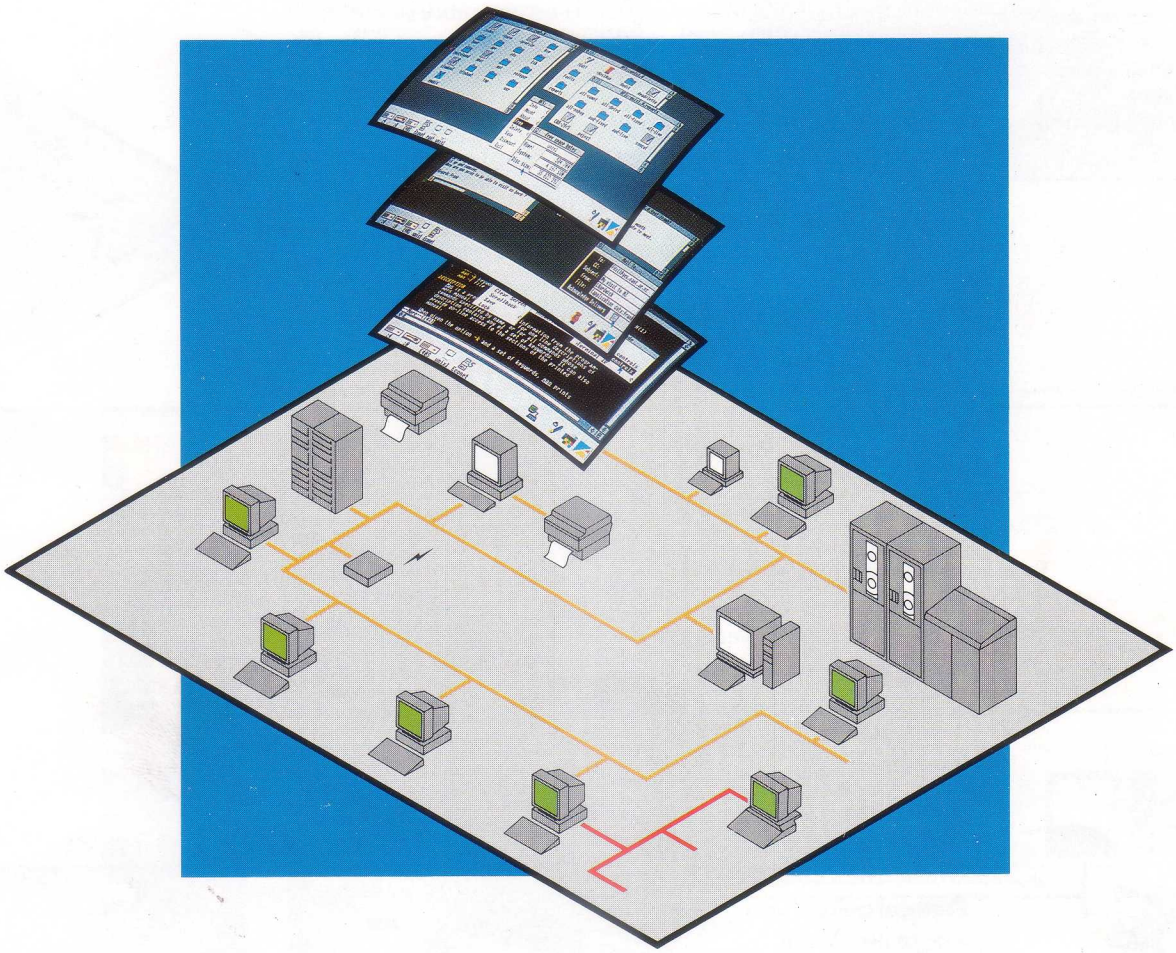
THE POWER OF ARCHIMEDES COMPUTERS IN THE WORLD OF STANDARDS



TCP/IP Protocol Suite

Acorn

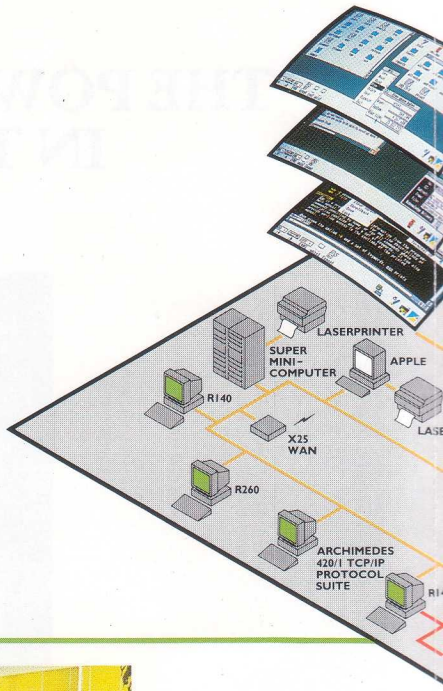
INTEGRATING RISC OS TECHNOLOGY INTO MIXED NETWORKS

ARCHIMEDES WORKSTATIONS OFFER:

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

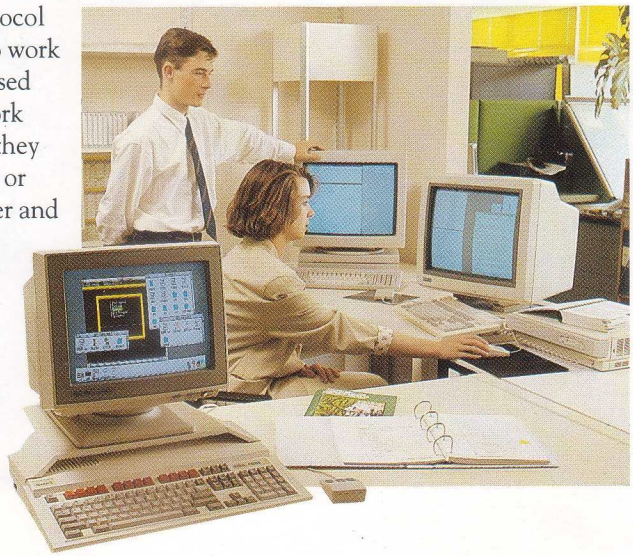
You want a computer that will link into an established or planned network. But, as a serious computer user, you need the ultimate in power and performance; not just an ordinary 'clone'. Now you can have it all. Acorn Archimedes computer systems outstrip other desktop computers because they are based 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

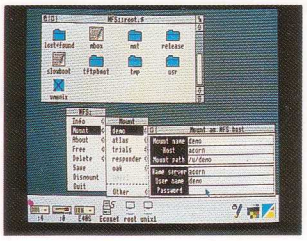
With the TCP/IP Protocol Suite, you'll be able to work with other TCP/IP-based systems on your network regardless of whether they are mainframes, minis or PCs, with all the power and performance of the Archimedes computer system at your fingertips.

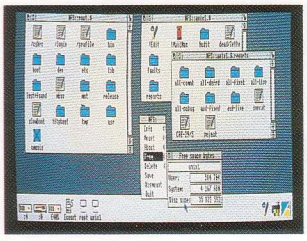


Just like the Archimedes computer system, the TCP/IP Protocol Suite is very easy to use. You'll have the advantage of the familiar RISC OS environment, and only a little knowledge of UNIX is needed to communicate with the other systems on your network.

FILE MANIPULATION

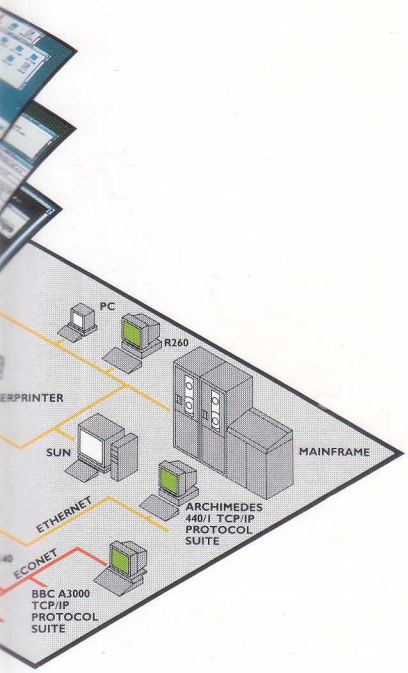
The NFS filer facility within the TCP/IP Protocol Suite provides a NFS client service which enables you to look at directories held on other network computers. Then, using the RISC OS desktop on your screen, you can, for example, transfer files from your mainframe, mini or PC to your Archimedes workstation, 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.



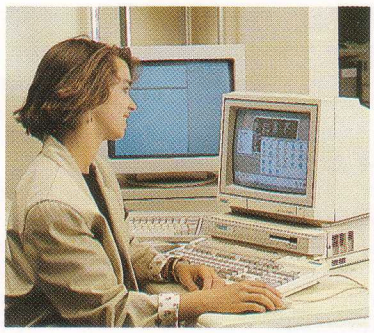


NFS Filer gives access to files on UNIX computers.

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!



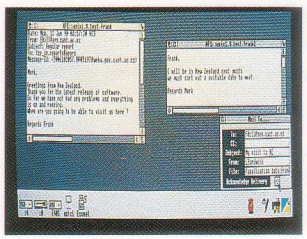
VT220 provides a full window-based emulation of a DEC VT220 terminal running under the RISC OS desktop.

SHARING APPLICATION SOFTWARE BETWEEN RISC OS MACHINES

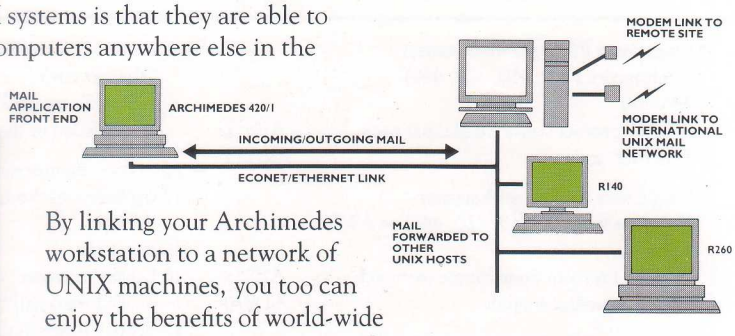
Now that you can communicate over the network with such ease, you can share your application software with other RISC OS machines by storing it on a UNIX system that will be able to provide it to RISC OS users on an 'as needed' basis. With TCP/IP there's no need to take up valuable local storage with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



MailMan allows you to send and receive mail over NFS.



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

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
	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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