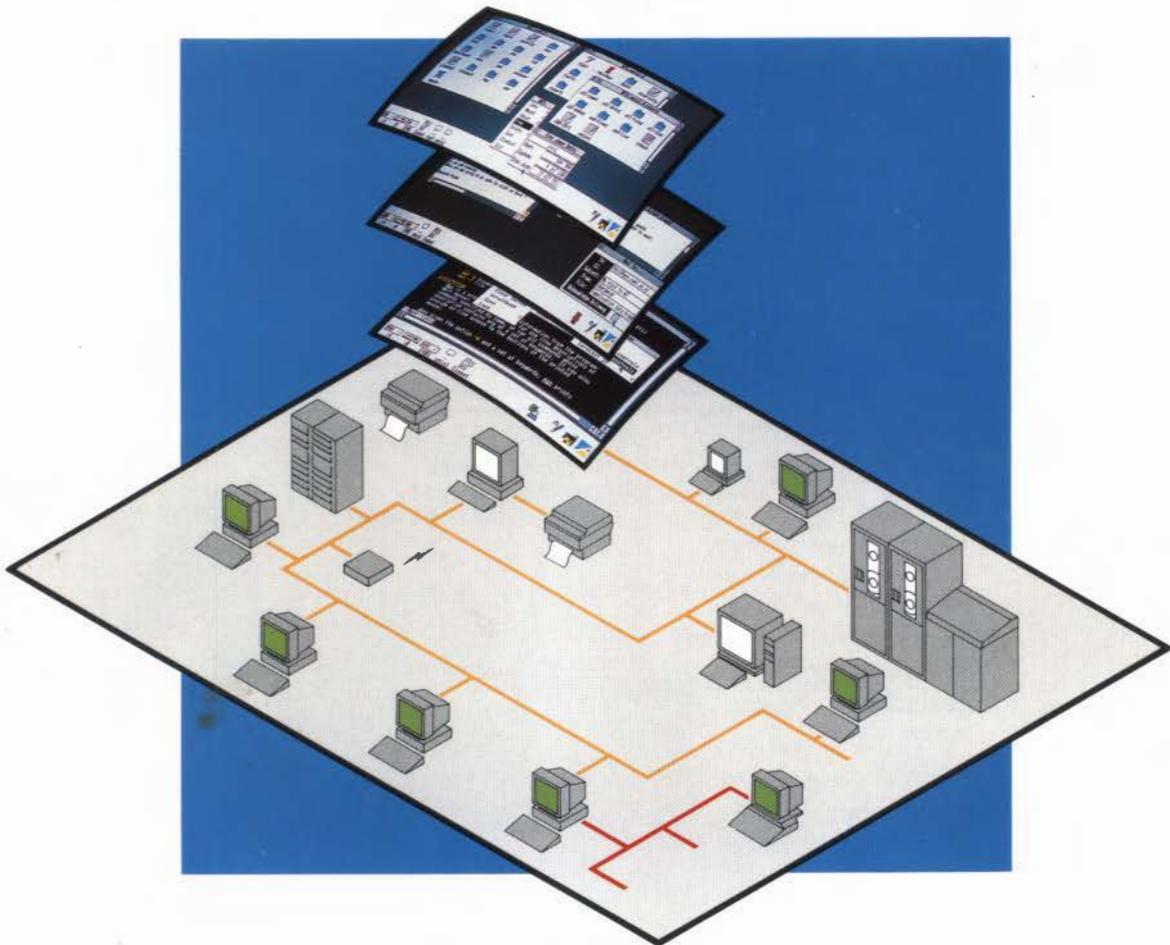


# THE POWER OF ARCHIMEDES COMPUTERS IN THE WORLD OF STANDARDS



**TCP/IP Protocol Suite**

## INTEGRATING RISC OS TECHNOLOGY INTO MIXED NETWORKS

### ARCHIMEDES WORKSTATIONS OFFER:

- Unprecedented performance in a desktop computer
- Exceptional processing speed
- User-friendly environment
- Multi-tasking
- Wide range of applications software

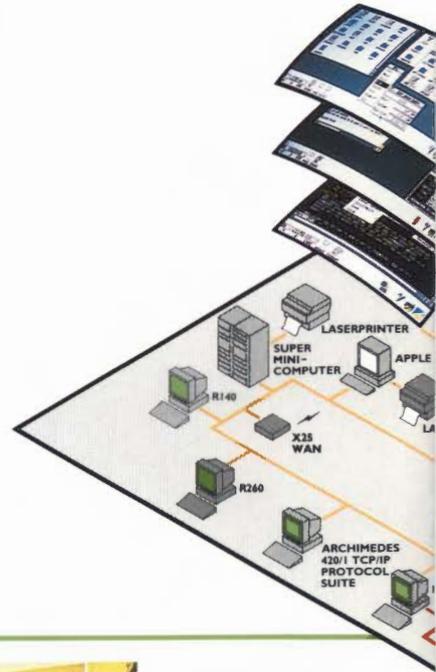
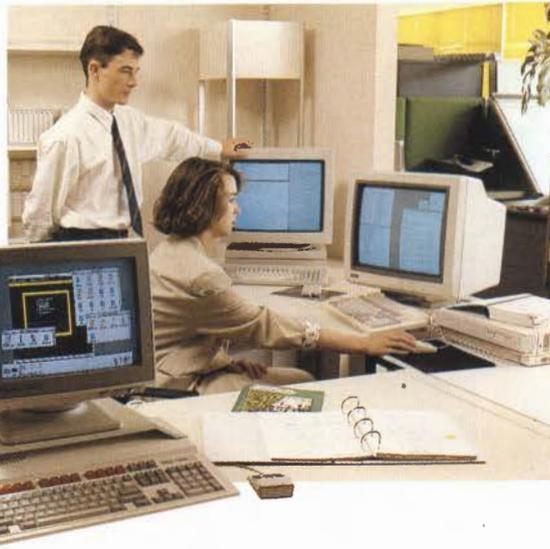
You want a computer that will link into an established or planned network. But, as a serious computer user, you need the ultimate in power and performance; not just an ordinary 'clone'. Now you can have it all. Acorn Archimedes computer systems outstrip other desktop computers because they are based on the unique Acorn RISC Machine (ARM) central processor which provides unparalleled performance and productivity, combined with a user-friendly desktop, RISC OS.

Until recently, Archimedes computers could be used either on their own, or as part of an Econet network with other Acorn machines. Now, with the new TCP/IP protocol software, any Archimedes workstation can link directly into standard networks such as Ethernet, with multiple file systems on multiple hosts being 'mounted' on your RISC OS system. An entire network can be treated as if it were a single computer!

## THE TCP/IP PROTOCOL SUITE

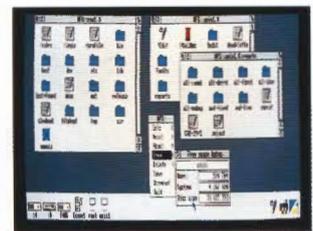
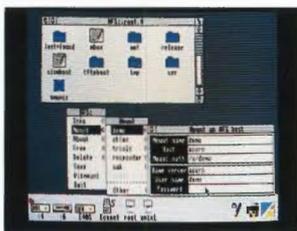
With the TCP/IP Protocol Suite, you'll be able to work with other TCP/IP-based systems on your network regardless of whether they are mainframes, minis or PCs, with all the power and performance of the Archimedes computer system at your fingertips.

Just like the Archimedes computer system, the TCP/IP Protocol Suite is very easy to use. You'll have the advantage of the familiar RISC OS environment, and only a little knowledge of UNIX is needed to communicate with the other systems on your network.



## FILE MANIPULATION

The NFS filer facility within the TCP/IP Protocol Suite provides a NFS client service which enables you to look at directories held on other network computers. Then, using the RISC OS desktop on your screen, you can, for example, transfer files from your mainframe, mini or PC to your Archimedes workstation, and vice versa. Providing you have access, you could, for instance, pick up a file from the company mainframe, load it onto your Archimedes' floppy disc, work on the disc at home, then transfer the file back into the company mainframe. Nothing could be simpler or more convenient.



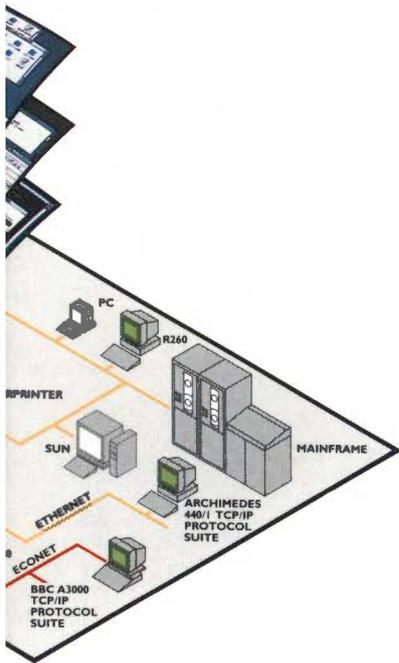
*NFS Filer gives access to files on UNIX computers.*

## TERMINAL ACCESS

You can now look at information held on a remote system on your own screen. This is possible because, with the TCP/IP Protocol Suite, your Archimedes computer can emulate a terminal, such as VT220. If you want a variety of information from different sources, you can call it up on a number of terminal windows and view them all on your Archimedes screen at the same time. So you could look at your mainframe's stock records, call up current order processing information from another UNIX machine on the network, and use this to generate an up-to-the-minute report on a spreadsheet running locally!



*VT220 provides a full window-based emulation of a DEC VT220 terminal running under the RISC OS desktop.*

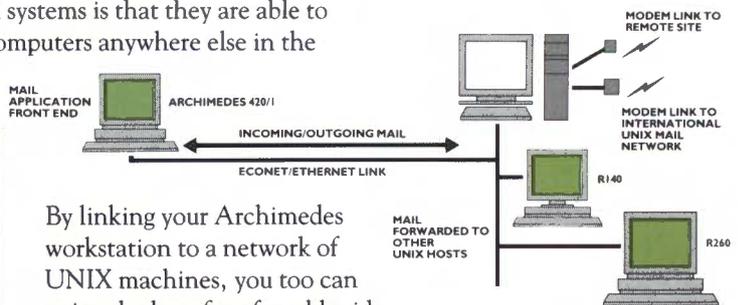


## SHARING APPLICATION SOFTWARE BETWEEN RISC OS MACHINES

Now that you can communicate over the network with such ease, you can share your application software with other RISC OS machines by storing it on a UNIX system that will be able to provide it to RISC OS users on an 'as needed' basis. With TCP/IP there's no need to take up valuable local storage with large programs as they can be stored on a remote UNIX machine.

## ELECTRONIC MAIL

One of the benefits of UNIX systems is that they are able to communicate with similar computers anywhere else in the world.



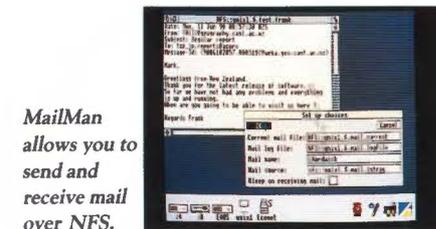
By linking your Archimedes workstation to a network of UNIX machines, you too can enjoy the benefits of world-wide electronic mail.

## INTERCONNECTING LOW-COST AND INDUSTRY-STANDARD NETWORKS

Many Archimedes computer users are familiar with networking through Econet – the low-cost networking system from Acorn. By using an Acorn workstation, fitted with both Econet and Ethernet interfaces to act as a gateway, your Archimedes computers can communicate on both networks. A gateway can be set up using either a UNIX workstation, such as an R140 or R260, or an Archimedes computer such as the 440. Thus, existing Econet users can link up with, or add, Ethernet networks with UNIX machines, and existing Ethernet users can add low-cost Econet networks to their installations.

### TYPICAL APPLICATIONS

- Connecting previously purchased Archimedes computers to Ethernet networks
- Adding RISC OS technology to existing Ethernet networks
- Adding low-cost, Econet sub networks to existing Ethernet networks
- Upgrading parts of existing Econet networks to Ethernet networks



*MailMan allows you to send and receive mail over NFS.*

## TECHNICAL SPECIFICATIONS

### • APPLICATIONS – Mail

Transparent remote front end to Unix mail delivery system.

Mail transferred to Unix host via NFS.

### • APPLICATIONS – NFS

NFS filing system provides remote access to Sun NFS servers as a RISC OS filing system.

\* mount, \* logon, \* dismount, \* free

Local interface compatible with RISC OS applications

NFS filer provides desktop access to

NFS filing system

Multiple concurrent mounts

Save common mount details

Hidden password entry

RISC OS File type stamping

### • APPLICATIONS – VT220

VT220 terminal emulation

VT52, VT100, VT220 7 or 8 bit control

Fully configurable emulation

Operates over: Serial line

telnet over TCP/IP network.

FTP over TCP/IP network

Multiple concurrent connections

Full RISC OS multi tasking application

Text export and import via terminal window

### • PROTOCOL SUPPORT MODULES

Provide protocol support for terminal emulator

**serial** Fully configurable serial line driver

**telnet** Provides telnet over TCP/IP network

**FTP** Provides file transfer protocol over TCP/IP network

Telnet and FTP support multiple simultaneous logical connections over the network

### • NETWORK FACILITIES

Based upon the TCP/IP elements of the Berkeley Standard distribution 4.3.

**ifconfig** Configure interface

**ping** Transmit debugging packets

**arp** Address resolution protocol

**reverse arp** Reverse address resolution

**route** Provide routing information

**gateway** Provide gateway routing information

**gateway** Configurable to provide IP packet

forwarding

\***telnet** Command line implementation of telnet client

\***tftp** Command line implementation of trivial file transfer protocol

**inetinfo** Provides full debugging information

### • SUPPORTS MULTIPLE PHYSICAL NETWORKS

Provides TCP/IP networking over multiple

Ethernet and Econet network physical layers

### • ETHERNET INTERFACE

Provided by separate hardware module conforming to IEEE 8802.3 and provides the following connections:

10 base5 Ethernet

10 base2 'Thin' Ethernet/Cheapernet

10 Meg bit/s, CSMA/CD network

### • ECONET INTERFACE

Provided by separate hardware module

CSMA/CD network over dual twisted pair cable

0.25 Meg bits/s

## TYPICAL SYSTEMS

### • Single user Ethernet workstation

Archimedes (310, 410, 420, 440)

Monitor

TCP/IP protocol suite Single user pack

AES32

Ethernet card

AKA25

### • Single user Econet workstation

Archimedes (310, 410, 420, 440) or A3000

Monitor

TCP/IP Protocol Suite Single user pack

AES32

Econet interface module

ADF10

### • 10 Station Ethernet network (thin Ethernet)

10 workstations Archimedes (310, 410, 420, 440)

10 monitors

10 Ethernet cards

AKA25

1 TCP/IP Protocol Suite site licence pack

SKY32

2 Thin Ethernet terminators

11 Thin Ethernet 'T' pieces

10 Thin Ethernet cables

1 Server consisting of:

R140 or R260

Monitor

Ethernet card

AKA25

NB NFS, telnet, FTP and TFTP server software

are included in the server price.

### • 10 Station Econet network

10 workstations Archimedes (310, 410, 420, 440) or

A3000

10 monitors

10 Econet modules

ADF10

1 TCP/IP Protocol Suite site licence pack

SKY32

1 Econet 10 station lead set

AEH18

1 Econet starter kit

AEH19

1 Server consisting of:

R140 or R260

Monitor

Econet module

ADF10

NB NFS, telnet, FTP and TFTP server software

are included in the server price.

If gateway facilities between the Econet and an

Ethernet network are required then add:

1 Ethernet card

AKA25

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