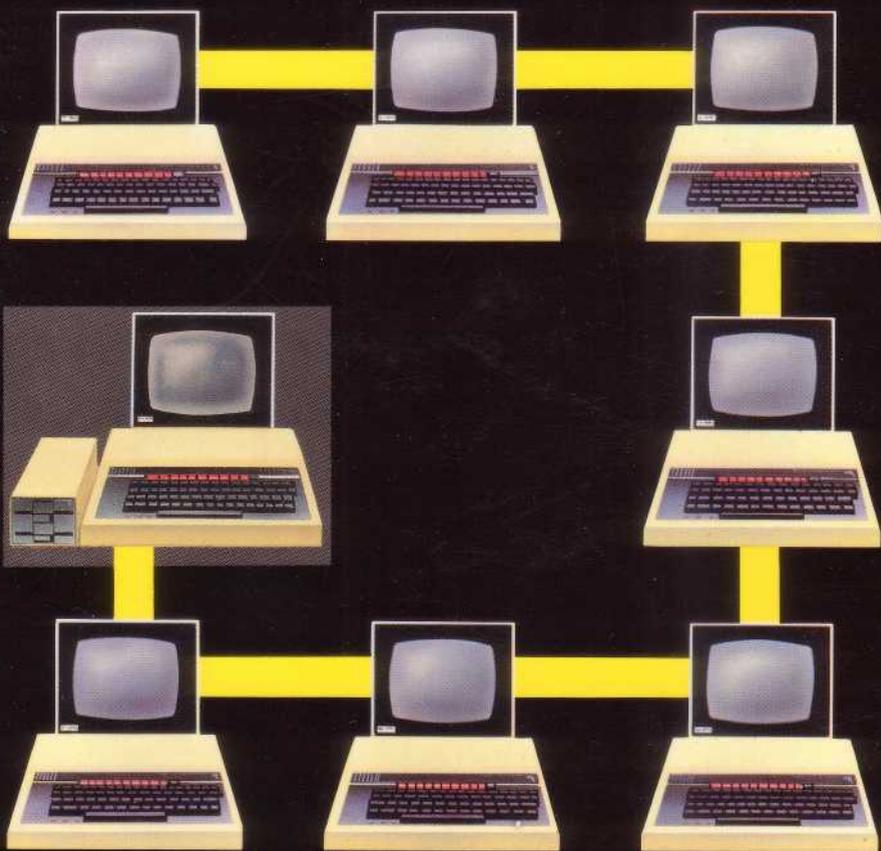


 **ACORN COMPUTER**

# Econet level 1 file server USER GUIDE



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# Acorn Econet

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## Level 1 File Server user guide

Within this publication the term 'BBC' is used as an abbreviation for 'British Broadcasting Corporation'

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Written and designed by Baddeley Associates, Cambridge

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# Introduction

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This guide tells you about the Econet Level 1 File Server.

You can use the file server to keep your work on floppy discs and load it back into your computer's memory when you want to work on it again. Data and programs are kept on the disc in files, each with its own file name.

You can also load and run programs, called library files, which have been stored on disc for everyone to use.

The guide also tells you how to print out your work if you have a printer server in your network.

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## Switching on

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Switch on your user station.

Screen: **BBC Computer 32K**  
**Econet Station xxx**  
**BASIC**

xxx is the number of your station on the network.

You are now ready to use the file server.

If the message "Econet Station" is missing, or "No Clock" is displayed, tell the network manager, who is the person who makes sure everything is working properly.

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# Using the file server

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There are two types of file

- your own files, which can be loaded, saved and deleted from your station but not from any other station
- library files, which anyone on the network can use. These are saved and deleted at the file server station only, but you can load and run them at your station.

Each station is given a letter to identify its files to the file server. This is called the directory letter. If your station is not given a directory letter you cannot create your own files, but you can still load and run the library files.

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## Naming files

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When you save a file you have to give it a name. File names can have up to 7 characters and can use most of the characters on the keyboard, except:

# \* . :

which have special meanings.

You can use upper and lower case letters so that MATHS, Maths and maths will all refer to the same file.

The library files always have &. before their names.

EXAMPLE

**&.VIEW &.REMOTE**

If you try to use an illegal file name, the filing system will respond with the error message "Bad filename".

---

# Displaying a catalogue

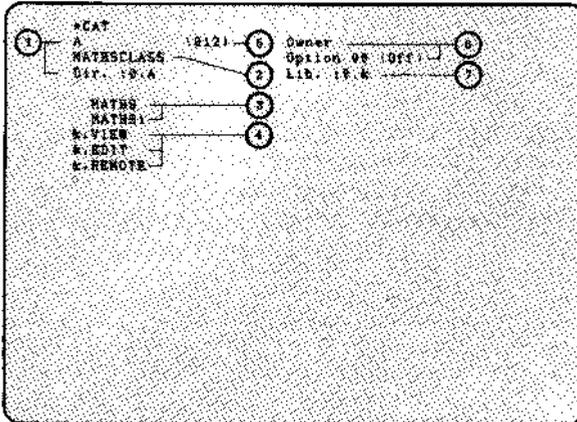
\*CAT

---

To find out what files are on your disc, and test that the station is working properly, try displaying their names on your screen.

Type: **\*CAT[RETURN]**

Screen:



- |                          |   |
|--------------------------|---|
| 1. Your directory letter | 5. Directory sequence number            |
| 2. Disc title            | 6. For use with the Level 2 File Server |
| 3. Your files            | 7. Library letter                       |
| 4. Library files         |   |

This list, called a catalogue, shows all the files which you can load and run on your computer. You can easily spot the library files as they are displayed with the & in front of their names.

NOTE: when you first use the file server you will not have saved any files of your own so only the library files will appear.

When you try to load and run a file, the computer will look first at your own files in the directory to see if the file is there. If not, it will look at the library files.

This means that if you give one of your own files the same name as a library file you will not be able to load the library file.

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# Using commands

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When you typed \*CAT you gave the computer a command, a special instruction telling it what to do. There are several more commands you can use with the Level 1 File Server which are explained later in the guide.

When you type in a command the computer will not carry it out until you press [RETURN].

Throughout this guide there are instructions for typing in commands to which the following rules apply:

- showing a word in [ ] means it is a key

EXAMPLE: [RETURN] means the RETURN key

- descriptions in < > should be replaced by the information required, without typing the brackets

EXAMPLE: <filename> means type the name of a file

- type characters not in brackets exactly as they are shown.

---

# Discs and drives

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When you keep a file on disc you need to know which disc side you have put it on so that you can get at it again when you want to.

There may be up to four disc drives on each file server called 0,1,2,3. Your network manager will tell you which drive you are working on, how many files you can use and how long they can be. You can change to another drive using the command \*DRIVE which is explained later. The library files are normally kept on drive 0.

---

# Saving and loading BASIC programs

## SAVE and LOAD

---

If you want to keep on disc a program written in BASIC, use the command SAVE.

Type: **SAVE"<filename>"[RETURN]**

where <filename> is the name of the program.

### EXAMPLE

To save a program called MATHS

type: **SAVE"MATHS"[RETURN]**

and your program *will* be kept by the Econet until you need it again. Then *use another* command, LOAD, to put it back into the computer's memory.

Type: **LOAD"<filename>"[RETURN]**

where <filename> is the name you used when the program was saved.

### EXAMPLE

Type: **LOAD"MATHS"[RETURN]**

and the program in your computer will be the program MATHS.

NOTE: if you wish to load or save data or machine code programs, see the notes on the \*LOAD and \*SAVE commands.

---

# File server 1 commands

---



This section explains the commands you can use on the file server.

Commands you will often use:

**SAVE** to save BASIC programs

**LOAD** to load BASIC programs

**\*CAT** to list your files

**\*DELETE** to remove a file from the system.

More advanced commands:

**\*DRIVE** to select the disc drive on which you are working

**\*ACCESS** to lock or unlock a file. Locked files cannot be deleted or overwritten

**\*I AM** to select the file server if you have more than one in the network. If not, you don't need to use it

**\*SAVE** to save files on disc

**\*LOAD** to load a file into memory

**\*RUN** to execute a machine code program

**\*INFO** to display information about a file

**\*<filename>** to execute a machine code program as a command

**\*/** to run a program with a file name the same as one of the other commands.

SAVE, LOAD and \*CAT have already been explained. The other commands are given here in alphabetical order so that when you are familiar with them you can find them easily.

---

# \* ACCESS

## Protecting files

---

This stops files being deleted or overwritten by accident. It is especially useful for a program which has taken a lot of work to produce.

To lock a file

type:       **\*ACCESS <filename> L[RETURN]**

EXAMPLE

Type: **\*ACCESS MATHS L[RETURN]**

to lock the file MATHS. After this,

typing: **\*DELETE MATHS[RETURN]**

OF           **SAVE "MATHS"[RETURN]**

will produce the error message "File Locked" and the file *will* not be affected.

Locked files are followed by the letter L in the catalogue listing so you can tell which of your files are protected, by using \*CAT.

To unlock a file

type:       **\*ACCESS <filename>[RETURN]**

without following the file name with L.

EXAMPLE

To unlock MATHS so that you can save a *new* version of the program

type:       **\*ACCESS MATHS[RETURN]**

and the *file* will be unprotected and the L removed from the catalogue.

---

# \* DELETE

Deleting files

---



When a file is no longer useful, you can remove (delete) it from your catalogue to make room for another.

Type: **\*DELETE <filename> [RETURN]**

## EXAMPLE

To delete MATHS

type: **\*DELETE MATHS[RETURN]**

and the file will no longer exist. Type \*CAT to confirm that MATHS is no longer *in* the list of files.

Once a file is deleted you cannot recover it, so be sure that you really want to remove a file before using \*DELETE.

If you wish to make sure that a file cannot be deleted by accident, use \*ACCESS.

---

# \* DRIVE

Selecting drives

---

Commands will only work on the drive currently selected, which is 0 when you first switch on. You can change the current drive using \*DRIVE.

Type: **\*DRIVE <number> [RETURN]**

where <number> is the drive number.

## EXAMPLE

Typing: **\*DRIVE 1 [RETURN]**

sets the current drive to 1 and

**\*CAT [RETURN]**

will then display the catalogue of drive 1.

---

## **\*I AM**

### **Selecting the file server**

---

If your Econet has several file servers attached to it, you need to tell the computer which one you want to use.

If you use a command after you've switched on your machine or reset it using [CTRL][BREAK], it will try to contact station number 254. This is the default station number for the file server. If you want to use a different file server

type:       **\*I AM <number>[RETURN]**

where <number> is the station number of the file server you want.

#### **EXAMPLE**

If your files are kept on station 123

type:       **\*I AM 123[RETURN]**

before you use any of the file commands.

---

## **\* INFO**

### **File information**

---

The \*INFO command displays information about the file so that you can find out how big it is, whether it is locked or unlocked, and what its reload and execution addresses are.

Type:       **\*INFO <filename>[RETURN]**

#### **EXAMPLE**

Typing: **\*INFO DATA[RETURN]**

might display

<b>DATA L</b>	<b>00003000</b>	<b>00003000</b>	<b>000500</b>
name locked	reload	execution	size
	address	address	in bytes

The values are hexadecimal.

If DATA was not locked, the "L" would not be there.

---

## \* **LOAD** Loading an area of memory

---



This loads files, usually ones which have been saved, using the \*SAVE command to a particular place in memory.

Type: **\*LOAD <filename>[RETURN]**

### EXAMPLE

Type: **\*LOAD DATA[RETURN]**

to load DATA to the reload address of the file, which is set by \*SAVE.

You can also specify where in memory you wish to load a file.

Type: **\*LOAD <filename> <start address> [RETURN]**

### EXAMPLE

Type: **\*LOAD DATA 5000[RETURN]**

This ignores the reload address of DATA and loads the file at address 5000 *in* memory.

---

## \* **RUN** Runs a machine code program

---

To start a machine code program you load the file containing the program to an appropriate address in memory and then begin execution at the execution address of the program. The \*RUN command does both these steps by loading a file to its reload address, and then starting execution at the execution address of the file. Both these values are set by \*SAVE.

Type: **\*RUN <filename>[RETURN]**

### EXAMPLE

To run PROG as a machine code file

type: **\*RUN PROG[RETURN]**

The file PROG *will* then be loaded at the reload address, and execution will start at the execute address.

---

## \*SAVE

## Saving areas of memory

---

This is used to save files such as machine code programs and data. The \*SAVE command saves an area of memory as a file.

Type:        **\*SAVE <filename> <start address>**  
              **+<length of file>[RETURN]**

### EXAMPLE

Type: **\*SAVE DATA 3000 +500[RETURN]**

This saves the area *of* memory from 3000 to 3500 (hexadecimal numbers) as a file called DATA. In this case 3000 was the start address of the area in memory and 500 its length (*in* bytes).

Alternatively

type:        **\*SAVE <filename> <start address>**  
              **<end address>[RETURN]**

### EXAMPLE

Type: **\*SAVE DATA 3000 3500[RETURN]**

*where* 3000 is the start address and 3500 is the end address of the section of memory you wish to save.

You can also specify an execution address.

Type:        **\*SAVE <filename> <start address>**  
              **+<length> <execution address> [**  
              **RETURN]**

### EXAMPLE

Type:

**\*SAVE PROG 3000 +300 3030[RETURN]**

This saves a machine code *file which* will be executed at 3030 if loaded as a command or \*RUN.

If you leave out the execution address, execution will begin at the start address.

You can also specify a reload address, the address where \*LOAD will load the file.

Type:     **\*SAVE <filename> <start address>**  
          **+<length> <execution address> <reload**  
          **address>[RETURN]**



EXAMPLE

Type:

**\*SAVE PROG 3000 +500 4030 4000[RETURN]** This saves a machine code program from an area of memory at 3000 to 3500, *which* will be loaded back to the address 4000 by the \*LOAD command, or *when* executing as a command or \*RUN.

If you leave out the reload address, the system will use the start address as the reload address.

---

## \* and \*/ Using files as commands

---

Another way of loading and running a machine code program is by typing the name of the file after the \*, as if typing a command.

Type:     \***<filename>**[RETURN]

### EXAMPLE

To run PROG

type:     \***PROG**[RETURN]

and the file will be loaded and run as if you had typed \*RUN PROG.

In this way you can create machine code programs and use them as utility commands.

### EXAMPLE

If you had developed an editor stored *in* a file called EDIT

typing: \***EDIT**[RETURN]

would load and run the program.

With the \*/ command you can develop command programs which have the same names as Econet filing system commands.

Type:     \*/**<filename>**[RETURN]

### EXAMPLE

If you have a program CAT which you wish to load and *run* as a command, typing \*CAT *will* display a list of your files.

Type: \*/**CAT**[RETURN]

to load and run the file CAT.

---

# Printing

---



If you have a printer server in your Econet you can print out your work as if you had a printer attached to your machine — a local printer. The network manager may have set up the printer server to print some special text at the beginning and end of each user's work. This is called header and footer text.

If there is more than one printer server you must first tell the computer which one you wish the output to go to. If you are using the printer server with the default number 235, this is not necessary, but if you wish to select another printer server

type:        **\*PS <number>[RETURN]**

where <number> is the printer server number.

If there is only one printer server, you do not need to use this command at all.

The first time you use the printer server after switching on or resetting your station, the computer needs to know that you wish to send your work to the printer server, not a local printer.

Type:        **\*FX5,4[RETURN]**

to use the printer server printer. You will have to do this again if your screen displays "Not Listening" or "No Reply".

When you are ready to print out your work

press:        **[CTRL]B**

The printer will print any header text, followed by anything you list or type on your screen after you pressed [CTRL]B.

If someone else on the network is already using the printer you will see the message "Not Listening" after 30 seconds. If this happens, wait and try again or save your work on disc and print it out when the printer is free.

When you've finished printing

press: **[CTRL]C**

to print the footer text.

While you are linked to the printer no one else can use it. If you press [CTRL]B and then don't print anything for 30 seconds, or there is a gap of 30 seconds or more in your printing, someone else can take control of the printer by pressing [CTRL]B at their station.

If you then try to print, you will see the "Not Listening" message.

If no one else presses [CTRL]B you can carry on printing as normal.

---

## Error messages

---

### **Bad command** 254

You have typed in an incorrect command word, for example, \*CAR instead of \*CAT.

### **Bad drive** 205

You've used an invalid drive number.

### **Bad filename** 204

You made a mistake when naming a file, for example, using more than 7 characters.

### **Directory full** 179

You have tried to save too many files on disc. Ask the network manager how many files can be stored on the disc.



**File locked** 195

You have tried to save or delete a locked file. Check this by looking at the list of files held on disc by using \*CAT. Each locked file is identified by the letter L after the name.

**File not found** 214

The file you have asked for is not on disc.

**Insufficient access** 189

The file server does not recognise you as a user station. Ask the network manager.

**Invalid access string** 207

You have used \*ACCESS with a letter other than L.

**Not listening** 162

Your command has not been accepted by the file server or printer server.

**Too much data** 131

You have tried to save too much data in a disc file. Check with the network manager for the longest file you are allowed.

If you see the following, ask the network manager:

**Line jammed** 160

Information is continuously present on the network data lines.

**No clock** 163

No clock signal is reaching the computer.

**No reply** 165

The file server is not responding to your command.

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