



# INDEX



## INSTRUCTIONS

File the index page from every issue at the back of your Fast Access binder for a handy reference to your library of programs. The pages can be ordered by Icon or by issue, it's your choice.

## 80 TRACK DRIVES

Insert FAST ACCESS into your disk drive and type:

\*CHANGE <RETURN>

The program will prompt you to insert a formatted 80 track disk when necessary. Single drive users will have to swap the disk several times.

TITLE	PROGRAM FILES	TEXTFILES
Easibase	CLI EGPROG HEADER MENU SEARCH VIEW CHARS EDITOR ICONS LOADER PRINT SORT WRITE JOINED THIN BOLD DATA EXTRA TITLE E.DEMO1 P.DEMO1 D.DRIVER S.DATA1 - 6	A.DOC1 A.DOC2 A.DOC3 A.DOC4 A.DOC5 A.DOC6 A.DOC7 A.DOC9
Yoyo	YOYO YOYO!! YDATA1 - 4	T.YOYO
Compare	compare B.compare	T.COMPARE
Music Gallery	REQUIEM GALLERY GALSCR5 comp	

## ALL USERS

Make backup copies of both disks and keep the originals in a safe place with Write-Protect tabs on. Use only the copies, as many of the programs write to the disk, which will diminish the usefulness of the originals. For specific filing system information, please refer to the help file on disk.

## NEW USERS

Don't Panic!. First find out whether you have 40 or 80 track drive(s) attached to your computer. Then go to your User guide or Welcome Manual and find out how to use the \*COPY command. Next re-read the section above All Users, and then continue reading down from this point.

## 40 TRACK DRIVE SYSTEMS

FAST ACCESS is supplied on 40 track disks and will work on any 40 track BBC Micro system straight away. Remember to make a working copy before use.

## 80 TRACK DRIVES

If your filing system allows double-stepping, we recommend using the system's own command. As a general rule, built-in 40-to-80 track converters should be used where available; the documentation for your filing system or utility ROM will give full instructions.

## ADRESSES

If for any reason your copy of Disk User will not work on your system then please carefully re-read the instructions given above. If you still experience problems then return it to: SELECT SUBSCRIPTIONS LTD, 5 River Park Estate, Billet Lane Berkhamsted, Herts HP4 1HL. TEL 0442 876661 to 4

Advertising enquiries to FAST ACCESS, Argus House, Boundary Way, Hemel Hempstead, HP2 7ST. TEL 0442 66551.

Editorial and technical enquiries to FAST ACCESS, 6C Belgic Square, Padholme Road, Peterborough PE1 IXF TEL 0733 53355.

Contributions should include full source code and instructions file on disk. Payments are extremely competitive.

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Typesetting and artwork by Simon Fifield.

Printed by Loxleys, Sheffield.  
Duplication by Direct Disk Supplies, Teddington, Middlesex.

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## RESOURCE FILES

TITLE	FILES	TYPE
Menu	FAMENU	BASIC
	GOSPR	Data file
	GOCODE	M/ code
Info Desk	IDESK	BASIC
	CHANGE	M/code



# EASIBASE



## AUTHOR

PHILLIP GWILLIAM

## FILES

'CLI' .....	BASIC
'EGPROG' .....	BASIC
'HEADER' .....	BASIC
'MENU' .....	BASIC
'SEARCH' .....	BASIC
'VIEW' .....	BASIC
'CHARS' .....	BASIC
'EDITOR' .....	BASIC
'ICONS' .....	BASIC
'LOADER' .....	BASIC
'PRINT' .....	BASIC
'SORT' .....	BASIC
'WRITE' .....	BASIC
'JOINED' .....	FONT
'THIN' .....	FONT
'BOLD' .....	FONT
'DATA' .....	DATA
'EXTRA' .....	DATA
'TITLE' .....	DATA
'E.DEMO1' .....	DATA
'P.DEMO1' .....	DATA
'S.DATA1'-'6' .....	DATA

## INTRODUCTION

Easibase is a general purpose, random access database system for the BBC B and BBC Master microcomputers. It is extremely versatile, and therefore, can be used for virtually any application.

The extensive range of features offered by Easibase, not only makes it suitable for any user, but also makes it very user friendly.

Easibase offers so many features, that it would be impossible to list them all. However, the main ones are listed below.

Nearly every function, in every module is icon driven.

Extensive use of pull down menus and help prompts. The layout of the records may be designed by the user.

A scrolling filecard window to increase record space.

A maximum of 29 fields may be created in a file.  
An unlimited number of records may be initialised.  
Searching for a match (in all 29 fields at once!).  
Calculations may be performed on any numeric field(s).  
An extremely fast and versatile sort facility.  
A flexible printer option, will suit most printers.  
A very fast binary search option, to match data.  
An option to search for and replace data.  
Several pre-set file and printer configurations.

There are a great deal more functions available to the user. The main features are listed above, but the list is far from complete.

## GETTING STARTED

In these instructions, all references to the Return key are indicated with <RETURN>. This simply means press the Return key when you see this message.

This applies to any other form of keyboard input, if a character is placed in brackets,

press the relevant key.

Also, when the text instructs you to select an icon, this means placing the pointer over the icon and pressing Return.

## LOADING

To load Easibase, carry out the following steps:

- (1) Place the system disc in drive 0.
- (2) !BOOT the disc (Press SHIFT and BREAK simultaneously!).
- (3) After several seconds, a loading title should appear.
- (4) Just press any key to load the menu module.

If step (2) fails, it is probable that that you have not typed:

```
*OPT 4, 3 <RETURN>
```

This will enable the computer to execute the !BOOT file.

## INITIALISING A NEW FILENAME AND DRIVE NUMBER

If you want to edit or view a previously initialised file, the file that you wish to access and on which drive must first be

## DESIGN FORMAT



**GOTO MAIN MENU**



**DATA INPUT**



**TRASH CAN**

### EDIT FILE



**GOTO RECORD**



**EDIT RECORD**

### VIEW FILE



**SEARCH**



**FIND & REPLACE**



**SORT**



**CALCULATOR**



**ALTER COLOURS**



**PRINTER**



**DISK**

established. To do this, select option <A> from the main menu.

A cursor will appear directly after the word FILENAME at the base of the screen. Enter a suitable filename of no more than seven characters in length, then press <RETURN>.

The cursor should then advance to the word DRIVE. The default setting is drive 0, but you will probably want to change this if your computer system has more than one drive. Simply enter the required drive and press <RETURN>.

All subsequent disc access will be to the file and drive that you have just stated.

## **THE FILE CREATION MODULE**

Before you start to use the following modules, it is essential that all the appendices are read first. This contains general information needed to use each module. Select option <B> from the main menu.

Before any data can be stored on disc, the structure of the file must be specified. This is done in the following way:

- (1) Creating the type of fields.

(2) Specifying the length of each individual field.

(3) Specifying the length of the whole file.

The File Creation module lets you do this, and creates the file once the three conditions above have been carried out.

## THE RECORD LAYOUT EDITOR

Basically, this particular facility will let you define the type and length of each field and design the actual layout of the record.

To enter the Record Layout Editor select the "Data Input" icon, a cursor should appear in the top left of the window that dominates the centre of the screen. This is called the Filecard window.

To move the cursor around the window, use the cursor keys. Pressing any other key prints a character corresponding to that particular key.

Using the information above, it is possible to move around and insert text in the Filecard window. In the Record Editor and Control modules all the text placed in the window will appear on each record.

## FIELD CONTROL CODES

The field control codes clearly indicate which type and the length of the field that you are defining. Certain function keys produce the desired control code in the following way:

<F0> Start string field.  
<F1> End string field.  
<F2> Start numeric field.  
<F3> End numeric field.  
<F4> Special tab code.  
<F9> End data input.

Note: The above can only be used in the Record Layout Editor. Therefore, using the above control codes a wide range of configurations may be created to suit your own individual needs.

## DEFINING A STRING FIELD

To define a string field:

Move the cursor to the required position.  
Press <F0>, a right arrow should appear.  
Move the cursor to the required position.

Press <F1>, a left arrow should appear.

The > right arrow indicates the start of a field. The < left arrow, the end of a field. Therefore, a string field of 20 characters in length, would be similar in appearance to the following:

>                      <

The number of spaces between the Start and End control codes determines the length of the field. It is very important to define the correct length, it cannot be changed once the file has been created. When the actual data is placed in the file, it will be inserted between these Start and End control codes.

You may be wondering how a string field may be created exceeding 28 characters in length, since the actual window is only 30 characters wide. This is when the Tab <F4> control code must be used. This is a right arrow (Different in appearance to the Start and End control codes.), and it has the effect of stopping any more file data being printed on the particular line that it has been placed on, and continue printing it at the next Tab control code.

i.e

Start here    >                      ->

Stop printing data here.

Continue here                      ->

< End of field.

Note:                      > = Start code  
                                 < = End code  
                                 -> = Tab code

Although it is not necessary, it is advisable to place some text before each field, to indicate what type of data it contains.

i.e

Instead of:    >                      <

enter: NAME>                      <

or:    NAME >                      <

The layout and NAME are merely examples. Obviously you would design a layout to suit your particular application, and enter different descriptive text depending upon the nature of the field. i.e. If the purpose of the field were to contain telephone numbers, descriptive text similar to TELEPHONE would be inserted before the field.

## DEFINING A NUMERIC FIELD

A numeric field is created in much the same way as a string field, except it can only be a

fixed length. Two types may be produced, these are Real and Integer.

To define an Integer field leave 5 spaces between the numeric Start and End control codes, to define a Real field, leave 6 spaces between them.

i.e

Move the cursor to the required position.

Press <F2>, a right arrow will appear.      |->

Move the cursor to the required position.

Press <F3>, a left arrow will appear.      <-|

Note: The numeric control codes are slightly different in appearance to the string control codes.

The Tab control code can only be used with string fields. However, text can be placed before a numeric field to indicate its purpose in the same way as a string field. In fact, any amount of text can be placed anywhere in the window, except between control codes.

## SCROLLING THE FILECARD WINDOW

It will probably occur to you that the 30 x 20 character area of the Filecard window does not have a great deal of space to define fields, especially when some kind of descriptive text has been inserted as well.

There is a scroll feature to increase the space to 30 x 40 characters, the Filecard window may be scrolled either up or down using the following keys:

SHIFT + CURSOR UP

Scroll window upwards.

SHIFT + CURSOR

DOWN    Scroll window downwards.

If the Shift and Cursor Up keys are pressed simultaneously, all the data contained in the Filecard window will be scrolled up off the top of the screen.

In effect, this facility provides you with two pages to define fields and insert descriptive text. This may not be required for simple applications, but it is likely that more complicated applications, that require over 10 fields and lots of descriptive text will need to use the two pages.



## **DISC MANAGEMENT MENU**

This menu is located at the top left of the screen, it has two main functions:

- (1) Changing the current drive number.
- (2) Initializing a new file.

### **CHANGING THE CURRENT DRIVE NUMBER**

This option is provided, so that you can change the drive number that the file is to be placed on. i.e. If drive 0 is chosen, when you initialize the file it will be placed on this drive. The default setting for this is drive 0.

To change the drive number, select the "Change Drive" option from the Disc Management menu.

### **INITIALIZING A NEW FILE**

Before this option can be chosen you must have already defined at least one field using the Record Layout Editor (See section 3.1).

To begin initialization of a file, the "Initialize New File"

option must be chosen from the Disc Management menu. Then follow the procedure below: Once you have done this, a message similiar to:

**SCANNING FORMAT -  
PLEASE WAIT**

should be displayed at the bottom of the screen. The program is now scanning the record layout, to find the control codes that you inserted earlier. Other characters do not change the structure of the actual file, only the control codes do this.

In several seconds a number of blocks should be inserted between the first set of control codes, this is done to indicate which field the program is currently reading. A prompt similar to:

**TITLE: \_**

should be displayed at the bottom of the screen, after the blocks have been inserted. Simply enter a suitable title of no more than 20 characters in length for the field that the program is referring to.

This process will be repeated for every field that has been

defined, until eventually a window will be displayed, containing the following information:

FIELDS : <Number of fields>  
DRIVE : <Drive number>  
RECORDS : \_  
FILENAME :

Before the file can be initialized, the number of records and the filename must be entered. When specifying the number of records, take into consideration:

- (1) The amount of free space on your disc.
- (2) The number and length of the fields.

Finally, the filename cannot exceed 7 characters in length. Simply enter the number of records and press <RETURN> followed by the filename <RETURN>.

If you have followed the above procedure correctly, the following message will be displayed:

INITIALIZING NEW  
FILE  
PLEASE WAIT

There will be a delay of several seconds to several

minutes while the file is being created, this largely depends on how many records were specified.

#### Known Problems:

If a large number of fields are created, a NO ROOM error message may possibly appear. If this occurs, re-boot the program. This does not effect the previously created file, that has been saved.

### THE LAYOUT MENU

This menu lets you view the layout that is currently being created in a scaled down format. To use this facility, select "Printout" from the "Layout" menu.

### ERASING THE CURRENT RECORD LAYOUT

To erase the record layout, choose the "Trash Bin" icon, there will be a delay of several seconds while all the old data is cleared from memory.

### THE RECORD EDITOR MODULE

Select option <C> from the main menu. The main functions

of this module are writing data to the file, editing existing data and deleting data. There are also facilities to retrieve previously erased data and perform a Binary Search on the data.

## WRITING/EDITING DATA

To access the file, select the "Edit Record" icon. Assuming the record contained no data, the following prompt should be displayed at the top of the screen:

ENTER DATA: \_

Also, the title, length and type of the field will be displayed in the window at the bottom right of the screen.

The above means that the computer is waiting for you to enter data, for the field displayed. Simply enter the data that you wish to place in the particular field and press <RETURN>. If it is a string field, ensure the length of data entered doesn't exceed the length of the field. Otherwise, the validation routines will reject it.

If the field already contained data, the following prompt will be displayed at the top of the screen:

EDIT ENTIRE RECORD

(Y OR N)?

This is an automatic edit feature, if you wish to edit the entire record simply press <Y>. Otherwise, press <N>.

If you selected <N> to the above prompt, the computer will go through the fields and ask if you wish to edit each individual field.

After a record has been entered the following prompt will be displayed:

PRESS (RETURN) OR  
(ESCAPE)

If you wish to edit the subsequent record in the file press <RETURN>, otherwise simply press <ESCAPE>.

## DELETING/RETRIEVING DATA

Select the "Trash Bin" icon, the following prompt will be displayed:

<D>ELETE OR  
<R>ECALL RECORD?

If you wish to delete the data, press <D>. If <R> is selected, any previously erased data will be recovered, if it has not been overwritten by any other subsequent data.

## **JUMPING TO AN ABSOLUTE RECORD**

There may be times when the file forward/backward feature is not sufficient.

i.e. The current record may be 100, and you want to advance to record 1000. This would take a considerable amount of time without this facility.

Select the "Goto Record" icon, and the following prompt will be displayed:

GOTO RECORD NUMBER: \_

Simply enter the record that you wish to jump to.

## **THE BINARY SEARCH**

Select the window containing the words "Binary Search", the following prompt will be displayed:

STRING: \_

Enter the string that you wish to find, and press <RETURN>. A following prompt will be displayed:

SEARCH ON FIELD: \_

Enter the number of a string field that you wish to search on,

and press <RETURN>. If the string exists, it should be found within several seconds.

Note: Chosen field must be sorted into ascending order.

## **THE CONTROL MODULE**

Select option <D> from the main menu. This module is the most important of all, since it can perform all the following functions:

Print out the contents of the file.

Perform calculations on numeric fields.

Search through the file.

Sort the file into order.

Find and replace text.

## **CALCULATIONS**

This facility allows you to perform any type of calculation on any number of numeric fields. This can be performed on one record or over a group of records.

Virtually any mathematical function may be incorporated into the expression, including logical operators such as AND, OR and NOT.

To use the calculations

facility, select the "Calculations" icon. The following prompt should be displayed:

FROM RECORD: \_

Enter the record that you want to start calculating from and press <RETURN>. Another prompt should be displayed:

TO RECORD: \_

Enter the record that you want the calculations to finish at, and press <RETURN>. Another prompt will be displayed:

PLACE RESULT IN A  
FIELD (Y OR N)?

If you do not want the result of the calculation to be placed in a numeric field, press <N> in response to this prompt. If you press <Y>, a further prompt will be displayed:

FIELD NUMBER: \_

Simply enter the field number that you wish the result to be placed in.

At this point, a cursor will appear at the bottom right of the screen. Simply enter a suitable expression. To incorporate a numeric field into the expression, enclose the field number in square brackets.

i.e  
[F1] Perform calculation on field 1.

Using the above method, an expression such as:

$([F1]*[F5])/2$

may be entered. This would multiply fields 1 and 5 then divide the result by 2.

Although the calculations facility has been incorporated so calculations may be performed on numeric fields, it can be used as a kind of scientific calculator. Fields do not have to be incorporated into the expression.

i.e  
 $(32.8+56.5)^2$  is quite valid.

If you specified several fields in the expression, there will be a slight delay while the relevant data is read from the file. The delay will increase considerably if a global calculation is performed. The result will be printed just under where you entered the expression.

## FIND AND REPLACE

This facility has been provided so a large volume of text may be modified or deleted

instantly.

Select the "Find And Replace" icon, the following prompt should be displayed:

STRING: \_

Enter the string that you wish to search for and press <RETURN>. Another prompt will be displayed:

REPLACEMENT: \_

Enter the replacement for the string that you entered to the former prompt and press <RETURN>. All occurrences of the original string will be replaced.

Known problems: Unfortunately, there is a small bug in this version of the software. The replacement string cannot exceed the length of the original string. This problem should be corrected in the following version.

Although all the following facilities described can be selected from the Control module, they are separate files. Therefore, it is necessary to release the data disc from the drive, and re-insert the system disc so the module may be loaded.

## SEARCHING THE FILE

To load this module, select the "Search" icon. Although there is a Binary search in the Record Editor module, this is not sufficient for more complex applications. Using this search module, it is possible to search on all 29 fields at once, with two conditions on each field.

## ENTERING SEARCH CONDITIONS

Select the Data Input icon, and then select the field that you require from the list on the left side of the screen.

A cursor will appear to the right of the selected field title, at this point you must enter the required conditions and data etc.

The following logical operators may be used:

AND Both conditions must be true.

OR Either condition may be true.

i.e If the file contained a field such as "Name", and you wanted to find the names Jones or Smith, the following would have to be entered:

= JONES OR = SMITH

There is a special INSTRing facility, that allows you to find an occurrence of a string within a longer string, i.e. You may want to find all occurrences of the dialing code "01" on a field titled "Telephone". This would be achieved using the INSTRng facility in the following way:

? 01

This would find the dialing code "01" within a list of numbers. This would be impossible to accomplish using =.

Note: Strings must not be enclosed within quotation marks. Also, the INSTRing facility cannot be used on numeric fields.

If the file contained a list of numbers from 1 to 20, and you wanted to find any numbers greater than five and less than 15, a line similar to the following would be required:

> 5 AND < 15

If it is not required, there is no need to search for two conditions.

i.e. > 5      may be entered.

Note: It is very important to leave a space between each item of data.

i.e.

= 10 OR = 5      is valid.  
= 10OR =5      is not valid.

## BEGINNING A SEARCH

To begin searching the file, select the "Search" icon.

As the file is being searched, each record that matches the conditions that have been entered, will be specially labeled to be used by the Printer module later.

A graphical scale will display the amount of the file searched, and the amount of file to be searched.

## LOADING AND SAVING PARAMETERS

There may be times when you want to save an exceptionally long search structure for later use. To do this, select the "Disc" icon.

The following prompt will be displayed:

<L>OAD OR <S>AVE?

If you want to save the current search parameters press <S>, otherwise press <L> to load previously saved parameters. After you have made this selection, another prompt will be displayed:

FILENAME: \_

Enter a suitable filename of no more than 7 characters in length.

Note: The file will be saved to the data disc in directory .S. On the left side of the screen are an ascending list of numbers corresponding to each field title. When a large number of fields have been defined it is advisable to note these numbers for use in the Calculations/Sort and binary functions. See Appendix 9.

## PRINTING THE FILE

Select the "Printer" icon from the Control module.

The printer module allows you to print out part or the entire contents of a file in a variety of ways. There are a number of pre-defined Epson compatible printer settings available from menus, these include:

Subscript  
Superscript

*Italics*

Underlined

**Bold face**

Elite

The above may be selected, de-selected and combined at the

press of a key. If your printer is not Epson compatible, there is an option to directly enter the printer codes.

## STYLES MENU

To change the style of the text, select the "Style" menu. Simply de-select the required settings, then exit the menu.

## EMPHASIS MENU

This is identical to the Styles menu, except the emphasis rather than the style of text can be chosen. De-select the required settings and then exit the menu.

## PRINTER CODES MENU

Although the pre-defined settings available in the style and emphasis menus are suitable for most applications, there may be times when special printer codes are needed, especially if your printer is not Epson compatible.

Select the "Codes" menu, and enter the required printer codes, separated by comma's. There is no need to place a "1" before each code, this is automatically done for you. Once



you have finished press <RETURN>.

## OUTPUT DEVICE MENU

Upon selection of this menu, you will be asked to select either output to the printer or output to disc in the form of an ASCII file. The purpose of the output to disc option, is if you want to load the data into a wordprocessor.

## LOADING / SAVING SETTINGS

If you wish to save printer settings for use at a later time, choose the "Disc" icon. The following prompt will be displayed:

<S>AVE OR <L>OAD  
PARAMETERS?

Press the required key, and then enter the required filename (7 characters max.) to the prompt:

FILENAME: \_

## PRINTING

Select the "Printer" icon, a prompt similar to:

FROM RECORD: \_

will be displayed. Enter the record number that you want the printing to start from and press <RETURN>. A further prompt will be displayed:

TO RECORD: \_

Enter the record number that you want the printing to stop at. The next prompt should be similar to:

PRINT FIELDS: \_

Simply enter which fields that you wish to print, separated by commas.

i.e If the file consists of 10 fields and you wish to print fields 5,8 and 3. Enter:

PRINT FIELDS: 5,8,3\_  
<RETURN>

If you wish to print all the fields, enter:

PRINT FIELDS:  
1,2,3,4,5,6,7,8,9,10\_ <RETURN>

Finally, the following prompt will be displayed:

READ SEARCH CONDI-  
TIONS (Y OR N)?

If you only want to print the records that were found to match the conditions using the

search module, press <Y>, otherwise press <N>.

Assuming the printer is online, the required records will be printed.

## **SORTING THE FILE**

Select the "Sort" icon from the Control module.

The sort module allows you to sort on a maximum of one field at once. Select the "Sort" icon from within the sort module. The following prompt will be displayed:

**SORT ON FIELD: \_**

Enter the field that you wish to perform a sort on, and press <RETURN>.

The next prompt to be displayed, will be similar to:

**<A>SCENDING OR  
<D>ESCENDING OR-  
DER?**

If you want the file to be sorted in ascending order, press <A>, otherwise press <D> to sort in descending order.

The file will be sorted, this may take a considerable length of time if there are a large number of fields etc.

## **APPENDIX 1**

### **ADVANCING THROUGH A FILE**

On the "Record Editor" and "Control" modules, there are two windows containing the following:

**RECORD >  
RECORD <**

This facility allows you to go either forward or backward through the file.

i.e

If "RECORD >" is selected, the next record in the file will be displayed.

If "RECORD <" is selected, the previous record in the file will be displayed.

## **APPENDIX 2**

### **DISC PROMPTS**

On virtually all the modules, two prompts are frequently displayed, these are:

**INSERT DATA DISC  
INTO SELECTED DRIVE  
PRESS ANY KEY**

and:

**INSERT SYSTEM DISC  
INTO DRIVE 0  
PRESS ANY KEY**

99

The former means that the computer is asking you to insert the data disc (The disc that contains your files) into the drive that you have selected. The latter prompt means the computer wants you to insert the system disc into drive 0.

### APPENDIX 3

#### CONTROLLING THE ICON POINTER

The various icons are selected using the icon pointer, this is an arrow pointing in a vertical direction. To control this use the following keys:

- <CURSOR UP>  
Move pointer up.
- <CURSOR DOWN>  
Move pointer down.
- <CURSOR LEFT>  
Move pointer left.
- <CURSOR RIGHT>  
Move pointer right.
- <RETURN>  
Make a selection.

### APPENDIX 4

#### PULL DOWN MENUS

The pull down menus used extensively in Easibase, are

used in the following way:

- <CURSOR UP>  
Move selection arrow up.
- <CURSOR DOWN>  
Move selection arrow down.
- <RETURN>  
Select an option.

### APPENDIX 5

#### LIMITATIONS OF EASIBASE

Easibase has the following limitations:

- (1) The maximum number fields is 29.
- (2) The maximum length of a string field cannot exceed 88 characters.
- (3) Only one drive may be used to store a file.
- (4) Filenames should not contain : or . characters.
- (5) Only two operands and one operator may be used in a search parameter.
- (6) Sorting may only be performed on one field.

Although these deficiencies could not be overcome in this version of the software, they may be corrected in subsequent versions.

## APPENDIX 6

### IMPROVEMENTS IN VERSION III

Version 3 of Easibase has the following improvements:-

- (1) OS commands inc:  
Internal commands to manipulate  
Easibase files etc.
- (2) Improved data entry.
- (3) Demonstration files.
- (4) User manual on disc.
- (5) 3 Extra fonts included.

## APPENDIX 7

### ERROR MESSAGES

Occasionally, error messages will be produced while using Easibase. The most likely errors to occur while using the calculations module are:

- Division by zero
- ve root
- Accuracy lost

For information regarding these error messages refer to chapter 46 of the BBC user guide - Error messages.

While creating a file, there is a possibility of the DFS error message:

- Disc full

occurring. To overcome this, delete any unwanted files on the disc that you are using or simply reduce the number of records.

All the above messages are not generated by Easibase, they will always be displayed on the bottom line of the screen when they occur.

## APPENDIX 9

### FIELD NUMBERING

Each field is given a number, this is so each field you are referring to when using the calculations function etc may be quickly entered. A number will be allocated depending upon the position of the field in the filecard window. i.e scanning from top to bottom and from left to right, the field numbering for the imaginary structure below would be as follows:

NAME:  
>(Field 1) <  
ADDRESS:  
>(Field 2) <  
POSTCODE:  
>(Field 3) <  
TELEPHONE:  
>(Field 4) <  
etc...