wind of change...

ByteBack, as we know it, is leaving: make way for a new look

Hang on, what's this! Where's the 16-page booklet I've been waiting for?

Before you wonder what has happened, I would like to explain why the issue you are reading here is somewhat different from the past format.

As you are well aware, this monthly magazine very quickly became a bi-monthly publication, due to my work's great demand on my time. You may also have noticed that quoting "bi-monthly" is nothing short of optimistic.

ByteBack issue 7 should have been with you at the beginning of July, but I failed to meet that target miserably, and I really hate it when that happens. The other night, I came up with a different idea for BB, in the hope that I can make its production easier, ultimately making its distribution more regular for you, the valued member. Here is my proposal:

At present, ByteBack is in A5 format and is normally 16 pages long. Of these pages, the cover (basically information about the articles in the magazine), the ½ page contents list, ½ a page of subscription details and ½ a page of suppliers stay basically the same. So the number of pages that really contain articles each issue is around 12.
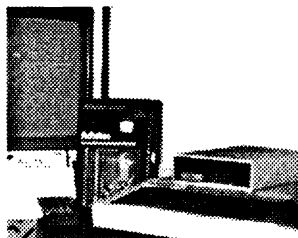
I propose to reduce the size of ByteBack to a total of 8 pages (that is 8 A5 sides) for each issue. It will come folded in the way this one is (it saves time photocopying, collating and stapling), with a front cover, back cover a double-page spread for pages 2 and 3, and four pages for the fold-out section (rather like reading the Financial Times on the Tube, but easier), containing the same variety of articles that you are used to seeing in BB.

although the number of pages for each issue has been reduced to 8:

◆ There will be an article starting on the front cover, not unlike this one actually, so this effectively gives us an extra page to fill with BBC stuff;

◆ Each issue will contain about ½ a page for **subscription** address details- this will stay static from issue to issue;

◆ The **Suppliers** section will turn up in every second issue of BB, so that effectively frees up another ½ a page in every other issue;

ByteBack • seven

1

Acorn show 1994

A report on the success of the 8BS stand, from Frank Jones.

Besides being a member of "ByteBack", I am also a member of "8-Bit Software" and "Solinet" and somehow the organising genius behind 8-Bit, Chris Richardson, had managed get a stand at this Spring's "Acorn User Show" in what was called by the organisers "Club Corner". Actually 8-Bit shared a stand with "The Wakefield User Group" and the whole of the other stand was run by "ARM". The "W.U.G." - 99% Archimedes and "ARM" solely Archimedes.

The show was held at Harrogate, 22nd/24th April at the Exhibition Centre in a very nice hall. Regretfully parking was very difficult. In Pay and Display parks adjacent, and there were not many of those, it was £3.80 for six hours! I turned up to help Chris on the afternoon before opening day WILLING to pay but I just could not find anywhere - finished up in some street over half a mile away.

Eventually presented myself to Chris who had been there since 11 A.M. and on the seven foot of table he had rigged up the three computers he was to use (Master 128, Compact, BBC 'B'), complete with Disc Drives and his trusty Citizen 210D printer. There were numerous cardboard boxes containing discs galore, infact copies of everything 8-Bit had so any request could be dealt with. The magazine and Catalogue disc were to be sold for £1.50.

Leaflets extolling the virtues of 8-Bit and our own "ByteBack" were in evidence. Arrayed on the walls were a Master Poster for 8 Bit; as "Superior Software" had given us a carton of many compilations of "Play it again Sam" to sell at half price, Chris and I arranged a feature of that and then there was numerous A4 printouts extolling the virtues of 8-Bit.

By 5 o'clock there seemed nothing more that we could do to enhance the stand. Looking round we could not help but despair that the exhibition would be ready for 10 o'clock next morning. Some stand holders had yet to turn up and the show staff were still laying carpets, electrics etc.

The author(?) of the Master Poster for 8-bit was our own Paul and the colours were the green usually associated with Acorn and black - came across very well - as did the leaflets pushing "ByteBack". Chris was very grateful for Paul's help and advice on display.

Come the Friday morning I was there for 9.30. Managed to park nearer than half a mile! Already there was a 25 yard queue outside and on entering, though there was a noticeable improvement compared with the previous night, there was still activity setting up stands etc. At 10 o'clock there was the announcement that the exhibition was now open but as we were at the further most corner we had to wait a while for the oncoming tide to reach us.

As the noise grew, I settled for the job

of being the 'Barker' outside our stall, handing out leaflets and talking on nostalgic side, somewhat on theme of "Back to Basics" or "Memories are made of these", explaining the support available in the 8-Bit world and so on, then passing them onto Chris.

A mistake I made early on was to presume that the more elderly the person, the more likely they were to be a BBC type. It turned out to be no!!! They were the one's with A5000! And I did find 3 people who are still running "Electrons" and of those two were under twenty years of age. Of course, I got various remarks like "Am I in the museum section", "I sold mine in 1986!", "Can you still get one?".

We struck up a good relationship with the Wakefield group, passing interested parties onto one another with a lot of good humour. I am sure it was enjoyed by all. The W.U.G. who had done this before said the attendance pattern would be for the respective days, 27%, 40% and 33% of the whole.

It was amazing how many people had Archimedes yet had kept their BBCs but confessed to not using them for years. Admiration was often expressed for the programmers of the BBC era with what they managed to achieve with so little memory. One chap was delirious with a program I am unfamiliar with called "Revs". According to him it was great and I quote "it takes six times as much memory on an Arc and is little better".

Infact once we got some BBC owners talking, so much in praise of the BBC

were they, that one was left to the conclusion why did they buy the Arc?

From about quarter to eleven to approaching 4 o'clock was great fun, talking, telling, showing, selling and several people wanting to see the remnants of what they had in BBC software/hardware go to a good cause, were going to send it to Chris to help with Club funds. During the last hour till closing time - 5 o'clock, the fall off of customers was noticeable.

Now what else was there of the BBC? Probably 0.0001%! There were two stalls, one with a few old manuals and the other about a dozen old Acorn Users! It was solid Archimedes.

This was the day Archimedes had released their new model and were stepping into the personal computer world with the PC600. Most dealer stalls and Software stands had one. This did provoke remarks like "over the next few years, will we see the Archimedes range go the same way as the BBC?". Personally, I suppose we will, one cannot stop progress. However the day continued to surprise me with the hold and affection the BBC still has on the outside world. We think we are in the hundreds in our enthusiasm, out there they are in their thousands. If we could only get their names on the Club's list. ◀▱

8-BIT
Software

Letters

If you have something to say, please write...

I enjoyed the sample copy of ByteBack (Issue 6, March 1993!) *[Ok, fair enough, I know about that little faux pas; it was intentional... Ed].* I prefer a magazine in paper format rather than disc as I can take it to work to read while having my lunch. I think that your journalism style is about right, and the 'look' of the magazine is very good. Keep up the good work – I don't know where you find the time though! Incidently, I can thoroughly recommend BBD for dust covers. As well as off the shelf ones for popular models, if you send them a sketch, they will make up a cover to fit almost anything, at a very reasonable price: *BBD Dust Covers, The Standish Centre, Cross Street, Standish, Wigan WN6 0HQ*

David Robinson, Havant, Hampshire

You didn't mention that other little room you can take BB into...

Yet another splendid issue, I will send you my next installment, "an idiots guide to Viewstore" when I have polished it up. It appears that the disc based magazine is the up and coming thing. I have joined 8-Bit Software recently, so you may see my articles appearing on those in the future. The membership will increase especially if you keep the output low key, easily understandable and digestible for a majority of your readers. Obviously you may have to set aside some corners to cater for minority needs.

Trevor Crapper, Eaglescliffe, Stockton-on-Tees

Many thanks for Issue 6. I have been very busy delving into the Beeb books etc, etc, but I'm still none the wiser. Maybe in time I will begin to know how my Beeb works, but it's all good fun all the same. Could you please put a few lines in Issue 7: I have just bought an AMX Mouse and Rom titled 'AMX' When I located the rom in the bottom bank far right, all I get on my vdu is the logo and the screen is blocked. Can anyone help me with this problem? I enclose my £1 for the next exciting, tantalising, fascinating brilliant edition of ByteBack!

David Brown, Ashford. (0622 843344)

Believe me, I don't write these letters, neither do I offer bribes of any sort!

About finding subscribers. It occurs to me that some of your best potential sources of interested parties must be the BBC public domain user groups. If you were to get in touch with them, surely you would be able to persuade them that ByteBack is very much in their interest. The could easily slip one of your cards in with each disc of P.D. software sent to those using the service.

Andrew Donald, Ilford, Essex

Chris Richardson of 8-Bit Software helps to promote ByteBack via his disc-based magazine. 8BS is probably the largest BBC PD/user group around.

sorting

a step-by-step description of a well used routine... part I

At one time or another, most of us would find a use for something that sorts a list of items into alphabetical or numerical order, wether it be ascending or descending order. Although I can't think of a use just at the moment, hang around 'cos this day ain't over yet.

There are a number of ways that a list of items can be sorted. Consider how you would sort a list of names yourself: you might start by sorting the items based on the first letter in the name; then sort each sub-group of items by comparing proceeding letters after the first.

When producing a routine or program for a computer, it's important to consider the way you would go about the process, before trying to tell Beeb how to go about it: for all the fun they provide, computers can't do any more than you tell them – but they can do it a damn sight faster, and that's where the real benefit is. It's not very important if the routine you write is a little inefficient (unless you have a large number of items to sort, say 10,000+).

So, with these various thoughts in mind, let's consider a simple sort routine, probably the Mother of all 'sort routines' every devised: Bubble Sort, so called because of the way it re-orders the list, comparing two adjacent entries at a time and swapping them if they are out of order. This function is performed from the top of the list down then the procedure repeats, until no more swaps take place. This must then signify that the list is sorted. If you were able

to literally see the items in the list being sorted, you would notice out-of-order entries 'bubbling' to the top.

We begin with a list of 10 random names, which are put into separate string variables, held in a single dimension:

```
10 DIM name$(10):RESTORE
```

From here we assign each of the names to a string:

```
20 FOR loop=1 to 10
30 READ name$(loop)
40 NEXT loop
```

And here are the names:

```
50 DATA London,Hull,Manchester,
Birmingham,Oxford,Ashford,Cheshire,
Yorkshire,Leeds,Glasgow
```

The names will be allocated thus:

```
name$(1)=London      name$(6)=Ashford
name$(2)=Hull        name$(7)=Cheshire
name$(3)=Manchester  name$(8)=Yorkshire
name$(4)=Birmingham  name$(9)=Leeds
name$(5)=Oxford      name$(10)=Glasgow
```

We'll set up a loop in which the process of comparing adjacent pairs of names will continue until all names have been sorted. To be able to know when all the names are sorted, we use a simple variable, which we will call FLAG.

The sort routine here is for sorting the list in ascending alphabetical order. This involves comparing two items from the list and swapping them if the second one is less than the first. Each letter and number in the computer has a numerical value, dictated by the standard known as ASCII. By these standards the letter 'A'

Sorting...

has a numerical value of 65 and 'a' has a value of 97. The numbers 0-9 have the values 48 to 57. Because of this, it's easy to compare two letters like comparing two numbers and come out with one being greater than the other. So:
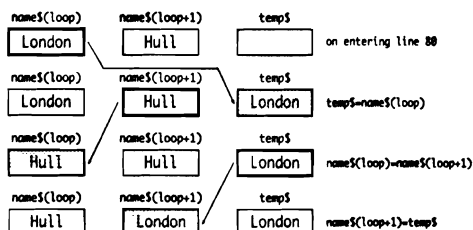
```
60 REPEAT: FLAG=FALSE
70 FOR loop=1 TO 9
```

We set up the start of two nested loops. The first loop runs comparing pairs of items, swapping them if required. The first time through the loop, we compare the first two items in the list, name$(1) and name$(2). The next time through, it's name$(2) and name$(3), and so on, until the last comparison is between name$(9) and name$(10). The number of comparisons here are always one less than the number of items in the list, which is why the loop only runs to 9 in line 70. The swap is done with the next line:

```
80 IF name$(loop)>name$(loop+1)
temp$=name$(loop):name$(loop)=name$
(loop+1):name$(loop+1)=temp$
```

Two items are compared (item loop and item loop+1). If the first of the two is more than the second, a swap must take place with the help of a temporary string: to swap two items, a third string is required

name$(loop)	name$(loop+1)	temp$	
London	Hull		on entering line 80
London	Hull	London	temp$=name$(loop)
Hull	Hull	London	name$(loop)=name$(loop+1)
Hull	London	London	name$(loop+1)=temp$

Then we repeat the process with the rest of the list:

```
90 NEXT loop
```

We've gone through the whole list once, but this doesn't mean that the list is sorted: it will take a number of passes to make sure the items 'bubble' up to their correct position in the list:

```
100 UNTIL FLAG=FALSE
```

This will complete the second, outer, loop (a REPEAT...UNTIL loop) until the value of FLAG is FALSE.

If you look at line 60, FLAG is initially set to FALSE and nowhere in the program has it been given any other value, so the program will stop after only one pass of the REPEAT... UNTIL loop, which is not what we want to happen. We have to add a command to the end of line 80, after ...temp$.

```
:FLAG=TRUE
```

The reason for having a flag variable in the loop is to be able to tell us when the list is sorted. FLAG is set to FALSE initially and stays that way unless line 80 is implemented. Line 80 takes the 2 items it's dealing with and compares them, swapping them if necessary. If the swap takes place, FLAG is set to TRUE, and if FLAG is TRUE, the REPEAT... UNTIL loop goes around again for more item-swapping fun (and FLAG is set to FALSE once more). If, after testing the list of items in pairs at line 80 and no swaps take place, it's obvious that the list is sorted. In this case, FLAG does not get set to TRUE so the REPEAT... UNTIL loop exits: the sort is complete.

I hope this article has been helpful to some of you; I know it's been elemental to many, but BB caters for all levels! Next month we'll expand on this basic routine by adding a descending order sort and perhaps a user-friendly interface to operate the program from.

bits and bobs

a mixture of little snippets

COMPETITION CORNER

In Issue Six, I inadvertently said, "...Another game goes to anyone who can tell me why I bother to run competitions at all!..." The ByteBack mailbox was flooded with entry to this and the committee voted unanimously for James Burnett's contribution, reproduced here for your amusement:

The reason that Paul runs a competition,

is that he must like the imposition,

That is put on his time,

Which is obviously quite prime,

And he prefers to do this than get S**T on.

Of all the entry, this was by far the best. Congratulations James, a game is yours! At a risk, I'll just say: A game goes to anyone who can tell me why I keep writing things like this after each competition. Another game to anyone who can tell me in the most drawn-out way, how many entries I received for the competition James just won...

OO-ER MISSUS!

Issue 6, page 13 (Competition Results), it says LISTO 0 "actually doesn't do anything". This is true initially, but used subsequently, it removes the spaces added by LISTO 1 to LISTO 7

☹   ☹   ☹   ☹   ☹   ☹

MEMBERSHIP

Present subscription is over 70... Welcome to all of you new members! We hope that you enjoy ByteBack and through it and other support groups, find continual enjoyment and interest with your BBC, whatever model you own!

KEY BEEP

This short program causes the BBC to beep every time a key is pressed; useful if you're copy-typing and don't want to look at the screen to be sure a key press has registered.

```
10 code%=&70
20 P%=code%
30 ?&0221=code% DIV 256
40 ?&0220=code% MOD 256
50 [
60 LDA#&07
70 JSR &FFEE
80 RTS
90 ]
```

To switch this machine code routine on and off, use *FX 14,2/*FX 13,2 respectively. If your BBC is fitted with OS 1.0 or later, you can alter the beep in a number of ways:

*FX211,X   *channel number, 0-3*
*FX212,X   *envelope number*
                (0-127 in steps of 4)
*FX213,X   *pitch of the beep (0-255)*
*FX214,X   *duration of the beep (0-255)*

BBC SUPPORT

◆ The magazine will now be known as a **Newsletter;**

◆ The price will be reduced to 70p per issue, which, as always, covers p+p. However, for existing members who have paid £1.00 per issue in advance for ByteBack, you will receive two of the new, smaller issues, so you will effectively get twice as many issues, and a little more than twice the amount of articles to the bargain.

Because each issue of ByteBack will be quicker for me to put together, I am hoping to produce it more often! If possible, BB will become a monthly newsletter. Busy periods with work, however, may mean that BB will appear at longer intervals.

Well, this is my proposal. it's for you that BB comes together each issue, so your views have to count as final say. Some people believe in "a little and often" and would therefore like to receive something every four weeks, rather than something more every eight weeks. For the next issue at least, I will be maintaining this new look. From issue 9 onwards, it's up to you which format you prefer. ◆

◆ **Adventure Soft Ltd** - PO Box 786, Sutton Coldfield, West Midlands, B74 4HG
☎ 021 352 0847

◆ **Rickitt Educational Software** ☎ 0460 57152

◆ **Pres Ltd** - PO Box 319, Lightwater, Surrey GU18 5PW ☎ 0276 472046

◆ **Software Bargains & Mercury Games** - C/O Northwood House, North Street, Leeds LS7 2AA ☎ 0532 436300

◆ **Watford Electronics** ☎ 0582 487777

◆ Sherston Software (educational)
☎ 0666 840433

◆ **Headfirst PD** - 97 Chester Road, Southport, PR9 7HH

◆ **SOLINET** - Disc based magazine packed full of useful BBC items: Ron Marshal, 41 Westbrook Drive, Rainworth, Mansfield, Nottingham NG21 0FB

◆ **8-BIT SOFTWARE** - An excellent source of BBC information and PD software via a disc based magazine for enthusiasts: Chris Richardson, 8BS, 17 Lambert Park Road, Hedon, Hull HU12 8HF

◆ **DESTROYED REALITIES** - Disc based magazine: David Lowless, 82 Main Street, Pembrook, Dyfed, Wales SA71 4HH.

Please include an SAE when replying to user groups

Subscription details

ByteBack is produced by me in my spare time. It is not a commercial venture but I have a lot of fun putting it together each issue. If you like reading ByteBack, you can receive it regularly by subscribing.

Each issue is available for 70p, which includes postage. You can subscribe for any number of issues up to a maximum of 12. Just send a note with your name and address, details of how many and which issues you would like and a cheque or postal order for the correct amount (it's inadvisable to send cash through the post!) If you send a cheque, please make it out to Paul Harvey, not ByteBack!

ByteBack, 33 King Henrys Mews, Enfield Lock, Middlesex EN3 6JS