

Teaching Notes

These teaching notes were originally developed for computer classes at Durbar High School in Kathmandu, Nepal, using Windows 95 and Office 95. Since then they have been rewritten for Office 97 and extended. Lesson plans have also been developed for some topics to help Cambodian teachers prepare their lessons.

We wrote the notes for our own use so that we have a clear picture of what we will be teaching. They are not really students' notes, though we do encourage students to read them on the computer *after* lessons and to practise the exercises again.

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We realise that they are not perfect, so if you find any mistakes or think certain sections could be clearer then we would appreciate your feedback via e-mail to andy_price@hotmail.com

Happy teaching!

Andy & Ming
9th October 2002

Notes (1) – Basics

Types of computers:

- mainframe (large)
- mini computer (medium)
- personal computer (PC) – desktop, notebook and handheld

Here we refer to the PC which you use.



- monitor
- system unit
- keyboard

hardware:

- system unit
- monitor/ screen
- keyboard/ keys
- mouse/ mouse mat
- speakers
- hard drive (hard disk)
- floppy drive (floppy disk/ floppy)
- CD drive (CD)
- motherboard
- chips/ memory (RAM/ ROM)
- Central Processing Unit (CPU/ processor / the brain of the computer)

Some things you can do with a PC:

What you do

Write a short note
Write a letter
Draw a picture
Play a video
Send an email

What you use

Notepad
Word
Paint
Media Player
Outlook Express

What you use are called '*applications*' or '*software*' or '*programs*'.

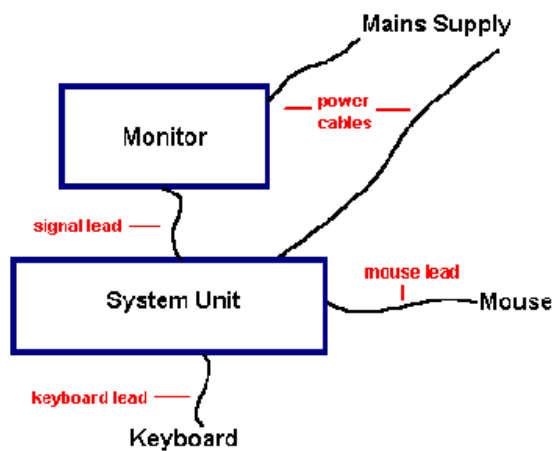
operating system

These applications cannot talk directly to the hardware. Instead they talk to an intermediate called the '*operating system*' (OS). This looks after things like opening documents, printing, saving etc. The operating system on these PCs is Windows 95. Other examples are Unix, Linux, Dos. When you switch on the PC it first loads the operating system – without it you cannot do anything!

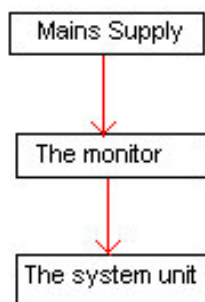
keyboard

The keyboard is a Qwerty keyboard like on a typewriter. The letters are not in the order of A, B, C, etc. Find the Tab, Caps Lock, Shift, Ctrl, Back Space, Enter, Home, End, Delete, arrows, ?, !, \$, “ and the numbers. You will learn more about them in a later lesson.

connecting a desktop computer



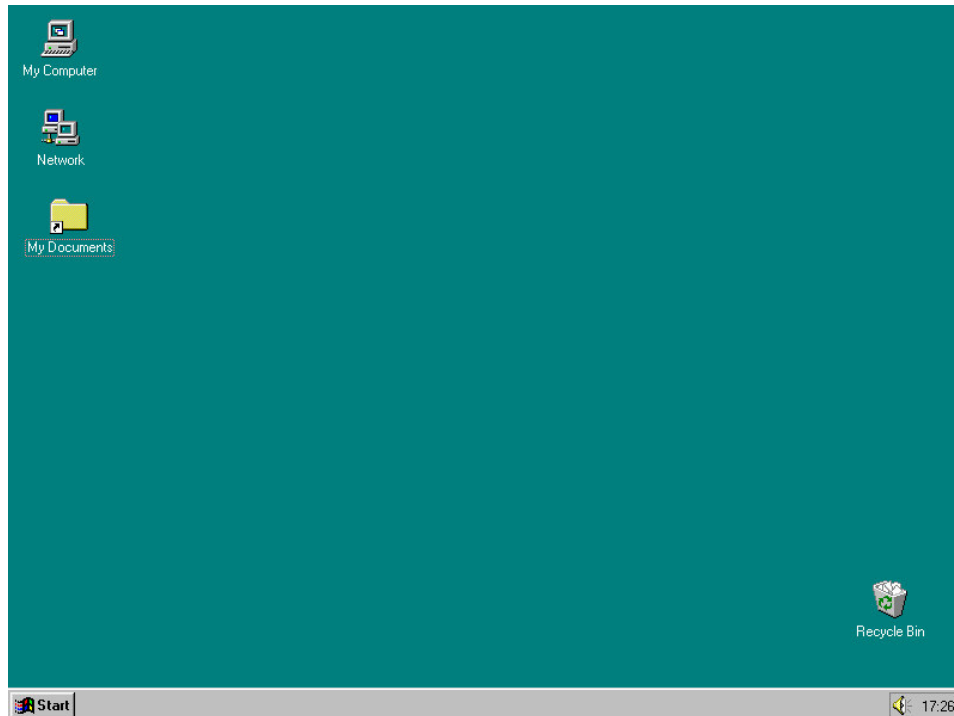
switching on the computer



Only need to switch on the monitor if it was been switched off after shut down.

Note that a small light will come on when the monitor and the system unit are switched on. When the 'Start' button appears on the bottom left hand corner the PC is ready for use

the desktop



The view on the screen after switching on the computer is called the “desktop”. It is like your desk in real life – you can put things where you like on it and it’s where you do your work! So keep it tidy. Keep the Recycle bin to the bottom right corner of the desktop, away from the rest of the icons, to avoid accidentally dragging things into it.

What you see on the desktop:

- **icons** - under Windows, many things are represented as small pictures because they are easier to recognise and manipulate than words. Icons can represent documents, programs, disk drives, or even the whole computer, e.g. My Computer, My Documents, etc.
- **taskbar** - it is displayed along the bottom of the desktop by default. It can be dragged to other positions but I suggest you leave it at the bottom. It has three main areas: the *start button*, the *system tray* (to the right) and the *open programs area* in the middle. Every program you open is shown as a rectangular button on the taskbar.
- **cursor** - a pointer which moves around the screen.

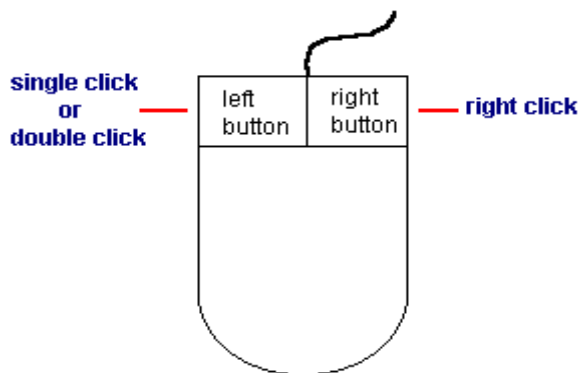
cursor

The cursor can change to a different shape according to the action required:

- **a double-headed arrow** for resizing
- **an hour glass** when the computer is busy
- **a hand** or **a four headed arrow** to move the thing it is pointing at
- **an I beam** for inserting or manipulating text
- **a pointer (arrow)** for selecting things
- **a pointing finger** for clicking hyperlinks

mouse

The cursor is controlled by the *mouse*.



The mouse has two buttons : *left button* and *right button*. Practise holding the mouse gently and resting your fingers on the buttons. The mouse only needs to be moved around gently and over a small area of the mouse mat. Using the mouse try moving the cursor up and down and across the screen.

You use the left button more than the right. The general practice is to position the mouse pointer to where you want it, hold still and then click. It is important to hold still while you are clicking or you would easily move to an object next to the one you want and click on that instead.

- **single click** with the left button – this movement is used to select an object or initiate certain actions e.g. to save a document. The object you selected will be shown as highlighted. Click on the icons on the desktop for practice.
- **double click** with the left button – this movement initiates some actions e.g. open My Computer on the desktop. Practice double clicking on My Computer, Control Panel, then Date/Time to open it.

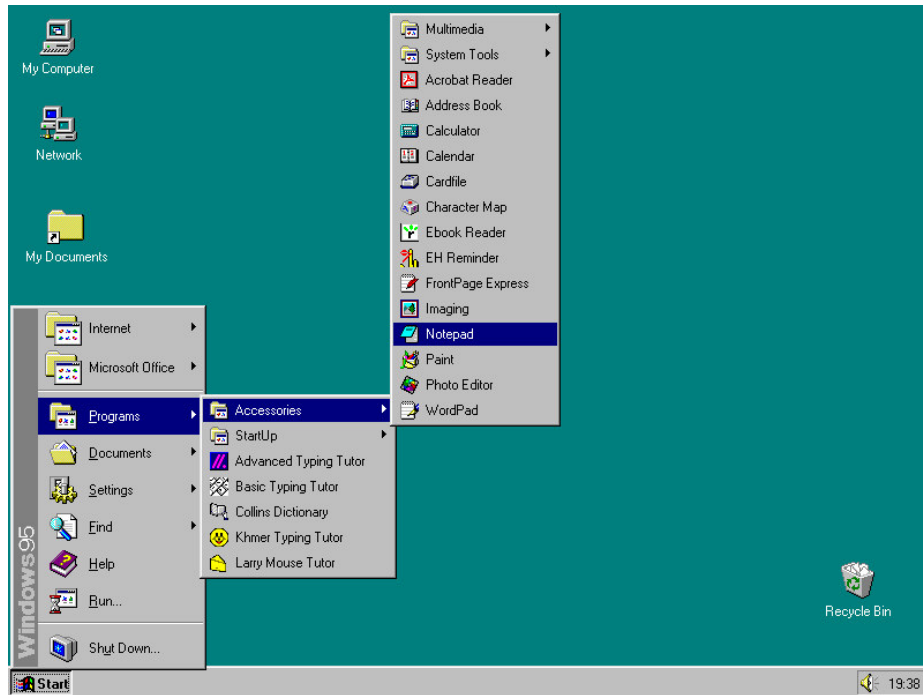
Single click and press Enter will also do the same job as double clicking.

- **right click**- brings up a menu from which you then select the option you want. Press Esc to get rid of the menu or click on any empty space. A different menu pops up depending on where you click – practise right click on the desktop, then right click on the taskbar.

To demonstrate that three types of click can perform the same action, e.g. to open My Computer, do the following exercise:

- Single click My Computer, then press Enter.
- Double click My Computer.
- Right click My Computer to bring up a menu. Click on Open.

start menu



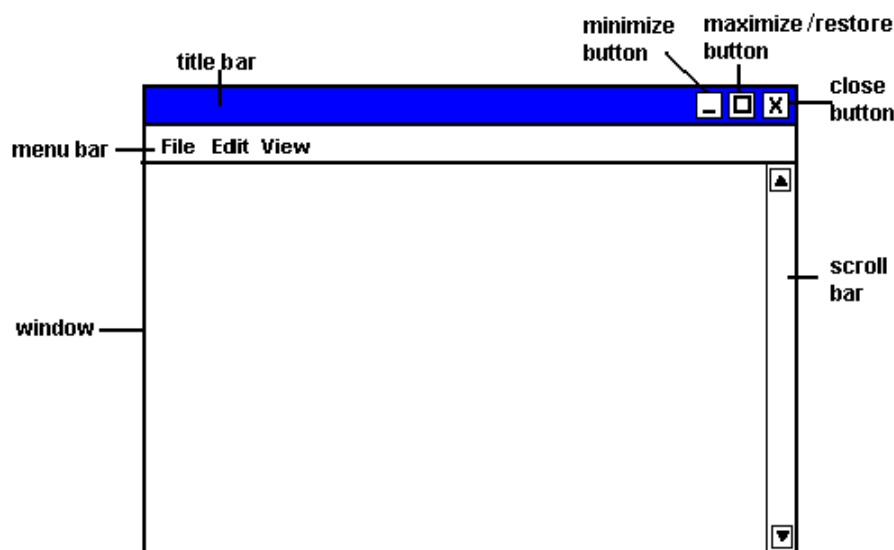
Under Windows 95, the Start button is where it all starts! When you click (single left mouse click) the Start button, it opens up the start menu. From here you can open programs and documents, adjust the way your computer operates, find help, etc. When a menu item has an arrow to the right of it, it means that there is another menu to view.

opening programs

The easiest way to open a program is to find its icon (and name) on the Start menu and click on it with the mouse. So to open Notepad – first click on the Start button, move cursor up to Programs, across to Accessories, then across and up or down to Notepad, and single click it.

window

Programs (e.g. Notepad, Paint), folders (e.g. My Documents) and My Computer open in a window.



minimize button – reduces window to the taskbar.

maximize button – opens window to the full size of the screen.

restore button – returns window to its previous size and position.

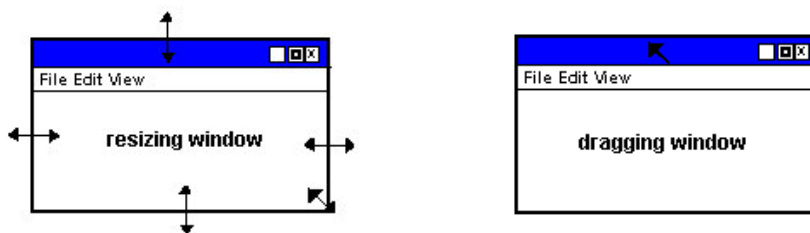
close button – closes the window.

scroll bar – use to move the contents of the window up and down by clicking on the arrows.

resizing window – to change the size of the window:

1. Position cursor on the edge of the window till it changes to a double headed arrow.
2. Hold the mouse still.
3. Hold down the left mouse button and drag the edge of the window to the new size.

If you want to resize both sides of the window, then position the cursor at a corner and drag in or out diagonally to the size you want



dragging – to re-position a window:

1. Position cursor on the title bar. Cursor should be in the shape of a pointer (arrow).
2. Hold down the left mouse button and drag the window to the new position.

task switching – changing from one window to another:

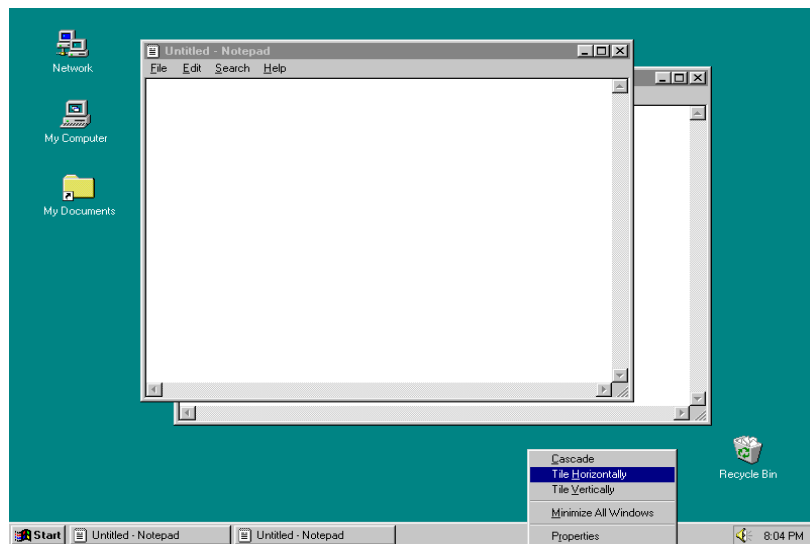
Several windows can be opened at the same time, but only one can be active at a time i.e. you can only work in one at a time. The title bar of the active window is blue. Click anywhere in a window to make it active. To practice : open two Notepads. Type your name on one, then switch to the other one and type your school name.

Open windows are also shown on the taskbar. To make this window active, click on its button on the taskbar. This will bring the window to the front of the other. To practice: maximise the window with your name on. On the taskbar the button for this window will show as pressed in. The window with your school name on is now hidden and shows as greyed out on the taskbar. To make this window active, click on its button on the taskbar. This will bring the window to the front of the other.

tiling - arranging open windows on the desktop

Sometimes you need to work on two or more windows at the same time. It is best to arrange them side-by-side (vertically) or one above the other (horizontally) so that you can easily switch from one to another. You can do this:

- manually by dragging them with the mouse and resizing them
- automatically by right-clicking on an empty bit of the taskbar to bring up a menu and selecting “**tile horizontally** (or **vertically**)”. Note only open windows are tiled. Windows minimised will not be tiled. Open two Notepad windows to practise.



folder structures

The hard disk of a computer is like a miniature filing cabinet with many drawers. If you want to be able to find something later, you must know which drawer you put it in. The drawers of a computer are called **folders** (or directories) and each folder can have sub folders, which can also have sub folders! Each folder or sub folder must have a name. Documents that you create should be saved in a folder of your own name (e.g. Dara) which is itself a sub folder of My Documents.



a folder

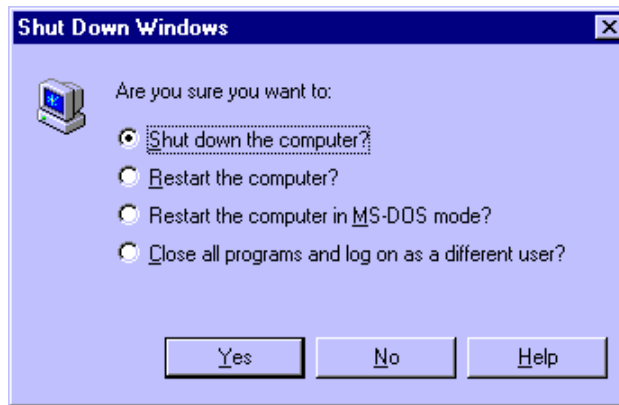
The easiest way to open a document is to double click **My Documents** on the desktop. Then double click the folder which contains the document. Find the document you want and double click its icon.

Further reading: open PC-01\Notes\The Hierarchy of folders to see the structure for this school.

switching off the computer

It is important you shut down the computer properly or it will eventually stop working.

- Click the start button on the desktop
- Click shutdown on the start menu to bring up a dialogue box
- Select the Shut Down option (if not already selected) in the dialogue box
- Click Yes
- When the light on the system unit goes off, switch off at the mains



If the computer is not shut down properly it will run *Scandisk* when it starts up again. Scandisk checks for any damaged files and tries to fix them.

If there is a power cut, switch off at the mains so the computer will not switch on by itself when the power comes back on.

If there is a lightning storm close to the school, shut down quickly and do not use the computer until the storm has passed.

Further Practice: open PC-01\Sounds\Sounds and learn to pronounce and spell.

revision

1. Name the types of computers.
2. Name some hardware.
3. What do you use to: a.) write a letter, b.) do some calculations, c.) draw a picture?
4. What are Notepad, Excel and Paint?
5. Give another name for software?
6. How do hardware and software talk to each other?
7. What is the OS on your computer?
8. Practise switching on the computer. How do you know your power is on?
9. Name the different parts of the desktop.
10. What controls the pointer on the desktop?
11. Which mouse button would you click if you want a short pop up menu?
12. Show how you would open Date/Time i.e. My Computer > Control panel > Date/Time.
13. Open the program Notepad.
14. Resize the Notepad window to a big square. Move it to the bottom right corner. Maximise it. Restore it. Minimise it. Reopen it. Close it.
15. How do you know a program is opened when you cannot see the window?
16. Step by step practise tiling two Paint windows side by side
17. Step by step practise tiling two Notepad windows horizontally.
18. When there are more than one windows open on the desktop, how do you know which is active?
19. Practise shutting down the computer.
20. Practise PC-01\Sounds\Sounds.