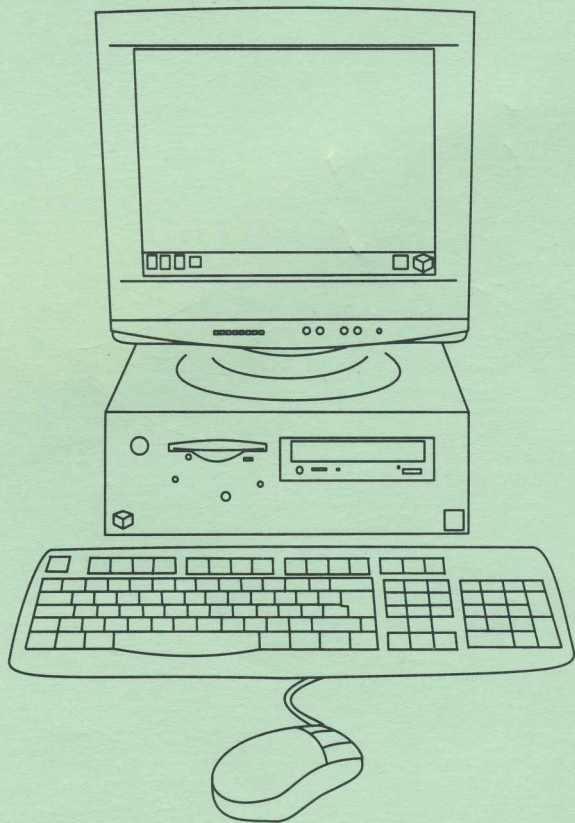# RiscStation

Welcome Guide

c

RiscStation
R7500
Welcome Guide

IMPORTANT NOTICE:

This product is not intended for use as a critical component in life support devices or any system in which failure could be expected to result in personal injury.

RiscStation Ltd. accept no liability for loss of data or the consequences as a result, direct or otherwise, of using this equipment.

Guidelines for safe operation

The equipment described in this guide is intended for use only as a personal computer. It should not be used for other purposes. It is important that the installation and its operation are carried out in accordance with the instructions provided in this guide. Please observe the following guidelines in the interests of continued safe and reliable operation, .

Electrical Safety

- This equipment must be earthed (grounded) to prevent the hazard of electrical shock.
- The equipment should be installed near to the mains power outlet, which should be readily accessible.
- If the plug supplied is not suitable for use in your country, please consult your supplier.
- Do not attempt to open any display or monitor, whether supplied with this equipment or not.
- Do not operate this equipment if any cables are damaged.
- Switch off and unplug the equipment and any accessories before opening the unit (e.g. to install an upgrade).
- Switch off and unplug the unit if you are not going to use it for a few days.

Installation

- This equipment is for indoor use only (in a dust-free and dry environment).
- Do not expose this equipment to sudden extremes in temperature, direct sunlight, or other heat sources.
- Stand the equipment on a level, hard surface allowing enough space for air to circulate when in use.
- Locate the equipment in such a way that it does not present a hazard or interfere with other equipment.
- Ensure that any wires or cables are routed sensibly so that they cannot be snagged or tripped over. Do not tug or twist any wires or cables, or use them to hang or lift any of the equipement.
- The equipment should only be used with the covers secured.
- Keep the machine at a room temperature of +5°C to +35°C (+41° tp +95° Farenheit) and a relative humidity of 10% to 80% (non-condensing).
- Keep any plastic bags used in the packaging away from children and animals.
- Keep the original packaging in case you *need* to transport the equipment.
- The computer is designed for desktop use only.

Precautions in use

- Do not spill liquid on the equipment. If you do, turn the equipment off immediately and take it to your supplier for assessment.
- Do not drop the equipment or subject it to exessive jarring or bumping.
- Do not cover, obstruct, or poke objects into the equipment.

UK Information

Since the colours of the cores in the AC power lead of this equipment might not correspond exactly to the coloured markings identifying the terminals in your plug, proceed as follows:

- The core which is coloured **green and yellow** must be connected to the terminal in the plug coloured green and yellow, or marked by the letter E or by the earth symbol   .
- The core which is coloured **blue** must be connected to the terminal coloured black or marked with the letter N.
- The core which is coloured **brown** must be connected to the terminal coloured red or marked with the letter L.

The mains lead supplied with the power supply unit is already fitted with a moulded plug incorporating a 5A fuse. If you need to replace the fuse in the mains plug supplied, then you must use a 5A fuse, ASTA-approved to BS1362.

Information for Australia and New Zealand

This equipment should be fitted with a plug that complies with the requirments of AS3112-1990 and NZ 198-1967. If the plug fitted does not fit your socket outlet, it should be removed and disposed of. A suitable alternative plug should then be fitted, following the instructions provided with it.

As the colours of the cores in the main cord of this equipment might not correspond to the coloured markings identifying the terminals in your plug, proceed as follows:
- The core which is coloured **green and** yellow must be connected to the terminal in the plug which is marked E or labelled green.
- The core which is coloured **blue** must be connected to the terminal whicn is marked N.
- The core which is coloured **brown** must be connected to the terminal which is marked P or A.

Never use an unapproved mains plug. In the event of damage to the mains plug, replace it with another approved to the above national standard (or one approved for your socket outlet) and wired as detailed above.

If in any doubt, please contact a qualified electrician able to complete the task for you.

Welcome !

Thank you for choosing the RiscStation R7500. This Welcome Guide is intended to be of most use to those who are using a RISC OS computer for the first time. Much of the advice given in this document will apply to other RISC OS computers but it has been written with the RiscStation R7500Lite specifically in mind. If you are already familiar with RISC OS, then you might also like to read on if only to refresh your memory of the basics. Users of previous versions of RISC OS might just wish to familiarise themselves with those features new in RISC OS 4, see Appendix A.

The following areas will be covered:

1. Unpacking and Setting Up

Unpacking

When unpacking your new RiscStation R7500 computer, take care not to bump or knock the equipment. Any sudden impact could cause damage, so handle your new computer carefully. Unpack onto a sturdy, flat surface. It is a good idea to keep the packaging in which your computer (and any accessories) arrived; this is useful for re-packing at a later date should you need to transport the equipment.

Warning: *The packaging contains plastic bags which can be dangerous and might cause suffocation, especially in the hands of children. For safety, ensure these are kept well out of reach.*

Checklist

With your RiscStation R7500, you should have the following items:
- This Welcome Guide
- Backup System CD
- Computer Base Unit ('Tower' or 'Desktop' style)
- Keyboard
- Three-buttoned Mouse
- Mains cables
- Registration Card
- Monitor/Display (if purchased with system)
- Speakers (with some models)
- Software pack (where applicable)

Refer to the enclosed packing list for a precise list.

Please check that you have all of the above items. If there is anything listed which you do not have, or if any of the the listed items is damaged, please contact your supplier as soon as possible.

Please take a few minutes to fill in your Registration Card and send it back to RiscStation Ltd. (UK) or RiscStation Australasia, as appropriate, so that you can be sent any updates in the future.

Choosing where to set up your computer

It is likely that you might want to use your computer often and for extended periods of time, therefore it is recommended that you position it in a location and aspect which will be comfortable for you.

To reduce the risk of strain, choose a desk and chair which will allow you to sit comfortably with your keyboard in front of you on a level with your elbows and your monitor at eye level. Arrange the base unit so that there is no strain on the cable connections and so that you have easy access to the CD and floppy disc drives. Place your mouse on a mouse mat to one side of the keyboard, where it is free to move without restriction, allowing space at the other side of the keyboard for referring to documents such as this Welcome Guide.

This is meant as a guide only, the simple message being that, if you intend working for extended periods of time, do make yourself comfortable.

Setting up the computer

The various input, output, and control devices which connect to your computer (such as keyboard, mouse, and monitor) are peripherals. Each of these peripherals connects to the computer via a socket known as a port. These ports are grouped together at the back of the computer base unit. In simple terms, you control the computer using the mouse and keyboard (input) and experience the results of your actions using the monitor, printer, or speakers (output).

Take care when connecting any peripherals that you do not use excessive force. Most connectors have small metal pins which, unless treated with care, can easily be damaged.

You should situate your computer in a suitable location which allows ventilation around th base unit, is not in direct sunlight, and is not at risk of exposure to moisture.

Peripheral connections (ports)
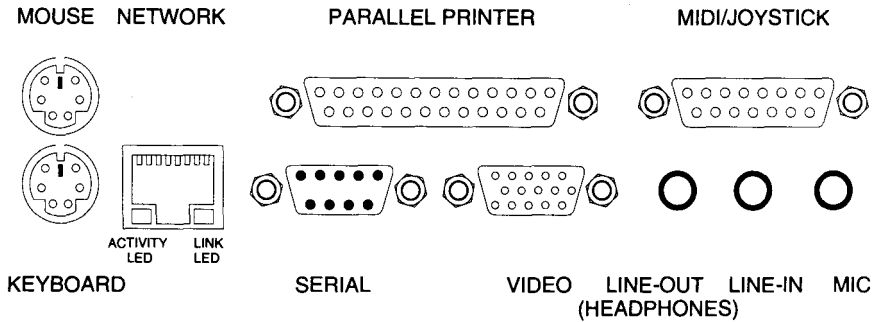
Your peripherals connect to the computer via the ports at the back of the machine

Before you switch on...

Connect the mouse and keyboard to the computer

Plug the mouse connector into the socket, at the back of the computer, identified by a symbol for the mouse and the keyboard connector into the socket indicated by a picture of a keyboard. These connections are of the same type and should operate in either socket but it is recommended that the keyboard be connected via the lower socket and the mouse via the upper socket (on the 'Desktop' model) or the left socket (on the 'Tower' model). If you wish to make use of the support for waking the computer up on various events such as the press of a 'wake' button on the keyboard, then the keyboard and mouse must be connected this way round. Be careful to ensure that the connector is inserted the right way around, the 'top' of the plug is indicated by an arrow moulded into it.

Connect the monitor to the computer

Connect the monitor video-signal cable to the socket. This connection is unique and so the cable will fit in only one socket. The connector also has screws for ensuring that the connector stays in place. When making connections with screws do not over-tighten.

Connect the printer to the computer

If you have a printer, you can connect your printer using a standard parallel printer cable to the parallel printer port. Other peripheral devices such as scanners or zip drives can also be connected via the parallel port. As well as the printer being physically connected to the computer, you will also have to setup the software which communicates with the printer; this will be covered later in the section on *Printing*.

Equipment check

Be sure to check that there are no trailing wires or cables which might cause obstruction or pose a possible risk of tripping anyone (even if a person is not injured, equipment can be pulled off desks and damaged easily). Try to keep cabling neat and tidy - it is easier to manage and less likely to cause accidents. Also it is a good idea to ensure you have easy access to the mains power switch on the wall in case of extreme emergency.

Allow space around your computer equipment for cooling ventilation.

Connect the computer to the mains power supply

If the plug supplied is not suitable for the power supply in your country, please consult your supplier. Do not attempt to repair or replace the mains cord yourself - refer to your supplier instead. Do not operate this equipment if any cables are damaged.

Once your peripherals are connected, connect the computer base unit to the mains electricity using the cable supplied. When the cable is connected and the mains power is switched on, there is a small voltage permanently fed to the motherboard to allow certain parts of the computer to remain live. This will be evident by the green power light flashing intermittently.

Even before you press the 'power-on' switch it can be 'woken' at any time by an appropriate signal via the keyboard, the network, the modem (if present), or the power switch (of course) , as desired and configured. When the computer is powered up fully, the green light will be on continuously.
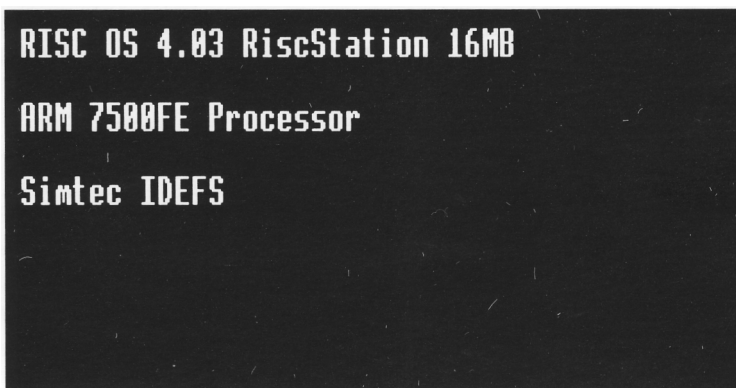
2. Switching On

Switch on ('power on')

In order to switch on the computer for use, press the 'power' button, as indicated, and release.
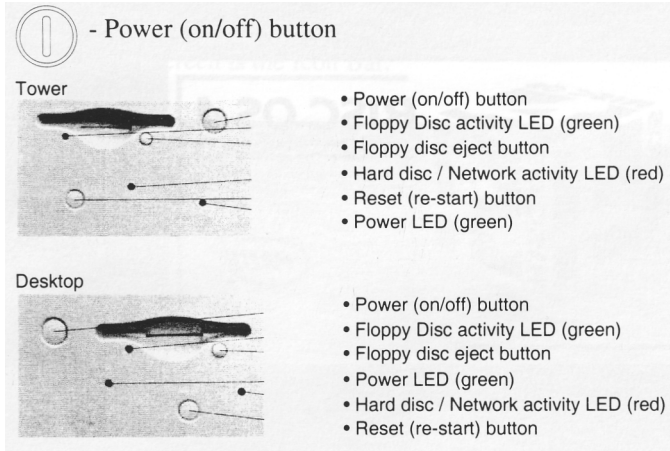
Boot procedure

When you switch the computer on you will see the following as it goes through its start up procedure (known as 'booting'):
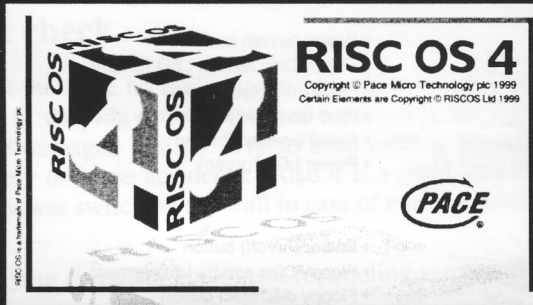
> • a black screen which shows

> and then reports the various essential software components being added in the start up sequence. This is accompanied by a system 'beep'.

• a welcome banner, acknowledging the combined efforts and contributions from Pace Micro Technologies plc, RISCOS Ltd., and RiscStation Ltd.


• the computer enters the desktop, ready for use.

3: The RISC OS desktop

When using your RISC OS computer, the main screen display you will see and use for most operations is known as the desktop. This can also be referred to as a WIMP environment, which is an acronym for Windows, Icons, Menus, and Pointer, all of which are used when operating any computer in its desktop.

At the bottom of the screen is the Icon Bar.
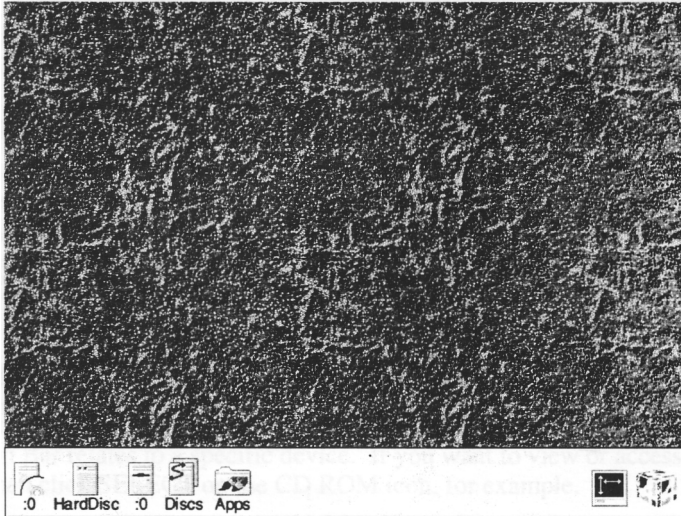
The icons (pictures) on the left-hand side of the Icon Bar give you access to the computer's various storage areas. Those on the right-hand side allow you to dynamically change aspects of the computer during operation, this is also where most application icons sit when active.

You may click SELECT, the left button on the mouse, with the mouse pointer on any of the icons on the left-hand side of the Icon Bar to open a filer window showing a directory listing for that device - for example, click SELECT once on the hard disc icon to open a window to see and access the content of the hard disc.

Icons

Each object in a filer window is represented by an icon. There are three types of filer icon: **Files, Folders,** and **Applications.**

- this is the icon for a drawfile (notice how the picture depicts the type of file it represents)

- this is the icon for a spritefile (notice how the picture depicts the type of file it represents)

- this is the icon for a text file (notice how the picture depicts the type of file it represents)

Files (the icons used to represent files give an indication of the type of file by the picture used). Notice the up-turned, bottom right-hand corner indicating that these are files (documents).

- this is the icon for a closed folder / directory

- this is the icon for an open folder / directory

Folders (all folders look alike). Folders (or directories) can be created to give your hard disc order. Folders can be created within other folders to make a heirarchical structure. When a folder is opened it's icon changes to that of an open folder.

- this is the icon for the !Draw application which creates and edits drawfiles (notice the similarity between the application icon and the application's associated file icon, above).

- this is the icon for the !Paint application which creates and edit sprites (notice the similarity between the application icon and the application's associated file icon, above).

- this is the icon for the !Edit application which creates and edits text files (notice the similarity between the application icon and the application's associated file icon, above).

Applications (the term 'application' has several meanings but generally, an application is a collection of files which have been grouped together inside a folder and which function co-operatively to perform a certain function - e.g. running a program. An application can be identified by an exclamation mark at the start of its name ! and an application icon/picture to identify the program's function. The names of some files, usually those within an application folder, might also begin with an exclamation mark).

Device Icons

A 'device' is an object such as a hard disc or floppy disc drive. Each icon on the left hand side of the Icon Bar relates to a specific device. If you want to view or access the content of a CD ROM, then click SELECT on the CD ROM icon, for example.

CD ROM

Hard disc

Floppy disc

Shared (Ethernet network) discs

ROM-based resources*

RAM Disc**

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Some devices, such as the hard disc, are *physical* whereas others, such as a RAMDisc, are *virtual* (or, in the case of a ShareFS mount, a portal of another computer's physical or virtual device being shared over the network and then accessed remotely).

*These ROM-based resources are resident in the Read-Only Memory chips inside the computer and cannot be erased. They hold the majority of the information required to allow the computer to function (the operating system). Supplementary resources and software applications are kept on the hard disc and are utilised in a structured manner when booting or at any point when using the computer. Click SELECT on the ROMAPPS icon on the Icon Bar to access those applications held in ROM.

**Random Access Memory Filing System - temporary storage space in the computer's memory which is lost when the power is switched off incorrectly referred to as a 'RAMdisc'.
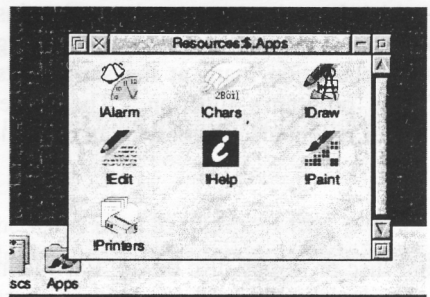
Application Icons

The right-hand side of the Icon Bar is generally used to show when a computer program (also known as an application) is active, by displaying its icon there, and also to allow you to control the properties of the screen display using the Display Manager, or to manage the computer's active memory allocation using the Task Manager (these last two features are always present on the Icon Bar).


The Display Manager allows you to change the size of screen area and the depth of colour being displayed. The RISC OS 4 cube allows access to the computer's dynamic areas where you can allocate memory to specific tasks.

Other application icons will appear on the Icon Bar when made active by the user).

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4. Using the Mouse

What is a Mouse ?

A mouse, in computer terms, is a hand-held control device. The mouse has a ball on its under side. When the mouse is moved on a flat surface, the ball is rotated and sensors inside the mouse recognise in which direction the mouse has moved and relay that information to the computer. The pointer on the screen moves relative to the movements of the mouse.

MENU

SELECT   ADJUST
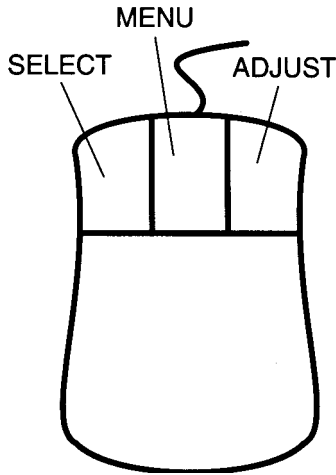
(Right-handed, for example)

Holding and moving the Mouse

Hold the mouse in your dominant (writing) hand with the curved side in your palm and the flat under side (where the mouse-ball is) down on a flat surface. Position the mouse with the mouse buttons at your fingertips, and the cable which connects to the computer leading away from you with enough freedom for it to be moved around. Whilst you are getting used to using the mouse, it is a good idea to line up the movement of the mouse with the positioning of the monitor so that when you move the mouse forwards, away from you (towards the monitor), the pointer on screen moves towards the top of the screen and when you pull the mouse back, towards you (away from the monitor), the pointer on screen moves down towards the bottom of the screen. Equally, as you move the mouse to the right the pointer on screen will move towards the right hand side and as you move it to the left the pointer will move to the left - this will help you to associate the correct movements of the mouse with the desired movement of the pointer on screen. The pointer on screen will not disappear off the screen. The edges of the Desktop area act as a boundary for the pointer. If the pointer does disappear (it can be hidden from view when you are typing on the keyboard, for example), or it is not easily spotted at first glance, then a small movement of the mouse should be enough to make it appear of draw your attention to its location.

The mouse buttons

The mouse used with all RISC OS computer systems, has three buttons. Each of these buttons has a particular role to play. The button which does most of the work is named **SELECT**; the middle button, when clicked, always produces a menu, and so is called the **MENU** button; and the remaining button is known as **ADJUST**, because it performs a number of alternative functions complimentary to the other two. Using the mouse configuration tool (described later) you can set the mouse to be either for left-handed or right-handed users (by swapping the mouse buttons so the **SELECT** falls under the index finger of your dominant hand)

Mouse techniques

Clicking

Pressing and releasing a mouse button down is known as 'clicking' it. In fact, when you depress a mouse button you will probably hear a 'clicking' sound. You click a mouse button to activate the function of that button when the pointer is over the desired area of the screen.

When you click **SELECT** or **ADJUST** the pointer icon will change from ▶ to ▶ . After a short time (configurable using the Mouse configuration tool) the pointer will revert to the default icon. If you click the mouse a second time whilst the pointer icon is in its double-headed state, then this is considered a *double-click*.

For example,

A single click of **SELECT** on a device icon on the Icon Bar (such as the Hard disc, or Floppy disc) will open a filer directory window showing the content of that device.

A single click of **SELECT** on an application icon on the Icon Bar will open a (new) document for that particular program.

A single click of **MENU** will open a menu of options (the **MENU** button always opens a menu on the screen - where the pointer is located at the time of your clicking the **MENU** button determines what the menu relates to (clicking **MENU** on the Floppy disc icon, for example, will open a menu list of options relating to the Floppy disc drive).

A single. click of **ADJUST** will select an item (as **SELECT** does) but subsequent selections using **ADJUST** will *add* to the selection allowing you to select more than one object (this applies to both files and directories in filer directory windows and also multiple objects within a document such as separate vector-based shapes in a drawfile.

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Double-clicking

As a general rule, for items which are resident on the Icon Bar (either permanently, or after they have been made active), you would click a mouse button just once. For items not on the Icon Bar you would 'typically' click twice (to activate programs, load documents, open directories etc.). If you double-click on an application icon on the Icon Bar then you will open two documents for that program - unless you were intending to open more than one document, a single click will suffice. When opening directory folders, if you open the directory using **SELECT** then the sub-directory filer windows is opened keeping the original (the 'parent') also open on screen. If you open a directory using **ADJUST** then, as the sub-directory is opened, the parent directory is closed (which can help to keep the desktop clear of too many windows - you can have many windows open on screen at the same time, it is simply easier and less confusing to have as few as possible and as many as necessary windows open on screen simultaneously).

Double-clicking with <SHIFT>

Double-clicking on an application whilst holding down the <SHIFT> key opens the application directory rather than activating the program. This allows you to access resources within the application. Double-clicking on a file whilst also holding down the < SHIFT> key will open that file into a text editor rather than load the file into an application which would usually handle that type of file. You can double-click using **SELECT** or **ADJUST.**

Dragging

You can drag an icon from a filer directory window or from a 'save as' box by clicking either **SELECT** or **ADJUST** on the icon, keeping the mouse button held down as you move the pointer to the desired location, then releasing the mouse button. This sounds more complicated than it really is. This is known as 'Drag and Drop'. When you click and hold **SELECT** or **ADJUST** over an icon, the new icon will appear under the pointer which is a transparent version of the original icon (if more than one icon is selected then the

transparent icon which appears for dragging is a 'package' to indicate that a

group of objects has been selected).

These are the same as double-clicking:
  • If you drag an application's icon to the Icon Bar then that program will be made
    active.

- If you drag a directory icon to the Icon Bar then that directory will be opened.
- If you drag a document (file) icon to the Icon Bar then that file will be opened (if a suitable program has been 'seen' by the computer, which can handle the type of file you are activating - i.e. if you drag a spritefile to the Icon Bar then !Paint will be activated to allow you to view and edit that file).

If you drag an icon (directory, application, or file) from one filer directory window to another then that object will be copied from its original location (the 'source') to the new one ('destination').

If you drag an icon (directory, application, or file) from one filer directory window to another, but holding down the SHIFT key on the keyboard as you do so, then that object will be moved to the new one (in other words, it will be 'shifted' - the object is copied from the 'source' location to the 'destination' then the 'source' is deleted - this is useful for moving and organizing the content of your computer's storage devices (re-shuffling data on hard discs or floppy discs, for example).

Using **SELECT** will keep the windows of the source object open whereas using **ADJUST** to perform these dragging operations will close the source directory window as part of the process.

In a very short space of time all of this will become second nature as you regularly use your computer and become more familiar with it.

Mouse maintenance

As with any mechanical device which has moving parts, with increased use, the mouse can collect dirt and grime and assorted particles which can prevent it from working at its best. If left to accumulate, this can noticibly impair the performance of the mouse (which is generally the primary means of controlling the computer).

On the underside of the mouse, with a simple twist of the plastic casing, you can remove the mouse ball and access the rollers in order to clean them.

It is possible to clean the mechanical parts of the mouse using a cotton bud, for example, or you could purchase a mouse-cleaning kit from your local dealer (either is suitable).

5. Windows

What is a window?

A window is an area of the screen which has been reserved by a program or filer for a specific purpose. It is a means of focussing on a particular aspect of the computer's current function. This might be to allow you to access applications or files and make them active, or, once you've made a file or application active, it is used to focus your attention on the document or application being processed. When you click on the hard disc to see its content, a filer window will be opened. When a program is active and you click on the application icon on the Icon Bar, a document window will be opened.
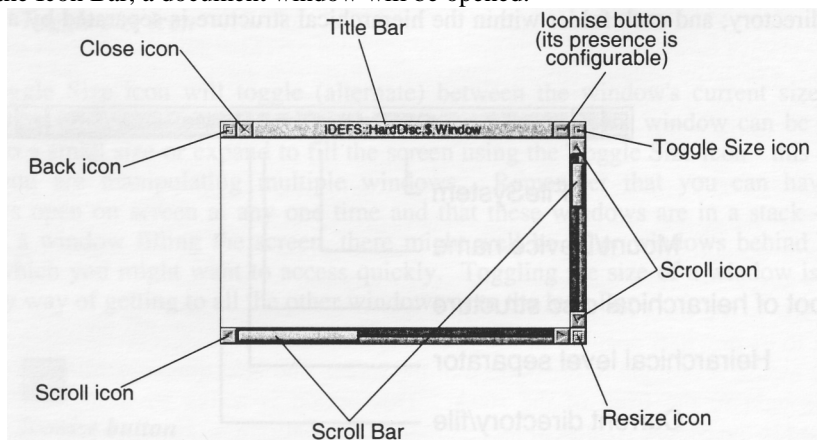

Features of windows

Around each window are 'window tools'. These tools allow you to control each window and organise and arrange the desktop as you use it. The window tools are always the same type for each window. When a particular window is the current focus of input, then that window's tools will be highlighted in yellow. You can have many windows open in the desktop at any one time. These windows will be stacked one in front of the other. It is possible to shuffle through the stack to bring a particular window to the front. The window which is the current focus of input or selection does not have to be the one at the front of the stack. Windows can be shuffled in the order of the stack using SELECT or ADJUST, where desired, on the Back Icon, the Title Bar, the Toggle Size Icon, or the Resize Icon. A window can sit in front of the Icon Bar and obscure your view of or access to it - this allows you to utilise the whole of the screen area when desired.

Title bar

The Title Bar is at the top of the window and shows the name of the document or folder (the leafname) which is preceded by it's location (the pathname). As an example, the leafname for the folder on the hard disc where you would find some helpful utilities would be 'utilities' and the pathname would refer to the hard disc 'Harddisc' and what you would see in the Title Bar would be "IDEFS::HardDisc.$.Utilities". 'IDEFS' refers to the main filing system to which the hard disc is connected; 'HardDisc' is that name which has been given to the hard disc (which can be renamed if you prefer); the '$' sign indicates the root of the device' directory; and each folder within the hierarchical structure is separated by a '.' (full-stop).
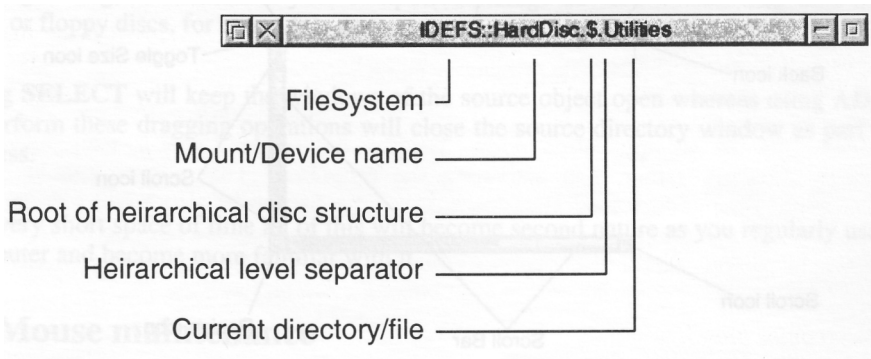
When an active document window is the current focus of input, its title bar is highlighted in yellow.

Back icon

Click SELECT on the Back icon of a window to move that window to the back of the stack. You will only notice the effect of doing this if there is more than one window open on screen and they overlap.


Close icon

Click SELECT on the Close icon to close a window. If the window you are closing is a

document window, created using a program (rather than a filer directory window) then you will be asked if you want to save that document before closing it, if you have not done so already. Once a document window has been closed you cannot retrieve it (unless you saved it before closing). Clicking ADJUST on the Close icon of a filer directory window will close that window and open the parent directory (note that the main 'root' directory has no parent to open). So, if you have opened directories and sub-directories using ADJUST (which closes the parent directories as you go) you can reverse the process (and open the parent directories) using ADJUST on the Close icon. This is also the case if you close a document window using ADJUST; the document's parent directory window is opened.
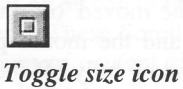
Toggle size icon

The Toggle Size icon will toggle (alternate) between the window's current size and its largest size on screen. A document window or a filer directory window can be made to shrink to a small size or expand to fill the screen using the Toggle Size icon - this is useful when you are manipulating multiple windows. Remember that you can have many windows open on screen at any one time and that these windows are in a stack - even if there is a window filling the screen, there might well be other windows behind it in the stack, which you might want to access quickly. Toggling the size of a window is a quick and easy way of getting to all the other windows or to the Icon Bar.

Iconise button

Iconising a window means reducing the whole window down to just an icon on the pinboard (backdrop). Once a window has been iconised it can be re-opened by simply double-clicking on the icon. This option is not enabled by default. It can be activated via the configuration application in the Windows section. Holding down <SHIFT> and clicking on the Close Icon performs the same function. The presence of this icon as part of the general window furniture is configurable and might not be enabled as standard.

Practising manipulating windows

Changing a window's size

Click and hold SELECT or ADJUST on the Resize Icon and drag the window to the desired size (either smaller or larger, wherever possible). Doing this with SELECT will also bring that window to the front of the stack. Using ADJUST will allow the window to retain its position in the stack.

Moving a window

Move a window using SELECT or ADJUST on the Title Bar and dragging the window to the desired position on screen. As before, doing this with SELECT will also bring that window to the front of the stack: using ADJUST will allow the window to retain its position in the stack.

Off the screen

Windows are not bound by the edges of the desktop. They can be moved 'off the screen. However, since you can only move a window by its Title Bar and the mouse pointer is bound by the edges of the desktop, it is not possible to move a window fully off the screen - there will always be a small part of it you can 'get hold of. Moving windows off the screen is configurable as to whether of not windows are allowed off screen and, if so, in which direction.

Covering the Icon Bar with a window

If a window obscures the Icon Bar, and you want to access the Icon Bar, press and hold the <SHIFT> key, then press and release the <f12> key and release the <SHIFT> key to bring the Icon Bar to the front of the stack. Press <SHIFT> <f12> once more to toggle the Icon Bar back to its previous position in the stack. The computer can also be configured so that when the mouse is brought to the bottom of the screen and held there momentarily the Icon Bar is brought to the front of the stack. This option is active by default and can be deactivated in the Mouse section of the computer's configuration. Here you can also specify how long you must hold the pointer at the bottom of the screen before the Icon Bar pops to the front. If this options is disabled in the Mouse configuration, you can still use the < SHIFT><f12> key combination.

Bringing windows to the front

In order to bring a particular window to the front of the stack, click SELECT on its Title Bar or Resize icon (or Toggle Size icon, but that also changes the size of the window).

Closing windows

Click SELECT or ADJUST on the Close icon to close a window. Use ADJUST to simultaneously open the parent filer directory window. If you wish to close the active window (the window whose focus is active has its window tool sprites highlighted in yellow) you can alternatively use a keyboard short-cut by holding down the <CTRL> key, pressing and releasing the <f2> key, then releasing <CTRL> (if supported by the application software being used) - sometimes this option can be more convenient than using the mouse. If you try to close a document window where the document has not been saved,

then the filer will ask if you want to save that document before closing.

Scrolling

Scroll Bars

Up the right side of many windows (and along the bottom of most document window) is a Scroll bar. You can drag this bar up or down (or left or right) to view more of the content of a window. These Scroll Bars are proportional in that the size of the Scroll Bar represents the amount of content visible in a window relative to the overall amount of the window's content. If the Scroll Bar occupies the whole of the side (or bottom) of a window, then that window is being viewed at its fullest - all the content of that window is visible: if the Scroll Bar is very small relative to the whole side of the window, then there is more content in the window than can be displayed on screen. Scroll Bars may be dragged using **SELECT** or **ADJUST.** If you drag a Scroll bar using **SELECT** then you will move the window's content in the direction of that scroll bar only (i.e. either horizontally OR vertically) but if you drag a Scroll Bar using **ADJUST** then you control both the horizontal AND vertical movement at the same time.

Scrolling step by step

Click on a Scroll icon (up, down, left, or right) with single clicks of the mouse to move a window's content in the appropriate direction. Using **SELECT** will move it in the direction in which the Scroll icon points: using **ADJUST** will move it in the opposite direction (this saves having to move the pointer large distances since you can use the same Scroll icon to move in two directions). The Scroll Bar(s) will move accordingly to show the relative position of the window's visible content as you use the Scroll icons.

Scrolling screen by screen

Since the Scroll Bar represents the visible content of a window, rather than scrolling through a window's content using the Scroll icons or by dragging the Scroll Bars, alternatively you can jump to the next portion of the window's content by clicking either side of the Scroll Bar (according to which direction you wish to scroll or jump). To do this, click above or below the vertical Scroll Bar, or to the left or to the right of the horizontal Scroll bar, where appropriate, to jump a whole screen's worth of window content in one go. Using **SELECT**, for example, clicking above the vertical scroll bar will move the window content up whereas using **ADJUST** will move the window content down.

Moving through a file

If the file you are scrolling through is, say, a text file, you might consider using the up, down, left, and right arrow (cursor) keys or the 'Page Up', 'Page Down'. 'Home' (top), or 'End' (bottom) keys to navigate through the document, as an alternative method.

6. Menus and dialogue boxes

Menus

Displaying a menu

Click **MENU** anywhere in the desktop to open a menu. Menus are contextual, that is to say where the pointer is at the time you click the **MENU** button determines what kind of menu will be opened and so what options will be available to you. Clicking **MENU** on an icon on the Icon Bar will open a menu relating to that device or application whereas clicking **MENU** in a filer directory window or on the background to the desktop will open a menu relating to the 'filer' or the 'pinboard' respectively.
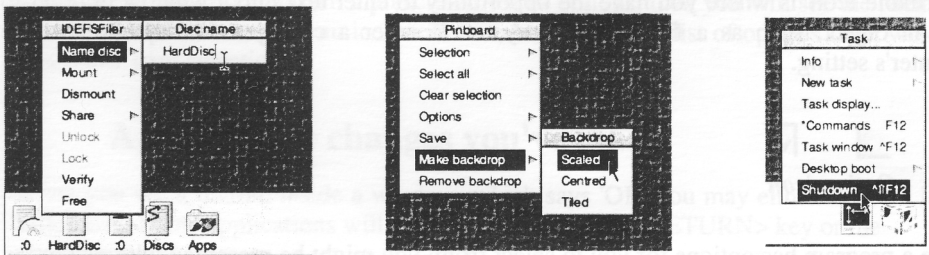
Choosing from a menu

Once you have opened a menu (by clicking the **MENU** button) you choose a menu option by clicking either **SELECT** or **ADJUST**. If you use **SELECT** then the menu option is chosen and the menu will disappear: if you use **ADJUST** to make your selection then the menu option is chosen but the menu will remain open on screen for you to make further selections.

Choosing a submenu

Some menus have sub-menus. A sub-menu is a secondary menu which offers further options for a particular menu item. To open a sub-menu simply move the pointer to the arrow which indicates the existence of a sub-menu and the sub-menu will open. Menus can have more than one sub-menu. To move back to a parent menu, simply move the pointer back (without clicking any mouse buttons). When you want to make multiple selections from sub-menus it is useful to use **ADJUST** (which keeps the menu on screen after a selection has been made) to save having to open the menus again.

What is a dialogue box?

A dialogue box is a window which opens on screen with which you are required to interact
This might be for saving a document, changing the computer's settings, or accepting warning
or information message.

Icons in dialogue boxes
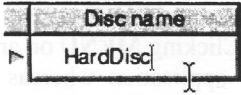
Writable icon option

A 'Writable Icon' is where you have the opportunity to enter text into a window in order to
label an object, such as a file or directory, or to enter a configuration option into the computer'
s setting.

Option icon

Where a program has options for you to select from, you might be presented with an Option
icon - another name for this might be a 'tick box' - if you wish to choose such an option, you
simply put a tick in the box.

*Due to the flexibility of RISC OS which allows for user customisation, some application
software might activate their own preferred icons temporarily superimposing them over the
ones built into the operating system. - such modifications can affect any or all sprites used in
the desktop. This can be prevented by selecting the 'Protect ROM Sprites' in the Windows
configuration tool.*

Radio icon

Where you are presented with a number of options from which you may only select only one,
you will be presented with a Radio icon (for example, if there are two options, you may only
select EITHER one OR the other).

Arrow icon

When you have the opportunity to choose a specific number for a particular option, then there will be 'up' and 'down' or 'left' and 'right' arrows so that you can scroll through a series of numbers until you reach the desired choice. You might also have the option of entering a numerical value via a Writable icon rather than having to scroll through each and every integer.

Menu icon

If you are asked to select from a prescribed list of options, then you will see the Menu icon. Clicking **SELECT** on a Menu icon will reveal a drop-down list of options from which you may make your selection.

Applying the changes you've made

When you see a button, inside a window, which says 'OK' you may either click on it using **SELECT.** Some applications will allow you to press the <RETURN> key or the

<ENTER> key on the keyboard to confirm your acceptance of the default function.
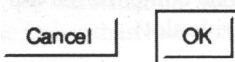
Cancelling a dialogue box

If you wish to cancel a dialogue box, either click on the 'Cancel' button (which is usually found alongside the 'OK' button) or press the <ESC> key. Alternatively, if the dialogue box has a close icon ⊠ then clicking on this will close the window.

7. **Discs and disc drives**

A floppy disc is a rigidly cased plastic disc coated in a thin film of magnetic meterial which is used to record data. Because the magnetic film is very delicate, do not slide back the cover on the disc.

Write-protect tab

This hole indicates to the computer that this is a high density floppy disc.
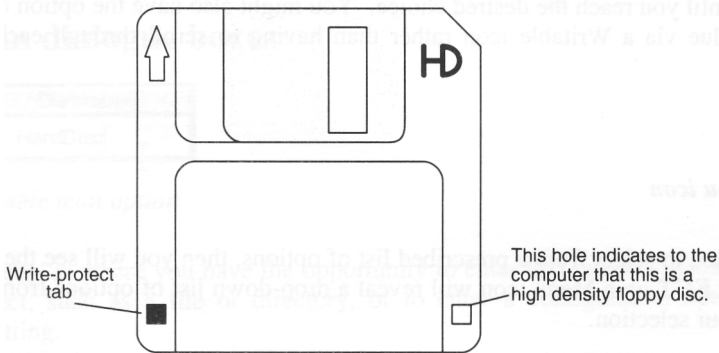
Floppy discs

Inserting and ejecting floppy discs

Hold the floppy disc so that the metal disc is on the underside and the metal shutter is facing the floppy disc drive slot (there should also be an arrow in one corner of the top side of the floppy disc which points in the direction of the floppy disc drive slot).

Gently push the floppy disc into the drive until it clicks into place (use fingertips to push it in all the way). Once it has clicked into place, it is ready for use.

Before ejecting a floppy disc make sure that you 'dismount' it. Since the floppy disc is a removable storage medium, and the computer remembers the disc's content (until you dismount it or switch off the computer) in order to make repeated access of the disc easier and faster, so you should tell the computer that the floppy disc is being removed otherwise it retains the information relating to the content of a disc even after is has been taken out. To Dismount a floppy disc, click **MENU** on the floppy disc icon on the Icon Bar, move up the list to the Dismount option and click **SELECT**.

To eject the floppy disc, push the button which is next to the floppy disc drive. This is mechanical so you will need to push it in all the way and then the floppy disc will come back out

If you floppy disc gets stuck in the floppy disc drive, see the troubleshooting section.

Looking after floppy discs

Since floppy discs use magnetism, anything which has an effect on magnetism can have an effect on floppy discs (which can lead to loss or corruption of data). Keep your floppy discs away from excessive heat or cold, strong sunlight, magnetic fields (there is a magnet inside your computer monitor), and keep them free from dust. If your floppy discs do gather dust or dirt, it can be transferred onto the heads inside the floppy disc drive mechanism and cause failure unless cleaned. If a floppy disc becomes damaged (for example the shutter might get bent out of shape) discard it - otherwise it could cause damage to your disc drive.
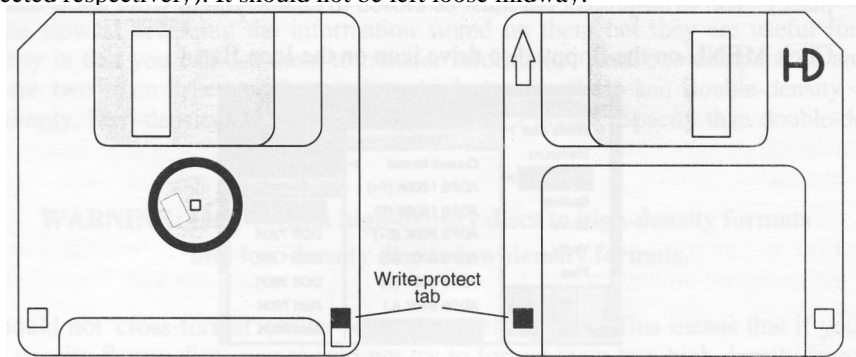
Accessing information on discs

On the left-hand side of the Icon Bar you will see the floppy disc drive icon. When a floppy disc is properly inserted into the drive, click SELECT on the floppy disc drive icon to open a filer directory window showing the content of that floppy disc. You can access the information stored on a floppy disc in just the same way as you would access information from the hard disc (or any filer directory window relating to other storage devices) Files can be saved or copied to floppy disc (or deleted) and directory structures can be created, deleted, or moved in the usual way.
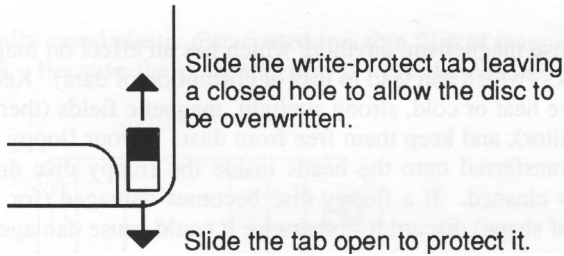
Write-protecting a floppy disc

Every floppy disc has a small almost-square hole in the hard plastic casing which you can see right through (on a High-Density floppy disc there are two holes: one is for 'write-protecting' the information and the other is to identify to the computer that it is a high-density disc rather than low-density).

On the underside of the floppy disc you will see a small, plastic tab which can slide back or forth to cover the write-protect hole or allow you to see through it. This tab clicks into position leaving the hole either open or closed (and the floppy disc either protected or unprotected respectively). It should not be left loose midway.

Write-protect tab

Slide the write-protect tab leaving
a closed hole to allow the disc to
be overwritten.

Slide the tab open to protect it.

When the write-protect tab is 'open' then the floppy disc is protected and although data can
be read from the disc, it cannot be deleted from the disc or updated, and the disc cannot be
formatted. When the write-protect tab is closed then the floppy disc is unprotected and you
are able to delete data, write new data, and format (or re-format) the disc.

Formatting a floppy disc

You can wipe the content of floppy discs clean (i.e. make them blank) and set them up in
particular 'formats' for use with this or other computers. If you want to transfer information
between a RISC OS computer and DOS, Windows, or Mac OS PCs then you should use the
DOS format option since all of these computers can understand floppy discs using this
format. RISC OS can also use the Atari format but this is less commonplace. The native
RISC OS format is quicker for reading from and writing to. The setting up of a floppy disc
for use with a particular computer is known as 'formatting' it. Most floppy discs come
preformatted for DOS (some are available unformatted).

### *In order to format a floppy disc:*

- Put a blank floppy disc (or one whose content you are not worried about losing)
  into the floppy disc drive (make sure it goes in all the way and clicks into place).
  The write-protect tab must be closed to enable you to write to the disc.

- Click MENU on the floppy disc drive icon on the Icon Bar.
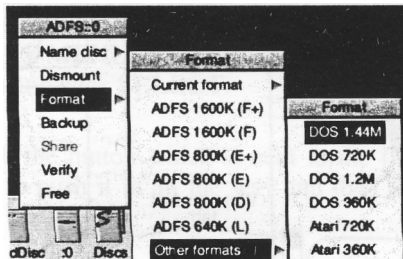
- Move up the list of options to 'Format' and follow the arrow to the right to open the submenu.

- Either select from the list of RISC OS ADFS floppy disc formats or move to the bottom option in the list 'Other formats' then open the next submenu to select from DOS or Atari formats. When you have found the type of format you wish to apply to the floppy disc, click **SELECT** on that option. You may also give the floppy disc a name or label by clicking in the box and deleting the

- If you are presented with an error message saying "The disc is write protected. Move the write-protect tab and try again." then you should do just that.

As the floppy disc is being formatted the process window will show a red progress bai which, once completed, will then be followed by a green progress bar as it verifies the formatted di
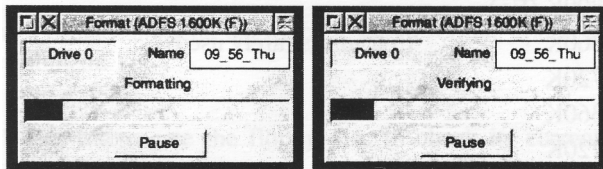
Once both cycles have completed you are prompted to click on the 'OK' button to finish the format procedure.
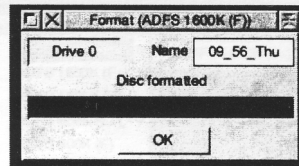
*Floppy disc formats' and storage sizes*

Floppy discs are limited in that they have a small capacity (less than 2MegaBytes) and they are quite slow at accessing the information stored on them but they are useful for their portability in that you can use them to transfer information from one computer to another. There are two main types of floppy disc: high-density (HD) and double-density (DD). Quite simply, high-density discs can be formatted to a higher capacity than double-density discs.

**WARNING: Only format high-density discs to high-density formats
and low-density disc to low-density formats.**

You should not 'cross-format' (under-format or over-format). This means that if you have double-density floppy discs you should not try to format them to a high-density format. If

you try to cross-format then the format procedure will fail and the disc will need to be suitably reformatted. Cross-formatted floppy discs are at risk of data loss.
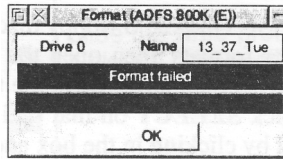
Low-density formats include:

ADFS	640K	
ADFS	800K (D)	
ADFS	800K (E)	
ADFS	800K (E+)	
DOS	360K	(5¼" discs rarely used) DOS 720K
Atari	60K	
Atar	720K	

High-density (HD) formats include:

ADFS	1600K (F)	
ADFS	1600K (F+)	
DOS	1.2M	(5¼" discs rarely used) DOS 1.44M

With additional software, you can also read and write direct to Apple Macintosh-formatted floppy discs.

Renaming a floppy disc

Floppy discs may be given names of up to ten characters in length. It is useful to give floppy discs meaningful names to help identify their content or purpose. You will see the name of the floppy disc in the Title Bar of the filer directory window of that disc.

Click **MENU** on the floppy disc drive icon on the Icon Bar. Move up the list of options to ' Name disc' and follow the arrow to the submenu where a writable-icon window will appear. Type the name by which you wish the floppy disc to be known into the writable-icon window and either click **SELECT** on the window or just press
<RETURN>.

Making backup copies of floppy discs

Copying the content of one floppy disc onto another for safe-keeping is known as making a ' backup'. In order to make an exact duplication of a floppy disc, you should first ensure that the both the source disc (the original) and the destination disc (the copy) are the same type of format (if the formats do not match, then you might be prompted to insert additional discs in order to back up all the data held on the source disc).

To check the format type for a particular floppy disc:

- Click **MENU** on the floppy disc drive icon on the Icon Bar
- Move up the list to the 'Format' option and follow the arrow to open the 'Format' submenu
- Move up the 'Format' submenu list to the 'Current format' option and follow the arrow to its submenu
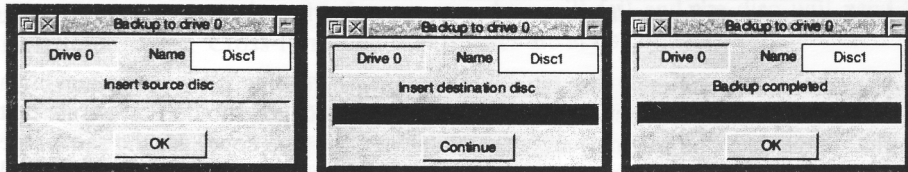
The computer will then interrogate the floppy disc to check its current format and then report it to you in a window.
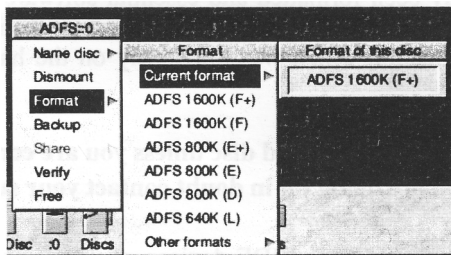
It is a good idea to write-protect your source disc before you start the backup procedure so that no data is accidentally lost (just in case you have the wrong disc in the drive at a crucial moment).

Reformat the destination floppy disc to match the source disc if necessary (not the other way around, or else you'll lose the data you're trying to backup) then click **MENU** on the floppy disc drive icon on the Icon Bar, move up the list to the 'Backup' option and click **SELECT** on it. The computer will then instruct you to put in each disc in turn (source and destination) so that it can make a backup copy for you.

Drive 0	Name	Disc1	Drive 0	Name	Disc1	Drive 0	Name	Disc1

Backup to drive 0 — Insert source disc — OK

Backup to drive 0 — Insert destination disc — Continue

Backup to drive 0 — Backup completed — OK

Hard Disc

The hard disc in your RiscStation computer is connected via the EIDE interface on the motherboard. It has been pre-formatted for you using the RISC OS 4 F+ format which, amongst other benefits, allows it to use long filenames. For further details on altering the configuration of the hard disc or setting up additional device on the EIDE interface, please consult the appropriate guide which can be found on the the hard disc itself (and also on the accompanying CD ROM) in the Reference directory.

Click on the hard disc icon on the Icon Bar with **SELECT** or ADJUST to open the root filer directory window.

Your hard disc will have already been formatted and essential software installed for you. Re-formatting the hard disc (as with floppy disc) will wipe it clean of the information on the disc. Once formatted, the information which was previously on the hard disc cannot be recovered.

> **WARNING: Do not format you hard disc unless you are certain of
> what you are doing - if in doubt contact your supplier.**

The tool for managing (and formatting) your EIDE devices, such as you hard disc, can be found via the usual configuration tool (see APPENDIX A) in the Discs option.
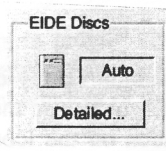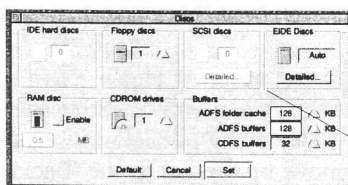
A guide to using the EIDE discs configuration tool can be found within the Reference folder in the root of the hard disc.

CDFS

CDFS (Compact Disc Filing System) supports green and white book Video CDs (MPEG discs). These were particularly common with the Philips CDi multimedia console.

CDFS can use the MimeMap module to look up filetypes from filename extensions (this is as a secondary course of action if the standard CDFS tables don't contain a mapping). The MimeMap translation file (found in !Boot.Resources.!Internet.files) contains all manner of translation information between file extensions, filetypes and internet MIME data types.

It is intended that the MimeMap file be the single location of such mapping information, so that any application can benefit from the information stored there. This prevents the need for each application to have its own translation table.

DOSFS

In line with CDFS above, DOSFS utilises the MimeMap module to expand its database of file extensions to filetype translations. See the information above for more detail on the MimeMap system.
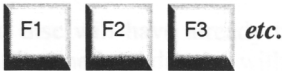
8. Using the keyboard

The keyboard is the main source of input of information into the computer. The layout of the keyboard follows the convention of the typewriter with a few additional keys such as the function keys (labelled 'f1' through to 'f12') along the top, some directional control keys to the right hand side of the main layout, and the numeric keypad (which is like a calculator) at the far right. The following is to explain the function and use of the keys which might be new to you.

A quick tour of the keyboard

Esc (Escape) <ESC>

The Escape key is used to interrupt certain programs or to cancel query, error, or warning boxes which occasionally pop up on screen. It is located at the top left-hand corner of the keyboard.

Function keys

Function keys (those labelled Fl, F2, F3...etc. through to F12, along the top of the keyboard) are usually used by individual programs and software applications and have specific functions when used in conjunction with specific software titles which will be outlined in their own user instructions. In general terms, some of these keys have designated functions which tend to remain constant in their use, no matter what the program or application - these keys can, and often are, re-assigned by different software applications but, typically:

- pressing <f3> brings up a 'save as' window in a document so that you can give you work a filename and save a copy to disc for future reference.
- pressing <f4> opens the 'search' window in a (WP) document so that you can go straight to a word within a document rather than scrolling through until you find it by eye.
- pressing <f12> enables you to enter the Command Line Interface (CLI) where you take a step out of the RISC OS Desktop into an environment where you can type in commands direct (the mouse does not function at the CLI) - this is used mainly by experienced users.

Delete

The 'Delete' key (also referred to as 'Del') deletes the character before (to the left of) the cursor. It has the same function (in RISC OS) as the 'backspace' key.

Return <RETURN> or <RTN>

Return is used to send information to the computer for it to process. For example, when making a new directory you would use the mouse to choose to make the new directory via a menu inside a filer directory window, type in the name, and then press < RETURN>, or if you enter the CLI (Command Line Interpreter) to give the computer an instruction you would then press <RETURN> to make it so. In word-processing it is used as the 'carriage return' where it forces a move to the next line down in a document (which is a throwback to typewriters where the carriage literally had to return to the right hand side of the typewriter so that you could type the next line).
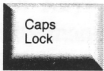
Caps Lock

When Caps Lock is pressed it toggles (switches on or off) the use of lower or upper case type ('upper case' again a reference to its use in describing the mechanics of typewriters). A light at the top right-hand side of the keyboard shows the status of Caps Lock. If the light is on then Caps Lock is on: if the light is off then Caps Lock is off. If you wanted to write a whole passage of text in capital letters then you would press Caps Lock once and continue typing the text as normal; when you want to return to using lower case lettering, simply press Caps Lock once again.
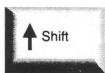
Shift <SHIFT>

When typing, in order to access the characters which are shown at the top of each key on the keyboard (or to type 'upper case' characters rather then 'lower case' or vice versa) you

should hold down the <SHIFT> key then press the corresponding key to get the character you desire.

For example pressing the '7' key (on the 'top row' of the keyboard) produces a '7' whereas holding down <SHIFT> then pressing '7' produces the character '&'.

Where upper and lower case alphabetical characters are concerned, using <SHIFT> will allow you to type upper case characters (capital letters) when Caps Lock is off and lower case character (small letters) when Caps Lock is on.

<Shift> can also be used in combination with other keys to provide additional functionality.
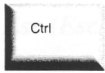
Ctrl (Control) <CTRL>

<CTRL>, like <SHIFT>, by itself, does nothing - rather it is used in conjunction with other keys to perform certain functions.
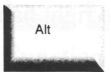
Alt <ALT>

<ALT>, like <SHIFT> and <CTRL>, by itself, does nothing - rather it is used in conjunction with other keys to perform certain functions. One main feature of using the < ALT> key is, in conjunction with the numeric keypad, to access characters which do not appear on the keyboard such as ©, ®, ™, and letters with accents as found in foreign languages **(ä, ë, ï, ö, ü,** for example). These are known as ASCII characters and can be accessed by typing in the appropriate ASCII code whilst holding down the <ALT> key (see Appendix D). Alternatively you can use the !Chars program which reside in the 'Apps' directory on the hard disc and which can be accessed through the Apps icon on the Icon Bar - sometimes, though, it can be quicker to use the keyboard short-cuts.

End

In RISC OS the 'End' key deletes the character after (to the right of) the cursor.

Print Scrn <PRINT>

Pressing the <PRINT> key on the keyboard will automatically bring up on screen the option to print from the currently active application or document (if the particular application supports this). A quick way to print, therefore, might be to press <PRINT> then < RETURN> and (assuming you printer software is running and set up properly) the document currently being worked on is sent to the printer.

Break <BREAK>

<BREAK> is usually used to escape from a process under certain circumstances. Usually. it would be used in conjunction with the <ALT>, <SHIFT>, or <CTRL> keys.

Cursor keys

The Cursor Keys (arrow keys) are used to move the cursor around a document. They are also used by many games for controlling the actions of the game. The Cursor Keys can also be used in conjunction with <SHIFT> and <CTRL>. In a word processing application, for example, holding down <SHIFT> and repeatedly pressing a cursor key would highlight a portion of text whereas holding down <CTRL> and repeatedly pressing a cursor key would move the cursor in large steps (a word at a time, say).

Numeric Keys

The keys of the numeric keypad can be used as a calculator with the calculator application software which comes included with your computer. This capability is useful because the numbers are neatly arranged in close proximity to allow you to enter lengthy sequences of numbers easily and speedily. When used in conjunction with the

<ALT> key, they also enable access to the ASCII code characters which do not appear on the keyboard. See APPENDIX D.

Special key combinations

Key combinations using <SHIFT>, <ALT>, and <CTRL> have been mentioned. Here are a few of the more common key combinations, used by many software applications, which you might find useful.

<CTRL>+'X'	eXtract or cut
<CTRL>+'C'	Copy
<CTRL>+'V'	Paste
<CTRL>+'U'	- Underline (in a word processor) - Clear Writable Icon text
<CTRL>+<f2>	Close active window
<ALT>+<BREAK>	Stop an active task or software application
<SHIFT>+<f12>	Toggle the Icon Bar to the front or back of the stack
<CTRL>+<f12>	Open a task window (CLI in the Desktop)
<CTRL>+<SHIFT>+<f12>	Shutdown
<R>+Power-On	Perform a 'Soft reset' (if CMOS is unprotected)
<Del>+Power-On	Perform a 'Hard reset' (if CMOS is unprotected)

As an example, if you had typed in a document, a letter for instance, and saved already, and your Printer software was active: you could save, print, then close it quite quickly and easily by using the following combination in sequence:

<f3>,<RETURN>,<PRINT>,<RETURN>,<CTRL>+<f2>

When to use the keyboard

In general, the keyboard is used for direct input of information into the computer (the mouse

is generally used to control the computer).

9. Using applications

What are applications?

An application is a collection of program files and resources which, together, form a co-operative set of instructions and (usually) a user interface in order to perform a specific task. To give an example, a Word Processor application will consist of the program itself to process the information whch is typed into the computer, a user interface for the person doing the typing to control (along with the graphical resources and templates for doing this), and a dictionary for checking spelling - amongst various other utilities. This is the same for any computer platform. Where RISC OS is concerned, it is all contained, typically, within a single application directory. There are many different applications, for performing a wide variety of tasks. Games, too, are software applications.

Starting an application

Simply double-click **SELECT** on an application's icon in order to activate it. In the vast majority of instances, when active, the application icon with appear toward the right-hand side of the Icon Bar and its functionality can be control from the icon. Some applications might not place an icon on the Icon Bar, other might simply function running in the background.
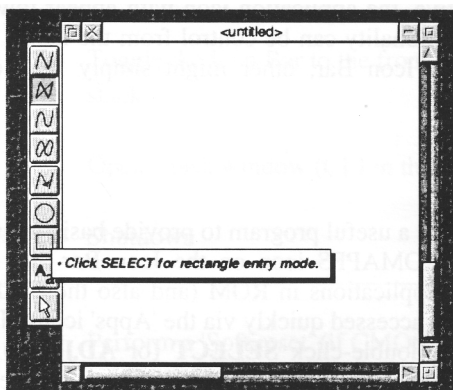
Using applications

Let's take !Help, for example. It is a useful program to provide basic interactive help for the user. Click **SELECT** on the ROMAPPS icon on the Icon Bar and the filer directory window will open showing the applications in ROM (and also those added as part of the boot sequence so that they can be accessed quickly via the 'Apps' icon). In this window you will find the !Help application, double-click **SELECT** (or **ADJUST**) on it to load the application. Once an application is active its icon will appear on the Icon Bar, in this instance it will be on the right-hand side. Click **MENU** on its icon on the Icon Bar and you will see three options listed: Info (leading to a submenu telling you about the program), Suspend (which stops the programs helpful information from popping up continually but still keeps the application active - when this application is suspended, it's blue icon turns to grey in colour), and Quit (which will 'kill' the application). Some applications will have additional options in the application icon menu but almost all will definitely have Info and Quit.
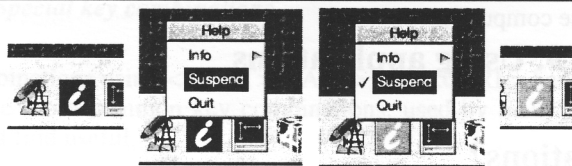
Continuing with !Help as an illustration, clicking **SELECT** or **ADJUST** on the !Help icon on the Icon Bar will re-activate the interactive help (its icon is shown in full colour, blue) and clicking **SELECT** or **ADJUST** on the icon will suspend it again (the icon will become 'greyed out'). Whilst you are getting to know RISC OS, it might be useful to have the !Help application active. Some programs make great use of the interative help application so that it works alongside to help you learn what functions that program has. Go back to the Apps icon on the icon bar and load !Draw. As with !Help, the icon will appear on the Icon Bar. Now, with !Help active, click **SELECT** on the !Draw icon on the Icon Bar to open a new document window and move the pointer around the toolbar, which runs up the left-hand side of the window - notice how the !Help application identifies for you the function of each tool, it can provide similar help for other programs (provided they have been written to utilise !Help).


Using more than one application window

!Help does not have its own document windows, rather it has pop-up labels to identify the name or function of other items in the desktop. !Draw, on the other hadn, is a good example of a program which creates documents. Clicking **SELECT** on the !Draw application icon on the Icon Bar opens a new document window. You are not restricted to only one window per application open at any one time, nor are you restricted to running only one application at a time. It is possible to have multiple windows open and also to have lots of different applications running simultaneously - the only restriction is the amount of working space (RAM) you have to operate in (which can be upgraded to 256MegaBytes, physically) and your own ability to juggle several operations at once.

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Although the computer will multi-task operations, there can be only one focus for input at any time.
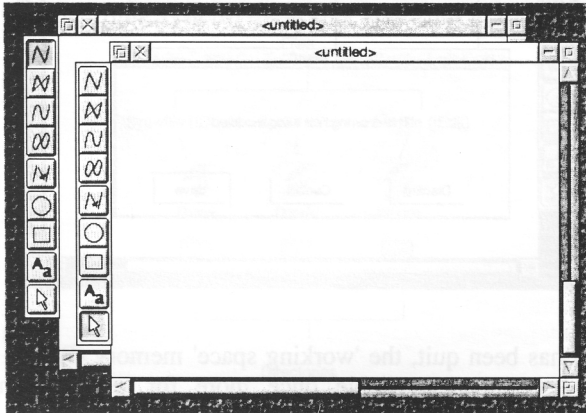
Quitting applications
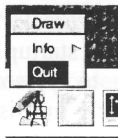
To quit an active application, move the pointer over the active application icon on the Icon Bar, click MENU, move up the list to the 'Quit' option and then click SELECT to quit. With some software title, if you have any open documents in that application which have not been saved (or which have had alterations made to them since the last time you saved) you will be prompted to save by the appearance of a dialogue box asking if you want to save the document, discard it, or cancel the instruction to quit.
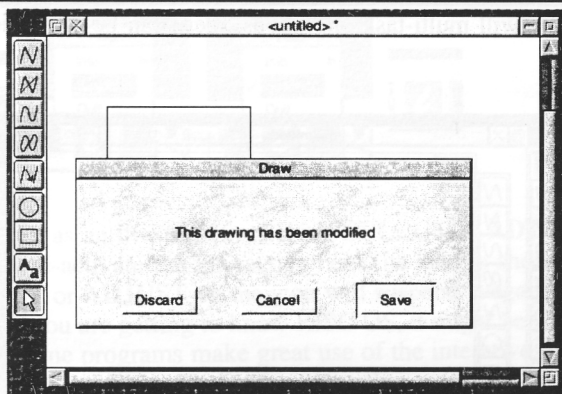
Once an application has been quit, the 'working space' memory (RAM) which it occupied when it was active becomes available once more for use by other programs and applications.

The Boot application

The Boot application is a structured collection of files, directories, and applications which the computer recognises and implements sequentially on startup. It also contains the means for configuring the computer's settings according to personal preference or desired functionality. Once the computer has 'booted' properly and is operating in the Desktop, double-clicking SELECT on !Boot will activate the computer's configuration program. Although RISC OS resides primarily in ROM (the operating system software is held in Read-Only Memory chips) supplementary resources, resident on the hard disc, can be added to provide extended functionality or personalised customisation. Within the Boot application are stored shared system resources such as Font (letter-type redrawing) information, for example. Resources such as Fonts can be updated and added to via the machine's configuration application.

10. Files and directories

Just like a filing cabinet in an office, you can organise the content of your computer's hard disc (or any other writable filing system) by storing your files in folders (directories).
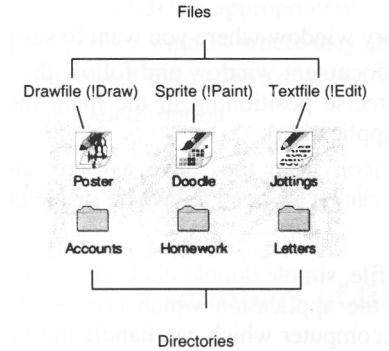
When you open a folder/directory its icon changes to show that is is open and a new filer directory window appears displaying the content of that folder. When the folder is closed, the directory folder icon changes back to that of a closed folder.

A closed filer directory folder icon:

An open filer directory folder icon:

Creating a new directory

- Open the filer directory window in which you want the new directory to be created.
- Position the pointer inside that filer directory window.
- Click MENU and move down the list to the 'New directory' option.
- Follow the arrow to the submenu and type in a name for the new directory in the writable-icon (alternatively, you might choose to use the default name 'Directory' for the new directory).

If a directory already exists with the same name then nothing will happen. You will not be presented with any error message and you will not do any harm to the existing structure or directory content.

Saving (and loading) a file

When a document is ready to be saved (either upon completion, saving it for future reference or distribution, or part-way through, so that it might be continued with at a future time),

- open the filer directory window where you want to save your file
- click MENU in the document window and follow the menu options to find the ' Save as' box (it's precise positioning in the main menu might differ slightly from application to application).
- drag the document icon from the 'Save as' box and drop it into the filer directory window (it can be dropped anywhere inside the window)

When it comes to loading a file, simple double-click SELECT (or ADJUST) on the file icon and it will be loaded into the application which created it. If there is more than one application present on your computer which can handle the same type of file, then it could be loaded into whichever the system has seen first or whichever is already active. To specify an application to load a file into, you can drag the file icon onto the active application icon on the Icon Bar.

Copying (and moving) a file (or directory) to another location
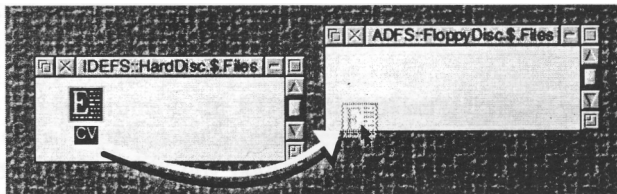
- Open both the source and destination filer directory windows so that both are visible in the Desktop (and so that you can see the icon for the file or directory you wish to copy).

- Using SELECT, drag and drop the object you want to copy from the source location to the destination.

In order to move (shift) the object rather than copy it, hold down the <SHIFT> key as you perform the 'drag and drop' process.

Deleting files and directories

In order to delete an object (or a collection of objects) be they files or directories or both,

- select them using SELECT or ADJUST appropriately
- click MENU in the filer directory window where they are located
- move to the 'selection' option and follow the arrow the the submenu
- then click SELECT on the 'Delete' option

Both copying/moving and deletion processes can be done to multiple files or directories (and any mixture of them).

Long filenames and large numbers of files per directory

Your hard disc will have been set up during the manufacture build to use the new F+ format. The F+ disc format, which is a feature of RISC OS 4, supports long filenames (you may give a file a name of any length but the pathname must not exceed 255 characters in length - if you try to give a file a name whereby its full pathname uses more than 255 characters then you will get the error message "Path length too long for Filer" to remedy this either rename the file using a shorter name or move it higher up the filer heirarchy where the pathname will use fewer character whilst retaining the same filename). You may not use 'illegal' characters such as £ $ % & in naming files since these are used by RISC OS. Whilst enjoying the ability to give your files and directories long names (which can help in identifying their content) you may also store as many item within any directory as you like (up to about 80,000 items).

Compatibility with non-RISC OS 4 machines

RISC OS 4 is fully compatible with old-format discs, so you can plug an older format RISC OS disc straight into your RISC OS 4 machine without problems.

If you wish to format a floppy disc so that it is compatible with a RISC OS 3.7 or earlier machine, simply select "F format" for high density discs or "E format" for low density ones. Don't use the "+" variants if you wish your discs to be accessible on all RISC OS machines.

Note that the Acorn A3000 and older models can only read low-density (e.g. 800K) formats, properly formatted on low-density discs.

Compatibility with applications

RISC OS 4's support for the F+ disc format retains as much compatibility as possible with older software. You might find some older applications (eg. the Impression family of word processing software application from Computer Concepts) which restrict you to 10 characters when saving, but they have no problems accessing long filename documents or running from a new format hard disc. If you find any incompatabilities with the software you are trying to run, please contact your computer supplier or the software distributor/ author to obtain a more recent version.

Changing a file or directory name

<ALT>-Click on a filename to alter it

If you hold down the Alt key on the keyboard and click on a filename in a filer window, a white box will appear around it, and you will be able to edit it using the cursor keys.

Saving/Dragging to disc icons

You can save or drag a file to the disc icons to the left of the Icon Bar, and your computer will save the file to that disc. This can be especially useful if you have a RAM disc set up, as this feature makes it an ideal temporary location for downloaded files or incomplete work. At present, this feature has *not* been implemented to work with EIDE (IDEFS) [or SCSI] - the RiseStation R7500 uses IDEFS as its hard disc filing system so you will not be able to use this feature in conjunction with the hard disc. It will work with RAMFS, MEMFS, and ADFS (floppy discs).

Set Directory on the Filer menu

Pressing the Menu mouse button over a Filer window displays the Filer menu. There is an option Set Directory which sets the "CSD" (Currently Selected Directory) to that folder. This is particularly helpful to programmers or people running non-desktop applications, as the CSD is always the first place the computer looks for files. In addition, many applications will save to the CSD if they aren't given a full location, making it much easier to set your "work" directory and save straight into it.

Confirm Deletes on Filer menu

On the Options sub-menu of the Filer menu is the Confirm Deletes setting. With this set, all copies, renames and other non-dangerous actions will be carried out without asking you for confirmation, but file deletions will prompt you before taking place.
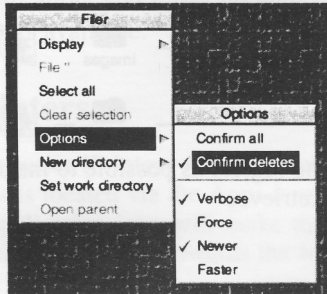
Spaces in filenames

If you want to insert a blank space into a filename, hold the Alt key when pressing the space bar. This will actually be a "hard space".
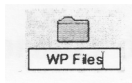

Structure

As you use your computer and create new files you will, no doubt, wish to store them (on your hard disc) for future reference. With RISC OS 4's flexibility in allowing an almost unlimited number of items within each filer directory and permitting very long filenames it would be easy for your hard disc to become cluttered and disorganised. It is recommended that some structure be applied to the content of your hard disc to keep your files and directories in line with a structured system so that you can quickly and easily find the documents and resources you need when you need to get at them. We do not impose a method of organising your hard disc, each user will have their own preferred system of filing in mind.

You might choose to organise you files according to type (all Drawfiles together, all textfiles together, etc.) or maybe group files according to their subject matter (correspondances in one folder, drawing in another, etc.). The choices is entirely yours -here are a couple of examples to guide you:
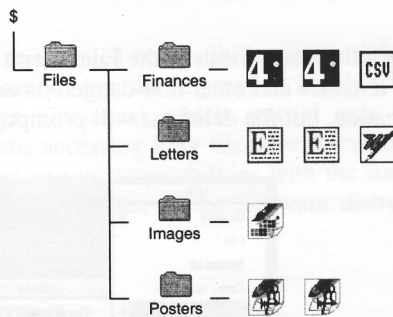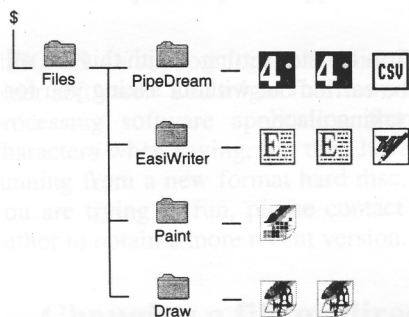
The best advice is to keep things as simple and logical as possible to make it easier for you to find the information you wish to keep and retrieve.

11. Printing

RISC OS uses a generic printer driver software application which will enable you to connect to a wide range of makes and models of printer. Essentially, the application comes blank by default and you then tell it what make and model of printer you are using, since different users have different printing requirements. A selection of printer definition files is provided which will allow you to set up your computer to communicate with many of the more popular printers available.

Load !Printers

The application software !Printers which comes supplied with your RiscStation computer is version 1.62. This is located via the Apps icon on the Icon Bar. Double-clicking SELECT on the !Printers application icon will make the printer driver software active. When it is active, it will sit on the Icon Bar towards the left-hand side. If the Printers application icon on the Icon Bar is greyed-out and says 'printers' underneath it then it has not been set up yet, or the settings which might have been implemented have not been saved, so you will need to set it up for your particular make and model of printer and save the settings for subsequent occasions.

Once your !Printers application has been configured appropriately, and the configuration options have been saved, then the Printers icon will appear on the Icon Bar **in colour.**

Load a printer driver

In order for the printer to understand the information being sent to it, the Printers application needs to be set up using the information from an appropriate printer definition file. Inside the 'Printing' directory on the hard disc is a directory named 'Printers' which contains these printer definition files. Locate the printer definition file which matches your make and model of printer (if there is not an exact match, your printer supplier should be able to recommend a suitable printer definition file for you to use), double-click on the selected printer definition file and those settings will become active. You may use more that one printer definition at any one time.

In order to keep things simple at this stage, simply loading the appropriate printer definition file is adequate for the time-being. When you are ready to make further alterations to the printing configuration, you can consult the online manual (User Guide) on your hard disc.

Save the settings
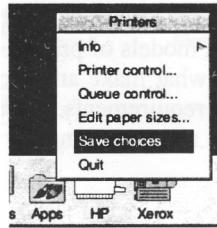
Click MENU on the printers application icon on the Icon Bar, move up the list to the 'Save setting' option and click SELECT.

Different ways of starting the printing process

Printing a file using the Print menu option

The long-hand way of printing a document is to position the pointer inside the document window, click MENU, locate the 'Print' option (which might be in a submenu depending on the application being used), and then click with SELECT to open the print dialogue box.

Printing a file using the Print Scrn key on the keyboard

Pressing the <PRINT> key on the keyboard will bring up on screen the printer dialogue box for the application in which you are currently working. When this window appears you will have the option of printing (for which you can simply press <RETURN>), adding certain conditions such as how many pages and orientation etc. depending on the application, or cancelling the print command.

Another method of printing (drag and drop)

If you have a document which you have saved to disc (hard disc or floppy disc...) then you can simply drag the file from its filer directory window onto the active printers application icon on the Icon Bar to send it straight to the printer. If it needs to (and if it can locate it) the computer will automatically load the appropriate application to enable any application resources it might require.

12. Switching off the computer

In order to prevent any possibility of data loass or corruption to the hard disc, it is recommended that the following method of shutting down the computer be followed.

Normal shutdown procedure

When you have finished using you computer and are ready to switch it off, the proper procedure for shutting the machine down is:

- Move the pointer to the RISC OS 4 CUBE on the right-hand side of the Icon Bar and click MENU on it. Move up the list to the 'Shutdown' option and click **SELECT.** If you are presented with a confirmation dialogue box (according to the configuration of the machine - using the Configuration tool, you can choose whether or not to have a shutdown warning) then press 'Shutdown' or 'Cancel' as required. (Alternatively, you could use the combination of keys <CTRL>+< SHIFT>+<f12> as a shortcut).

- Now switch off the computer by pressing in (and holding) the Power button until you hear the TWO beeps (you will also hear the hard drive stop spinning).

- If you attempt to shutdown whilst there are still applications active with unsaved data, then you will be prompted by an dialogue box to confirm your actions since the content of the computer's working memory is not retained when the power is turned off - only files which have been saved to disc will be kept.

- You are also able to shutdown, and optionally stwich off (go into standby mode) at the same time, at a pre-determined time using the Power Management application software either in the Utilities directory on the hard disc/CD ROM, or available via the RiscStation website.

Summary

The intention of this Welcome Guide has been to get you started with your new RiscStation R7500 computer.

For further guidance, please consult the online User Guide which can be found on the hard disc (there is also a copy on the backup system CD which accompanies your computer). This is in HTML format and can be read using the web browser provided.

As you progress and develop your skills and interest in using your RISC OS computer, you might consider joining a local 'Acorn' User Group, reading one or more of the popular RISC OS speciality magazines or other relevant publications, or even subscribing to the various RISC OS (Acorn) newsgroups on the Internet.

Do not be afraid to ask your local RiscStation dealer for advice and assistance, they'll be more than happy to help.

We hope you will enjoy and benefit from using your new RiscStation computer.

APPENDIX A: Configuration

The RISC OS 4 configuration tool gives you great control over your system, making it easy for you to set up the machine according to your own personal preference. In addition, it allows 3rd party developers to add their own windows to simplify the setting up of peripherals and expansion cards or other enhancements.
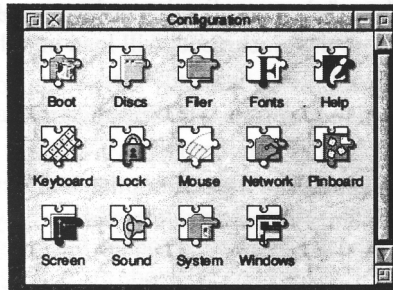
To launch the Configure tool, double click on the !Boot folder in the root directory of your main hard disc.

Pressing the Menu mouse button over the main window allows you to load and save the whole set of CMOS (internal to your computer) settings, to make it easier to bring back your system should it be necessary to reset it to its factory defaults.

You can also load the !Help utility and reset your machine back to its factory settings.

The Boot Tool

This offers a way of setting up how your system boots up. The Boot sequence tool consists of four sections:
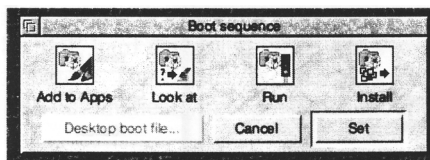
Clicking on each button opens a window allowing you to drag in applications and directories. If you drag a directory to one of these windows, the effect will be applied to everything in that folder. **Note that you will have to reboot for changes to take effect.**

The four options are:

**Add to Apps:** Allows you to drag in applications or folders of applications, to add them to your Apps folder available from the Apps Icon Bar icon.

Look at: Applications and folders dragged to the Look at window will be " booted" when your system starts up. This means that your computer will have "seen" these applications whenever you start your computer up in future, so that documents will load into the correct programs when you double click on them.

Run: This allows you to choose which applications are automatically loaded every time you start your computer.

Install: Slightly different from the other options, this enables you to upgrade your !Boot should a new version be released by RiscStation Ltd.

Finally, the `Desktop boot file button` allows you alter your startup file manually.

Taking the `Add to Apps` window as an example, it works as follows:
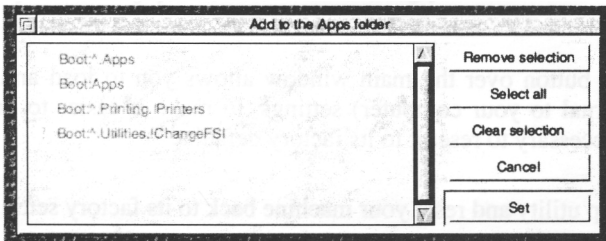
The majority of the window is taken up by a scrolling list of applications and directories. Those shown in grey ("greyed out") are special folders or applications which your system needs. You cannot remove these.
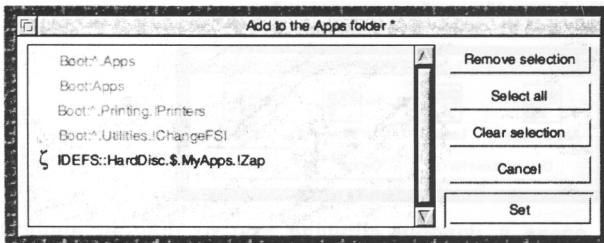
Dragging an application or folder to the window will add it to the list. In the example above, the !Zap application (a textual file editor) has been added, in this case to the Apps folder, which you can open from the Apps icon to the left of the Icon Bar at the bottom of your screen. Notice that it is not in a standard place on the hard disc - in the MyApps sub-

directory of the root directory of the hard disc. The Add to Apps utility allows us to make the !Zap application appear in the Apps folder, even though it has been placed in its own folder elsewhere on the hard disc. Added applications should not be stored on floppy or CD, as the discs may not be available later.

The !Zap application has been added by the user and is not part of the standard system settings, so it is shown in colour. This means that you can click on it, and press the `Remove selection` button to remove it from your Apps folder again.

In the past, the only way to achieve this function was to place a copy of the application in one of the folders shown in grey by hand, but thanks to the Boot Configure tool, the process is much easier.

Both the `Look at` and `Run` windows work in exactly the same way. System folders/ applications are shown in grey and cannot be removed, whilst applications and folders can be added/removed by the user and are shown in colour.

The Discs tool
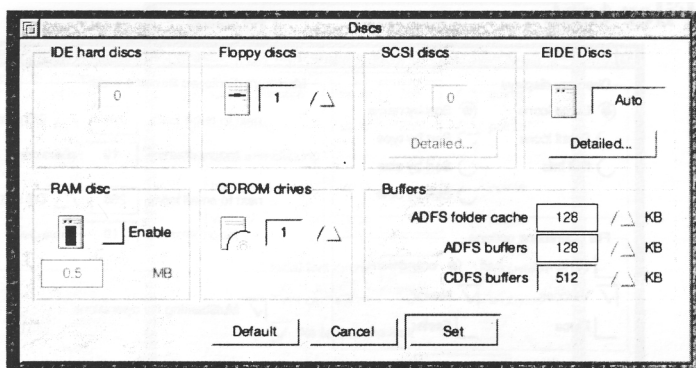
Your RiscStation computer uses the EIDE interface (not the basic IDE interface as in most RISC OS computers). The 'IDE hard discs' and 'SCSI discs' options are greyed since they are not present in this computer. The Simtec/Wonderworks EIDE interface is integrated into the motherboard and will automatically recognise and mount properly formatted discs.

A detailed guide to using the !IDETooI application can be found on the hard disc (and on the backup CD ROM).

As memory prices continue to plummet, it is not unusual to find RISC OS computers with larger quantities of memory - 32, 64 or 128MegaBytes machines are quite common. Since RISC OS applications are, in the main, quite small in terms of RAM requirements, it can be very useful to allocate a few megabytes of memory to a RAM disc. This is a disc which

loses it contents when your machine is rebooted or turned off, but which is extremely fast and makes an ideal "temporary" storage space, especially when coupled with RISC OS 4's " save to icon on the Icon Bar" feature. Once you have enabled the RAM disc, you can set its size in the field below.

Buffers

The final section of the Discs window is the Buffers box. The first option - ADFS folder cache - refers to the amount of memory used to remember the contents of directories via ADFS. This makes accessing folders (from floppy discs) much faster.

The ADFS buffers option has a similar performance benefit. ADFS discs in your computer can have key bits of data buffered in your computer's memory to speed up the accessing of files.

Finally, CDFS buffers are very similar to ADFS buffers, except that they cache data from CDs, making CD access much quicker.

The Filer tool
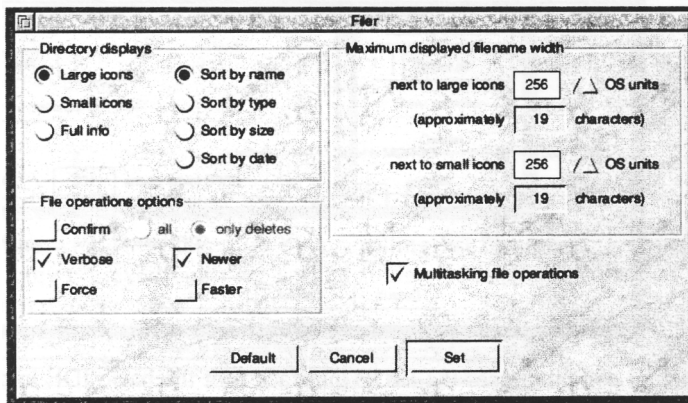
- Large icons shows files with full-size icons and is the usual way of looking at files on your discs.
- Small icons uses quarter size icons to allow you to fit more icons on your screen, whilst
- Full info uses a list view to show all the details about file size, time created and type of file.
- The sorting options are a matter of taste as to which you prefer. The default is to sort alphabetically by name.

Below these options are the default settings for file operations - copy, delete, move etc. You can choose whether you wish to

- `Confirm all` operations, only deletes or none at all.
- `Verbose` specifies whether a detailed window is displayed showing information on the operation in progress.
- `Force` specifies whether copy/move operations should always overwrite anything they are copied on top of, whilst
- `Newer` prevents overwriting of more recent files by older ones.
- `Faster` speeds up the operations by giving the system less time to multitask.

The maximum display widths for filenames sets the number of characters shown in filer windows.

If you disable multitasking file operations, you will be unable do anything during file operations, so don't disable it unless you're sure.

The Fonts tool
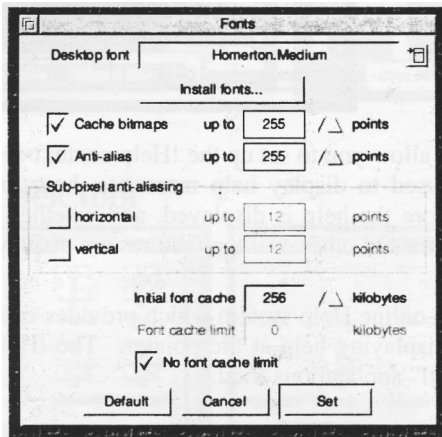
The Desktop font is used to display all text on windows and menus. It is very much a matter of personal preference which font you choose.

The `Cache bitmaps` and `Anti-alias` options are inter-related. You cannot anti-alias sizes above that for which you cache bitmaps. Cacheing a font causes it to be remembered at a particular size and weight in memory, making drawing much faster. Anti-aliasing causes the curved edges of fonts to "blur" slightly making them look much smoother and more elegant. Although anti-aliasing is only supposed to make a difference at point sizes up to about 40 point, the effect is still evident and pleasing at much larger sizes. Those shown are the maximum settings (255) which means that fonts displayed up to a point size of 255 will be drawn smoothly by the computer. The effort required by anti-aliasing means a small

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performance hit, but this is not significant on modern machines.

Sub-pixel anti-aliasing goes one step further than normal anti-aliasing by smoothing text together at very small font sizes. This allows kerning to appear correct in such circumstances when a single pixel is too large a measure. You should be aware that it can slow the operating system if set to a large value and is rarely needed for sizes much above 8 point. It also uses a lot of RAM.

The initial and limit values for the font cache specify how much memory is allocated to remembering fonts to speed up the drawing of them. The initial font cache will always be allocated, but as more weights are used, it may grow to the value set as the limit. Setting `No font cache limit` will allow the cache to grow as needed.

The Help tool
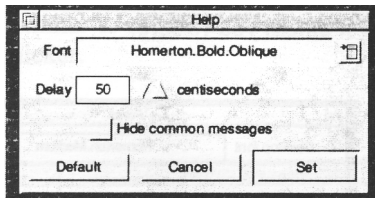
This tool is provided to allow you to set up the !Help context-sensitive help utility. You can choose which font is used to display help messages, how long you have to leave your pointer over things before the help is displayed, and whether or not "common" messages about windows, scrollbars and other desktop features are displayed.

RISC OS 4 provides an online Help system which provides context-sensitive help on icons, windows, and menus displaying help at the pointer. The !Help utility is fully compatible with all existing "helpful" applications tried.

In addition, the !Help utility allows you to disable the more common RISC OS 4 help messages, making it much less intrusive. The Help Configure tool can be used to set which font is to be used by the !Help utility, whether common messages are shown or not, and the time delay before the help appears.

To start up the new !Help, open the Apps folder from your Icon Bar, and double click on ! Help or, in the Configuration window, click MENU to open the Confiuration menu, then click SELECT on "Help..." to launch the !Help application. You can now point to anything that you wish to receive information about. To trigger the help message, you must leave your pointer motionless for a brief (adjustable) period until the information appears.
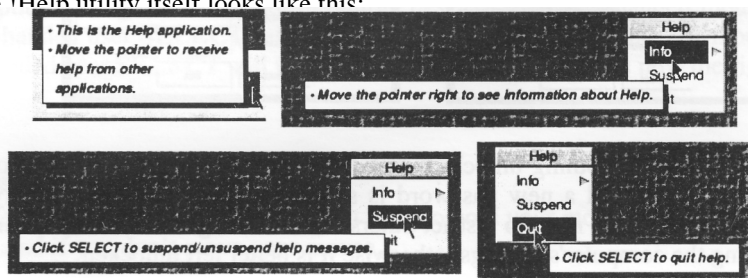
active   suspended

When active, the !Help application sits on the right-hand side of the Icon Bar. The help it provides can be suspended by clicking either SELECT or ADJUST on the icon which will become greyed-out when suspended and return to its usual blue colour when active. Alternatively, you can click MENU on the !Help icon on the Icon Bar and SELECT the " Suspend" option (a tick will be shown against the menu option when it is suspended, as well as the icon itself becoming greyed-out).

Help on the !Help utility itself looks like this:

- This is the Help application.
- Move the pointer to receive help from other applications.

· Move the pointer right to see information about Help.

Help
Info
Suspend

Help
Info
Suspend

· Click SELECT to suspend/unsuspend help messages.

Help
Info
Suspend
Quit

· Click SELECT to quit help.

The Hard disc Lock tool
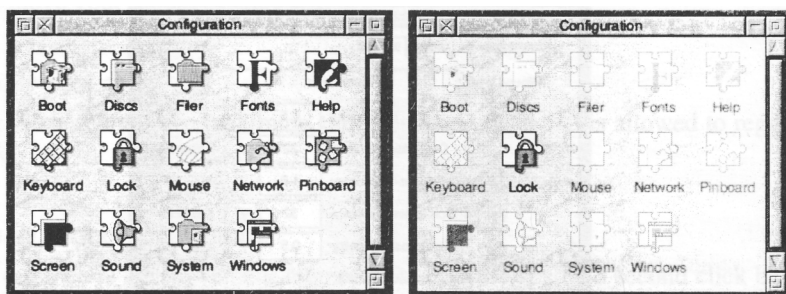
This tool allows you to protect your hard disc with a password. It also prevents the computer's configuration settings from being changed without the password having been entered. Discs which are protected only allow access to the "Public" folder (and certain other areas where some applications need to write temporary or configuration files).

When setting a password you must provide it twice for confirmation. You can lock and unlock a disc, or change its password. The status of the disc is shown at the top of the window.

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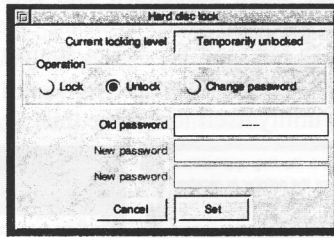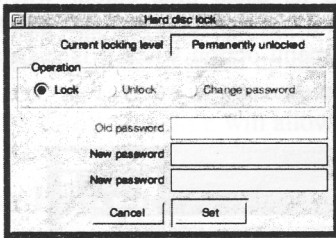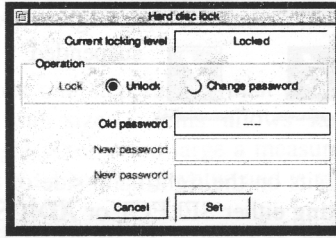
Setting the password to nothing unlocks a disc "permanently" (persistently) as opposed to for that session only, until a new password is set. In general, you should only consider locking your system if you need to restrict others from deleting content from your hard disc or from altering the computer's settings, otherwise it is better left unlocked.

The Mouse tool
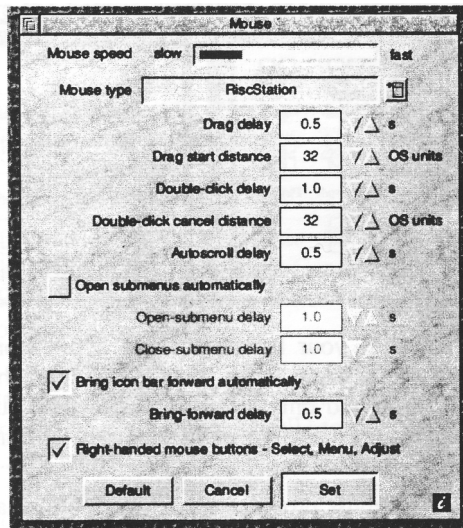
- *Mouse Speed*

The first icon is a slider to allow you to set how rapidly your mouse moves. At larger screen resolutions you might well want to set this to a slightly faster value in order to travel around the screen without running out of mouse mat!

- *Mouse type*

The PS2 option is selected by default. This is how the mouse physically connects to the computer.

- ***Right-handed mouse buttons***

Tick this option for right-handed mouse button, deselect it for left-handed mouse buttons. For a right-handed user **SELECT** falls under the index finger and is the left mouse button: for a left-handed user **SELECT** still falls under the index finger but is now the right mouse button.

- ***Drag delay***

The Drag delay is the length of time that you have to hold your mouse button down before a drag is initiated if you don't move your mouse.

- ***Drag start distance***

The Drag start distance is the alternative way of initiating a drag, and determines how far you have to move your mouse to start one.

- ***Double click delay***

The Double click delay is the maximum time between clicks that is allowed to register as a double click.

- ***Double click cancel distance***

The cancel distance is the movement required between the first and second click before the second click is automatically deemed to be a new click rather than the second half of a double click.

- ***Open submenus automatically***

Open submenus automatically determines whether the computer opens sub-menus for you if you rest for a while on a menu option.

• *Bring Icon Bar forward automatically*

The Icon Bar to front option sets how long you have to leave your pointer at the bottom of the screen before the Icon Bar pops to the front of the stack.

The Network tool
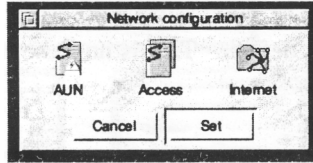
This Configure tool allows you to set up all aspects of inter-computer communication. It is primarily designed around Local Area Networks (LANs) and internet access via the built-in Ethernet network port (through a router or other gateway). Dialup Internet access should be configured elsewhere, such as in your internet/modem logon software.

There are three separate sections

• *AUN*

This stands for Acorn Universal Networking and is designed to support Acorn's AUN Level 4 networking structure. These are often found in schools.

• *Access*

This is the peer-to-peer networking protocol used by RISC OS machines. It allows drives and printers to be shared around a local network. It is quick and easy to set up, and is the system of choice for many small RISC OS networks.

• *Internet*

The section which applies to the setting up of TCP/IP networks. This is more complex than either of the above, but is necessary if you envisage multi-platform networking, especially if you are planning networked Internet access.

For further details on network configuration, please consult your Network Administrator or local dealer / supplier.

The Pinboard tool
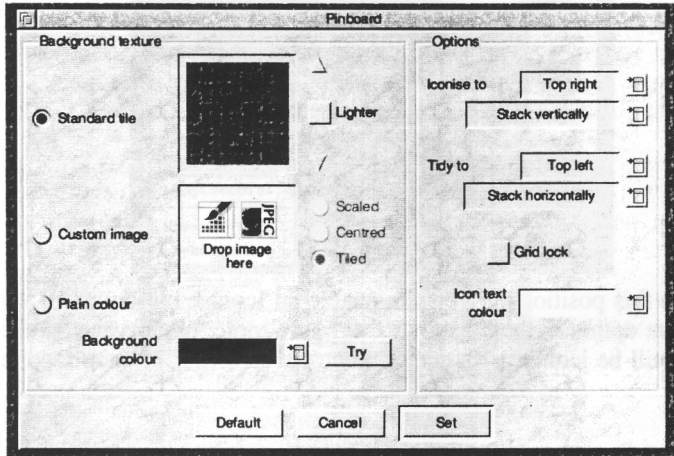
This window provides all the options necessary to set up your Pinboard backdrop and the behaviour of pinned items.

The R7500 comes supplied with a range of standard "tiles" - attractive low-memory images which tile nicely to produce a clean, crisp background to the desktop. They are provided in both dark and light varieties.

Alternatively, you can provide your own image, which can be centred on the backdrop, scaled to fit it, or tiled side by side, up and down. You can use both sprites and JPEGs (and if you are running ImageFS 2 it will allow the use of almost any type of image). If you plan to use a high colour image in a low colour depth mode, then you may wish to convert it with !ChangeFSl beforehand, as this usually gives better colour rendition through dithering.

If you are short on memory, or simply want a non-intrusive background, you can specify a non-patterned, plain colour.

Iconise

Holding down the shift key when closing a window reduces it to an icon on the Pinboard (known as iconising). You can iconise to the various corners of the screen, and to the Icon Bar, making it much simpler to find iconised windows. You can set this in the Pinboard Configure tool or from the Pinboard menu: Options -> Iconise windows.
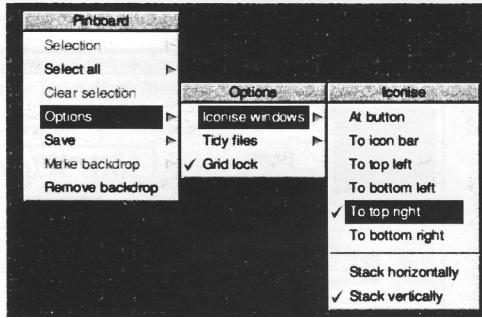
In addition to this positioning, you can enable an Iconise button on all windows by setting the appropriate option in the Windows Configure tool. Whenever you click on this button, the window will be iconised. Simply double-click SELECT on an iconised window to reopen it.
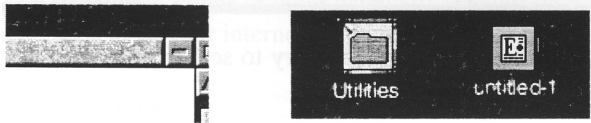
- *Tidy*

If you highlight a group of icons on the Pinboard, you can use the Tidy option on the Selection menu to tidy them to a particular corner of the screen. You can also specify if they are tidied horizontally or vertically. The location you tidy to can be set via the Options menu. This makes it much easier to organise your Pinboard.

- *Changing the text colour*

If you have a very light background selected, having the text associated with pinboard icons displayed in white can make them difficult to see. To improve visibility, RISC OS 4 allows you to set the colour used in the Pinboard Configure tool.

- *Single colour backdrops*

You can now choose a colour from the Pinboard Configure tool and achieve an attractive backdrop without any of the memory overheads associated with background graphics.

Grid lock forces pinned icons to a grid spacing, and the colour used for the text below pinned icons can also be set.

The Screen tool
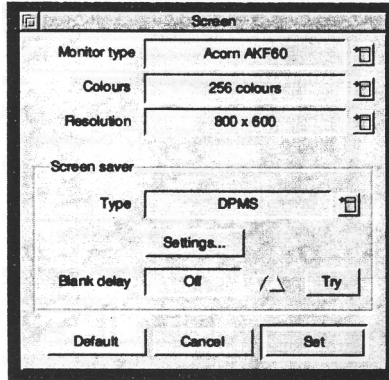
The top half of this window allows the selection of monitor type, colour depth and resolution. If your monitor isn't listed, don't be afraid to use one of the other definitions, as there is nothing inherently monitor-specific in the files. However, if you are using a monitor type that doesn't match your actual display, you should refer to the documentation supplied with your monitor to make sure that you don't select a resolution/refresh rate which might exceed the specifications.

RISC OS 4 features a standardised Screensave protocol. This allows screen savers to be plugged into your system easily. A range of savers is supplied as standard with RISC OS 4.

Some screen savers may have options associated with them. Click the Settings . . . button to alter these.

Below this you can select the length of time taken before the screen saver is activated. Please note that if you are running single-tasking applications (ie. those that run full screen out of the desktop) you will only see the standard "black screen" saver.

Some software applications have an "autosave" or "autosave with prompt" feature. This might prevent the activation of the screensaver or the screensave might prevent autosave functions operating.

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The Sound Setup tool
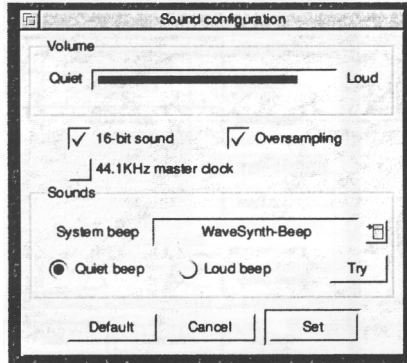
Since all RISC OS machines have built-in sound systems, there is very little to change here. In general RISC OS will autodetect what sound hardware is fitted to your machine. A tick box option allows you to set the master clock rate to 44.1KHz ifor improved playback quality of sampled audio (e.g. from a music CD).

The System tool
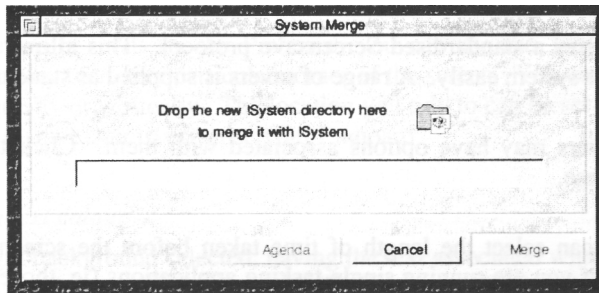
If an application comes with its own !System folder, drag it here to update the !System folder on your hard disc: the new modular software contained within the new !System folder will be copied into the correct place in the active !System folder inside your !Boot structure. You should only have one !System folder on your computer.

The Windows tool
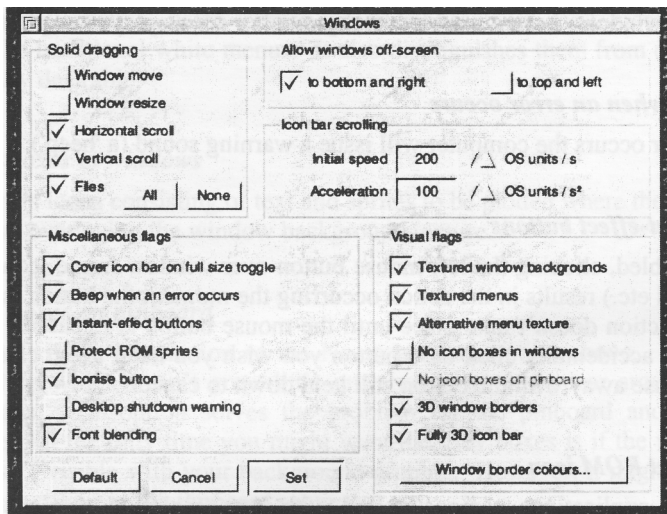
With a visual operating system as RISC OS 4, it is inevitable that the configuration options for the windows themselves be one of the most extensive.

Starting at the top left, the `Solid dragging` box controls which dragging options have " instant effect solid dragging" and which merely drag an outline box. The outline box requires less processing power, but your RiscStation computer will give smooth solid dragging.

To the right of these options you can set which sides of the display allow windows to slide off-screen. Disabling this makes the workable area of the Desktop much smaller.

When your Icon Bar becomes full, it will scroll left and right when you move the pointer to each end. The `Icon bar scrolling` settings allow you to set the scroll speed and acceleration.

Underneath these options are a variety of other visual settings:

     • *Cover icon bar on full size toggle*
Specifies whether or not windows overlap the icon bar at the bottom of the screen when you click on the toggle size (maximise) button at the top right hand corner of windows.

- *Textured window backgrounds*

Sets whether windows have a marbled background or are displayed as plain grey.

- *Beep when an error occurs*

When an error occurs the computer will issue a warning sound (a beep').

- *Instant-effect buttons*

With this enabled, clicking the left mouse button over window frame icons (eg. close, send to back, scroll etc.) results in the action occurring the moment the button is depressed. With it unset, the action doesn't take place until the mouse button is released. This provides an escape if you accidentally click on a button you wish you hadn't (eg. close) since you can move the mouse away with the button still held down to cancel.

- *Protect ROM icon*

Some legacy applications come supplied with low resolution versions of the standard desktop sprites, and try to load them in on top of the RISC OS 4 set. With this option ticked, the standard sprites will never be replaced, protecting your high resolution icons.

- *Iconise button*

With this option selected, windows will be displayed with a button to iconise them in the top right hand corner, just next to the toggle size (maximise/minimise) button.

- *Desktop shutdown warning*

Controls whether or not an "Are you sure" warning is given when you try to shut your computer down.

- *3D window borders*

This gives all dialogue boxes (windows without scroll bars) and menus an attractive 3D edge. Disable this if you prefer a more simple look.

- *Textured menus*

This option applies a texture to menus. It can either be the standard window backdrop or other user added textures.

- *Alternative menu background*

Gives menus an alternative, paler texture which makes them look more like textured equivalents of the traditional white menus. It also distinguishes them from other windows, which is generally desirable.

- *No icon boxes in windows*

Allows or prevents icons consisting of text and sprites to be plotted where the text is given a solid background overlaying the window background texture.

- *No icon boxes on pinboard*

This is the more visible incarnation of the No icon boxes option above. If you chose a pinboard backdrop which wasn't grey, little grey boxes would appear around all the text beneath the icons. Thisoption solves the problem for the pinboard and other similar windows. Note that the only time you might want the grey boxes is if the text colour you have selected isn't visible with your background graphic. However, it might be easier just to change the text colour in the Pinboard setup tool.

- *Fully 3D icon bar*

Without this option set, the 3D window borders would only be set on the top and bottom of the icon bar (because a full icon bar can scroll left and right). With it set, the left and right edges also become 3D.

- *Window border colours*

With this window, you can set the colours of the 3D edges of windows and menus. This can be useful if you are using your own tiles for these.

The Display Manager

This is the screen icon second from the right hand side of the Icon Bar. It allows you to choose which screen resolution, colour depth and refresh rate you wish to run at.

Click on the icon to open the settings window.
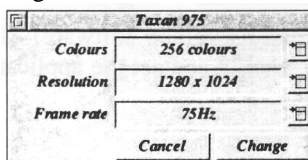
Taxan 975	
Colours	256 colours
Resolution	1280 x 1024
Frame rate	75Hz
	Cancel	Change

You can now see and select the refresh rate you wish to run your screen at via the third icon down.

There are several reasons why you might wish to change the refresh:

- Your monitor may be struggling to display the screen at the present refresh rate.
- Your monitor may be able to handle a higher refresh rate (giving a less flickery picture) than the current setting.
- At high resolutions, you may not be able to get the maximum colour depth and the highest refresh rate. Sometimes dropping down the refresh rate will allow a greater number of colours to be shown without losing desktop space by switching to a lower resolution.
- You might have used up all of the available bandwidth. Reducing the refresh rate lowers the amount of memory required to generate the display.

You will also notice that when you click the Change button to switch to the selected mode, the screen fades out, then in again.

If you set the monitor type incorrectly the display might look greatly distorted or you might simply get no picture displayed at all, please take a look at the Troubleshooting section at the back of this guide to remedy matters if this happens.

Euro support

Unlike earlier versions of RISC OS, RISC OS 4 supports the Euro symbol in all the standard ROM fonts. This gives you access to serif (Trinity), sans-serif (Homerton) and monospaced (Corpus) versions of the symbol in all the common weights. This should allow you to find a Euro symbol for most typographic requirements.

To enter a Euro symbol from the keyboard, press <ALT>-E for the font specific version, or <ALT>-164 for the standard Euro symbol.

Year 2000 compliance

As supplied, RISC OS 4 is fully year 2000 (Y2K) compliant.

Should an application (particularly internet software) show "This application is not Millennium compliant" then you should contact the application's manufacturer and request an update.

Appendix B: Write-protecting your configuration

**IMPORTANT: Take care to observe anti-static precautions if you are
to open the computer's casing and ensure (for your own safety's sake)
that you disconnect from the mains first !**

Once you have set your computer's configuration and are happy with those settings, you
might choose to protect those settings by breaking the link which the RED jumper makes (
you can leave the jumper attached to just one pin without it making the connection). In order
to do this, it will mean opening the computer's case to access the jumper which is located on
the motherboard as illustrated. Once this method of configuration protection has been
implemented it means that even when submitted to a

<DEL>+Power-on 'Hard reset' you compuer will not lose its configuration settings. In order
for you to make alterations to the computer's configuration, the jumper will have to be
replaced. There is only one RED jumper (all the others are black).
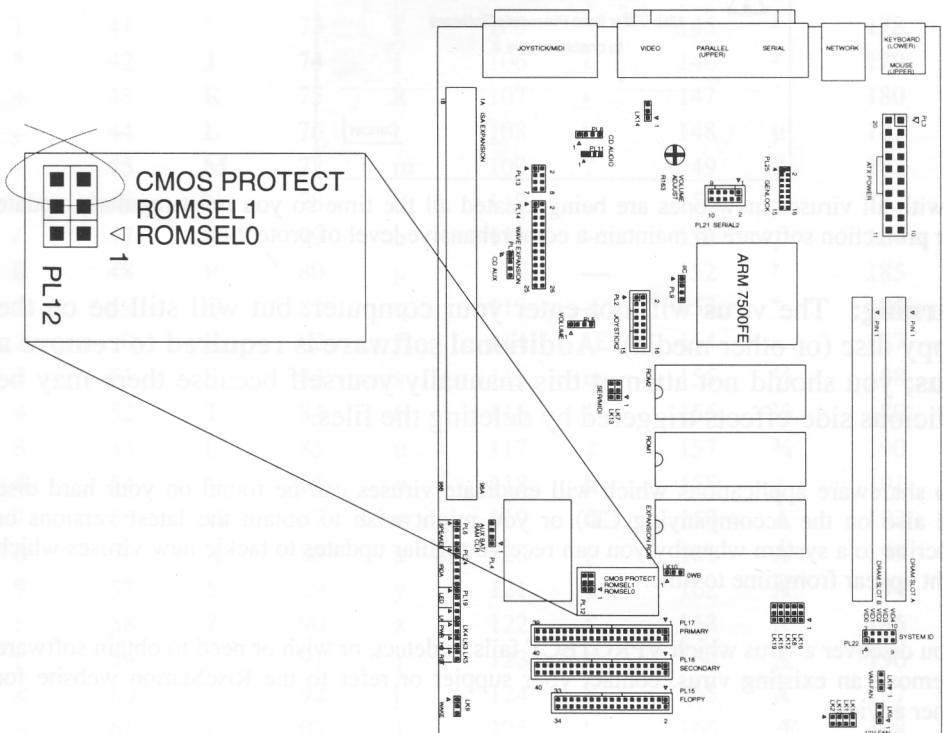
Appendix C: Virus protection

Your RiscStation computer is protected against attack by computer viruses by a program which is constantly on the alert for viruses.

This program, VPROTECT (by Pineapple Software) is loaded automatically as part of the boot sequence whenever you switch on your computer.

Normally, you will not notice the virus protection, it simply runs in the background. However, if you were about to inadvertently load a virus, VPROTECT stops that action from proceeding and brings up a warning such as that shown here:
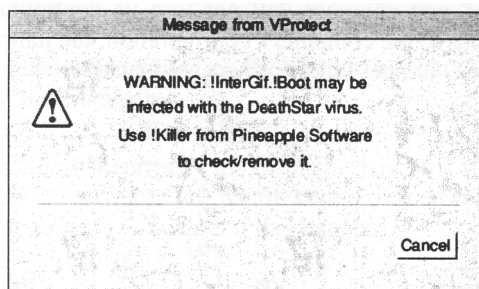
As with all viruses, new ones are being created all the time so you must regularly update your protection software to maintain a comprehansive level of protection.

Warning: The virus will not enter your computer, but will still be on the floppy disc (or other media). **Additional software is required to remove a virus;** you should not attempt this manually yourself because there may be malicious side-effects triggered by deleting the files.

Two shareware applications which will eradicate viruses can be found on your hard disc (and also on the accompanying CD) or you might wish to obtain the latest versions or subscribe to a system whereby you can receive regular updates to tackle new viruses which might appear from time to time.

If you discover a virus which VPROTECT fails to detect, or wish or need to obtain software to remove an existing virus, contact your suppier or refer to the RiscStation website for further advice.

Appendix D: ASCII character codes

Hold down either <ALT> key and type in the corresponding ASCII character codes on the numeric keypad on the right-hand side of the keyboard. The following are shown using Trinity.Medium font.

		@	64	`	96		129	©	169
!	33	A	65	a	97		130	ª	170
"	34	B	66	b	98		133	«	171
#	35	C	67	c	99		134	¬	172
$	36	D	68	d	100	…	140	-	173
%	37	E	69	e	101	™	141	®	174
&	38	F	70	f	102	‰	142	¯	175
'	39	G	71	g	103	•	143	°	176
(	40	H	72	h	104	'	144	±	177
)	41	I	73	i	105	'	145	²	178
*	42	J	74	j	106	‹	146	³	179
+	43	K	75	k	107	›	147	´	180
,	44	L	76	l	108	"	148	µ	181
-	45	M	77	m	109	"	149	¶	182
.	46	N	78	n	110	„	150	·	183
/	47	O	79	o	111	–	151	‚	184
0	48	P	80	p	112	—	152	¹	185
1	49	Q	81	q	113	–	153	º	186
2	50	R	82	r	114	Œ	154	»	187
3	51	S	83	s	115	œ	155	¼	188
4	52	T	84	t	116	†	156	½	189
5	53	U	85	u	117	‡	157	¾	190
6	54	V	86	v	118	fi	158	¿	191
7	55	W	87	w	119	fl	159	À	192
8	56	X	88	x	120	¡	161	Á	193
9	57	Y	89	y	121	¢	162	Â	194
:	58	Z	90	z	122	£	163	Ã	195
;	59	[	91	{	123	¤	164	Ä	196
<	60	\	92	|	124	¥	165	Å	197
=	61	]	93	}	125	¦	166	Æ	198
>	62	^	94	~	126	§	167	Ç	199
?	63	_	95		128	¨	168	È	200

É	201	Ô	212	ß	223	ê	234	õ	245
Ê	202	Õ	213	à	224	ë	235	ö	246
Ë	203	Ö	214	á	225	ì	236	÷	247
Ì	204	×	215	â	226	í	237	ø	248
Í	205	Ø	216	ã	227	î	238	ù	249
Î	206	Ù	217	ä	228	ï	239	ú	250
Ï	207	Ú	218	å	229	ð	240	û	251
Ð	208	Û	219	æ	230	ñ	241	ü	252
Ñ	209	Ü	220	ç	231	ò	242	ý	253
Ò	210	Ý	221	è	232	ó	243	þ	254
Ó	211	Þ	222	é	233	ô	244	ÿ	255

These characters can either be entered via the keyboard or selected using the mouse from the ! Chars application located in Apps on the Icon Bar.
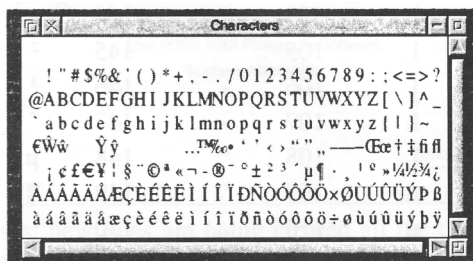
The chosen character will be entered into a document or writable icon at the carat.
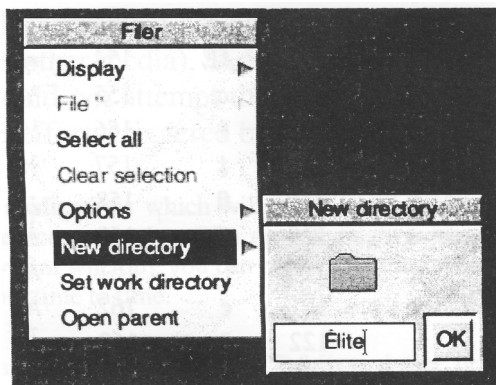
Appendix E: Glossary of terms

The following is a GLOSSARY OF FREQUENTLY USED ACRONYMS AND TERMINOLOGY (not all of these are present in this Welcome Guide but you might find their inclusion useful). This glossary details the more frequently used industry acronyms and terminology

Application	Software which performs a particular function for a user e.g. word processing, database management.
ARM	Acronym for Advanced RISC Machines.
ASCII	American Standard Code for Information Interchange. Standard ASCII assigns the numbers 0-127 to different alphabetic and control characters. Extended ASCII extends this character set to 256 to include non-English and graphic characters.
Baud	A measure of speed in digital communications.
Bit	Short for "Binary Digit", the bit is the basic data element of digital computers and digital communications. A bit may have a value of zero or one.
Bit rate	The rate at which data is transferred (usually in megabits per second or kilobits persecond).
Bus	A path over which digital information is transferred from any of several sources to any of several destinations. The sources and destinations may be inside or utside the computer.
Byte	A group of eight bits. A byte is usually used to represent single character or digit.
Cache	Very fast memory made from SRAM chips, used to "feed" microprocessors data at their maximum rate (DRAM memory is too slow).
Chip	A chip is a single, flat piece of silicon on which a specific semiconductor element or circuit has been fabricated. Most chips are placed into larger packages that provide protection and facilitate connection of the chip to the system.
CISC	Acronym for Complex Instruction Set Computing Device. A highly flexible but not very efficient device containing a number of instructions for specific applications in a microprocessor
CLI	Acronym for Command Line Interpreter.
Clock	Sends of signals that are processed by the microprocessor. Clock speed cycles are measured in megahertz (MHz)

CMOS	Acronym for Complimentary Metal Oxide Silicon. A variety of MOS technology. CMOS (Complementary MOS). This retains some configuration details about the computer.
Compression	A method of digitally encoding audio and/or video through a variety of computer algorithms and other techniques to reduce the amount of data required to accurately represent the content, and thus the space required to store the content.
Coprocessor	A logic device that operates in association with a microprocessor to enhance system performance. Coprocessors are not capable of independent operation.
CPU	Acronym for Central Processing Unit. Central unit of a computer with arithmetic and control units. The CPU of a microcomputer is usually a microprocessor.
Data	Information.
Digital	Indicates the representation of data by a series of bits or discrete values, such as "1"s and "0"s.
Desktop	A WIMP GUI.
DRAM	Dynamic Random Access Memory, a storage device which requires data to be continually regenerated.
DSP	Acronym for Digital Signal Processor - a high speed, general purpose arithmetic unit used for performing complex mathematical operations such as Fourier transforms.
EIDE	Enhanced IDE (see also IDE, SCSI).
Ethernet	A cable-based communications network designed to link office equipment, originated by Xerox Corporation.
FPU	Acronym for Floating Point Unit. A high-speed mathematics coprocessor for a microprocessor.
Frequency	The number of times per second an alternating current goes through a complete cycle. Formerly expressed in cycles per second, now expressed in Hertz (Hz).
Gigabyte	1024 magabytes (often abbreviated to G or GB)
GUI	Acronym for Graphical User Interface. A visual system allowing the user to control the computer.
Hardware	Electronics and their associated boards, connectors, and mechanical packaging.
IDE	Acronym for Independent Drive Electronics. A term usually associated with hard discs and CD ROM drives (amongst other devices) denoting their method of communicaton with the computer. (see also EIDE, SCSI).

I/O	Acronym for Input/Output. A term used to describe the external connections to a chip or electronic system.
ISDN	Acronym for Integrated Services Digital Network. A set of world-wide communications network standards aimed at providing standardised interconnections for all types of voice and data communications.
IP	Acronym for Internet Prorocol. The standardised language by which computers communicate over networks and the Internet.
IT	Acronym for Information Technology. The science of the representation, transmission, and processing of information, specifically processing with computers.
ICT	Acronym for Information Communication Technology. A term commonly used in Educaton encompassing IT (as above) but also including the use of IT to enable and enhance communication (using devices such as modems, systems such as the Internet, and tools such as email and web browsing software).
JPEG	Acronym for Joint Photographic Experts Group. A universal standard for the digital compression and decompression of still images for use in computer systems
Kilobit	1,024 bits (often abbreviated to Kb)
Kilobyte	1,024 bytes (often abbreviated to KB)
LAN	Acronym for Local Area Network. A communications network whereby computers can transfer data amongst themselves.
LED	Acronym for Light Emitting Diode. A diode that emits light when current flows through it.
LFAU	Acronym for Large File Allocation Unit.
Logic	The part of the computer that does the arithmetic or makes decisions.
Joystick	A device for controlling the input/control of the computer emulating the pilot's flight control as found in aeroplanes (usually associated with Games software).
MDF	Acronym for Monitor Definition File. MDFs hold information on what different combinations of screen size and colour deptch are possible with any given make and model of monitor.
Megabit	1024 kilobits (often abbreviated to Mb)
Megabyte	1024 kilobytes (often abbreviated to MB)
Memory	Stores needed data, along with instructions on what to do with them and when. Each memory component stores a number of bits of binary data normally denoted in multiples of kilobytes.

Memory Management Unit (MMU)	The part of a computer that controls data storage so that the computer primarily accesses its high-performance cache memory rather than its slower main memory. Often abbreviated to MMU
Microprocessor	The central control unit that directs the processing of data (arithmetic and logic functions) in computer systems by directing the flow of electrical impulses, thereby co-ordinating the efforts of other parts of the machine. When the microprocessor receives an instruction, it interprets the instruction and tells the other parts of the computer (disc drives, video display etc) what they should do
MIDI	Acronym for Musical Instrument Digital Interface. The stardard method by which musical electronic instrument (such as keyboards) communicate with computers or other musical instruments).
Modem	Modulator/Demodulator. A device that converts audio signals to digital signals back into audio.
Monitor	The screen which displays the computer's graphical user interface and output. (see also VDU).
MPEG	Acronym for Moving Picture Experts Group. A standard for the digital compression and decompression of motion video/audio for use in computer systems.
Multimedia	The combination of text, graphics, audio, and video.
Nanosecond (ns)	One billionth of a second. In this time, electrical pulses travel approximately 12 inches.
OEM	Acronym for Original Equipment Manufacturer. A company that designs, develops, and produces or simply assembles electronic hardware.
Operating System	Computer software that enables a computer and its peripheral systems to work together as a unit.
Parallel port	The connection, or port, which allows data to be transferred (usually bi-directionally) in streams of data running in parallel (see also Serial).
PDF	Acronym for Portable Document Format (from Adobe). A type of electronic file format providing a faithful replica of a document and allowing it to be understood across different computer platforms using an appropriate PDF reader application.
PDF	Acronym for Printer Definition File. An acronym colloquial to the RISC OS computer platform. The RISC OS software which communicates with Printers is, in essence, non-descript and generic -an appropriate PDF (printer definition file) provides it witht the correct information for communicating with a particular make and model of printer.

|	
Peripheral	Equipment that is connected to a computer, such as printers, terminals, and disc drives.
Platform	A generic type of computer system categorised according to its operating system software (such as Windows, Mac OS, RISC OS, Amiga, Atari, Unix etc.)
Printer	A device which converts documents or data in digital or electronic format from the computer to hard copy on paper (usually).
Printer port	Where the printer connects to the computer (see also Parallel port).
PROM	Acronym for Programmable ROM. A ROM which is programmable by the user.
Protocol	A formal definition of the input and output conventions for communications between two computer systems. Thus the X400 protocol defines electronic mail communication standards.
RAM	Acronym for Random Access Memory, which stores digital information temporarily and can be changed by the user. It constitutes the basic storage element in computer terminals and has replaced magnetic core memories in main frame computers.
RISC	Acronym for Reduced Instruction Set Computer. A device where the number of instructions a microprocessor runs for a specific application are reduced from a general purpose Complex Instruction Set Computing (CISC) device to create a more efficient operating system (see also CISC).
RISC OS	The name of the computer operating system originally designed by Acorn Computers for use exclusively with ARM RISC processors.
ROM	Acronym for Read Only Memory which stores information used repeatedly such as tables of data, characters for electronic displays, etc. Unlike RAM, ROM cannot be altered.
SCSI	Acronym for Small Computer Systems Interface. A term usually associated with hard discs, CD ROM drives, and scanners (amongst other devices) denoting their method of communicaton with the computer (see also IDE, EIDE).
Sector	On hard discs, this is a portion of track on a disc which normally holds 512 bytes of data. Anything up to 63 sectors can make up a normal hard disc track. On ADFS-formatted floppy discs 1k is used per sector.
Serial	The connection, or port, which allows data to be transferred (bi-directionally) in streams of data running serially (see also Parallel).
SVGA	Acronym for Super Video Graphics Adaptor (see also SVGA).

UNIX	A computer operating system developed by AT&T. Unix works across a wide range of computers, from mainframes and workstations to personal computers in various forms (e.g. Linux and BSD)
VDU	Acronym for Visual Display Unit (see also Monitor).
VGA	Acronym for Video Graphics Adaptor (see also, SVGA).
WIMP	Acronym for Windows, Icons, Menu, Pointer - the operational features of the Desktop.

Appendix F: External connectors:

Both the keyboard and mouse share the same fused supply and are powered at all times, even when the computer is in standby mode. This allows a programmable keyboard sequence to typed to turn the system power on. It does not matter which way round the keyboard and mouse are connected, but the "wake-on-keypress" feature will only work if the keyboard is plugged into the lower socket.

Keyboard - lower 6 pin Mini-DIN socket:
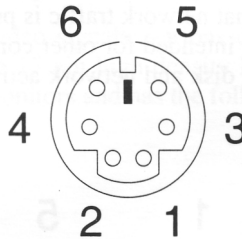
Pin	Function	
1	Keyboard data	in/out
2	NC	
3	GND	
4	+5V Supply	(250mA FUSED)
5	Keyboard clock	in
6	NC	

PS/2 MOUSE - Upper 6 pin Mini-DIN socket:

Pin	Function	
1	Mouse data	in/out
2	NC	
3	GND	
4	+5V Supply	(250mA FUSED)
5	Mouse clock	in
6	NC	

10 BaseT Ethernet connector:
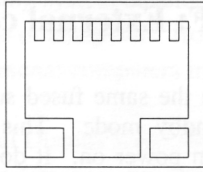
This connector allows direct connection to any 10baseT ethernet network via its RJ-45 locking connector. Two diagnostic LEDs are provided, one orange and one green. When lit, the green LED indicates that the LINK is good and that the network cable and hub are capable of transferring data. The Orange LED will light every time data is detected on the cable. This can be used to verify that network traffic is present. The LED will light for any data passing by, even that which is intended for other computers on the network. The front panel HD LED, used for both hard disk and network activity, will light when data intended for your computer is received.

External Serial port:
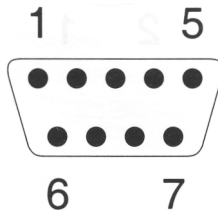
This port implements a standard RS232 interface, using ±12V switching.
The standard MALE 9 way "D" type plug connector has the following pinout:

Pin	Function	
1	DCD	in
2	RX	in
3	TX	out
4	DTR	out
5	GND	
6	DSR	in
7	RTS	out
8	CTS	in
9	RI	in

As with the internal serial port, an active (positive) signal will trigger a wake-up serial event. If enabled and the machine is in standby, the power management unit will automatically switch on the machine. This can be used to turn on your computer remotely by dialling in to a connected

modem.

VGA Video connector:

```
    5        1
  ┌───────────┐
  │ ○ ○ ○ ○ ○ │
10 │ ○ ○ ○ ○ ○ │ 6
  │ ○ ○ ○ ○ ○ │
  └───────────┘
   15       11
```
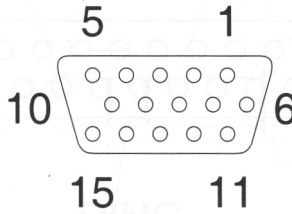
This port outputs the computers video signals, various control lines and a +5V supply to power an external modulator. The 15 pin high density D female socket connector allows direct connection to most SVGA monitors and has the following pinout:

Pin	Function	
1	RED	(0.7v peak to peak VIDEO)
2	GREEN	
3	BLUE	
4	NC	
5	GND	
6	GND	red return
7	GND	green return
8	GND	blue return
9	+5V supply	(200mA fused)
10	GND	
11	ID(0)	in/out
12	DDC data/10v scart slow switching (see LK14)	in/out OR 10v out
13	HSYNC	out
14	VSYNC/CSYNC	out
15	DDC clock	in/out

Should a SCART type monitor need to be driven, the jumper cap on LK14 should be set to position 1-2 to route the high voltage to pin 12 of the video connector that is required for correct SCART switching.

PARALLEL - IEE1284 compliant printer port:

```
13                                    1
  ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○
   ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○
25                                   14
```
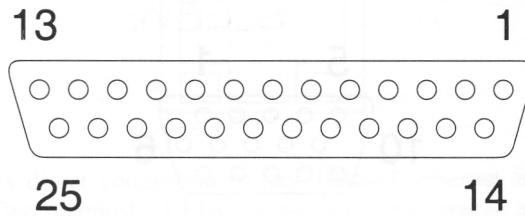
The parallel port supports both standard, EPP and ECP modes of operation.
The 25 way female "D" type socket has the following pinout:

Pin	Function	
1	*STROBE	out
2	D(0)	in/out
3	D(1)	in/out
4	D(2)	in/out
5	D(3)	in/out
6	D(4)	in/out
7	D(5)	in/out
8	D(6)	in/out
9	D(7)	in/out
10	*ACKNOWLEDGE	in
11	BUSY	in
12	PAPER END	in
13	SELECT	in
14	*AUTO FEED	out
15	*ERROR	in
16	*RESET	out
17	*SELECT IN	out

Pins 18-25 are all GND

Audio connectors:
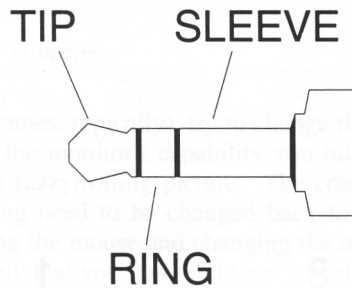
There are three 3.5mm jack sockets mounted beneath the Joystick/MIDI connector. Starting on the left is the Stereo Line-out (headphones), middle is Stereo Line-in, and on the far right is the Mono MIC socket. The line-out output has sufficient drive to be able to fully drive 70mW into a standard 32 Ohm pair of stereo headphones while still maintaining correct voltage levels when driving into a high impedance "line-in" of an external amplifier. The Line-in input feeds stereo audio from an external sound source to the Audio codec where it may be sampled or mixed with the other sound sources. The Mic input will drive either a mono electret, carbon or moving-coil microphone and feed it's input to the input Audio codec for sampling or mixing. When using a carbon or moving-coil mic, the extra microphone gain stage may need to be enabled to compensate for the lower signal levels of these types of microphone.

The sockets take standard 3.5mm jackplugs with the following pinout:

LINE-OUT / **HEADPHONES**

Tip   Left Audio out
Ring   Right Audio out
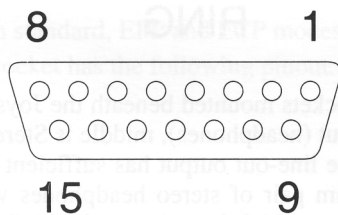Sleeve   GROUND

LINE-IN

Tip   Left Audio in
Ring   Right Audio in
Sleeve   GROUND

MIC

TIP   Phantom feed/Mic in
Ring   Mic bias
Sleeve GROUND

MIDI / Joystick connector:

8   1

15   9

Appendix G: Troubleshooting

I can't see the picture on my monitor.

If you, or a program (some games, typically), try to change the screen size and colour depth to a combination outside of the monitor's capability you might be presented with either a black/blank screen or with a fuzzy/rolling picture. The computer is still functional - it is simply that the display setting need to be changed back to something more friendly. In theory you could do this using the mouse and changing the display manager in the Desktop in the usual way, but it it likely that you you might not be able to see the Desktop to do this. Alternatively you can enter the CLI (Command Line Interpreter) by pressing <f12> and type in an instruction to return to a generally accepted screen mode. At the commant line you should type "Wimpmode 27" then press <RETURN> twice (once to enter the instruction, then again to return to the Desktop). Since you might not be able to see the display when you enter the CLI, we have simplified the procedure by associating the above instruction to the Print Scrn key (f0) so if you need to return the display to a generic screen mode simply press <f12>, <PRINT SCRN>.

There's no sound coming out of my speakers.

Are your speakers switched on ? Some speakers use mains power so you must ensure they are switched on before any sound will be produced. Make sure your speakers are plugged in and switched on. Do the speakers have a volume control ? If so, make sure the volume knob is turned up enough to allow you to hear sound coming from the computer. Also, check at the back of the computer to make sure the audio connection has been made to the correct socket. There are three audio sockets at the back of the computer. These are labelled headphones, line-in, and mic. The headphone connection, the one right next to the monitor connection, is where you should connect your speaker cable.

The keyboard has stopped working.

If, after using the computer for a while, everything functions correctly except for the keyboard alone, simply unplug the keyboard, wait a few seconds, then plug it back in again. Some keyboards cause a fuse on the motherboard to trip and this reconnection resets the fuse. Remember, although you can connect the mouse and keyboard into either PS2 connection, it is recommended that the keyboard is plugged into the lower connection, whilst the mouse uses the upper socket, for those who wish to use "wake-on-keypress" functionality.

If you have any other difficulties getting to grips with your new RiscStation R7500 computer, please contact your supplier who will be happy to help and offer friendly assistance.