

The Newsletter of the National Dragon User's Group

DRAGON



UPDATE

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THE GAFFER'S BIT

Here we go again yet another Year of the Update or whatever. Trouble with the computer scene now, though, is that it doesn't really exist it all disappeared about ten years ago, and since then there's been nothing new at all, just variations on the old, old PC theme, and you can't really get anything more boring than that, can you?. Of course, things CAN be worse, and almost certainly will over the next few years when the Gates Empire spreads itself out to take over the World! ... you think I'm joking? ... they want control of Net access, right? (even if the groundwork does cost 'em a million dollars a week in fines), they're reputed to be trying to cut in on the satellite comms business in the States, and they've just made Telecon an offer they can't afford to refuse, so how long do you think it will be before BBC becomes BBG (Bloody Bill Gates)?. By the way, if they do get control of Telecon it should make phone calls interesting All phones will have to be WinPhone95 compatible, drop the line every five minutes or so, and continuously inform you that "The number you have dialled has not been installed, please insert Winphone card number 17 and install telephone", and insist on telling you when it is "safe to hang up your receiver". Won't life be fun!. Oh well, that's progress for you see Update Issue 200 and see if I'm not right!.

The Editor's Bit...

Rash of me, I know, but I assume that some of you actually READ Update occasionally, so will have come across the Don't Use ParcelForce campaign which managed to slip in last issue. In the interests of keeping Update a balanced publication, a couple of points are worthy of mention.

It seems strange that ParcelForce are the ones ripe for a kicking when one of their competitors proclaimed themselves "very happy" with a 95% success rate at delivering parcels. Very happy? 95%? The remaining 5% can cross your fingers! I also defy ANYONE to inform me of a large company to whom they have successfully got through on the telephone at the first attempt - try Paul on a busy night! And sorry Mike, but if it was an "expensive bus part", it's surely in everyone's interest to check ALL the forms of compensation beforehand, instead of relying on the "advice" of a bored counter assistant who probably barely knows his own range of services, let alone those of another company!

Of more serious concern, though, is the praise being offered to the BBC's Watchdog programme - little more than a soapbox for Anne Robinson to whinge about the companies that have annoyed HER, rather than "genuine members of the public". What needs exposing is not the Evils Of Big Business, but the fact that 9 times out of 10, punters just don't bother to think. And maybe I'm too cynical, but why is it that Watchdog never investigates any Murdoch-owned companies? Hmm... And answer me this: Cubase VST 3.52 on the Mac. From the 'audio' menu, why does it offer you the option to 'edit audio in SD2' even when you haven't got SD2 installed? Technology, schmechnology, my life already, etc. S.W.

PEEKING THE DRAGON(73) MIKE STOTT

This month I have got too much to write about and I could probably fill the whole of Update. At the AMS at Stafford I met Keith Nash who has taken over the PD library. We tend to bump into each other here every year.

He promised to send me some of the items from the library for review and this he has now done but I will have to leave this until the April issue as before that arrived I received a PC disk which I must tell you about.

Why should I put PC software before Dragon software?. Well I will tell you.

This software has enabled me to multi-task on my PC without using that dreaded Windows. Yes, it is a Dos program.

So what programs did I first use to test if it could truly multi-task?

FRANKLIN'S TOMB, SYZYGY, and LOST IN SPACE.

Yes of course these are all Dragon programs.

Did I forget to tell you that this is the latest Dragon/CoCo emulator written by Paul Burgin?. I was able to load all three adventures and make a few moves on each before switching to one of the others and then back again.

I reviewed an earlier version several years ago but T3, as this program is known, is completely re-written. On my 486DX100 I was able to run FROGGER at a speed comparable to the way it runs on the Dragon.

This version contains a speed control within it so you can adjust the speed at which the Dragon software runs. Sound can be played through a Soundblaster card and there is a volume control in the software. Switching between keyboard and joystick is very easy and there is also the option to use your mouse.

There are over 17 pages to print out in a README file which includes useful addresses both postal and e-mail if you run into problems. I have not tried all the options yet but I am very impressed with what I have seen so far. There is one option that allows you to start up in the ROM that you want if you possess several ROM files and do not want the one that T3 automatically detects.

There is just so much in this program that it is hard to decide what to try next. One that has rather caught my eye is the ability to run one of the Dragon programs that I have got (probably an adventure), save it out to PC floppy in an executable file and then run this on any PC which meets the minimum requirements of T3. These requirements are 386, MS-DOS v2, VGA and 209K of base memory although you will need more to make use of all the facilities.

While I have been writing this article I have also been trying out some of the features of T3 and was able to save an adventure on floppy disk, take this into work and run it purely from the floppy. After a few moves I was then able to save it back to the floppy and continue with the adventure when I got home from work on my own PC. The more I see of this piece of software the more I am impressed with it. Previous versions have been more of a novelty value than this which has got to be the best emulator of any of the old machines that are available for the PC. T3 can be run under Dos or Windows but will only emulate a cassette based Dragon so you have to CLOAD or CLOADM any Dragon programs you have into the emulator.

The documentation tells you where you can obtain some of the Dragon games in a form that you can use with the emulator and also tips on how to convert your own. Given more time I hope, eventually, to be able to take most of my favourite Dragon software over to the PC so that I can run it there.

By using Paul Burgin's T3 and his older PC-Dragon together with Graham Kinns' software that I told you about a few issues ago there is no reason why I should not be able to do this.

Although there is now very little new software that is being written for the Dragon at least we have got some new Dragon related software that we can have hours of fun with.

I look forward to hearing from anybody who succeeds in transporting their Dragon software over to the PC using these programs or maybe they would like to write an article for Update telling the other readers how it can be done.

Another Bow To Your String . Tony Shellard.

Having given a method for putting machine code into an unwanted string I must now point out a few foibles and pitfalls which will beset the machine code itself. Consider this simple routine for inverting the colour set:

```
LDA  $FF22  *Fetch PIA register value
EORA  £$08   *Invert colour set bit
STA  $FF22  *Return byte to PIA
RTS                      *Quit routine
```

As this is nine bytes long we can amend our original program by simply changing line 60 to 60 DATA 182,255,34,136,8,183,255,34,9. After RUNNING and changing lines 30-60 we end up with an ?SN ERROR in line 10. LISTing reveals that it has turned to total gibberish. This is because the value 34 is the ASCII code for a quotation mark ("). This terminates the string early, confusing the interpreter which tries to run the object code as tokenised BASIC. The solution is to avoid using 34 (= \$22) in the routine; for instance:

```
LDX  £$FF20  *Right PIA, wrong register
LDA  2,X     *Right register
EORA  £$08   *Invert bit
STA  2,X     *Restore to PIA
RTS          *Quit
```

which wasn't so painful. I suppose you could call it Catch \$22.

The other small difficulty is deciding where to put any data that the routine needs. Both example routines only use registers so no external storage is necessary. Otherwise you'll have to choose from:

- a) putting some extra bytes at the end of CS\$
- b) define another string (eg DS\$="YYYYY") and pass its address, DS, to the routine by calculating as for CS and using X=USRO(DS), set up by DEF USRO=CS, and convert to an integer. Alternatively, just use X=USRO(DS\$), which instigates execution with the Y register pointing to the start of DS\$. Consult Smeed and Somerville section 9.4.2 on how to avoid the ?TM ERROR. DS\$ must remain in the text area or garbage collection will move it, requiring recalculation of the address. This also means it must be declared with the right number of characters (or more). You can't use DS\$=STRING\$("Y",5) because it puts its result in the string area.
- c) reserve some bytes on the stack and index with the stack pointer.
- d) use CLEAR n,m to reserve memory at the top of RAM. Remember to use absolute addresses as it won't move when the routine does.

This method uses under half the memory of READING/POKEing the code each time the program is run since it discards the DATA statements. You could DEL the appropriate lines in the program, but this way compacts the data into a string just once.

Alternatively, it eliminates the use of external files, saving time for tape users and space for disc users. Even the shortest file uses a whole sector (256 bytes). Plus I always forget to copy the associated routines along with the main program, so it saves wear and tear on my (f)ailing memory!

Don't Blame Me!! . P.G.

For some reason, although I can't imagine what, this issue seems to be virtually dedicated to The Dreaded Internet and associated matters. To those who find this has an emetic effect, I sincerely apologise, and must plead that this is due to circumstances beyond my control ... in other words, we have to print what we get!

Extending Composer 2..Dave Cadman

Last time, I outlined the theory behind the method involved. As promised, I will give an example, which might be easier to follow. I will use the 2nd movement of Eine Kleine Nachtmusik which I compiled some time ago, which I see is still being advertised by the Group. This movement was saved down in four parts before being joined up. All the START addresses were 24576 and the END addresses were 29965, 28003, 29281, and 27994. This makes the lengths 5389, 3427, 4705, and 3418 respectively.

I chose 13824 to be the START address to leave room for a graphics screen. You can go down as low as 3072 with a disc system or 1536 with a tape system if your program is really long. Remember, EXEC address is the same as START is every case.

1. Load FIRST, 13824 and save as RFIRST, 13824, 19213 where 19213 is $13824+5389$ (the length).
2. Take the end address, subtract 1 and 1536 which equals 17676. Load SECOND, 17676 and save as RSECOND, 19212, 21103 (where 19212 is end address of RFIRST minus 1 and where 21103 is start address plus length minus 1536 (PLAYWAVC) i.e. $19212+3427-1536 = 21103$.)
3. Take the end address, subtract and 1536 which equals 19566. Load THIRD, 19566 and save as RTHIRD, 21102, 24271 (same formula as above).
4. Take the end address, subtract 1 and 1536 which equals 22734. Load FOURTH, 22734 and save as RFOURTH, 24270, 26152.
5. Save the whole as TITLE, 13824, 26152, 13824.

If you do get an error when you listen to the completed joined up save, check you maths because it does work! If you would prefer to test the method before attempting a lengthy compilation you could try joining any two tunes together; you don't have to own Composer to experiment with any existing tunes in your possession. I will be pleased to answer any queries via post. Contrary to common belief my address is not 24576, but can be obtained by phoning Paul.

As a matter of interest, my compilation of Eine Kleine Nachtmusik was compiled in four movements, each of which loaded off disc in sequence with a graphic screen announcing which was being played. The number of saves per movement were 1st-5, 2nd-4, 3rd-3, 4th-5. Total bytes music 48,808. Total bytes screens 15,360. Total 64,168. It took three months to complete, a snip at 2.00 from the Group, if you have not already lashed out!

Dragons On The Internet..Jon Bird

The Dragon internet mailing list is open to all interested parties and although it is not the most active list around, nonetheless a fair amount of discussion does take place. In addition to the mailing list there are also a number of web pages at least partially devoted to the Dragon. The internet itself has received both good and bad press; I would say that it is an incredibly useful media for the discussion and exchange of information. One of the positive things it has done is to form a reasonably large repository of information about all things Dragon and also provided links to CoCo sites and discussion groups - noticeably in the states. The CoCo still has a fair degree of support stateside, seen in the amount of discussion which occurs on the CoCo mailing list and the number of CoCo related web sites. There is also a fair amount of new projects and ideas occurring for the CoCo - such as IDE hard drive interfaces and talk of a CoCo 4 being designed/built.

Onto the list, to give everyone a feel for how the thing works:

Paul Burgin <BurginP@logica.com> : Been trying to think of what I might be capable of writing that hasn't been done before and have come up with the following ideas: some kind of series examining/comparing the different versions of MS-Windows, perhaps starting from v1 but concentrating mainly on the

differences between v3.1, 9, 95 and NT4; some kind of series looking at how T3 works; something about the (so far as I know undocumented) distributed machine code cassette format. But no-one uses cassettes these days!

Jon Bird <jrb@jons-pc.demon.co.uk>: if NDUG had (a) a web presence (perhaps with back-issues on line, or the current issue) and (B) e-mail contacts then things might pick up a little, if only because it's a darn site easier to e-mail than go out and buy a stamp. Also printing summaries of this list's discussions. There is all sorts of extensions from this as well, like summaries of the CoCo list and such like. One possibility of course is that if there is not enough stuff for 12 pages, then don't produce 12 pages and try and pad it out with waffle - quality not quantity (as someone once said, probably at a quality audit) should certainly save a bit on photocopying costs.

David Linsley <dlinsley@stnc.com>: I could send in some assembler routines for doing stuff - like reading files from disk in assembler - but working on any DragonDOS. The ones previously published only work on 1.0 or SuperDOS.

<k.j.nash@usa.net>: I agree that it is a good idea to report Dragon-related internet activity in Update. I am not sure whether Paul Grade has internet access. It is up to those of us who do use the internet to turn any useful material into articles suitable for Update.

Any further thoughts or comments, feel free to let me know at jrb@jons-pc.demon.co.uk.

I trust Jon won't object to me making a couple of brief points Firstly, no, I do NOT have Net access, for the very simple reason that with my personal funds in their present state even the additional cost of an AOL/Compuserve/Demon subscription would be potentially disastrous!, and so far as the Group account is concerned unless such a move would GUARANTEE sufficient increase in income to cover both subscription and phone bill, it would be a clear case of "This is the Group" that was!". 'Tis all very well for those who either have sufficient spare cash to cover the cost of subs and calls, and even better for those whose firm/Uni provides freebie access. It isn't that I have any particular objections to the Net ... it has it's uses, even if it is the most mis-represented and over-hyped thing in recent history, it's simply a matter of cost against income. OK?. Now if the Lottery Fund would care to offer me a small grant Paul.G.

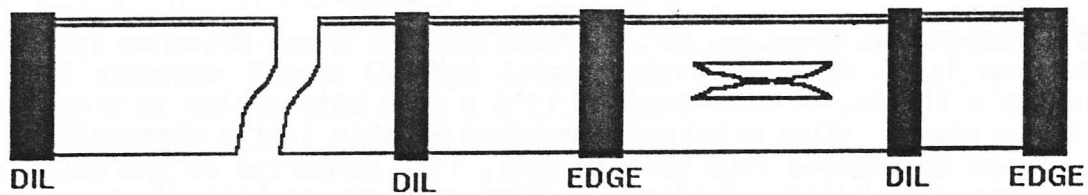
Useless Information

It has been said before, but it does seem to keep cropping up every now and then, so a word or two about submitting articles - assuming that some of you want to. In your generous (but misguided) selflessness, some of you have offered to send material in on disc, rather than in the timeless print and paper fashion. This is all very well and good, but unless you are unfortunate enough to be in possession of the Group's now legendary text formatter (featuring re-writes by virtually anyone who's ever used it) then the age-old tree-destroying method is best, as (unlike some Chairman I could mention) I'm one of those strange people who only uses a Dragon and not a PC, particularly in light of recent experiences. I also don't have the sometimes-favoured OS9, Stylo, Visitext etc formats available to me, so unless you can Group-format it (I know Mike isn't the only one I keep torturing with it) then pen and paper, or printer and paper, will do just fine, many thanks.

Now all you need is something to write ABOUT, eh? SW.

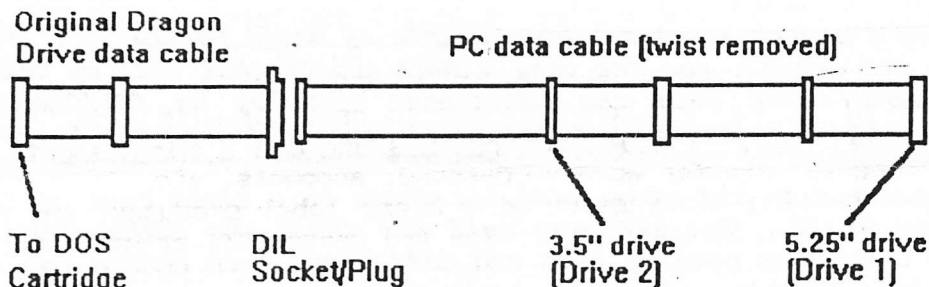
3.5" drives (2)...Gareth Tutielt

The standard PC cable looks something like this:



As you can see the PC cable typically has five connectors, 3 DIL and 2 edge. The left most connector connects to the appropriate drive controller. Since the connectors are all IDC type, it is easy to remove the back of the two connectors at the far end beyond the twist. The cable in the twist section can be gently lifted off of the metal tags, turned over, and using the existing cuts pushed back on to the tag. Then after checking the cables, the backs of the two connectors can be replaced.

The next step was how to connect the drive cable to the DOS cartridge. The cable was long enough to reach, but had a female DIL socket rather than the edge type. I had an unused edge connector and thought about replacing the existing connector with this one. While pondering this question, I removed the original drive cable from the drive unit and realised that this cable had all the right connectors to be used as an adaptor. I connected it up and it looked good - so good in fact that I powered up the Dragon system and tested it. Both drives (5.25 and 3.5) worked correctly.



Incidentally, I did try the standard PC cable with the twist it, but only drive 1 would work, so the twist had to be removed.

The 3.5" disk I used to test the 3.5" drive with the old drive cable was loaded, and I ran the same program (RUN"2:TEST.BAS") - it loaded and ran correctly. As further experiment, I copied the appropriate files from my TeleWriter disk to the 3.5" disk including the "DEMO.TEX" file. I changed to drive 2 and ran TeleWriter with RUN"TELEWRIT.BIN" - it ran correctly.

The next thing to do now is to convert software to the new disk size. I will investigate setting up a boot file on the 3.5" di as I've done with 5.25" disks. Once all the software is on 3.5", I can then replace the 5.25" drive with another 3.5". I won't get rid of my original Dragon drives, as you never know when you'll need to read a 5.25" disk! I've not tried using high density drives yet, as I don't have one spare, but I don't think that DragonDOS will be able to format a disk to 1.4Mb.

One final point: OS9. I really think that it is under OS9 (and Flex too perhaps?) that the 3.5" drives will really be an asset. At the time of writing, I don't have any details of formatting options with the OS9 FORMAT command as with the DragonDOS DSKINIT. However, since OS9 is a Unix-like system, then perhaps a book on basic Unix may provide a clue or two. Definitely another article to come...unless someone gets there first?

Dragon In Business 2..Edwin Lilly

Last time, I told of the beginnings of the business - established around a Dragon 32 with cassette tape filing. It was started in December 1986, so 1987 was the first full year. From a blank start we fairly quickly found a core of customers by mailshots to suppliers to a large mail order company (for whom I worked at the time - the packaging department started to put our name about to suppliers.) During the first year Elaine printed over 800,000 2" x 1" labels for quite a few customers - some of which are still customers. During that time, it became evident that there was also a lot more business if we could expand the range of label sizes.

The limitations of the Dragon and the programs we could obtain for it, and having to use sprocket fed labels through an office printer, were all too obvious. We had changed the BASIC program a few times to print larger labels, but we were often being asked for smaller labels which were very difficult to source at a reasonable price on sprockets.

A specialist label printer was purchased from Soabar; a 9 pin dot matrix printer with built in software and using roll labels. During the second year, we produced over 2 million labels - about half on the Dragon/Epson EX800 setup and half on the Soabar. The Dragon was also used for word processing. Space in the bedroom was becoming a problem.

I took a week's holiday and built a workroom in the garage. It was a double garage and I built partition walls around half of it. It was well insulated and nicely decorated, with a small electric heater and curtains. Some old kitchen units were pressed into service to house stocks of blank labels and to act as workbenches. It was so spacious!

Within a short space of time, there were two D32s, each with a printer and two specialist label printers. The Epson EX800 printer had done several years service but was showing some wear. Also the push tractor was not ideal with labels. We looked around and settled on an OKI 192 labelmaster, a 9 pin machine fitted with a special graphics board. It could do bar codes and geometric shapes and larger characters just by sending BASIC codes to it. We soon had two of these. In about 1989, we also bought a second hand D64 with twin 5.25" drives - the height of technology. I could now run OS9 and use a spreadsheet. The Epson EX800 was assigned to this for word processing, accounts, etc.

By now, we had a cutting die made up at a blank label producer, and were taking lots of 250,000 and even 500,000 labels for the Dragon/OKI-printer sets.

1990 was year 4, and production jumped from about 2.5 million labels in 1989 to about 6.4 million in 1990. One reason for this was that we were asked to supply labels to suppliers of the George Davies Partnership who were doing the "George" range of clothes at Asda stores. This brought in considerable business.

There were also other reasons, which I shall describe next time.

Dragon Offline Web Pages .(DRAGNET). Keith Nash

Stop Press!! NDUG has entered 1998 by becoming an Internet Service Provider! The difference from CompuServe, AOL etc is that the WorldWide Web pages are distributed on floppy disk, and relate only to the Dragon. The aim is to make this information available to Dragon users who do not have internet access.

The WWW contains a great deal of useful information on the Dragon and related topics. NDUG can now offer a selection of this material (though the downloadable software that is available on these Web pages is omitted for space reasons).

To use the Dragon Offline Web Pages, you need:

- (1) A Windows PC
- (2) Suitable web browsing software

Needless to say, you do not require a modem.

If you do not have a web browser, you can get one by buying a PC magazine with a suitable cover disk. Microsoft Internet Explorer (MIE) and Netscape have both been tested with the DRAGNET disks, and work fine. MIE is provided on recent CompuServe coverdisks, Netscape on older ones. America OnLine (AOL) uses

a proprietary web browser that does NOT allow off-line browsing, and so is unsuitable for use with DRAGNET.

Other 'modern' computers, e.g. a not-too-old Macintosh, or an Amiga with at least 4Mb of memory, can be used instead of a Windows PC. Again, web browsers can be obtained from magazine coverdisks. If you do not have utilities for reading the DRAGNET disks in PC format, I can provide disks in Amiga (but not Macintosh) format.

The DRAGNET files can be obtained by sending a stamped addressed envelope, blank formatted disks (two high-density or four double-density PC disks, or three double-density Amiga disks) and ú2 (cheques and postal orders payable to NDUG) to the Dragon PD Library, at the address given elsewhere in this issue of Update.

+++ALL ORDERS TO KEITH NASH AT THE PD LIBRARY, NOT TO PAUL GRADE, PLEASE.+++

Dragon PD Library (1).Keith Nash

The Dragon PD Library is once again open for business. It can now offer the following four disks, which were previously available as PD from different sources:

A. MELTDOWN and FADEOUT graphic screen facilities by David Linsley. MELTDOWN is a machine code routine for 'melting' from one graphics screen to another. A number of different 'melts' are provided, each one giving a pleasing and elegant way to switch from one hi-res picture to another. FADEOUT is similar, but 'melts' into a plain black or white screen. BASIC programs are included, together with several high-quality graphic screens, so that both MELTDOWN and FADEOUT can immediately be demonstrated.

B. EPSON printer dumps from the Dragonart Graphics Suite. Menu driven, easy to use. Several PD printer dumps written by Chris Rouse, and one by Dave Riley.

C1/C2. PD selection originally compiled and sold by Dragonfire (2 disks). An excellent selection of utilities, games, and graphics demos, with many highlights. A detailed listing is provided below.

Terms: at present, this software is available only on 5.25" DragonDOS disks, single sided single density (40 track). Please send a stamped addressed envelope, and for each disk that you require please supply a blank formatted disk and £1.00. Cheques and postal orders payable to NDUG.

Orders to: Keith Nash

16 Lansdowne Street,
Worcester WR1 1QD.

Forthcoming Titles.

Many Dragon PD disks were offered by Stuart Beardwood, who sadly died in December 1996. Copies of most of his disks have been provided to me by Ray Smith and Eddie Freeman, and these will be re-released in the next issue of Update, together with a few new titles. Stuart's family understandably do not want to deal with enquiries about the library, and so I am appealing to those of you who used Stuart's library to let me know if you still have any of the following seven titles:

Fun Programs

Printer Routines (not the CGP 115 disk, the other one)

'More subroutines and utilities' (not 'Subroutines and utilities', which is a different disk), including MENUMAKE, WIMP etc.

Hi-Res driver & utilities (64k)

Electronic Book (for Tandy Electronic Book; 2 disks)

Kiddies Corner

Shareware accounts package.

If you have copies of these disks, I would be very grateful if you could let me know. Please do not send disks at this stage, to avoid duplication: I will write back to acknowledge your letter and to request any material that the library requires. I will provide blank disks and return postage.

Now here's the detailed listing of the Dragonfire disks:

Dragonfire PD Discs

Utilities

MENU.BAS Menu program for selecting programs from the disc
 BBC-LOOK.BAS Program for reading BBC disks? I haven't got any so I'm not sure.
 1770.BAS Loads extra commands for using BBC disks (same comment as above, so this program is not tested), after switching to 64k mode and loading Hi-Res screen driver (clear and chunky 32*24 display). Binaries for each of these functions can be identified from the program listing, and loaded separately.
 DOS-HELP.BAS Access DragonDOS commands from a menu
 DIRPRINT.BAS Print Disk Directory
 MAILER.BAS Print Address Labels (no instructions)
 DUMPA.BAS Load graphics screen and offer a printer dump. With 3 graphics screens
 COPYALL.BAS Disk copier
 COPY.BAS Disk copier
 CALENDAR.BAS Prints a calendar
 4-8.BAS Copies the files that you select. Requires two drives
 BOOTSTRP.BAS Writes a boot sector to a disk, so that the command "BOOT" will display a message and run a program of your choice.
 FORMAT.BAS Allows you to choose the order in which disk sectors are used. This does not affect compatibility, but can increase the speed of disk access in your particular drive.
 TEXT.BAS 64*24 character hi-res screen. (Monitor advisable)

Games

PARSER.DRM AllDream source code: machine code parser for adventures
 SPACE.BAS Text adventure starting in crashed spaceship
 REVERSI.BAS Othello
 HI-LO.BAS Simple card game with graphics
 GOLF1.BAS Golf game, holes 1-9, uses joystick and graphics, no instructions
 GOLF2.BAS Golf game, holes 10-18, uses joystick and graphics, no instructions
 OXO.BAS Noughts and Crosses.
 LETTSWAP.BAS Letter swapping game.

Graphics Demos

BALLS Bouncing balls demo
 DANCING.BAS Graphics demo
 QUAD.BIN Draws a tetragon on the hi-res screen. Multiple calls draw 'wire frame'.
 Instructions: list QUAD.INF or examine calls in 3D, 3D3, 3D4.
 3D.BAS Simple demo of QUAD.BIN. When points drawn, type D to get lines, or any other key to specify new points.
 3Dn.BAS generate images on hi-res screen of surface in 3D. Worth the wait.
 3D2.BAS Peaks and troughs.
 3D3.BAS Smooth surface.
 3D4.BAS Rough surface.
 WORLD.BAS "Fault Line Machine", uses QUAD.BIN. Draws land, sea and fault lines.
 DRWHO.BAS Excellent hi-res pictures of a Dalek and the Tardis.
 AIRCARRY.BAS Draws excellent hi-res graphic of an aircraft carrier.
 PLANES.BAS Draws small aeroplanes, useful as sprites if you are writing a game.
 INTLINES.BAS Lines rapidly scrolling to left and right on the hi-res screen.
 Not clear what these are:
 BLACKBOX.BAS Try using the arrow keys, enter and clear keys.
 ANTS.BAS Join-the-dots; or something more? No instructions.

Dragonfire PD Discs. Disk 2

Games

BRAMSOLV.BAS Towers of Hanoi, solved by computer
 HOLMES.BAS Text adventure (Sherlock Holmes and Moriarty)
 BRICKY.BAS Use joystick to lay bricks on the screen. Try to cover the maximum area before getting stuck.

ZOMBIES.BAS Use the arrow keys to move around the screen, avoiding the zombies and the traps, and trying to lure the zombies into the traps. Win if you trap all the zombies.
 RACING.BAS Simple car racing game, full instructions.
 ALIENS.BAS Not unlike Space Invaders, but very slow. Use arrow keys and space bar
 BOMBER.BAS Use the space bar. Slow.
 BOMBER2.BAS A better bomber game.
 PREHIST.BAS Prehistoric text adventure.
 DETECT.BAS Detective text adventure

Utilities

COUNTER.BAS Binary to decimal conversion.
 PLOTTER.BAS 4-colour plotter dump by Martin Bunyan.
 PLOTTER.DOC Documentation for PLOTTER.BAS
 FUNCTION.BAS Defines function keys (?). No detailed instructions.

Graphics Demos: useful resources for the programmer

DRAW1.BAS Draw a large letter on the screen
 DRAW2.BAS Draw a large letter or number at a specified place on the screen; repeat.
 DRAW3.BAS Draw a string in large letters on the screen.
 MIRRDEMO.BAS Demonstrates fast mirror operation on a hi-res image. Load MIRROR.BIN first. Detailed instructions: list README.MIR.
 Dream source code included.

Gatesagotchi? ... John Payne

Further evidence of Bill Gates's desire to control the entire software world is the news that Microsoft are to sue Tamagotchi. Tamagotchi are based on software which dies if not fiddled with every half an hour. Apparently, Gates's lawyers consider this to be incontrovertible evidence that Tamagotchi is based on Microsoft's Windows technology!. How can anyone argue against evidence like that?!

The Later than Usual Late Bit

Don't all cheer at once!. You are only escaping a two page compilation of Grade waffle because I decided to get the newly re-opened PD Library off to a good start and print the entire current stock list. It won't happen again ... in future if you want a list you'll have to write to Keith for one (and at least enclose an sae if you do!), so don't expect to get off so lightly next issue ... either YOU write some suitable material or you can put up with reams of rubbish from ME. OK?. Be warned, our Editor is making Blair type noises about Making Hard Decisions, and Completely Reviewing the NDUG ... and you know what THAT means!. What's new? ... not a lot. Some of you may have heard that the weather here in Sunny Sussex has been somewhat wet and windy recently, and that said County is steadily sinking into the sea. I have to refute the totally unfounded rumour that this is due to the weight of money stored at Schloss Grade, and must point out that the current weather patterns seem to have originated on the other side of the Atlantic, so are obviously part of a plot devised by Bill Gates to get rid of the Group which supports the last remaining computer not running Windows!. Me paranoid? look, paranoia generally refers to an unfounded belief of persecution ... and anyone who has to work with or on ANY Windows variant knows perfectly well they are being severely got at ... they can prove it!. Anyway, who cares?, this is the New Year, complete with New Labour, New bills, New problems, New restrictions, New taxes, New State-sponsored scares, New repeats on telly, New re-releases of old software at New higher prices ... what more could anyone want?!. Well, most of us managed to survive last year, Christmas, and the Sales, so we can probably survive another lot. Look on it as a challenge and send your seconds to call at 10 Downing Street!. Have fun .. but don't get caught!.PG.

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THIS IS SUPPOSED TO BE THE ADS
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ANY THIS MONTH, SO I CAN ONLY
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