MEMORY EDITING #1

PART ONE OF AN IMPROVED MEMORY EDITOR FOR THE BEEB
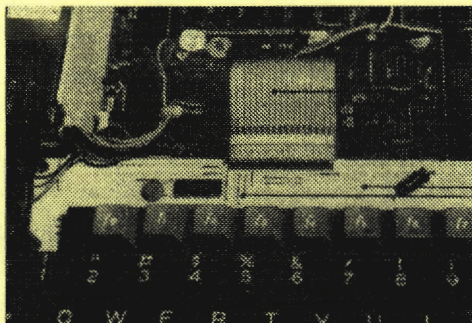
SORTING
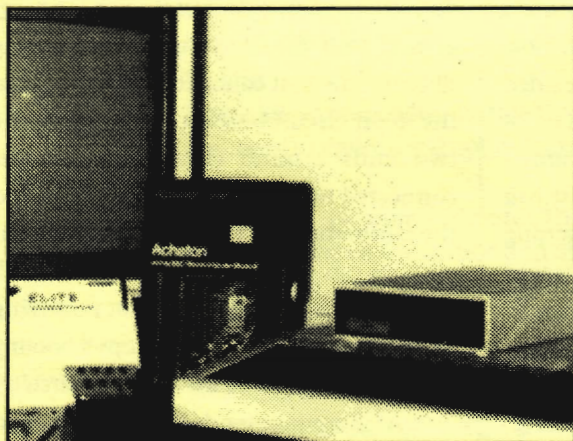### A FINAL ADDITION?

EUROPHILE
A GEOGRAPHICAL DATABASE

PLUS:

- **YOUR LETTERS SHARED AND VIEWS AIRED**

- **CLASSIFIEDS RETURNED!**

GOT A SICK BBC? HERE ARE SOME IDEAS TO TRY

Believe it or not, this is a photograph of the **first** BBC I had, back in 1984! I wonder where it is now?!

Come to think of it, why did I take a photo of it...

A DIFFERENT WAY OF LOOKING AT YOUR BBC MICRO

HELLO AGAIN!

A smile and a song... ByteBack has made it to issue 9!!

I'm sorry, I'm sorry, I'M SORRY! I apologise to everyone who has a stiff neck whilst trying to read the centre section of BB Iss8, which was somehow put in upside down! It's one of those things that you check thoroughly before you print off 70 of the bloomin' things – and it still goes wrong! It also took longer than I hoped to distribute the last Issue. Oh well, we press on.

First of all, due to popular demand(?!) and for the sake of world peace, ByteBack has returned to its original form of being an A5 booklet, complete with colourful cover and 'normal' pages within. Having recently relocated our company (that which I am a partner in and that which demands so many hours of my day) to a new office unit, we are fortunate to be next door to a company run by a very nice man, who has a very nice photocopying machine – and he lets me use it whenever I want! Now that copying of BB is easier, I have decided to give back what so many members of BB have wanted. Your subs have been subsequently altered accordingly, so whilst you won't be getting as many issues as my last correspondence explained, you will be getting as much, if not more, information for your money. I hope this keeps you happy!

In Iss8 I mentioned there would be an introduction to using View. You should find an A5 Supplement flyer inside this issue with the View article contained thereon. From time to time I will be including a Supplement to ByteBack, for members only, with additional information or a long-running article. Already in the pipeline is a "BBC: History in the making" series of flyers, cataloguing much of the progression of Acorn's computers, from the Atom to the Archimedes (from A to A?)

Almost immediately I have been offered a possible solution (at least a "try this first") to Mr Truelove's problems with his Beeb in the last issue. Bernard Beeston contacted me not longer than one day after he received his Iss8 and recalled a similar problem that was listed in a past issue of Beebug. The suggestions included removing the short linking ribbon cable that connects the keyboard to the main circuit board and swapping the two ends around (the end that was connected to the keyboard now plugs into the motherboard). This is because the connections can get a little corroded or oxidised. It's important to mention that removing the keyboard from the Beeb stops it booting up as normal because the keyboard circuitry is 'key' (no pun intended) to the operation of the Beeb; more than just an input device. Later on in BB, you'll discover a lot more information of what to try in situations

ByteBack ◼ nine

of diminishing Beeb activity on power up.

Anybody set up an Econet network since last issues article? Perhaps not. It's interesting to find out the kind of computer 'setups' that you have installed at home. In an earlier issue I mentioned the method used in putting together each Ish of BB, including the use (major use) of Apple Mac computers, a scanner and laser printer when producing each little nugget. The hours of collating have reduced somewhat since taking on this new format.

Since beginning BB, I have been privileged to see inside a couple of members' "offices", one of which is shown below. I know that my home office (not the main office, the "hobbies corner") is full of all sorts of 80's technology, alongside the latest equipment; a BBC B, Master, Daisy Wheel printer, disc drives, blah blah. One member of BB has a great setup, tucked away in a shed in the garden – a real retreat.

Speaking of Gremlins (which we were), a few of those crept into last BB. Please see the "Oh sod it..." section for more details. Being one to eat a large portion of humble pie, I have come clean and allowed Bernard Beeston to put my squarely in my position.

I'm always open to correction! In fact, why not head straight there now...

Although there is hardly a single games software supplier left for the BBC, Superior Software, authors and suppliers of some of the greatest classics for the Beeb, have allowed quantities of their software collections to become available through Chris Richardson at 8-Bit Software. Prices are very reasonable, starting at £6 for a BBC tape, £8 for a BBC Master 5¼" disc and £10 for 3½" discs. These are for collections known as "Play it again Sam..." which incorporate a selection of 4 or 5 of Superior's finest games into one package. Contact Chris at: **"Superior Games Offer", 8BS, 17 Lambert Park Road, Hedon, Hull, East Yorkshire HU12 8HF.**

Incidently, if you haven't already experienced *8-Bit Software's* monthly disc, I can strongly recommend it. Send an SAE to the above address and prepare to be be impressed!

After my poor efforts of last year, trying to get a Christmas issue of ByteBack together, and missing the deadline by two weeks (two WEEKS!), I am making an extra special effort this time. Look out for a Bumper Christmas issue for December, as a way to say thank you to you for sticking by ByteBack throughout its turbulent year and a half (2 years in April!)

Paul

LETTERS

Write Back to ByteBack! (OK, crap joke, I know...)

I was delighted to return from holiday and find my copy of ByteBack awaiting me as I had begun to think I might never see another one and that would have been a blow. It hardly seems possible that it is 16 months since the first issue but in that time I have become addicted. I do appreciate the work entailed in putting BB together. Many years ago, after my husband died, I too was self employed and know what a hard grind it can be. Although it had a certain satisfaction that I never quite felt in a 9-5 job.

Have you considered making BB a quarterly publication? It could be a bigger issue. Whatever you decide to do please don't withdraw it altogether.

Dora Goatley, BB021

Thanks for the latest issue of ByteBack. I like the new format and if it makes it easier for you to produce, then all the better. I have a few Beeb problems that you or one of the other BB membership might be able to solve. I have used Computer Concepts' InterWord for many moons now. I discovered quite early on that when the printer line feed is set to 'on'(via the CTRL-f5 or Main Menu), this setting is not saved to disc along with the text file. I phoned CC and was told that the problem was due to a bug in the chip's program and it wasn't going to be updated. Have you or anyone else got a way round this minor but irritating bug? It may be worth noting that this problem does not occur with 'form feed' or 'pause between pages'.

The second problem is a more recent one. Sometimes (usually!) when I start to print out a letter from IW or something (usually with 'marked text' eg my address) using my Juki daisywheel printer the first session this problem doesn't seem to recur: do you know what's happening and why and what to do about it?

The third problem: when I turn on my Beeb sometimes the 0/2 disc drive makes a horrible noise – why? For some strange reason I get the horrible feeling that Beeb's getting close to the great chip yard in the sky – I wonder why?!?

Sue Shawcross, BB034

I am trying to obtain a good communications setup for my BBC model B (issue 7). However, I am not very well informed as to what would constitute a good system, and would welcome any advice. I have heard that a good modem to have is the Dowty Quartro SB2422. I also require some good communications software, for example Computer Concepts' terminal emulation rom. I have sideways ram installed on my Beeb. I would be willing to pay up to about £30 for an autodial modem, (2400 baud or faster), preferably with a REN of 1, a connection lead and good communications software. My address is *137 South Western Crescent, Parkstone, POOLE, Dorset BH14 8RZ 0202 732978*

George Thompson

More Letters...

■ Thank you for the new look ByteBack and whilst one appreciates the time, let alone the effort that goes into each production the "For Sale" etc items will be sorely missed. Perhaps a twice a year supplement may be made available with a closing date notified in the previous edition or at your discretion when you feel you can fit it in. One other point I would like to make is the question of PD Software. If my experiences are anything to go by they are a complete waste of time and money and should be treated with great caution instead of the plugging they seem to be getting, but then it may be I have had the bad experiences whilst others are satisfied. I wonder? Maybe others would like to comment on their purchases.

Bill Thornton, BB014

Well, I think a few people will have something to say about their experiences with PD Software. I for one have been very impressed with a number of PD offerings, in many cases the quality is either equal or better than some commercial offerings. Anyone got a recommendation for some discs to try?

■ Can I ask if you know if Wordwise+ will allow a program in a Segment to call up Spellcheck ROM and run through the text held for editing? I can't get it to do so and have to save all text then use *SPELL, reload the text, check it through, save it again, change to W+, reload and then print it out. The latter as Spell won't invoke the printer commands which commence the text. B.....y nuisance! Looks as through the Newsletter hasn't room for wants/sales items or is it just that the number of subscribers means little response? If you hear of a Watford DDFS "piggy-back" board using a 1770, I'd be glad to get in touch with owner thereof...

Terry Heath, BB028

It's obvious from the letters BB receives that members are interested in a Classifieds section. It hasn't been dropped, and there is always space for what you want. The problem is nobody is selling! Actually, there are a few "packages" going at the moment, check the back page of this issue for details. If you have something to sell, or want to buy something, please let me know.

■ Thank you for the "Bubble-Sort" program in issue 7. I added the following lines to obtain a screen display of the results of the sort:

```
110 CLS
120 FOR X=1 TO 10
130 PRINT name$(X): NEXT
```

When I was a teacher (now retired) I always used to add the following routine at the beginnings of programs, to prevent the little b... boys and girls from losing the program by accidentally (??) pressing BREAK. "Please Mr Bradshaw, I was only trying to find the ARROW KEYS": *KEY 10 OLDIM RUNIM. I also used *FX 11,0 to stop the automatic key repeat when little fingers lingered too long on any particular key (*FX 11,1 will restore the key repeat facility)

I've been given a database ROM called :Starbase". I've fitted it in my Master Compact and it loads up ok, but refuses to initialise my disc. The ROM was made by GCC (Cambridge) Ltd who no longer seem to be in business. Is there anyone from another galaxy out there who could assist?

Brad Bradshaw, BB020 ■

MY BBC IS POORLY!

Mr Smith has suggestions for Beeb Health Improvement!

As an owner of 3 working Model B's, 2 of them salvaged from radio rallies, often with a range of faults, I can sympathise with the member and his Caps/Shift/sound locked-up machine but unfortunately this seems to be a common symptom caused by a multitude of faults. However, he may wish to try the following.

Disconnect the machine from the mains before any changes are attempted.

An obvious self-help first check is the various plug/socket connectors which may have developed some corrosion and acquired high resistance. These include the keyboard-to-PCB link and the various power supply-to-PCB push-on connectors, the wires to the latter are usually only crimped and contact may be improved by soldering them. Care should be taken when removing and replacing these connectors as the PCB lugs are fairly easy to snap off. If equipment and expertise is available a PSU test should show +5, -5 and 12 volts on the appropriate PCB lugs, anything less indicating a dirty joint, or (horror of horrors), a faulty PSU.

Another source of faulty contact is when plug-in IC's have been used; these may first be slightly loosened by gently inserting a small screwdriver under each end and then firmly pressing them home. Another more difficult fault to find is where a crack in the PCB or a soldered dry joint is causing an intermittend contact of open-circuit especially under the influence of heat.

In my limited experience the following IC's have also caused the same or similar problems, sometimes being faulty, loose in their sockets or with dry joints to IC or socket if fitted:

IC3 (a 6522 often in a socket, the keyboard port)

IC1 (a 6502A in socket, the CPU), a different IC may cure the problem and the old IC may not work correctly in another machine

IC43 (a 74S04... *not a 74LS04*, the CPU 16MHz oscillator)

IC78 (a 8271 in socket, the DFS)

This letter gives no indication of the issue number of the machine or the number of add-on boards connected, the latter in the first instance should be removed and the original IC's, CPU etc, should be returned to their sockets on the BBC motherboard. This moving of parts around has in some cases removed the fault which was due to a high resistance joint somewhere!!

There are no doubt some Model B repairers existing but my sad experience from a professional repair (it was a similar fault with a duff 6522) was... it cost an arm and a leg, charging around £45 just to lift the bonnet. At a rally a short time ago, I saw an Issue 7 BBC with Microvitec monitor, dual 40/80tk drives and ROMs for £20. A more general price for a 'B' is around £35. ■

ByteBack nine

RANDOM SWIZZ!

When is a random number not a random number?...

Within BBC BASIC, there is the facility to generate a random number. This is useful for any program that would require the element of 'luck'. For example, it's a fat lot of good if throwing a dice always generated the same result.

The BBC can simulate 'chance' by using the command RND. Used on its own it will produce a random number between 0 and 1. To mimic a dice, we can use the command:

```
PRINT INT RND (6)
```

The use of INT is to make sure that the result is a whole number (an INTeger) and not a fraction.

However, as the Random Swizz program will demonstrate, the list of numbers generated by the RND command is not truly random: the pattern is specific and always repeats!!

Random Swizz will draw a series of coloured lines on the screen, following a "random" pattern. Once 500 lines have been drawn (dictated by line 230), the PROCedure is run again using RND a second time. Amazingly the lines *follow* the first set and, with the use of GCOL 3 in line 240, rubs them out! ◼

```
1   REM RANDOM SWIZZ BBiss9
10 ON ERROR GOTO 420 .
20 MODE2
30 VDU 23;11,0;0;0;0
40 *FX9
50 REPEAT
60 SEED%=ABS RND:REM this line
makes each run different
70 A%=RND(-SEED%):REM 1st time
80 PROClines
90 A%=RND(-SEED%):REM 2nd time
100 PROClines
110 UNTIL FALSE
120 END
130 :
140 DEFPROClines
150 X1%=RND(1279)
160 Y1%=RND(1023)
170 X2%=RND(1279)
180 Y2%=RND(1023)
190 XD1%=RND(4)*5
200 YD1%=RND(4)*5
210 XD2%=-RND(4)*5
220 YD2%=-RND(4)*5
230 FOR I%=0 TO 500
240 GCOL 3,RND(16)-1
250 MOVE X1%,Y1%
260 DRAW X2%,Y2%
270 IF X1%+XD1%>1279 XD1%=-RND(4)*5
280 IF X1%+XD1%<0 XD1%=RND(4)*5
290 IF Y1%+YD1%>1023 YD1%=-RND(4)*5
300 IF Y1%+YD1%<0 YD1%=RND(4)*5
310 IF X2%+XD2%>1279 XD2%=-RND(4)*5
320 IF X2%+XD2%<0 XD2%=RND(4)*5
330 IF Y2%+YD2%>1279 YD2%=-RND(4)*5
340 IF Y2%+YD2%<0 YD2%=RND(4)*5
350 X1%=X1%+XD1%
360 Y1%=Y1%+YD1%
370 X2%=X2%+XD2%
380 Y2%=Y2%+YD2%
390 NEXT
400 ENDPROC
410 :
420 ON ERROR OFF: MODE 7
430 IF ERR<>17 REPORT: PRINT" at
line ";ERL
440 END
```

MEMORY EDITING #1

by Andrew Bennett

A memory editor can be best described as a poor man's symbolic debugger, as most of its uses are connected with searching out and checking data structures or trying to view those elusive variables used in machine code programs.

They work by providing a display of a number of consecutive locations on the screen, allowing movement between them and their values to be altered in some way.

Clearly this idea suggests that the programs themselves should not intrude too heavily on system resources. And it is here that I will go for the hard sell and tell you why you shouldn't be using the other memory editors.

In my opinion, their biggest fault is a consequence of most being ROM resident. They tend to use exactly the same zero page locations as you, moving the contents onto the stack for safe keeping. So what you see at &70 to &8F is usually the editors temporary work variables and not whatever you had there.

My other gripe concerns screen use, most dominate the whole display, and some even force you into mode seven.

What I present here is my solution to these problems. It consists of a single BASIC assembly language source which can be assembled to work at any address. Apart from the code itself, no other memory locations are used, zero page is left untouched. Also, it operates in the current text window, adapting itself to fit in.

To use the program, first RUN the assembly source. The object code address can be changed by altering dest% in PROCsetup.

This will produce a file called Medit, which should be *LOADed before use.

To start up the editor, load the X and Y registers with the address to to start from, and JSR or CALL the address dest% was set to, &1100 if it wasn't changed.

This will, providing the window is big enough, produce a display which is very similar in appearance to *DUMP. The numbers on the left are the start addresses for each line, following which are hex values showing the contents of these and the next few bytes. The ASCII equivalent is on the right, a dot is used for non-print able characters. One of the elements hex values will be bracketed, and the cursor positioned on its ASCII character showing that it is selected.

You move using the arrow keys. On their own, by a single element, and with SHIFT, up and down move by half a page.

`There are two ways to change a value, direct or hex entry. TAB toggles between them.

In direct entry mode the hex value is highlighted with round brackets. Any key pressed that doesn't have special meaning is written into the current location and the cursor moved to the next.

Hex entry has square brackets, changes are made by typing hex characters, 0-9 or

A-F. The hex digit on the right is moved to the left and the new one inserted in its place.

ESCAPE will exit at any time.

HOWSIT WORK?

The program itself it not very complicated, the only real thing of note is how it avoids using zero page and what the implications of this are.

The code is self modifying, and before you tear out these pages and burn them for even mentioning such a sin, let me try to justify my actions.

To remove the need for zero page indirection it uses absolute load and store instructions and modifies their addresses. The other self modification saves a little on space requirements. Replacing one of the references to a variable with an immediate load and pointing the others to its address field saves two bytes, and for the speed crazed, two clock cycles every time the immediate load is used.

This does have one major consequence, it must live in RAM, there would be no chance of making it ROM resident like those in most toolkits that I was moaning about earlier.

```
10REM Memory Editor
20REM RAM resident only
30REM by Andrew Bennett
40:
50PROCsetup
60PROCassemble
70PROCsave
80END
90:
100DEF PROCsetup
110dest%=&1100
120:
130oswrch=&FFEE
140osnewl=&FFE7
150osbyte=&FFF4
160osrdch=&FFE0
170:
180DIM code% &300
190ENDPROC
200:
210DEF PROCassemble
220FOR opt%=4 TO 6 STEP 2
230P%=dest%:O%=code%
240[OPT opt%
250.medit
260STX write+1
270STY write+2
280:
290LDA #15
300JSR oswrch
310JSR cls
320:
330LDA #&FF
340STA width+1
350STA height+1
360.me_loop1
370INC width+1
380LDA #9
390JSR oswrch
400JSR readpos
410CPX #0
420BNE me_loop1
430:
440JSR topleft
450.me_loop2
460INC height+1
470JSR osnewl
480JSR readpos
490CPY height+1
500BNE me_loop2
510:
520LDA width+1
530SBC #5
540BPL ok
550.toosmall
560BRK
570BRK
580EQUS "Text window too small"
590BRK
600.ok
610LSR A
620LSR A
630BEQ toosmall
640STA width+1
650:
660LDA height+1
670LSR A
680STA editline+1
690:
700LDA #4
710LDX #2
720JSR osbyte
730STX oldfx4+1
```

continued next issue!

EUROPHILE

Geographical Database from the Public Domain

Europhile is a Geographical Database for the BBC Micro, produced by GFX.

It provides information on 42 European countries, including small countries such as San Marino and Malta; the Baltics/former-USSR; and countries on the outskirts of Europe such as Greenland and Turkey.

Europhile is 100% menu-driven in mode 0. All information is accessed using the function keys, making operation VERY simple.

There are two programs:

EUROPHILE MAIN PROGRAM

From the Main Menu, you can select any one of the 42 countries and then switch between the following data screens:

MAP1 - Hi-resolution outline map of the selected country, with major cities marked.

GENERAL/DEMOGRAPHICS - Area, GNP, Trade, Population, Major Cities, Phone Codes, Time Zones and Government.

CULTURE/TOURISM - Language, Visa, Health, Sights, Climate, Currency, Tourists, Telex and Ham Radio.
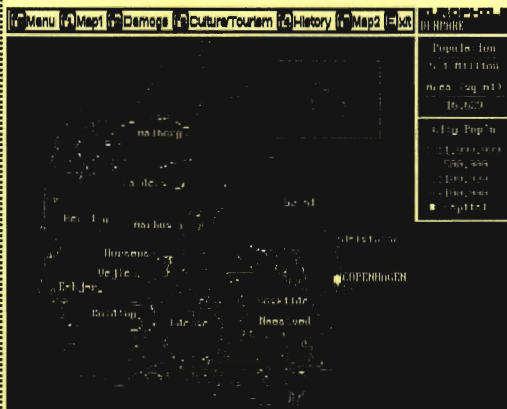
HISTORY - Lists major events from country's origin to modern day.

MAP2 - Plots country on map of Europe.

COMPARISON PROGRAM

From the Main Menu, you can select which field to sort by (area, GNP, population etc) and then switch between:

COMPARISON DATA - Ranks the countries

in descending order and displays figures for each country.

COMPARISON GRAPH - Presents figures for each country on a bar chart.

All figures and information are of end 1992 and are now in need of a bit of a facelift - They should therefore be used purely as a guide. Currency and trade figures are given in ECU (European Currency Unit).

Europhile was created on a BBC B with OS 1.20 and Acorn DFS, but should(?) run on any Beeb.

If you have any comments or queries (and a modem!), please send e-mail to GFX on the following bulletin boards:

Challenger 021 445 3913 (v23 viewdata)

Darkhaven 0604 413716 (viewdata or terminal)

*Europhile is Public Domain on a single DFS 80track double-sided disk. It has just been added to the 8BS PD-pool (**TBI-57**).*

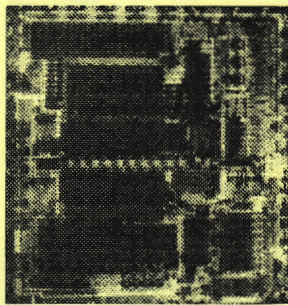# OH SOD IT

Murphy strikes again...

Having now studied Issue 8 I find Murphy has had a field day! First and most important to me is your reference to the colour mod for the Master (page 8). You tell readers to fit a 470µF capacitor! In my note to you I said fit a 470 *picofarad* – which I spelt out (twice) so as not to cause any misunderstanding. Fitting a capacitor that is one million times too large a value is unlikely to do any damage (always assuming room can be found for it!) but the result will probably be no video output at all!

Turning to page 5, program line
`30 REPEAT: MODE 7: VDU 23,1,0;0;0;`
is at fault as another `0;` is needed to complete the `VDU` command – see page 77 of the Beeb User Guide.

Still on the sorting program, line 100 will only work for those with Acorn BASIC V, eg Masters, etc. For the Electron and Beeb owners using BASIC II, "`ON...` `PROC...` " is not allowed. This highlights one of my complaints of BEEBUG towards the end. Some of their listings were in BASICIV with no hint of this in the text and I am sure many readers would not be aware of the fact until after they had typed the (often very long) listings in and tried to run them.

Bernard Beeston

SORTING

A BASIC II fix...

Further to the reference in the "Oh sod it" section, a part of last issues sort program would only work on BBC's with BASIC version V, basically Master owners! For the Model 'B', something has to be altered. I am referring to LINE 100.

On the Model 'B', it is possible to use "`ON x GOTO...`" or "`ON x GOSUB...`", but not "`ON x PROC...`". To get around this problem, we will use a number of lines to replace the one in question.

One way of handling the situation is to send the Beeb off to a specific line, based on the resulting value of `choice`. Beeb BASIC is very flexible when it comes to variables. For example, the command `GOTO...` requires that a line number be supplied as the place to GOTO. The line number can be in the form of a variable, a numeric value of an arithmetic sum, providing all of the results are legal and apply to an existing line. Using this theory, adding five lines to Iss8's sort routine should solve BASIC II's shortcomings:

```
100 GOTO (choice*2)+100
102 PROCdescend: GOTO 110
104 PROCascend: GOTO 110
106 PROCview: GOTO 110
108 PROCquit
```

The sum in LINE 100 will take on four separate values depending on the chosen Menu option: `102`, `104`, `106`, or `108`. The program then jumps to that specific line number, which then points to the appropriate PROCedure. ▣

CLASSIFIEDS

welcome back! If you have something to buy/sell/swap, it goes here!

BBC B 32k, disc drive, Roms include WordWise+, Replay, Disc Doctor, Desktop Publishing, RomMaster DFS, hoard of approx 100 discs plus many tapes, £120.
Tel: 0202 431213

BBC AMX mouse, £10. Volex Teletext adaptor, £40. Printer, hardly used, second ribbon new, boxed, £40. Voltmace twin joysticks, £6. Masterfile s (discs), £8. **Tel: 0703 392719**

BBC SPARES. Cases, PSU's, keyboards, parts from main board, drive cases, speech interface, 32K SRam, Roms. **Tel: 0444 450454**

BBC Master 128, Cub Microvitec RGB monitor, DDDS disc drive, VGC, £195ono, will split.
Tel: 0692 670409.
(Great Yarmouth)

BBC Micro, dual DS disc drives, sideways ROM/RAM board, Eprom programmer, joysticks, cassette recorder, plus manuals

and lots of software, £70ono.
Tel: 0623 633326. (Macclesfield)

BBC B, disc drive, Solidisk Sideways Ram, Brother M109 printer, joystick, £60.
Tel: 0252 722227

BBC B, Watford DDFS, twin 40/80 tk disc drives, 80 column printer, green monitor, word-processor, spreadsheet, database, ROMs, manuals, excellent condition. £150ono.
Tel: 0842 754927 eves. (Norfolk)

BBC Master 128, colour monitor, Cumana disc drive, Panasonic printer, over £500 of games/educational software, everything mint condition and boxed, £275.
Tel: 0708 440993. (Essex)

BBC Master 128, 512 Co-processor, colour monitor, twin disc drive, Brother daisy-wheel printer, Viewstore, spell-check, diagnostics, toolkit, DFS, manuals, £250. **Tel: 0992 812079

BBC Master with turbo board, monitor, twin disc drive, joystick, mouse, word processing software, excellent condition, £200.
Tel: 0344 777000

BBC B issue 7, manuals plus 1000+ games, etc, recorder, printer, mouse, open to offers of £50+. **Tel: 0302 885796.** (Doncaster)

BBC Master, disc drive, twin joysticks, Panasonic printer with cable, various discs, games, educational, manuals, welcome book and disc, £135ono. **Tel: 0282 413596**

BBC B issue 7, with cassette recorder, as new, £85.
Tel: 0372 728951

BBC B, DFS, Cumana disc drive, manuals, leads, colour monitor, £120. **Tel: 081 941 7824 eves.**

For Sale: BBC PSU's, keyboards, educational programs.
Tel: 0274 596751. (Bradford)

BBC screen details

MODE	TEXT	GRAPHICS	COL	MEM	HIMEM	LENGTH
0	80x32	640x256	2	20K	&3000	&8000
1	40x32	320x256	4	20K	&3000	&8000
2	20x32	160x256	16	20K	&3000	&8000
3	80x25	-	2	16K	&4000	&7E80
4	40x32	320x256	2	10K	&5800	&8000
5	20x32	160x256	4	10K	&5800	&8000
6	40x25	-	2	8K	&6000	&7F40
7	40x25	teletext	16	1K	&7C00	&7FE8

VIEW – PART 1

A basic, "get-you-started" guide

There seems to be two very opposite and disctinctive schools of thought when it comes to word processors on the BBC: the two main contendors are Inter-Word and View, each with its own distinct differences.

VIEW is the creation of Acorn themselves and was given away with each model of BBC from the Master onwards. It relies heavily on direct commands, with hardly a menu to its name.

GETTING STARED WITH VIEW

Power up your Beeb and pick the preferred display mode to work in: 40 or 80 characters (Mode 7 or 3), and enter *WORD to access the VIEW rom fitted in your machine (you do have a View rom fitted don't you?!) You should be presented with a few lines of text in the corner of the screen:

To start producing your document, you need to type NEW at the View prompt (the =>); the 'Editing No File' will change to 'Bytes free .....', showing the amount of available memory in your BBC to fit your letter into.

Pressing Escape at any point takes you between the command mode (where you are now) and text mode (where the letter happens).

On entering text mode, you are faced with View's ruler bar with additional information:

```
FJ.........*......... *.........*.<

_
******************************
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F indicates formatted text (words that won't fit on the present line of the document are taken over to the start of the next line), J indicated Justified text (spaces are added between words on a line to make the line stretch fully to the right margin, which is signified by the <). The * in the top line indicates Tab stop positions; _ is the cursor point; the row of * at the bottom indicates the end of the current document. From here, it's just a case of typing away to produce that masterpiece you want to send to ByteBack.

To save you document as you go along, return to the command mode by pressing Escape, and enter SAVE filename. Loading a document is done by LOAD filename. Entering *CAT will allow you to check the contents of the current disc.

READ filename m allows a stored

	DELETE COMMAND	DELETE CHARACTER
MARK AS RULER	EDIT COMMAND	INSERT CHARACTER
JOIN LINES	SET MARKER	DELETE LINE
SPLIT LINE	GOTO MARKER	INSERT LINE
DEFAULT RULER	HIGHLIGHT 2	END OF LINE
INSERT / OVERTYPE	HIGHLIGHT 1	BEGINNING OF LINE
JUSTIFY MODE	DELETE UP TO CHAR	DELETE TO END OF LINE
FORMAT MODE	RELEASE MARGINS	BOTTOM OF TEXT
NEXT MATCH	SWAP CASE	TOP OF TEXT
DELETE BLOCK	MOVE BLOCK	FORMAT BLOCK
CTRL ▶	SHIFT ▶	VIEW

file to be merged with the document in memory from the position of marker m (more about Markers in a moment).

THE FUNCTION KEY STRIP

Running quickly through some of the features of VIEW from the function key strip, we find...

Lines:

INSERT LINE – inserts a blank line above the line the cursor is on;

DELETE LINE – deletes the line the cursor is on;

SPLIT LINE – splits the line where the cursor is from the point of the cursor: the remainder of the line is carried down to a new line below;

JOIN LINES (originally 'CONCATENATE LINES' – a good move to rename it, considering the space considerations on a key strip, but that's another story...) – this command joins two lines together. Place the cursor in the upper of the two lines and hit this function key.

Delete:

There are various options here that are mostly obvious, except perhaps for:-

DELETE END OF LINE – deletes the character above the cursor and all characters to the right of the cursor on that line;

DELETE UP TO CHARACTER – deletes the character above the cursor and all characters to the right of it on that line up to a specified character.

Markers:

These little widgets are special characters you insert in your documents.

They don't print out on your final letter but are used to handle the document better.

There are six markers available (numbered 1-6 predictably), 1 and 2 show up in the document as inverse characters (or a square blob in Mode 7). Markers 3-6 don't show up at all (useful...), but can be found with the GO TO MARKER (SHIFT f6) command. With markers, you can set points in a document that you want to jump to, or move/copy blocks of the document around.

To set a marker, move the cursor to the place where you want it, press SET MARKER function key (MK appears at the top left of the screen); enter the number of the marker (1-6).

To clear markers 1 and 2, press Escape to enter command mode and type CLEAR. Markers 3-6 can't be deleted, but can be removed with the DELETE CHARACTER command (deletes character at cursor position).

Blocks:

Using markers 1 and 2 to surround a block of text (insert marker 1 at the first character of the block and marker 2 at the space after the last), we can do one of the following with it:-

DELETE BLOCK – CTRL f0 will delete the block of text.

MOVE BLOCK – move the cursor to the new position of the block and press SHIFT f0

COPY BLOCK – move the cursor to the new position of the block and press COPY