

LANGUAGE WORK	Function of an item
<p>We can describe the function of an item in a number of ways. Study these examples.</p> <p><b>Using the Present simple</b></p> <p>1 ROM <i>holds</i> instructions which are needed to start up the computer.</p> <p><b>Used to-infinitive, Used for + -ing form</b></p> <p>2 ROM <i>is used to hold</i> instructions which are needed to start up the computer.</p>	<p>3 ROM <i>is used for holding</i> instructions which are needed to start up the computer.</p> <p><b>Emphasising the function</b></p> <p>4 <i>The function of ROM is</i> to hold instructions which are needed to start up the computer.</p>

**4** Match each item in Column A with its function in Column B. Then describe its function in two ways.

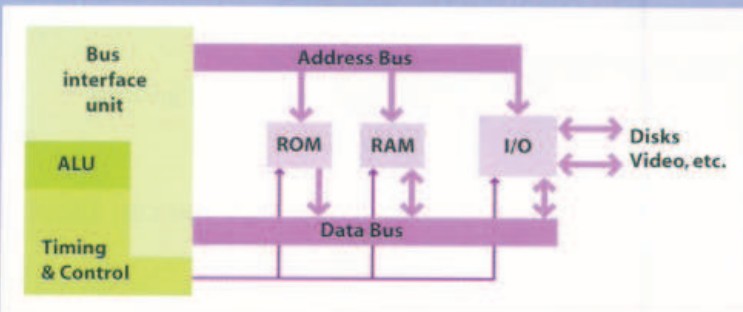
A Item	B Function
RAM	controls the cursor
processor	inputs data through keys like a typewriter
mouse	displays the output from a computer on a screen
clock	reads DVD-ROMs
flash memory key	reads and writes to electronic chips on a card
monitor	holds instructions which are needed to start up the computer
keyboard	holds data read or written to it by the processor
DVD-ROM drive	provides extremely fast access for sections of a program and its data
cache	controls the timing of signals in the computer
ROM	controls all the operations in a computer

**5** With the help of the Glossary if necessary, describe the functions of these items.

- |                   |                      |
|-------------------|----------------------|
| 1 scanner         | 6 supercomputer      |
| 2 printer         | 7 mainframe computer |
| 3 ATM             | 8 barcodes           |
| 4 PDA             | 9 swipe cards        |
| 5 hard disk drive | 10 memory            |

**LANGUAGE WORK** Prepositions of place

Study these examples of prepositions of place.



- 1 Data moves *between* the CPU and RAM.
- 2 Data flows *from* ROM to the CPU.
- 3 A program is read *from* disk into memory.
- 4 Data is transferred *along* the data bus.
- 5 The address number is put *onto* the address bus.

Fig 3 Computer buses



Fig 4 Hard disk

- 6 The hard disk drive is *inside* a sealed case.
- 7 Heads move *across* the disk.
- 8 Tracks are divided *into* sectors.

**6** Complete each sentence using the correct preposition.

- 1 The CPU is a large chip ..... the computer.
- 2 Data always flows ..... the CPU ..... the address bus.
- 3 The CPU can be divided ..... three parts.
- 4 Data flows ..... the CPU and memory.
- 5 Peripherals are devices ..... the computer but linked ..... it.
- 6 The signal moves ..... the VDU screen ..... one side ..... the other.
- 7 The CPU puts the address ..... the address bus.
- 8 The CPU can fetch data ..... memory ..... the data bus.

# Graphical User Interfaces

**STARTER 1** Study this diagram of a graphical user interface (GUI). Identify these features:

- |               |           |
|---------------|-----------|
| 1 window      | 5 taskbar |
| 2 icon        | 6 submenu |
| 3 menu        | 7 desktop |
| 4 system tray | 8 button  |

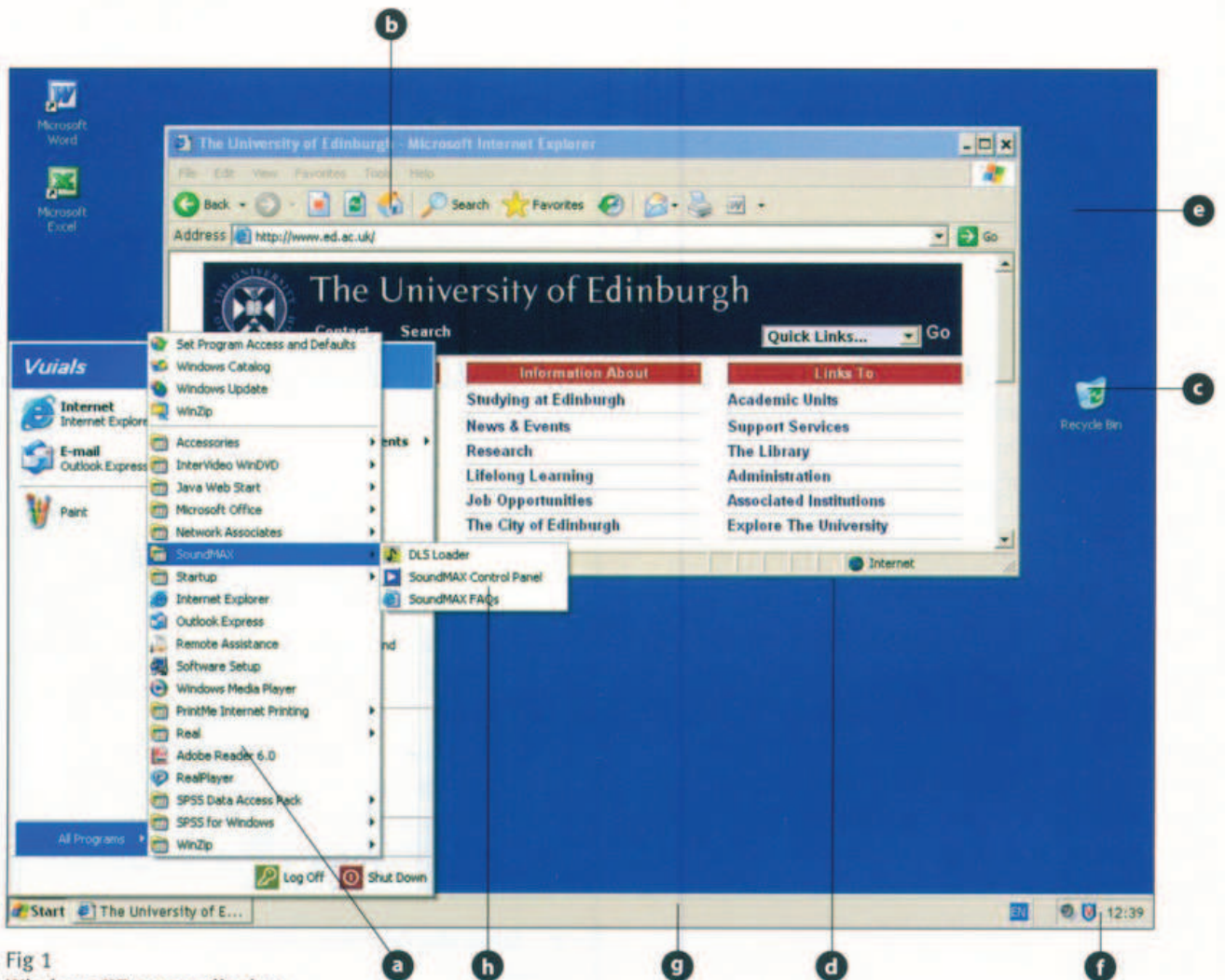


Fig 1  
Windows XP screen display

## 2 Study this second example of a GUI.

- 1 How does it differ from Fig 1?
- 2 In what ways is it the same?

### Menu bar

Just about all programs display a menu bar across the top of the screen, including the 'Finder'. The menu bar will change, depending on the program you're running at the time.

### Document

This is a text file which tells us something about the contents of this CD-ROM. You can read it by simply double-clicking on it - your Mac will then automatically find the program needed to open it.

### Application

This is an application, or program icon. Double-clicking on it will start the program. It's not always obvious whether an icon is for a document or a program, but you soon get to be able to spot these things.

### Folder

This is a folder icon, and these all tend to look the same - like a kind of 3D view of a suspension file. Sometimes they're adorned with other graphics, but they're usually pretty easy to spot. Double-clicking on a folder icon displays that folder's contents in another window, which is what we've done here.

### Hard Disk icon

Folders, files, documents and other items are displayed as little icons like this. This one, in fact, represents your Mac's internal hard disk.

### CD-ROM icon

Your hard disk icon (and Wastebasket icon) may be the only ones you see on your desktop. If you insert a CD-ROM, though, it will appear as an icon on your desktop too. We've double-clicked on it to display its contents. To eject a CD, by the way, you have to drag its icon onto the Wastebasket - you can't just press the CD-ROM drive button. If you do, you'll be waiting an awful long time.

### Folder window

When you double-click on a folder or a disk drive, its contents are displayed in a window like this one. These contents can be documents, programs or other folders.

### Wastebasket icon

The Wastebasket is where you throw things you no longer need. It doesn't empty straight away, (though as you can see, ours is so full the lid's fallen off), so you can change your mind if you have to. When you want to eject a disk, be it a CD-ROM or a floppy disk (if you've got a floppy disk drive attached), you drag its icon on to the Wastebasket and the Mac will spit it out automatically.

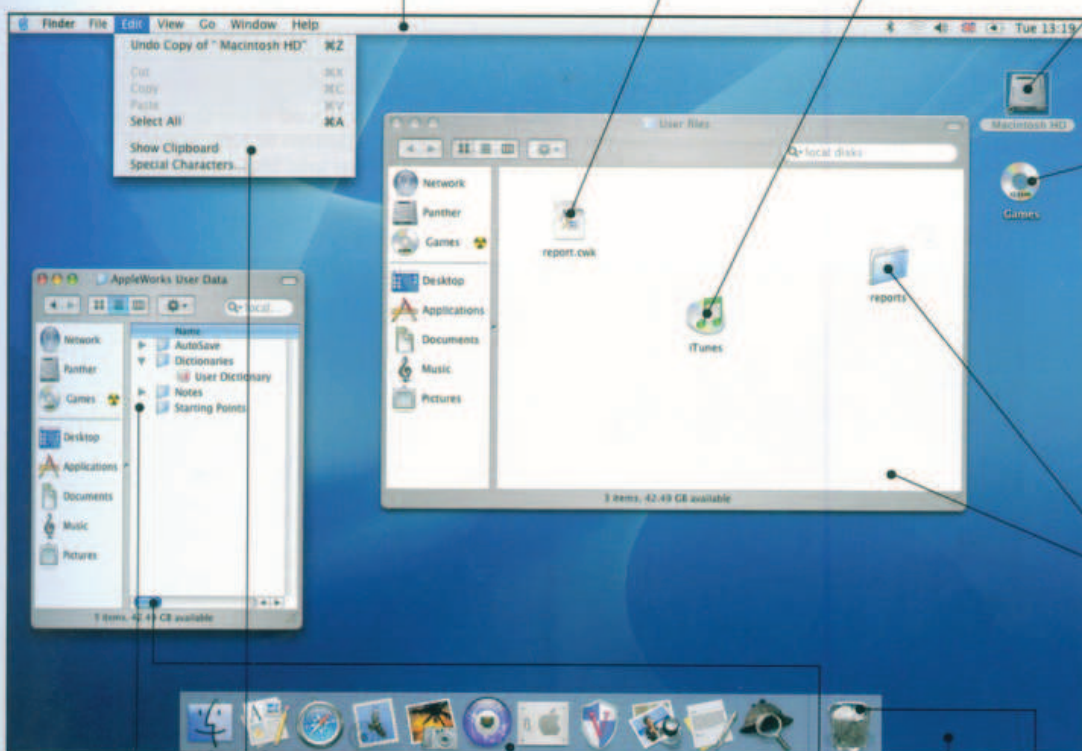


Fig 2  
Mac GUI

### List view

This is another folder window, but this time we're looking at the contents in 'List' view. Otherwise, it's the same as the window next to it - a 'window' on a folder, basically. You can nest folders many layers deep, in case you're wondering, and you're likely to get confused long before your Mac does - try to keep your filing system as simple as possible.

### Menu/menu option

To open a menu, click on its name in the menu bar. This displays a drop-down list like the one you see here. To choose one of the menu options, just click on it (the options are highlighted as the mouse pointer moves over them to help you get the right one). Don't forget to always shut down your Mac via this menu, NOT by simply switching the power off.

### Dock

Found at the bottom of your screen, the Dock gives you instant access to the things you use most. Use the Dock to organise everything from documents and applications to websites and QuickTime movies. To put items within easy reach, simply drag and drop them into the Dock.

### Scrollbar

You'll see these gadgets whenever the contents of a folder won't fit in the window. You click on either the horizontal or vertical scroll arrows to display more of the contents - either that, or drag on the little blue 'scrollbox'.

### Desktop pattern

This background image can be swapped for many more via the Appearance control panel. You can use a repeating 'pattern' like this, or a single image - a scanned photograph for example.

## LANGUAGE WORK

Verbs + object + infinitive; Verbs + object + *to*-infinitive

New developments in computing are often designed to make something easier. These verbs are often used to describe such developments:

allow            let  
enable         permit  
help

Study these examples:

- 1 A GUI *lets you point* to icons and click a mouse button to execute a task.
- 2 A GUI *allows you to use* a computer without knowing any operating system commands.

- 3 The X Window System *enables Unix-based computers to have* a graphical look and feel.
- 4 Voice recognition software *helps disabled users (to) access* computers.

**Allow, enable and permit are used with this structure:**

verb + object + *to*-infinitive

**Let is used with this structure:**

verb + object + infinitive

**Help can be used with either structure.**

**4** Complete the gap in each sentence with the correct form of the verb in brackets.

- 1 The Help facility enables users ..... (get) advice on most problems.
- 2 Adding more memory lets your computer ..... (work) faster.
- 3 Windows allows you ..... (display) two different folders at the same time.
- 4 The Shift key allows you ..... (type) in upper case.
- 5 The MouseKeys feature enables you ..... (use) the numeric keypad to move the mouse pointer.
- 6 ALT + TAB allows you ..... (switch) between programs.
- 7 The StickyKeys feature helps disabled people ..... (operate) two keys simultaneously.
- 8 ALT + PRINT SCREEN lets you ..... (copy) an image of an active window to the Clipboard.

**5** Describe the function of these features using 'enabling' verbs.

- 1 In a window, the vertical scroll bar
- 2 The Find command
- 3 The Undo command
- 4 Cut and paste
- 5 The Print Screen key
- 6 Menus
- 7 Recycle bin
- 8 Tooltips

**PROBLEM-SOLVING 6** Study this version of a GUI. Which part of the screen would you touch if you want to:

- 1 make a phone call?
- 2 send an email?
- 3 access a keyboard?
- 4 record an appointment?
- 5 get help?
- 6 write new mail?

What do you think happens if you touch these areas of the screen?  
g, h, i, j, k, l

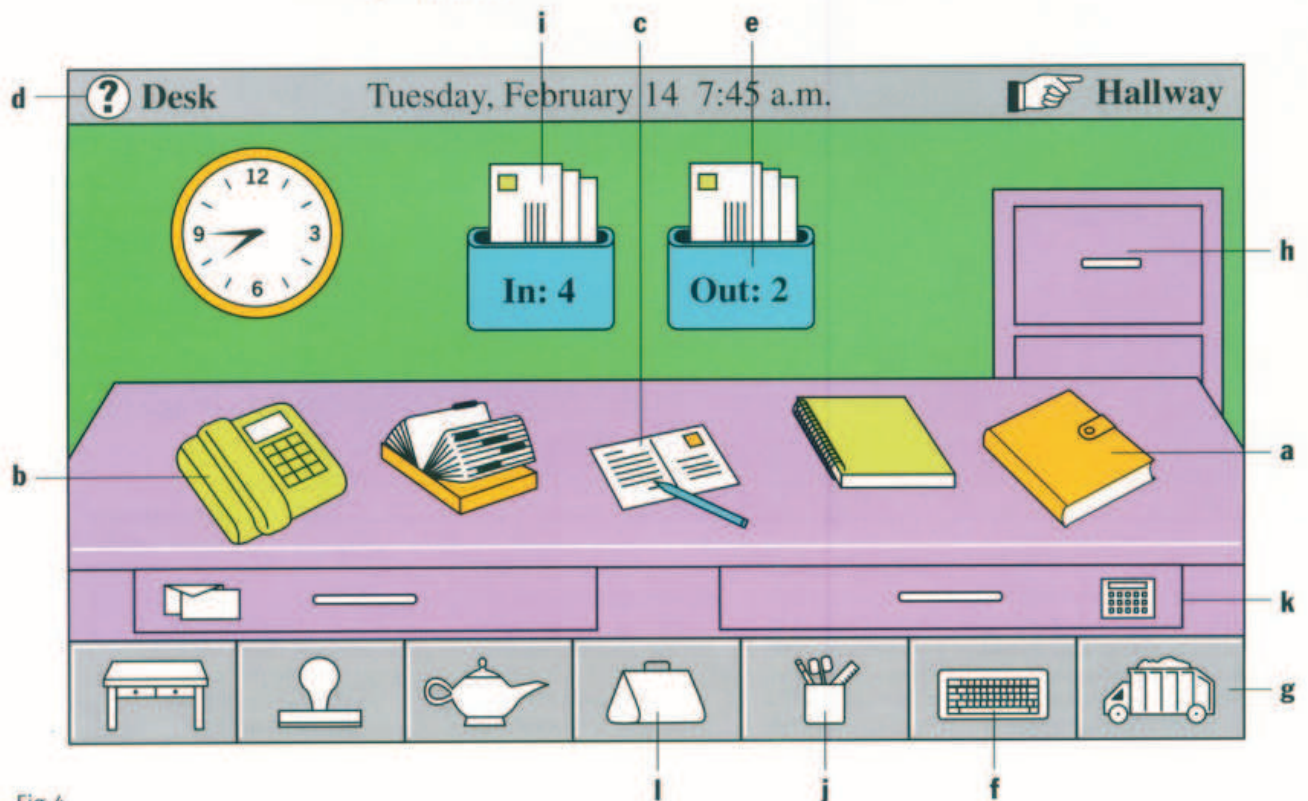


Fig 4  
Magic Cap GUI

**SPEAKING**

**7** Work in groups. Complete this questionnaire for yourself. Then take turns in your group to explain how to perform each of these actions. You may need these verbs:

choose  
right/left/double-click on  
hover  
drag and drop  
select

Do you know how to:	Yes	No
1 create a folder?		
2 start a program?		
3 shut down the system?		
4 adjust the speaker volume?		
5 arrange the icons?		
6 display the date?		
7 in Windows, show Tooltips?		

**WRITING**

**8** Study these instructions for moving a file from one folder to another using Windows Explorer. Then write your own instructions for one of the actions in Task 7. Compare your instructions with those given in the Help facility on your computer.

**TO MOVE A FILE**

- 1** If you want to move a file that was saved in a different folder, locate and open the folder.
- 2** Right-click the file you want to move; then click Cut on the shortcut menu.
- 3** Locate and open the folder where you want to put the file.
- 4** Right-click the folder; then click Paste on the shortcut menu.

## LANGUAGE WORK

## Instructions/complex instructions

Study this extract from an instruction manual for software for doctors in a health centre.

### PATIENT BROWSER

Patient Browser allows you to find specific patients and open their records. It also allows you to identify different categories of patients.

- Click here to display or remove search criteria
- 1 To find patients, first click on the appropriate tab (Personal, Address or Registration).
  - 2 Enter the search criteria. A combination of tabs may be used (e.g. enter a surname under the Personal tab and select a doctor in the Registration tab).
  - 3 Select the Defaults button if you wish to clear the criteria boxes of any existing entries, or to search for all patients, but the list may be a long one.
  - 4 Start the search by clicking on the Find button.

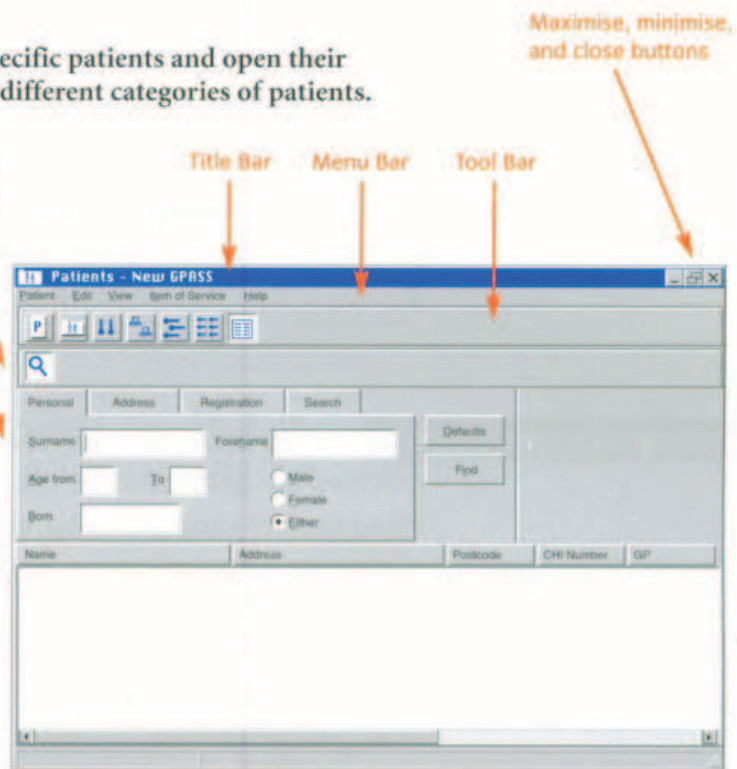


Fig 3  
GPASS

We make simple instructions using the infinitive:

Click on the appropriate tab.  
Enter the search criteria.

We can add an explanation using the to-infinitive or by + -ing:

To find patients, click on the appropriate tab.  
Click on the Find button to start the search.  
Start the search by clicking on the Find button.

We can put the instructions in order using sequence words:

First click on the appropriate tab.  
Then enter the selection criteria.  
Finally click on the Find button.

We can link two instructions and emphasise their order like this:

Having entered the selection criteria, click on the Find button.  
Once the selection criteria have been entered, click on the Find button.

- 6** Write simple instructions for identifying all male patients called Smith in the 16 to 50 age group registered with Doctors Warner and Roberts.



**7** Complete the gaps in these instructions for finding the records of all members of the Green family living in postcode WX14 3PH and registered with any doctor in the practice.

- 1 First enter the search criteria by .....
- 2 To ....., enter Green in the Surname box.
- 3 Ensure both male and female members of the family are found by .....
- 4 ..... select the Address tab.
- 5 Having ....., enter the postcode.
- 6 ..... choose the Registration tab.
- 7 Once ....., select All doctors.
- 8 ....., click on Find to .....

**PROBLEM-SOLVING 8** Study these versions of OfficeSuite and decide which version provides the best value for the following users. The versions are listed from cheapest to most expensive.

<p><b>OfficeSuite Standard</b></p> <ul style="list-style-type: none"> <li>• wordprocessor</li> <li>• spreadsheet</li> <li>• presentation program</li> <li>• email</li> <li>• PIM</li> </ul>	<p><b>OfficeSuite Small Business Edition</b></p> <ul style="list-style-type: none"> <li>• wordprocessor</li> <li>• spreadsheet</li> <li>• DTP</li> <li>• email</li> <li>• PIM</li> <li>• small business tools</li> </ul>	<p><b>OfficeSuite Professional</b></p> <ul style="list-style-type: none"> <li>• wordprocessor</li> <li>• spreadsheet</li> <li>• database</li> <li>• DTP</li> <li>• presentation program</li> <li>• email</li> <li>• small business tools</li> </ul>
<p><b>OfficeSuite Premium</b></p> <ul style="list-style-type: none"> <li>• wordprocessor</li> <li>• spreadsheet</li> <li>• database</li> <li>• DTP</li> <li>• presentation program</li> <li>• email</li> <li>• PIM</li> <li>• small business tools</li> <li>• website editor</li> <li>• image editor</li> </ul>		<p><b>OfficeSuite Developer</b></p> <ul style="list-style-type: none"> <li>• wordprocessor</li> <li>• spreadsheet</li> <li>• database</li> <li>• DTP</li> <li>• presentation program</li> <li>• email</li> <li>• PIM</li> <li>• small business tools</li> <li>• website editor</li> <li>• image editor</li> <li>• developer tools</li> </ul>



# Computing Support Officer

**STARTER**

**1** Study this screen display of Windows Explorer. Add these titles to the texts:

- 1 Toggle-box
- 2 Explorer pane
- 3 Selected icon
- 4 Divider
- 5 Guidelines
- 6 Navigation pane

**Desktop**  
Windows Explorer is just a different view of the structure, with the desktop at the top and filtering down through My Computer to your hard drive.

**a** .....  
Indicates that the drive or folder carries sub-folders. Use these ..... to open or close 'branches' in the folder hierarchy.

**b** .....  
These handy ..... help you to see which folders live at the same level. It also makes it easier to appreciate the tree-like structure you are dealing with.

**c** .....  
You can tell which folder is currently being displayed by the icon. Drives will have their text highlighted, whereas folders are 'open' - click on one and try it.

**View menu**  
Just like desktop windows, your view of the files and folders can be changed here. The default (standard) view is List, but use the one you find comfortable.

**d** .....  
The ..... works in the same way as the desktop windows you've been using. Double-clicking on a folder opens the branches leading to it in the navigation pane.

**e** .....  
You can adjust the space allocated to each pane by clicking on and dragging the ..... - handy when the folder tree starts to sprawl.

**f** .....  
This shows only drives and folders - in other words, items that contain something else. To view the full contents of a folder, click on its icon in the .....

Fig 1  
Windows Explorer for XP

**LISTENING**

**2** Barbara is a Computing Support Officer in a large company. She's advising Clive, the Sales Director. Listen to Part 1 of the recording to find the answers to these questions:

- 1 What is Clive's problem?
- 2 What does he want to do?

## LANGUAGE WORK

Revision: *if*-sentences

Study these uses of *if*-sentences.

**Action and effect**

We can use an *if*-sentence to link an action and its effect. For example:

- 1 If you click on that [action], that'll just compact your C drive [effect].
- 2 If you click on that [action], that opens it up and shows you all your folders [effect].

The action is in the Present simple and the effect is in the Present simple or described using *will*, *can*, or *may* depending how certain it is to follow.

**Polite instructions**

We use the action part of *if*-sentences, especially in spoken English, to give instructions in a polite way. The effect part is assumed.

- 3 If you bring your cursor down to the very bottom [you'll find the Start button].
- 4 If you just hit Enter [that will activate the program].

**Imagined action and effect**

We can use an *if*-sentence to describe the possible effect of an imagined action. For example:

- 5 If you spilled coffee on your keyboard [imagined action], you could damage it [possible effect].
- 6 If there were no other folders there [imagined action], you wouldn't have a little box in there [possible effect].

To show this describes imagined, not real, events, the action is in the Past simple and the effect is described using *would*, *could*, and *might* depending how certain it is to follow.

**5** Match the actions in Column A with appropriate effects from Column B. Then join each action and effect using an *if*-sentence.

Column A	Column B
1 you press Print Screen	a you can drag it across the screen
2 you press Ctrl + Alt + Del in Windows XP	b it would speed up the computer
3 you added more memory	c you may lose data
4 you installed a modem	d you would have more space at your desk
5 you used a better search engine	e you would be able to connect to a telephone line
6 you forget to save regularly	f you can make a copy of the screen
7 you hold down the mouse button over an icon	g you would find more relevant results
8 you used an LCD display	h it displays the Windows security dialog box

**6** Describe the effects of these actions using an *if*-sentence.

- 1 you don't virus-check floppies
- 2 there was a power cut while you were using your computer
- 3 you install a faster processor
- 4 you forgot your password
- 5 you press the delete key
- 6 you use a search engine
- 7 you double-click on an icon
- 8 you use power-saving options

**WORD STUDY**

**7 Noun + Noun compounds** Match each word from Column A with its partner from Column B to make a computing term.

Column A	Column B
1 barcode	a tray
2 mainframe	b program
3 laser	c bus
4 expansion	d pane
5 search	e computer
6 control	f reader
7 supervisor	g bar
8 task	h card
9 system	i engine
10 explorer	j printer

**SPEAKING**

**8** Work in pairs, A and B. Instruct each other how to perform these computer operations in Windows or Mac OS. Take notes from your partner's instructions.

**Student A** Copying a file.

**Student B** Saving a file.

**6** Diagnose these faults and provide advice on each problem.

- 1 My laser printer produces very faint copies.
- 2 When I print, three or four sheets come through the printer at the same time.
- 3 My spreadsheet does not seem to add up correctly.
- 4 Everything I type appears in capitals.
- 5 My PC is switched on but the monitor screen is blank.
- 6 I tried to print a document but nothing came out of the printer.
- 7 My monitor picture is too narrow.
- 8 My monitor screen flickers.
- 9 My mouse responds erratically.
- 10 The time display on my computer is one hour slow.
- 11 When I print out a page, the first two lines are missing.
- 12 My computer sometimes stops and reboots itself. The lights dim at the same time.

**PROBLEM-SOLVING**

**7** As a class, find out how many had problems with any of these items of hardware in the last twelve months. Calculate the percentages and compare results with these findings from a national survey.

% of users reporting problems in the last 12 months

	Your class	Other users
Hard disk		17
CD-ROM drive		15
Modem		15
Mouse		13
Monitor		12
Motherboard		11
Sound card		7
Cooling fan		7
Battery		7
Keyboard		6
Power supply		6
Memory		5
Graphics/Video		5
CPU		3