication, so please, I KNOW this isn't the best time of year to persuade anyone that they should be enthusiastic about computing matters, but it's no use putting off subscribing until later ... because later may well be TOO late!. Ray and Eddie do a damned good job, and get absolutely nothing in return, so at least try to demonstrate some appreciation by ordering a copy!.

A Question of Colour?

I don't know whether or not this information will be of any use to anyone, but just in case Some time ago I acquired an old Microvitec Cub monitor, a model 1451AP, the steel cased type with switched TTL/PAL inputs on the back panel and a built in audio amp. The thing was "dead on arrival", but having persuaded it back to life my original intention was to use it as a monitor for my VCRs. However, more out of curiosity than anything else I decided to try it on the old Dragon monitor outputs, and switched to PAL mode, and with very little adjustment, it worked perfectly full colour and sound!. These monitors use the same "Type 3" boards as the CGA Cubs, with just a few connection changes and the addition of the audio amp board, and as Microvitec Cub monitors tend to get dumped in the nearest skip by most computer shops now I thought one or two of you might feel it was worth having a scrounge around such places locally after all, it really does do a lot for the Dragon display, and the sound is a distinct improvement over that produced via the modulator output as well. The monitor I got was being thrown out as scrap, and repairs cost me the price of one small capacitor. You might have even better luck!. Could be worth a try, perhaps?. Paul Grade.

Yes, I couldn't agree more, there's far too much waffle from me in this issue (yet again!), but if YOU won't write something what's the choice?!. P.G.

The Late, Late Bit

Don't you get tired of hearing how much faster than last week's Pentium the latest one is?. I certainly do!. Sure, speed can make a difference in some applications, like graphics work or jobs involving a lot of calculation, but in general most computer work is governed by the speed of the operator's typing finger, and in most cases that is still the same as it was ten years ago. Sure, Dragons are slow, and P200s are fast but the letter it took you ten minutes to type on the D32 still takes the same time on the latest Magic Box with Intel Inside, so just how much of this speed do you REALLY need?. A lot of the theoretical processor speed never gets used anyway, due to the two factors that no-one ever mentions, main board quality and system configuration. I've had 486 boards (and it makes no difference whether they're PCI or VESA) that will run almost 20% slower than others with the same CPU and the same settings, but how often do you see any mention of board performance in the adverts?. For that matter half the machines I see are running well down on their potential performance simply because no-one has taken the trouble to tidy up the config and autoexec files and find out in which order various drivers work best. Even the hated Windows can be made to operate faster and more memory efficiently with a bit of work and experimenting. Most of the hard drives are left as one enormous partition full of well fragmented files too, but who cares? ... the man at the shop, and Cousin Fred, who know ALL about computers, say that all you need is a faster CPU and your machine will run Win 95 almost as fast as a 1512 runs Gem!. People used to claim that the motor trade was the best place to get ripped off, but it never got anywhere the computer scene standard!.

Does anyone know why virtually anything involving a screen and a keyboard has suddenly become "Information Technology"? ... usually there's no technology involved and even less information. Or why, when Sam 'n Ella's Tea Rooms installs a clapped out Sx25 and takes out a Compuserve subscription. it immediately becomes a "Cyber Cafe"? Or why anyone who can identify the F1 key is deemed to be "Computer Literate"? (usually they can't even spell it!). Generally, the people who owned computers fifteen years ago knew FAR more about the things than the current batch, and more to the point most of them actually WANTED to know what was inside the plastic, what it could be made to do, and how so what went wrong?. What happened to the amateur computer type, the "enthusiast"? all we seem to have now are a few people who went to Uni and learned how to write spells in "C" (and some idler ones who only learned to do Visual Basic), and a bunch of gullible peasants who seem content to buy a magic box complete with Bundled Package of Assorted Charms and Spells!. You think I'm kidding? then explain why Microsoft insist on referring to simple installation routines as "Wizards"?!. Pathetic!. Me?, I'm still trying to work out the current sales gimmick the "three dimensional everything" one. All the current sound cards seem to feature something they call "three dimensional sound" I knew sound had frequencies, but dimensions?, and three of them? ... just sounds peculiar to me. And how about all these "three dimensional graphics"? how the Hell do you get those with a two dimensional screen!? ... I had a look at the back of the tube to see if there was another dimension hidden there, but all that happened was that the LOPT spat at me, so I decided to quit before I ended up in a fourth dimension!. Why do I get the feeling that we're all being re-connedas in "conned again"? I know Sotos and a lot of other people claim that all this stuff about faster processors and more gimmicks is "progress", but I'm unconvinced ... there's an old theory that vehicle technology is at least three centuries behind where it should be, because "experts" wasted three hundred years or so trying to invent go-faster foods and breeds for horses when they should have ditched the concept of the horse as the motive power unit and invented the IC engine instead!. Could be the same applies?. Maybe it's time computers were allowed to get back to computing, and we stopped trying to force them into being multi-media somethings they were never designed to be and aren't really very good at. OK, so you don't agree with any of this but think about it. OK?. Paul.

GROUP ADVERTISING PAGES

SUTCLIFFE ELECTRONICS

LETTER WRITER UTILITY PROGRAM NOW FREE!. JUST SEND A DONATION TO COVER COSTS!.
BASIC 42 FOR DOS V1.0 OR E6 ALSO AVAILABLE, SMALL CHARGE FOR PHOTO-COPYING
MANUALS WRITE FOR FURTHER DETAILS.

QUERIES AND ORDERS TO: J.SUTCLIFFE, 15, WEST STREET, HOTHFIELD, ASHFORD, KENT.

PHOENIX MIDI INTERFACE.

IF YOU HAVE A MIDI KEYBOARD OR OTHER MIDI DEVICES, BUT NOT ENOUGH HANDS TO PLAY
THE VOICES YOU WANT ALL AT ONCE, THEN THIS IS FOR YOU!!.

THE DEVICE HAS STANDARD MIDI IN, OUT, AND THROUGH PORTS, AND CAN BE INTERNAL
(TOGETHER WITH DOS CARTRIDGE) OR EXTERNAL FITTING. NOW SUPPLIED WITH JOHN

PAYNE'S FORTH IMPLEMENTATION FOR THE DRAGON WHICH
INCORPORATES SOFTWARE TO PLAY MIDI INSTRUMENTS.

INTERNAL (uncased)£30.00

EXTERNAL (cased)£35.00

Ian Jones, 2, Rushton Drive, Middlewich, Cheshire. CW10-0NJ.

Phone 0606-834473 evenings only.

UP-2-DATE COMPILATION DISCS

THE UP-2-DATE COMPILATION DISCS ARE STILL AVAILABLE!. DISC 1: MAINLY DUMPS FOR
EPSON PRINTERS AND INCLUDES THE ABILITY TO PROCESS COMPRESSED GRAPHICS. DISC 2:
COLLECTION OF UP-2-DATE "SHOWCASE" PROGRAMS. DISC 3: COLLECTION OF GRAPHICS
PROGRAMS, MANIPULATORS, EDITORS, CREATORS, ETC. DISC 4: HUGE COLLECTION OF
COMPRESSED GRAPHICS, PLUS "PAKKER" PROGRAM FOR COMP./DECOMPRESSING. *PRICE IS
£3.50 INCLUSIVE PER DISC, FULL SET OF FOUR FOR JUST £12.00.* AVAILABLE EITHER
FROM RAY SMITH, 5, GLEN ROAD, PARKSTONE, POOLE, DORSET. OR FROM PAUL GRADE.

ALL CHEQUES PAYABLE TO N.D.U.G., OF COURSE.

INFORMATION REQUIRED

ANYONE OUT THERE KNOW ANYTHING ABOUT ELECTRONIC ORGANS?. SERVICE INFORMATION AND
OR CIRCUIT SHEETS URGENTLY REQUIRED FOR A *LOWERY SYMPHONIC HOLIDAY, MODEL T6S* IS
STILL URGENTLY REQUIRED.

IF YOU CAN HELP PLEASE CONTACT CARL STOCKDALE ON 01484-424843.

BASIC09 MANUAL

ORIGINAL BASIC09 MANUAL AVAILABLE, SURPLUS TO REQUIREMENTS. IF INTERESTED PLEASE
CONTACT CARL STOCKDALE ON 01484-424843.

FOR SALE

TANDY CGP115 FOUR COLOUR PRINTER/PLOTTER COMPLETE WITH PENS, PAPER, POWER
SUPPLY, MANUALS AND DUST COVER.

IT WAS REPAIRED BY TANDY ABOUT SIX YEARS AGO, BUT HAS NOW CEASED WORKING
PROPERLY AGAIN, CAUSE UNKNOWN PRICE £10.00 INCLUSIVE.

PLEASE PHONE G.TUTTIETT ON : 01458-445684.

WANTED

DOES ANYONE HAVE A COPY OF THE USER MANUAL FOR AN OLD EPSON LX800 PRINTER?.

ALL I NEED IS THE DIP SWITCH SETTINGS, SO JUST A PHOTOCOPY OF THE RELEVANT PAGE
WOULD DO. IF YOU CAN HELP PLEASE GIVE ME A CALL. PAUL GRADE.

IMPORTANT ADDRESS CHANGE

PLEASE MAKE A NOTE OF BRIAN O'CONNOR'S NEW ADDRESS AND TELEPHONE NUMBER,
17, PENTHORPE DRIVE, ROYTON, OLDHAM. OL2-6JL. TELEPHONE: 01706-881764.

NEW LOW PRICES!

DRAGON DETOUR ADVENTURE GAME now	£2.00	DRAGON 32 & 64 CIRCUIT SHEETS	£1.00
EZEE ADVENTURE WRITER UTILITY	£2.50	DRAGON/COCO/CUMANA DOS SHEETS	£0.75
EZEE M/C TUTORIAL DISCS 1&2 (ech)	£2.00	D32 TO 64k UPGRADE MANUAL	£1.50
R.A.D FUN DISC (24 progs) now	£2.00	HELPLINE LIST (still being revised)	
R.A.D ANITUNES (music & pix)	£2.00	DRAGON MUSIC QUIZ DISC. now	£2.00
R.A.D BEST OF INPUT LISTINGS	£2.00	DRAGON SUPER QUIZ DISC. now	£2.00
DISC EDITOR UTILITY	£2.00	TETRIS.(PAYNEFORTH VERSION)	£2.50
DRAGON/COCO DISC CONVERTER now	£2.00	PC/DRAGON EMULATORS. .(TWO PROGRAMS	
COCO/DRAGON DISC CONVERTER now	£2.00	TO RUN DRAGON/COCO SOFTWARE ON YOUR	
DRAWEZEE GRAPHICS UTILITY(T or D)	£2.00	PC. ONLY £4.00 THE PAIR!. AVAILABLE	
NDUG FORTH OS & ASSEMBLER now	£4.50	IN ANY PC DISC FORMAT). now	£4.00
LOTTERY NUMBER GENERATOR now	£1.50	(Please state disc format required)	
AMATEUR RADIO UTILITIES(2 discs)	£3.00	*****	
DAVE CADMAN'S POETRY DISC now	£2.00	ALL CHEQUES & ORDERS TO PAUL GRADE.	
EINE KLEINE NACHTMUSIK DISC now	£2.00	AT 6, NAVARINO ROAD, WORTHING, SUSSEX.	
DISC UTILITIES COLLECTION No2.	£2.00	CHEQUES PAYABLE TO N.D.U.G. PLEASE.	
RANDISK EXTRA DISC now	£2.00	*****	
NEWCOPY TAPE COPY UTILITY(T)	£2.50	ROTABB	£3.00
GRAHAM KINNS SHAREWARE DISC	£2.00	BALLDOZER	£3.00

THE DRAGONART GRAPHICS LIBRARY

CONTAINS THE BIGGEST SELECTION OF DRAGON GRAPHICS SCREENS ANYWHERE!, PLUS A LARGE SELECTION OF MAINLY GRAPHICS RELATED UTILITIES, SCREEN DUMPS, ETC. ALL AVAILABLE TO YOU AT A SMALL NOMINAL CHARGE. FOR FULL DETAILS AND LISTS WRITE TO THE LIBRARIAN, 5, GLEN ROAD, PARKSTONE, POOLE, DORSET. (enclosing s.a.e please).

DRAGON NOTEBOOK

HUNDREDS OF USEFUL HINTS AND TIPS ESSENTIAL READING FOR ALL DRAGON USERS.

JUST £3.00 FROM THE DRAGONART LIBRARY AT THE ABOVE ADDRESS.

UP-2-DATE DISC MAGAZINE

THE BI-MONTHLY DISC MAGAZINE FOR ALL DRAGON USERS (ALTERNATES WITH UPDATE). STILL ONLY £2.00 PER COPY AND ALMOST AS GOOD AS UPDATE!!. IF YOU HAVE A DRAGON YOU SHOULD HAVE AN UP-2-DATE SUBSCRIPTION!. ORDER NOW FROM:-

UP-2-DATE EDITOR. 5, GLEN ROAD, PARKSTONE, POOLE, DORSET. CHEQUES PAYABLE N.D.U.G

D.T.P. FOR THE DRAGON

THE GROUP DESKTOP SYSTEM, IN DRAGON OR COCO DOS VERSIONS, WITH DOZENS OF FONTS AND FORMATS, AND HUNDREDS OF USES!. AVAILABLE ONLY FROM THE DRAGONART LIBRARY.

CONTACT THE LIBRARIAN FOR FULL DETAILS AND VERSIONS AVAILABLE.

UPDATE BACK ISSUES

Reprinted to order at just 7 pence per side copied. (average cost 98P per issue inclusive.). Please send your cheques & orders to:

ALAN GREENWOOD, 132, WENDOVER DRIVE, ASPLEY, NOTTS.NG8-5JN.

DRAGSOFT SHAREWARE.

"DATA MAKER", TURNS M/S INTO DATA FOR BASIC PROGS. "SETTER" ADJUST YOUR DRAGON FOR BETTER COLOUR AND SOUND. "SLOW BUT SURE" EPSON SCREEN DUMPS .. EXTRA SMALL TO A4 .. ALL 5 HI-RES, LOW-RES, AND TEXT. ALL NOW AT £2.00 EACH PLUS A SMALL DONATION TO BE SENT TO N.D.U.G FUNDS. PLEASE STATE DRAGONDOS DISC OR TAPE.

CHEQUES/PO'S MADE PAYABLE TO:-

MIKE TOWNSEND, Basement Flat, 46, HEWLETT ROAD, CHELTENHAM. GL52-6AE.

GRAHAM KINNS SHAREWARE DISC

DISC CONTAINS ALL YOU NEED TO MAKE YOUR PC READ A DRAGONDOS DISC AND TRANSFER YOUR MATERIAL FROM DRAGON DISC TO PC. CONTENT INCLUDES: BAS2TXT, DCOPY, DDIR, DRM2TXT, SCR2GIF, PLUS SCRTOIMG, AND SCRTOPCX, PLUS ALL RELEVANT SOURCE FILES!. WORKS PERFECTLY FROM H/D OR FLOPPY, AND NINE OUT OF TEN DRAGONS SAY THEIR PCs PREFER IT TO ANY OTHER COMPUTER FOOD!. PRICE JUST £2.00 TO COVER COST AND POSTAGE, BUT IF YOU'D CARE TO ADD A LITTLE EXTRA TO HELP GROUP FUNDS IT WOULD BE VERY MUCH APPRECIATED. ORDERS TO PAUL GRADE, CHEQUES PAYABLE TO N.D.U.G PLEASE.
