

Acorn Factsheet 1

Recent Econet developments

Acorn have announced a number of extensions and additions to the Econet system. These include increased file storage space on Winchester disc drives, and a network bridge which can be used to link 2 or more networks together on a campus or within a large building. Acorn have also announced modifications to the wiring system and line clock and terminator units to make the Econet even easier to install. The fundamentals of the Econet system are described in our leaflet "Introducing the Econet", described here are the recent improvements and additions to the system.

The Level 3 File Server The level 3 file server provides shared network access to the Acorn Winchester disc drives providing storage of 10 or 30 Megabytes. A level 3 file server consists of:-

*File server level 3 software on disc (AES24) *BBC computer model B or B+ with Econet interface (ANB02 or ANB52) *6502 2nd processor (ANC01) *Acorn Winchester drive unit (AND51 or AND52)

In addition, to initialise the Winchester drive using the software-supplied on disc, a BBC computer fitted with a disc interface is required. The Winchester drive is connected to the BBC computer via the 1MHz bus port; the disc interface is not therefore required when the file server is running.

All the facilities of the level 2 file server are included. In addition to the facilities of the level 2 file server the following features have been added -

*A command to allocate space limits to users to prevent individual users claiming large areas of storage.

*Group identities which can be used to allocate users to classes or departments.

*Public access write only files to be used in creating secure mailing systems.

*Archive utilities to allow any user to back up or retrieve their work. using local disc storage.

The archive system supplied for use with the level 3 file server has been designed to allow a number of users to make backups of their work at the same time, and without stopping the file server. Users may select to back up all their files or a subset of files. Users can also choose to backup only those files created or modified between two dates. The backup is onto floppy discs. As most users will already have disc drives available there is no additional cost involved in purchasing equipment with which to back up important files.

The file server is supplied on a disc which is used to initialise a formatted Winchester drive; a real-time clock module is also supplied which is used by the file server when any file is saved to make a record of the date with the file.

A utility is included for users to transfer existing software on level 2 discs onto the level 3 file server.

The level 3 file server has been designed to provide all the facilities of the level 2 file server, software written to work with the level 2 file server should therefore be fully compatible with the level 3.

<u>The Econet bridge</u> extends the flexibility of the network by allowing a number of networks to be connected together. Connecting networks together offers the following advantages:-

*Extension of network services beyond the 500 metre limit for a single network; the Econet can therfore be extended across a campus or throughout a large building..

*The traffic on one network will not interfere with traffic on other networks. Total throughput on the networks is therefore increased.

*If one network should fail for any reason the other networks will not be affected.

The Econet bridge is housed in a small standard Acorn box. The bridge, is connected to the two networks to be joined using the standard cables supplied. The bridge then operates by 'listening' to both networks. If any message is received which should be re-routed onto the other network the bridge ensures that this re-routing is done. The operation of the bridge is fully automatic, once the Bridge has been connected and switched on no other actions are required. Users may use facilities such as file servers or printer servers on remote networks by using a simple extension to the system of station numbering. For instance to connect to a file server on a second network the user would type:-

*I AM 2.254 <User name>

When using Bridges each network that is to be joined is treated as an independent Econet. Each network will therefore have its own clock and terminator units attached.

As the bridge is fully automatic no other equipment is needed when using the unit.

<u>Clock Terminator and socket boxes.</u> The system of clocks and terminators used with the Econet system has been improved in a number of ways. A complete pack of clocks and terminators is now supplied as an Econet starter kit.

The starter kit contains * 2 Terminator units. * 1 Clock unit, power supply and connecting leads. * 3 Additional socket boxes for use in permanent installations. * An insertion tool which is used when connecting the sockets and terminators to the cable in a permanent installation. * A complete guide to installing an Econet.

The function of the clock and terminator boxes is described in the "Introducing the Econet" leaflet.

The new terminator system consists of a pair of boxes which may be used with the Econet ten station lead set, or connected to the end of a permanently installed cable without soldering. The terminators are passive and do not therfore require any connection to a power supply.

The new clock unit is connected to the middle of the econet cable using the leads supplied. The clock unit is about $12 \times 10 \times 4.5$ cm and a power supply is also provided which is about $10 \times 7 \times 6$ cm. As in the previous design the clock unit is designed to take minimal power in order that it may be left permanently connected.

The socket and terminator boxes are fitted with insulation displacement connectors to achieve quick and easy attachment to the network without breaking the cable and resoldering.