

Windows XP

Objectives

This unit will provide an introduction to the MS-Windows XP client operating system. The emphasis is on the minimum knowledge required to work productively on your Personal Computer.

A good basic knowledge of the way in which the operating system works is essential, because no matter what application you will be using, you will be confronted with the same common interface elements.

This unit will introduce the following learning objectives:

- What does the operating system do?
- How to use the mouse and keyboard.
- The appearance of the basic desktop and the names of its elements.
- How to start and close an application or a document.
- How to control the appearance of document and application windows.
- How information is stored on your computer and how you can find it.
- How to manage multiple applications at the same time and how to transfer information between them using the clipboard.
- Introduction of some useful Windows accessory applications.

Introduction to MS-Windows XP

What Is the Function of the Operating System?

Microsoft Windows is the **operating system** of your personal computer. It is usually referred to as MS-Windows, or even “Windows”. Without an operating system, you would not be able to use your personal computer. It performs the following functions.

- It is the **interface** between your hardware and your application software: e.g. it directs output for the printer, checks the various storage devices, interfaces with the monitor or sound card etc.
- It manages the various **applications** which you are running: e.g. it allocates the central memory and central processing time between the active applications, ensures the integrity of data which is used by more than one application or user at a time, prevents “misbehaving” programs from damaging your other applications, enables the transfer and linking of data between applications etc.
- It manages the **storage** of data (and program) files on disk. It keeps track of where and how your data and programs are stored on your floppy or hard disk.
- It is responsible for the **common look**, feel and operation of the shared functions of all applications e.g. keyboard and mouse input, functionality of the windows, on-line help, opening and closing documents, printing and font handling. The “look-and-feel” of the operating system is also referred to as the **user interface**.
- It comes with a number of frequently-used **tools** built-in such as a calculator, a note-pad, screen saver, multimedia player, graphics editor, system utilities and even some games.

Every few years, Microsoft – the company that develops and markets MS-Windows – creates an updated, more powerful version of Windows. To keep track of the different versions, each has its own version name. Although a very early version “Windows 1.0” was released in the 1980s, the first widely used version was Windows 3.11. This was followed by the hugely popular Windows XP and Windows 98, and the less widely spread Windows 2000/ME. The latest version is Windows XP. It is a very powerful operating system support-



ing many advanced features such as networking, security, multimedia and powerful accessories.

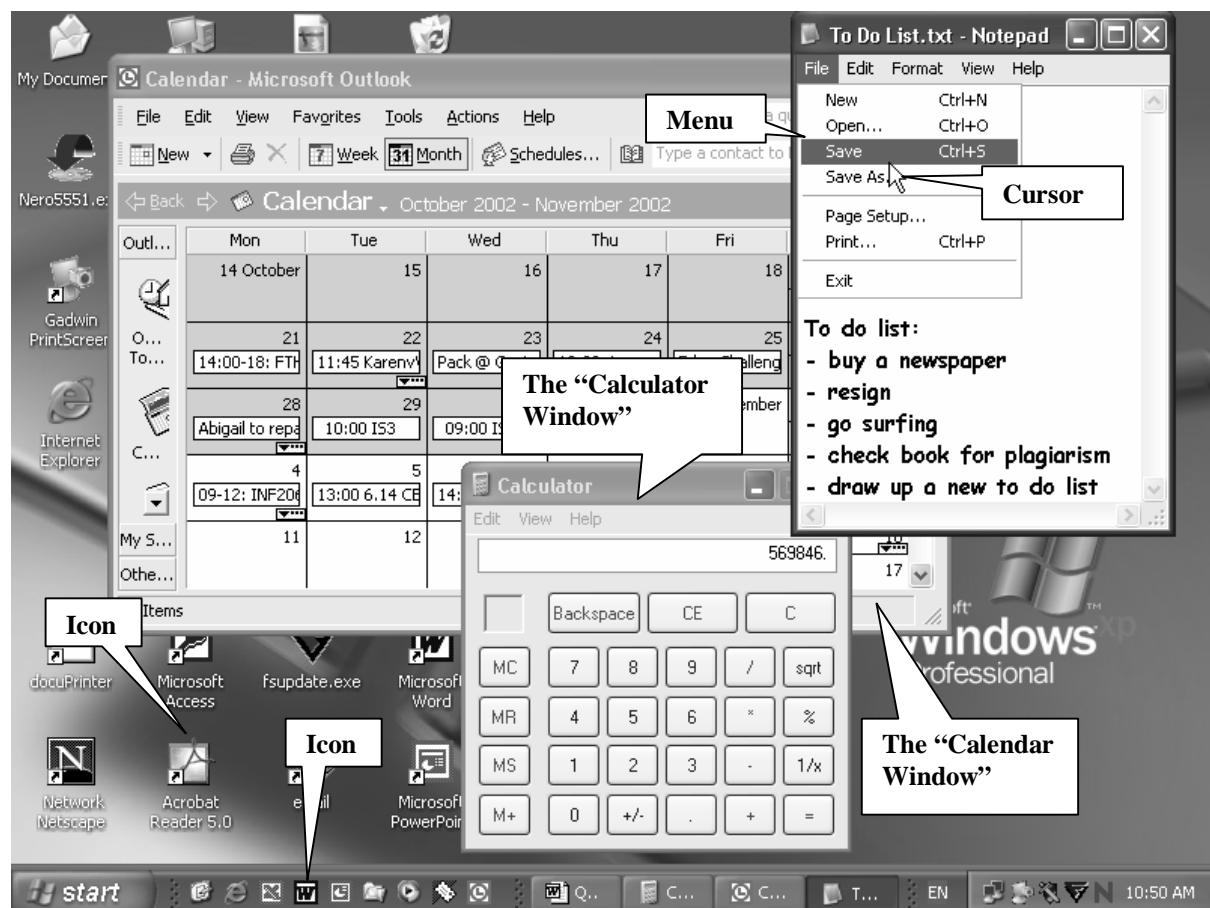
In this guide, we will only introduce those few features that you need to get started. We have tried to be as generic as possible so that, even if you are using an older version of Windows, you should still be able to find your way around. It is possible, and indeed fun, to customize (or change) almost every single element of the Windows interface. So if you are using a computer that is being used by other people, chances are that some user interface elements have been changed.

A Graphical User Interface

Windows XP is an operating system with a **graphical user interface (“GUI”)**. This means that it represents commands and options graphically on the screen using **icons** (small pictures on which you can *click*) or **menus** (lists of commands from which you can select).

The Desktop Metaphor

Windows XP uses the metaphor of a **desktop** from which all your information processing tools and information is accessible. On your monitor, you will see a stylised image of your electronic desk: this might include a clock, a calendar, an address book, a calculator, incoming mail but also a spreadsheet and a word processor.



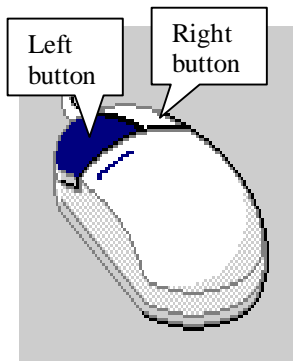
Windows

Each of the **tasks** or jobs that you are busy with has its own **window** and you can freely switch between the various tasks or windows as you wish. Windows are typically partially on top of each other, so you can have several windows visible on your desktop at once. (Hence the name of the operating system: *Windows*!) When you want to devote all your attention to one specific task, you may wish to expand the size of its window so to take up the entire screen (called *maximizing* the window), thus obscuring everything else on the desktop that is now *underneath* it.

Essential Input Skills

You will need to master the following skills in order to operate Windows XP.

Using Your Mouse



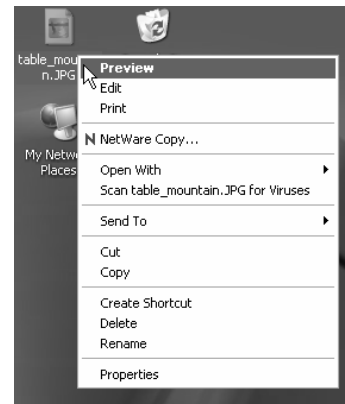
One of the most important input devices is the *pointing device* that comes with your computer. It can be a mouse, a trackball, a touch pad, or a similar device. We will assume that you use a *mouse* as your pointing device; most other pointing devices operate on similar principles. Some mice have three buttons and/or a wheel; test the middle button to see what it does!

The following mouse actions are critical GUI survival skills.

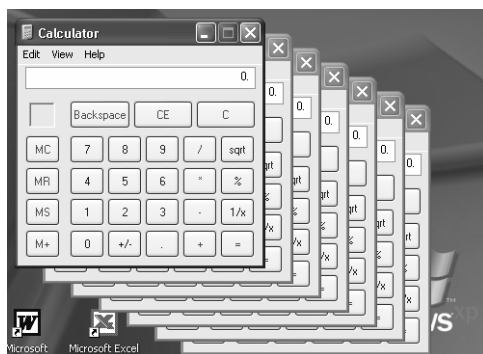
Clicking a (screen-) object: move the physical mouse in such a way that the *mouse cursor* on your screen (usually an arrow, hour-glass or I-shape) moves to the object to be selected or activated. Press the *left-button* down and release it again without moving the mouse.



Right-clicking an object: as above but use the right-side button instead. This typically displays a menu with special and object-specific commands. On the left is an example of a “right-click menu” for the “table_mountain.JPG” icon.



Double-clicking an object: the same as (left-)clicking an object but you press and release the left button twice in very quick succession. New users find it sometimes difficult to perform this action *without moving the mouse* at all. It is also important to be very quick since you have about two-tenths of a second to perform this press-release-press-release action. Playing arcade games is a good way to practice!



Dragging an object (such as a graphic in a document) usually with the intention to move or copy the object: position the mouse cursor on top of the object, press the button down but *do not release it*. Instead move the mouse so that the cursor (and the object underneath it) moves across the screen until you arrive at the desired location where you can release the button and accordingly “drop” the object.

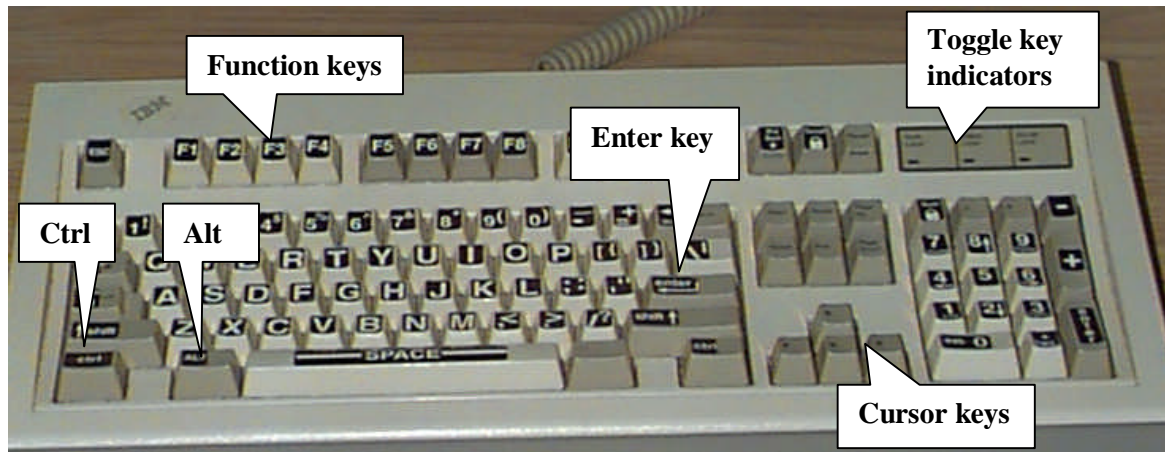
(Note: A window can only be dragged by dragging its title bar)

Hovering your mouse above selected icons or menu options may display tooltips or smart tags with a brief description of what the icons does or related information. E.g. hovering your cursor above the *Print* icon will display the name of the default printer, hovering above the time on the task bar will display the current date.



Using the Keyboard

The keyboard is used mainly for typing text. Because it is often not convenient to switch from keyboard to mouse, it also allows you to select commands. The following special keys are important.



Function keys are located along the top of your keyboard and labelled **F1**, **F2** ... **F12**.

Cursor or **arrow keys** move the text cursor that controls where you enter or edit the text (or objects) in your document. The text cursor is usually a flashing vertical bar.

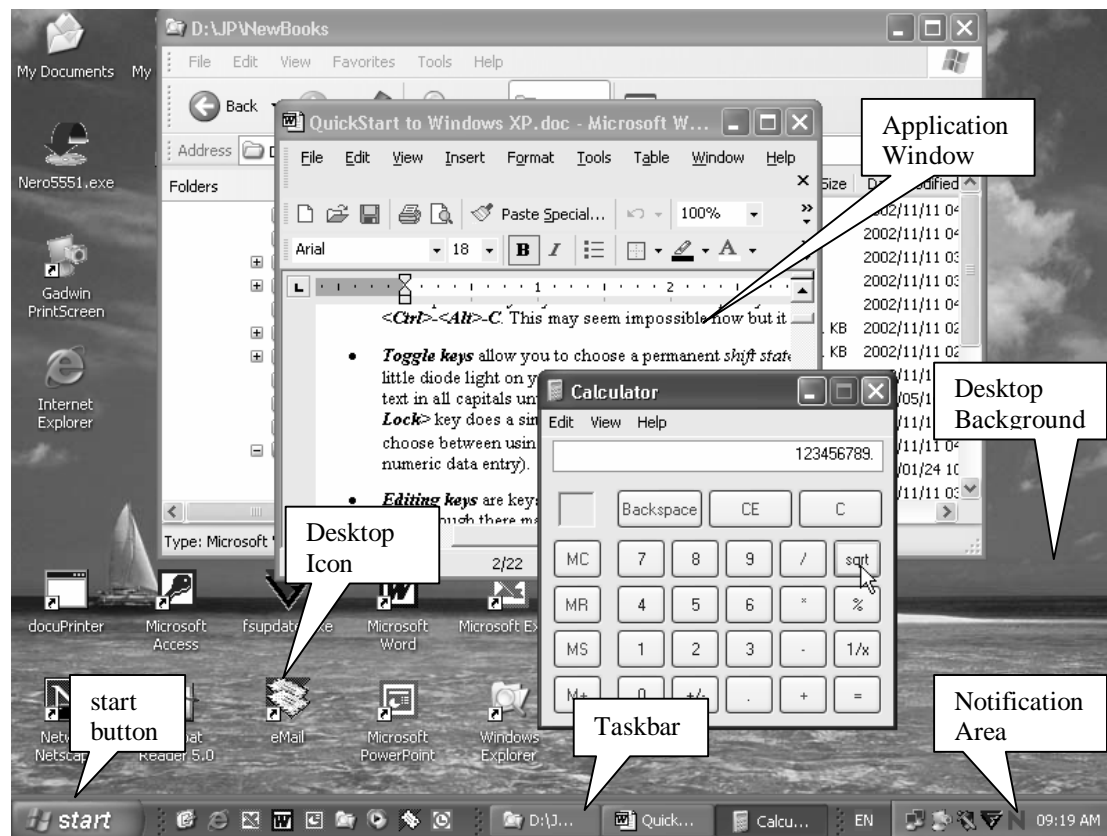
Combination keys require the holding down of two (or more) keys simultaneously. They typically involve the use of one of the following three keys: **Shift**, **Ctrl** and/or **Alt**. When required to type e.g. **<Alt>-B** you would do the following: first press and hold down the **Alt** key, then press and release the **B** and (more or less simultaneously) release the **Alt** key again. It is important not to hold down the keys too long (i.e. less than about a tenth of a second) and also to *first* press (and hold) the respective keys. Some commands require you to press *three* keys simultaneously as in **<Ctrl>-<Alt>-C**. This may seem impossible now but it will make sense after some practice.

Toggle keys allow you to choose a permanent *shift state*. Their state is indicated by means of a little diode light on your keyboard. The **<Caps Lock>** key, when pressed once, will allow you to type text in all capitals until you press it again when you revert to lower-case letters again. The **<Num Lock>** key does a similar thing except that it applies to the *numeric keypad* only: it allows you to choose between using the cursor (arrow) keys (usually moving the text cursor key) and digits (for numeric data entry). The function of the **<Scroll Lock>**-key depends on the application.

Editing keys are keys with a fairly generic meaning: they perform *similar* actions in most applications though there may be small differences depending on the applications. **<Back Space>** typically erases the text character (or any other object) to the *left* of the text cursor, **** erases characters to the *right* of the text cursor, **<Tab>** moves the position of your text cursor to a next field.

Elements of the Windows XP Desktop Screen

The screen you see after loading Windows is the *desktop*: your electronic work space. This workspace may be customised to a large extent to reflect your work habits and preferences, although generally not by network users. The following elements are found on a “standard” installation of Windows XP.

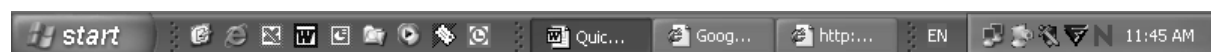


The Start Button



The start Button, usually found in the bottom left corner of the screen, provides you with the *start Menu* from which you can access every application as well as the documents you worked on recently. It also allows you to change the set-up of your system, provides you with help on how to operate Windows XP and allows you to shut down your system in an orderly manner when you have finished working.

The Task Bar



Normally, the task bar is always visible at the bottom of the screen. It lists all the tasks that are currently active by means of a small icon and short description.

On the right of the task bar is the notification area. It may display small icons usually related to background tasks that are continuously managed by the operating system i.e. tasks that are taking place while you are working on something else. Examples are the printing of a document, the playing of music on your CD-ROM drive, charging of your notebook battery,

the receiving of a file via the network, etc. Right clicking on these items allows you quick access to information about these tasks. You are also often able to affect their operation, e.g. change the volume of your speaker or stop the printing of your document.

At the extreme right, you will also usually find a clock representing current system time. Hovering your mouse above the time will display the current date.

Desktop Icons

Various desktop **icons** will be positioned on the desktop in an orderly or random manner. They are a quick, alternative way to access frequent tasks: just double-click. Some of these icons represent commonly used applications while others take you directly to documents. Icons of programs that think highly of themselves will remain *floating* on top of application windows (they also only need a single click.) Some important desktop icons are:



My Computer: explore your personal computer, the attached hardware and change its configuration.

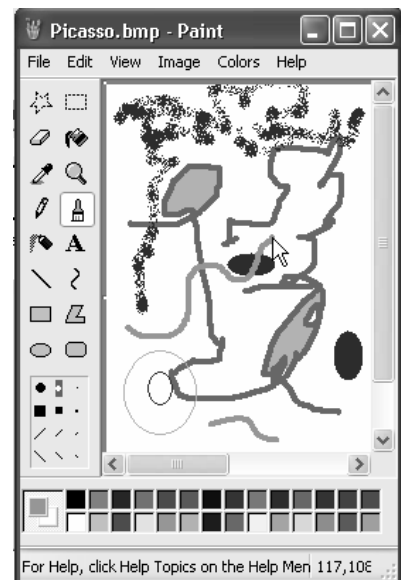
Network Neighbourhood: explore the resources available on your computer network.



Recycle Bin: the electronic version of a wastebasket where all files are sent to when they are deleted. You may be able to recover these from the recycle bin by clicking on the bin.

Application Windows

As soon as you have “*launched*” a task, it will have its own window. Many windows may be visible on the desktop, often partially overlapping each other. The task that is currently active i.e. the one that you are busy with will have a *blue* title bar (default set-up). A task that is not active but seeks your urgent attention (e.g. printer fault, schedule reminder) may have a flashing title bar although a really urgent task that requires immediate action will probably take over and super-impose a message window on top of the desktop.



Desktop Background

You can choose between a variety of backdrops or images to customise the way the background of your desktop looks. This allows you to fill up the empty space not occupied by application windows or icons with something more attractive, distracting or any other expression of your personal temperament or personality.

Screen Saver

If no keyboard or mouse activity occurs for a while, the entire desktop may change to an animated or artistic image.

Where to Find More Information

These notes will provide you only with the basics of Windows XP. In your local bookshop, you are likely to find many books introducing you to Windows XP. Warning! Do not buy any *programmer* or *technical* guide to Windows since they deal with much more advanced features. If you have a computer at home which has Windows XP loaded, you have a copy of the *Microsoft Users Manual* that comes with your software or computer. But there are three other *on-line* resources you *should* use immediately.

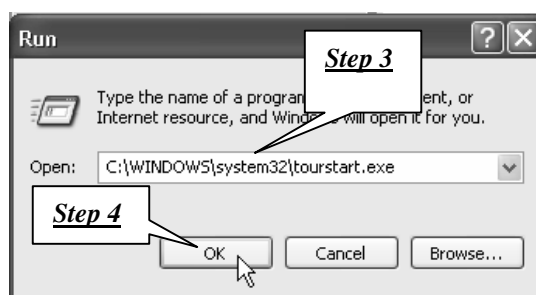
The On-line Tour to Windows XP

Windows XP comes with an introductory *tour* demonstrating its basic functionality and options, as well as more advanced topics. To see the tour, follow the following steps.



Step 1: Click the *start* button on the task bar. This will display the start menu.

Step 2: Click the *Run...* option of the start menu. This will open the *Run* window.



Step 3: In the *Run* window, type the following text in the "Open:" text box:

"C:\WINDOWS\System32\tourstart.exe". Note: NETWORK users may need to enter a different path (text).

Step 4: Click on the "OK" button.

An alternative way of launching the Windows XP Tour is by going to the *Programs* option of the start menu, selecting the *Accessories* folder and choosing *Tour Windows XP*.



Getting Help on Specific Issues

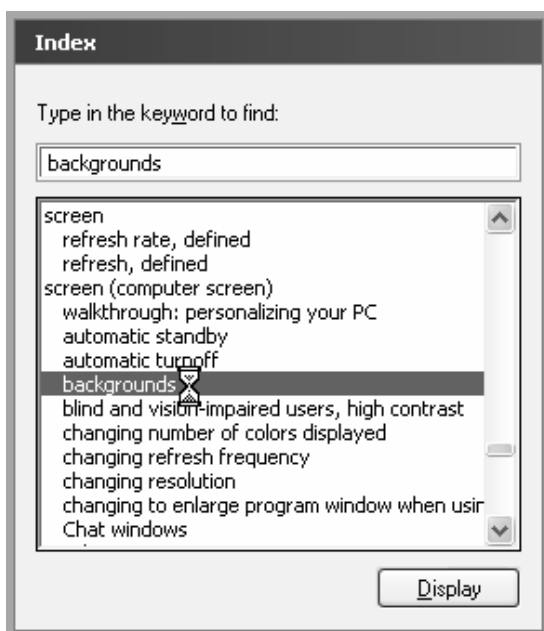
If you have a specific problem or query, you may find a direct answer in the Windows help.

Click the *start* button on the task bar (see step 1 above). This will display the start menu.

Click the *Help and Support* option on the start menu. This will open the *Help and Support Center* window.



If you do *not* know the exact word which describes your problem (or if you cannot find a relevant entry in the index as per below) you should enter some of the words describing your problem in the search box. This allows you to search the entire help file for specific words or phrases. Although it is a slightly slower method, it is much more general.



If you know the exact technical word for your problem, you should click the *Index* tab of the help window. This displays an alphabetical index of all keywords on which Windows provides help. Type (the first few of letters of) the word that you are looking for and the list of keywords will automatically scroll down to the relevant entry. You may wish to try a synonym or related word if the word that you are looking for is not listed.

Windows help will often offer to demonstrate how to perform a certain action by indicating a “Click here to ...” button. At the bottom of a specific help screen, there is usually also the option of clicking through to *Related Topics*.

To *exit* help, click the closing icon in the top right corner of the window.

Search the web

The web is full with useful information and tutorials on how to use Windows and Office. Do a simple search – or visit www.microsoft.com – to have almost any query answered.

Starting and Quitting a Program

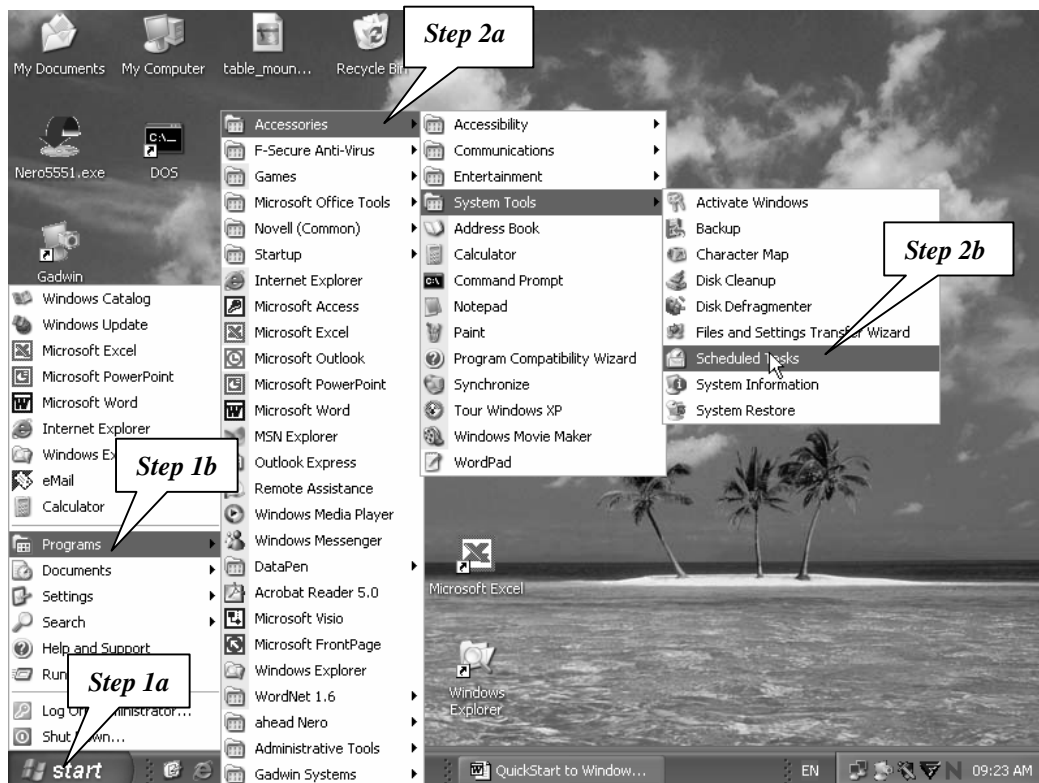
There are a number of different ways to start a program or application.

Various Ways of Starting a Program


1. If the program has an icon on the desktop, you can load it by **double-clicking its icon**.
2. If you want to edit an *existing* document that was created by the program or application, Windows XP remembers which program can edit the document and will automatically load the program *along* with the document. **Load the document** from *Windows Explorer*, the *Document*-option on the start menu (if it's a recent document) or its icon on the desktop (if you have created one.)
3. Use the **Run-command** from the start menu. This requires you to remember its location on your hard disk and some familiarity with the way Windows locates information on the disk. Refer to p.8 "How to run the Windows Tour" for an example.
4. Use the *Programs*-option from the start menu.

Since this last option can *always* be used, it will be demonstrated below.

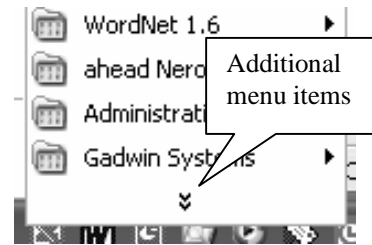
How To Start a Program from the Start Menu



Click the start button (step 1a) and select the *Programs* option (step 1b).

Note: to select an option that has sub-options (indicated by a solid sideways triangle ) , you can just move the mouse cursor above the option (without clicking): the sub-menu will

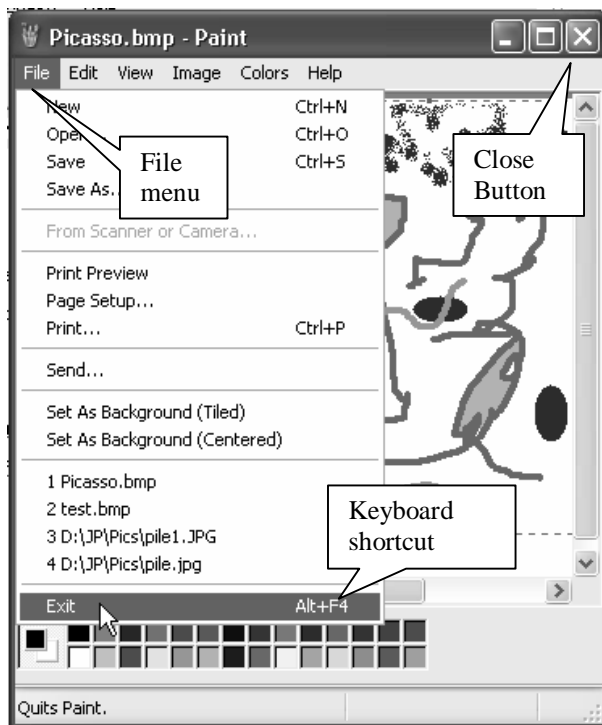
be displayed automatically. Move your mouse cursor *sideways* across to the sub-menu. A chevron at the bottom of a menu indicates that more (but infrequently used) menu items are available – these will be displayed by clicking on the chevron or by waiting for a short while.



Select the folder that contains the program (step 2a), and click the desired program (step 2b). The program will be loaded, open its own application window and a button for the application will appear on the taskbar.

To Quit a Program

There are a number of different ways to **quit** (also known as **exit** or **close**) an application.




1. Click the **Close button** in the upper-right corner of the window.
2. Click on the **program icon** (top right corner of the window) and select **close** from the window.
3. Press **<Alt>-<F4>** on the keyboard (known as the *keyboard shortcut*).
4. Select the **Exit** option under the File-command.
 - Using the mouse: click on **File**, and move the cursor down to and click **Exit**.
 - Using the keyboard: press **<Alt>-F** to select the File menu and then press **X**.

Before closing an application, make sure that you have saved all the information. Many programs, including all Office programs, will remind you if you have made changes since your last “save” and you want to exit the application.

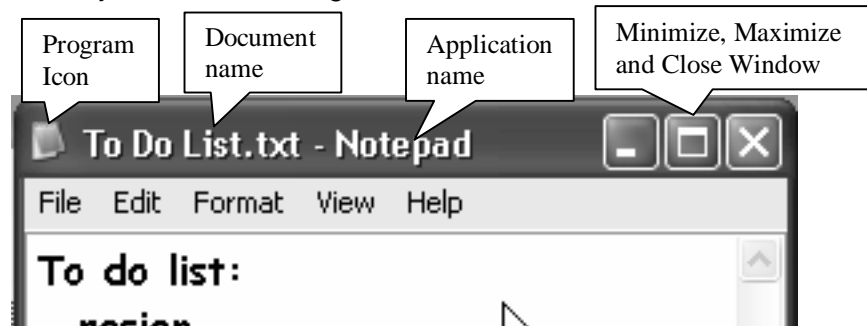
A Note on Using Menus

As noted above, apart from clicking a desired menu option, you can also use the keyboard. Press the **<Alt>** -key in combination with the *underlined* letter of the menu option e.g. **F** for the **F**ile menu, **E** for the **E**dit menu. Note: it is not always the first letter of the menu option.

In the default setting for Office XP, only the most frequently used options on each menu are displayed. Waiting a short while or clicking the  button will display the less frequently used menu options. (Advanced users may change this default in Office XP using the **Tools • Customize • Options • Always show full menus** setting.)

Working with Windows

All applications, tasks, documents and even some menus and system messages appear in separate windows. Most windows share a number of common features that control their appearance and location on your desktop. It is important that you recognize these features because you will be working a lot with various windows.



The Window Title Bar





The top bar of a window displays the *title* or *name* of the window. If it is an application, the window title is the name of the document that you are editing followed by the name of the application. The bar will be darker blue (or another colour if you changed the Windows desktop settings), if the window is currently active i.e. processing your keyboard inputs.

If it is an application window, the program icon will appear on the *left* of the title bar. Clicking on this icon will present a menu that allows you to exit the application or customise the window size and location. Alternatively, you can click one of the buttons described below.



Using the Buttons on Title Bar

On the *right* of the title bar, you may find some of the following buttons:

-  The *Help* or *Question Mark* button; found on many dialog windows. Click on this button, followed by a click on any window item, to see more information about the item.
-  The *Minimize* button. Click on this button to remove the window from the desktop. However, the task remains in memory and can be made active again by clicking on its taskbar button.
-  The *Maximize* button. This will expand the window to fill up the entire desktop. All other open windows will be hidden underneath the maximised window. The *Maximize* button will disappear and be replaced by the *Restore Down* button.
-  The *Restore Down* button. This will shrink a maximised window back to its original size.



The *Close* button. This will close the window completely. If it was an application or document window, you will exit the application or document. If the window had a taskbar button, it will disappear. The task has been terminated and is removed from memory.

Moving a Window

To move a window to a different location of the desktop, *drag* the title bar to the desired location. Move the mouse cursor anywhere on the middle section of title bar, press and hold down the left button, move the cursor (along with the entire window) to the desired location, and finally release the right button. You can obviously not move a maximised window.

Changing the Size of a Window

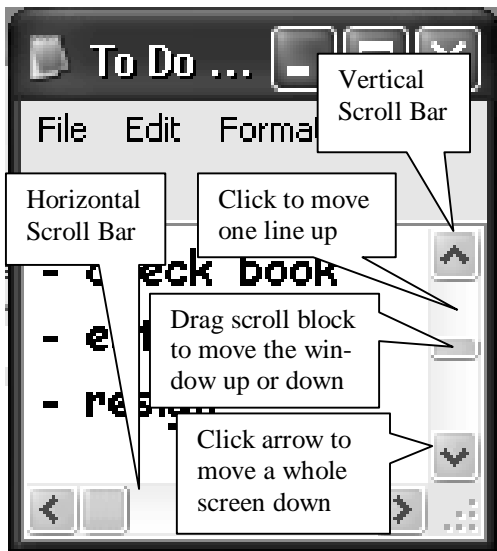
Change the size of a window by dragging any one of its borders until you are satisfied with its size. The mouse cursor changes to a double-arrow when it crosses a window border to

- ↕ Vertical re-size cursor:
- ↔ Horizontal re-size cursor
- ↖ Diagonal re-size cursor
- ↗ Diagonal re-size cursor
- ↕ Move window cursor

indicate this option. You can change the width *and* height simultaneously by dragging one of the *corners* of the window.

Some windows have a fixed size; you cannot change their size. And you can (obviously) also not change the size of *maximised* windows.

It is also possible to change the window size by clicking on the program icon (top left corner)



Scroll Bars

Many programs allow you to edit documents that do not fit in the window. You should visualise your document as being “behind” your monitor and the window just shows you one small portion of the entire document. Horizontal and vertical *scroll bars* will show the position of the window relative to the entire document. The size of the scroll block represents the relative size of the portion of the document which is visible in relation to the entire document. By *dragging* the block you can move the window quickly over the document. Clicking on an “empty” part of the scroll bar will move the window one screen in that relative direction. Clicking on the *arrow* button of the scroll bar will move the window a little in the respective direction.

How Information Is Stored on Your Computer

The information that is stored on your computer consists of two types: *documents* and *programs*. They are both stored in the same way and this storage is physically organised in a *hierarchical* manner.

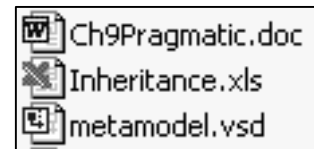
Files



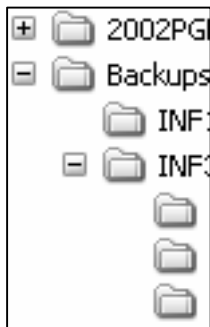
Documents (and programs!) are stored as one (or more) *files*. Files have a name (given by you on creation), size (measured in bytes or kilobytes) and various technical attributes such as the date and time when last modified, which program created it, whether the file has been backed up (*Archived*), whether the data can be modified (*Read-Only* or not) etc.

A simple *document* such as a letter or spreadsheet will be stored in one single file. Complex documents such as multiple chapter books or large databases can be split up in many different files. *Programs* are also stored as files, though Windows treats them as a special type of file.

The most important identifying element of a file is its *name*. This name can be any one-line textual description consisting of letters, digits, spaces, and some special symbols. Windows will also assign a default file “*extension*” which consists of three additional letters to identify the type of file e.g. the originating application for document files or the technical type for program files. Programs which were not especially designed for Windows XP may not be able to process a long file name and Windows XP will create an eight-letter abbreviation for their benefit. You may have many files with the same name as long as they are stored in different folders.



Folders

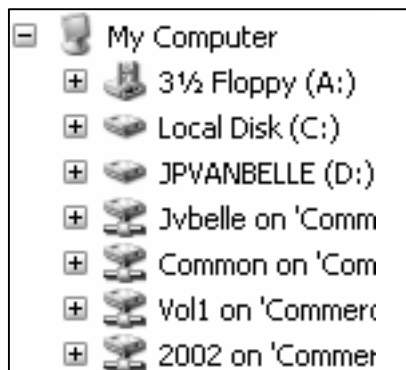


If you create many files, you will find that you need to organise your files. Similar files or documents are grouped in *folders*. Although a folder can contain as many files as you wish, it makes sense to limit your folders to a reasonable and easily searchable number of files. You can give a folder any name you like and group your files into folders according to date, purpose, project, application or any other way you consider most appropriate.

It is important to note that folders can contain (sub-)folders which can again contain (sub-sub-)folders etc. This structure of folders within folders within folders can be visualised as a tree. The primary folders are said to be located at the *root* of this tree. Folders are also identified by a name which is similar to the names given to files. You can also create two or more folders with the same name as long as their *parent* folders (i.e. the folders they are a sub-folder of) are not the same. The full list of folders all the way “down” to the root is called the *path*.

Drives

Folders and their files are stored on *disk drives*. Drives are identified through a capital letter followed by a colon e.g. **C:** or **F:**. Drives may be one of the following.



- Floppy or stiffy diskettes: these have a very limited storage capacity and very slow but are portable or removable media i.e. you can take them with you. This is normally the **A:** drive. If you have two diskette drives, the second drive will be the **B:** drive.
- Hard drives inside your computer: these are much faster and have many times the capacity of a diskette but are (usually) not removable. The first hard drive is identified as your **C:** drive and if you have more than one (or if the drive has been split or *partitioned* into large parts for technical reasons) the subsequent drives will be named **D:**, **E:**, etc.
- You may have other types of drives, e.g. an optical drive such as a *CD-ROM*, *WORM* or *DVD*. These will be normally be identified by the next available letter in the alphabet.
- If you are linked and logged in to a network and you have access or storage space on the network server, the drive(s) of the server will be *mapped* as additional available drives. Normally there will be quite a few drives, usually starting from **F:** and then down the alphabet.

Paths

Although most of your work with files in Windows applications will be done using a graphical interface, every now and then you will be required to deal with a full file name, including its *path*. In essence, this is an unambiguous textual description of where the file is located on your system.

A typical path name includes the drive, the list of all the folders from the root down to where the file is located and the file name. An example of a path would be:

`C:\My Documents\My Pictures\Family\2002\Jim is having fun.JPG`

This references the file with the name “Jim is having fun”, of the type “JPG” (a typical graphics file format used for digital photographs). The file is located in the folder “2002”, which can be found inside the folder “Family”, which is inside the folder “My Pictures”, in its turn inside “My Documents” which resides on the C: hard drive.

Sometimes, a relative path is used as in:

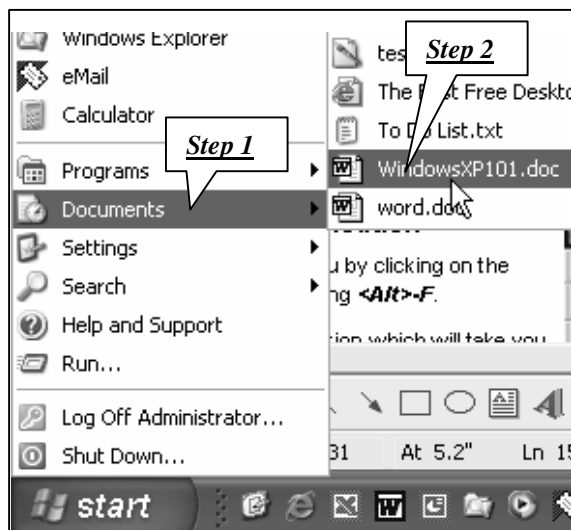
`..\Family\2001\Art.doc`

This would indicate file “Art”, a word document, in the folder “2001” inside the folder “Family”. The “Family” folder can be found in the *parent* folder of the current folder.

Opening and Saving a Document

Just like there are different ways of starting a program, there are several ways in which to open a document,.

- Double-click a document icon on the Desktop, within the *Windows Explorer*, or from within *My Computer*.
- Use the **Search** command on the start menu to locate the document and double-click its icon.
- Load the application which created or edited the document and use the *File Open* command. Some applications list the most recently edited documents at the bottom of the **File** sub-menu so you can select them directly.
- Use the **Documents** sub-menu from the *start button*. This only works for documents that have been edited relatively recently by applications.



To Open a Recently Used Document from the Start Button

Step 1: Click the *start button* and point to the *Documents* sub-menu (or type the letter *D*).

Step 2: From the *Documents* sub-menu, select the document you want to open by clicking it.

To Open a Document from Within an Application

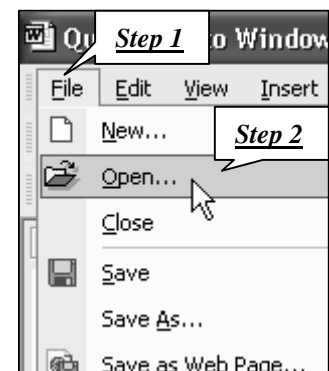
Select the *File* menu by clicking on the *File* command or pressing **<Alt>-F**.

Select the **Open...** option which will take you to the *File* window which allows you to enter or search for any document file.

Some applications will list the most recently used documents at the bottom of the *File* menu so that you can open these documents directly without having to go through the *File* window.

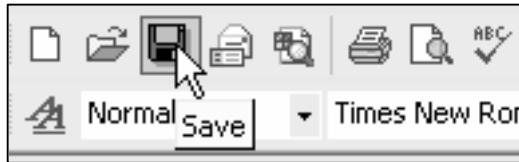


A quick alternative to the menu is by clicking the **Open** Folder icon on the standard toolbar or using the **<Ctrl>-<O>** keyboard shortcut.

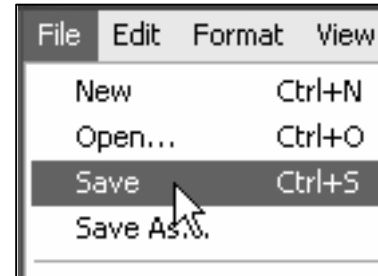


Saving a New Document

One of the most important skills is the saving of your document. Regardless of the application that you are using, the way in which a document can be saved is the same.

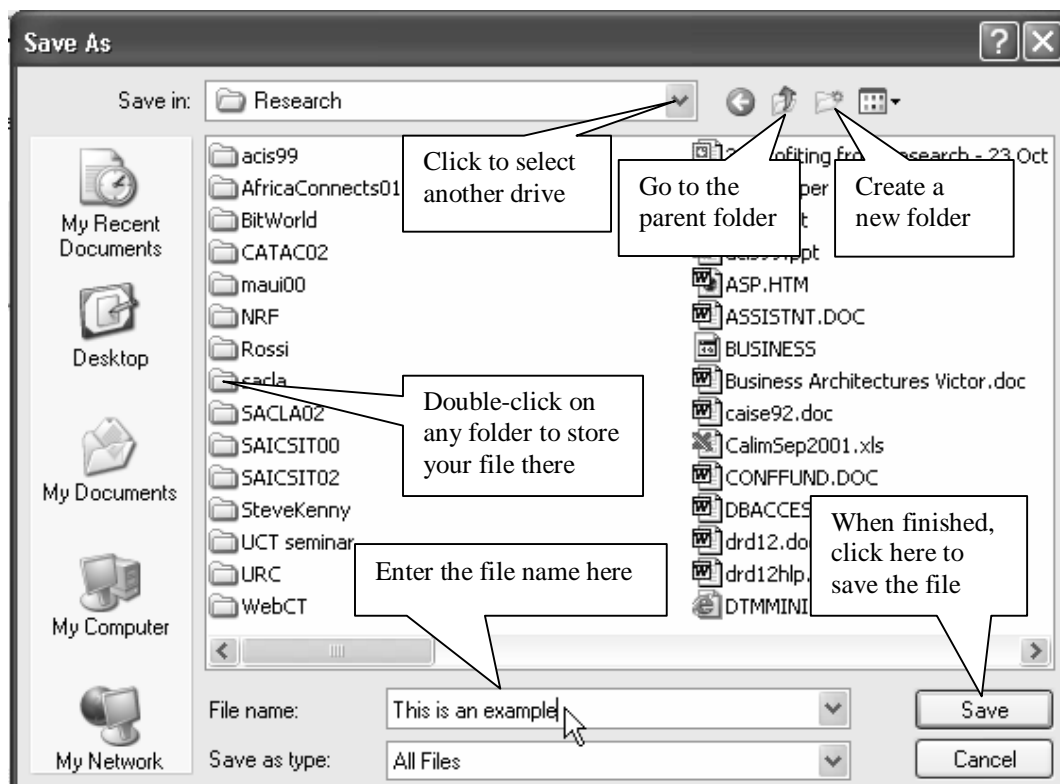


If your application has the *standard toolbar*, you can simply click on the diskette icon.



The alternative way to save is to select the **S**ave option from the **F**ile menu or the **<Ctrl>-<S>** shortcut key.

This will open the following dialogue window:



By double-clicking on the appropriate folder and entering a file name, you will be able to save your document for future use. This window will not **pop up** on subsequent saves, since your application will use the same filename and folder to store your document. If you wish to save a changed or edited document under a different name or in a different location (folder), you can use the **Save As...** option of the **F**ile menu.

File names can generally include any letters, numbers and spaces. Avoid special characters and punctuation symbols, because many carry special meanings to the operating systems and are thus not acceptable or will result in unpredictable behaviour. The following characters should certainly **not** be used as part of a file name: **\ / : * ? " < > |**.

Managing Many Programs Simultaneously

Windows XP allows you to use many different programs (also called applications) simultaneously. The number of programs you can open at one time depends on the complexity of each program and the amount of memory your computer has. Each program can conceivably launch a number of separate (sub-)tasks and open any number of different windows. E.g. a word processor could edit a number of documents simultaneously (each with their own window) and also launch a number of background printing jobs. Depending on your preference settings, different (document) windows belonging to the same program may or may not be represented separately on the task bar.

When the number of applications exceeds the available button space on the task bar, a tiny caret scrollbar appears on the left, allowing you to scroll between different taskbar lines.



If you often work with many applications simultaneously, you may want to increase the height of your taskbar by dragging its upper border up.



Foreground and Background Tasks

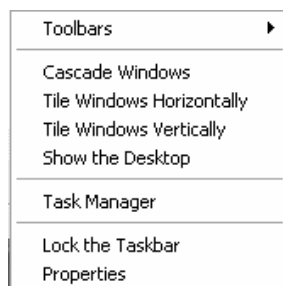
At any time only one program is *active* i.e. *in the foreground*: it is the program that processes all keyboard input. It can be recognised by the coloured title bar (dark blue in the default set-up). Another indication of the active task is its button on the taskbar, which will appear as a “depressed” (darker blue) button. All other programs are said to be *in the background*, though they may still be busy processing data e.g. printing, downloading from the internet or calculating. The background applications may still have windows “open” on the desktop, though the window of the active application will always be “on top” of all other windows.



Minimising a Program

Minimize

By clicking on the *minimize button* a program becomes a background program. Its window will disappear from the desktop.



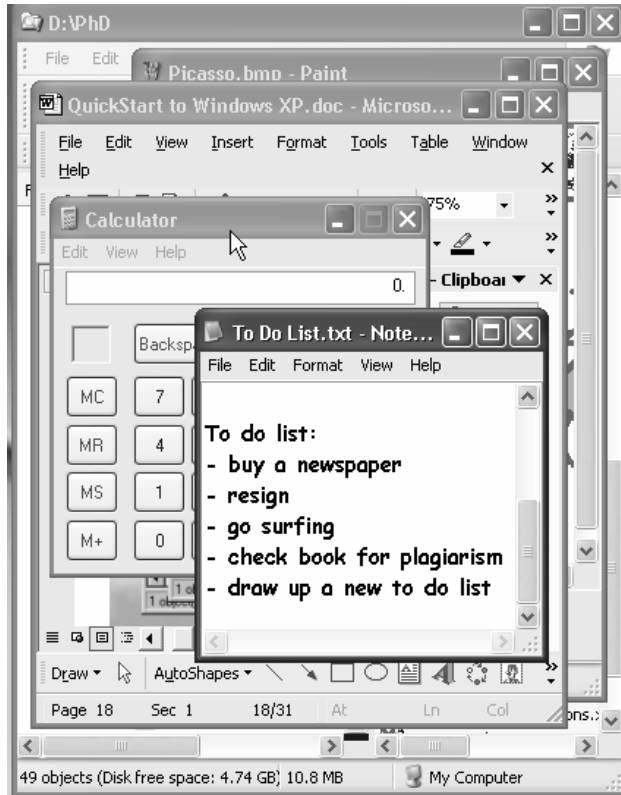
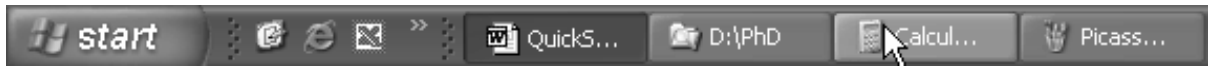
Minimising or Restoring All Programs

A quick way to minimise *all* programs (with open windows) is by right-clicking on any blank space on the taskbar and selecting the **Show the Desktop** option or clicking the **Show Desktop** icon on the task bar. It clears your desktop. You can also restore all minimised programs back to their original windows the same way.



To Switch between Programs

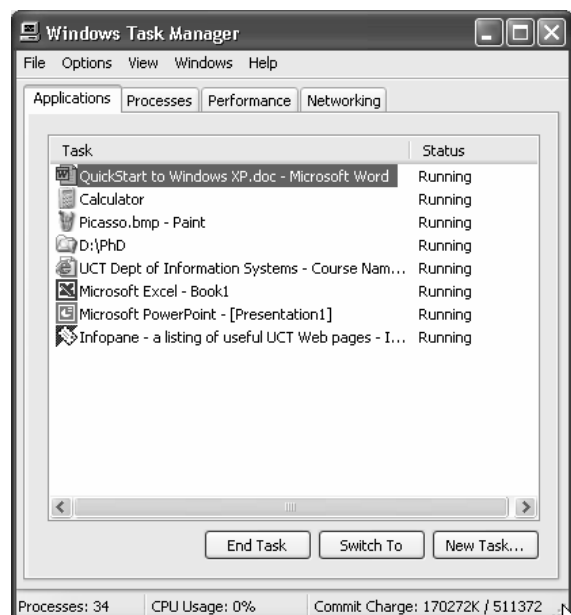
If you have several programs loaded, you can easily switch to the application you wish by clicking on the taskbar button of the program you wish to make active. This will make the previous application a background application.



Another way of switching to another task that has a (part of its) window visible on the desktop is by clicking anywhere on its window. The window of the previous application will remain on the desktop but may now be obscured partially by the window of the foreground application i.e. it now moves “underneath” the active application. Many windows may be overlaying each other, the most recently used ones on top of previous ones i.e. in historical sequence.

The keyboard equivalent for switching to a different task is **<Alt>-<Tab>**

By loading the **Windows Task Manager**, you can get a much more detailed and technical overview of which applications are running and how much of your computer resources they are using. Use the **<Ctrl>-<Alt>-** key combination to access the task manager. This is a useful key combination to remember, since it also allows you to end a misbehaving application which appears to have locked up (disabled) your computer.



Introducing Some Windows Accessories

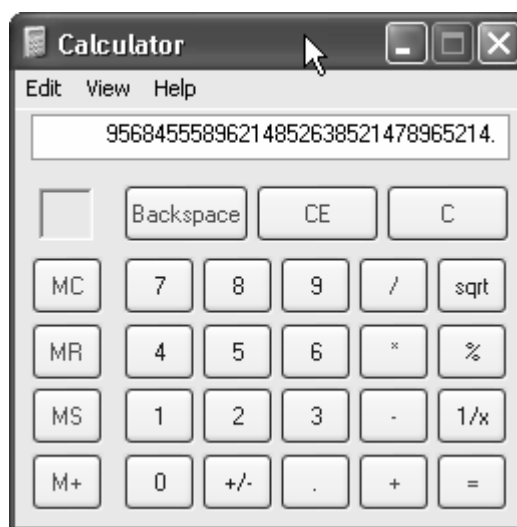
Windows XP includes a number of interesting applications. These *accessories* are available by clicking the *start* button, select *Programs* and then select the *Accessories* group (which should appear near the top of the program sub-menu). This will list various utility programs that are available to you; the exact number depends on your Windows installation and the configuration of your computer.

Calculator

If you want to do some quick calculations without wanting to load an entire spreadsheet application, consider using Windows XP's calculator.

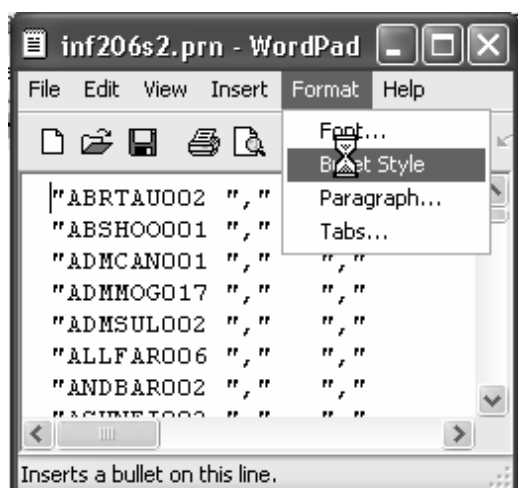
Its appearance ("*interface*") is very intuitive. You can enter numbers and mathematical operators using the numeric keypad or use the mouse to click the buttons on the calculator.

The calculator is more powerful than it may seem at first sight. If you want to do more advanced calculations, such as statistical or scientific calculations, you can switch to the scientific calculator by clicking the View menu option. The scientific calculator also allows you to perform conversions between different number systems e.g. decimal to binary or hexadecimal.



Notepad

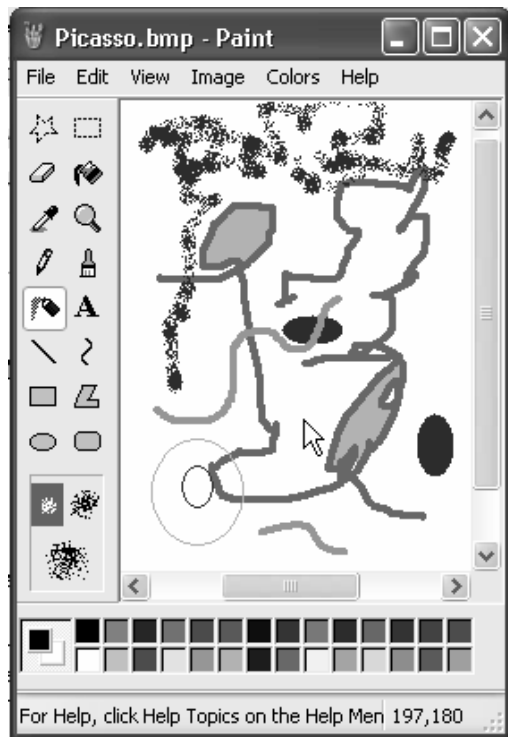
Do you quickly need to take some short notes or edit a small text file? Notepad will do the job quickly using only a tiny amount of system resources. It is a tiny text editor. You cannot do any text formatting or work with fancy fonts.



WordPad

If you want to do some slightly fancier word processing, you could do worse than give WordPad a look. Although it is not as powerful as a dedicated word processor and it doesn't give you access to advanced lay-out and graphics, it is perfectly suited for simple tasks such as correspondence and assignments. Because it is relatively uncomplicated, it has a short "*learning curve*" (the time it takes to learn to use it) and uses not many system resources. Best of all: it comes free with your operating system. It is also a good introduction to

more powerful *Windows* word processors.



Paint

Do you feel like a budding artist? Try your hand at the *Paint* program that comes free with Windows XP. It is a simple drawing, colouring and painting application with a relatively intuitive interface. It is great fun to play with and you can use its drawings in any other application you would like to – or even use them as your desktop background.

(When my young children come and visit me at my office, their first question is: “Daddy, can we play *Windows*?” Translated in adult-speak, this means drawing something in *Paint* and printing it out on the laser printer to show mommy!)

Windows Media Player

The Windows Media Player will play a very wide variety of multimedia files, including sound and music (MP3, Wave, MIDI etc.) as well as movies (e.g. MPEG). It comes with a large variety of dazzling visualizations and powerful CD capabilities.



And Many Others ...

Depending on the configuration of your system, you may have many other exciting *Accessories* available to you, such as the Photo Editor and some exciting games. **Go forth and explore!**

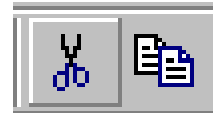
Copy, Move or Delete Information

Windows provides you with a *clipboard* that acts as a temporary holding place for information. It is ideal to move or copy information from one application to another although it can also be used to move information within one single document.

Copying or Moving Text To the Clipboard

Select the text you wish to copy or move by highlighting the portion of the text you are interested in. The easiest way to do this is by *dragging* the mouse cursor from the beginning to the end of the text you wish to select. This may take some practice to get right. Note that many applications will also allow you to select text using the *cursor* keys in combination with the <Shift>, <Ctrl> or <Alt> key.

Click on the *Cut* (or *scissors*) button to move the text (i.e. *cut* or remove from the original document) or the *Copy* button to copy the selected text to the clip board. The text is now placed on the clipboard.



Instead of clicking on the icons, you may use the *shortcut* keys to perform the same action: <Ctrl>-X to move or <Ctrl>-C to copy the selected text.

Yet another alternative is to use the *Cut* and *Copy* options from the *Edit* menu.

Inserting Text FROM the Clipboard

1. Move your cursor to the location in the destination document where you want to insert the text.
2. Click on the *Paste* icon. The text will now be inserted in the document. Alternatively, use the shortcut key <Ctrl>-V or the *Paste* option from the *Edit* menu instead of clicking the *Paste* icon.



If you wish to insert the *same* text in other locations or documents, you can repeat steps 1 and 2 as many times as you wish, until you place some other text on the clipboard.

Copying Other Objects

The clipboard can also be used for non-textual information. You can copy or move pictures, drawings, tables, clip-art and other objects. Follow exactly the same steps as above but to select a single object, it is often sufficient to just click on the particular object once to highlight the object. In fact, you can select text and objects located in the text in one pass. Another method of copying objects, say a picture on a web page, is by right-clicking the object concerned and selecting the **Copy** menu option.

If you have copied an object from one Windows application to another, you can edit it at a later stage by double-clicking it. Windows “remembers” which application originated the object and will load that application automatically. This object is said to be “*embedded*” in the (destination) document.

Old non-Windows compliant applications may not know how to handle a complex object from the clipboard and may change its format slightly or even turn it into complete gibberish.

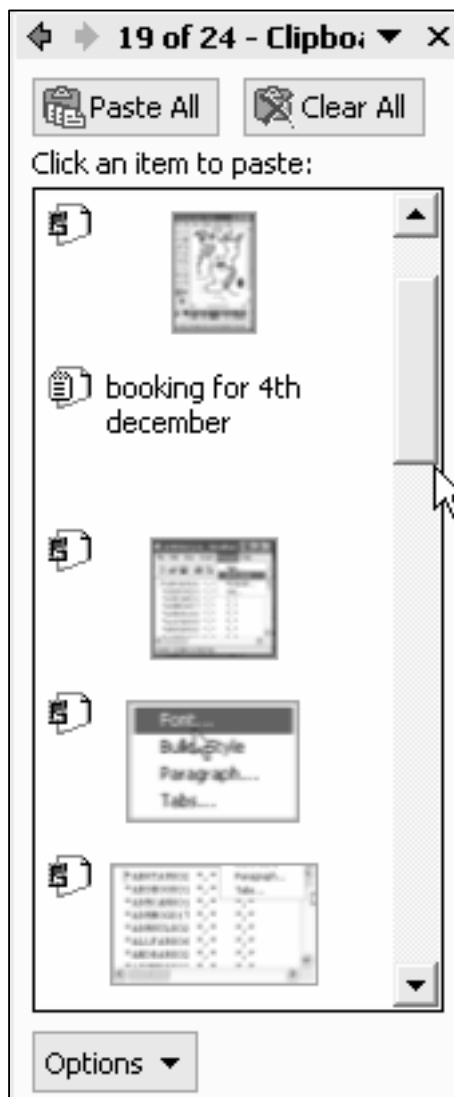
Deleting Text or Objects

You can delete text or objects from a document by highlighting them and pressing the **** key.

If you *move* something to the clipboard, and then move (or copy) something else to the clipboard, the first item will be lost. This provides an alternative way of deleting information, using the *Cut* icon.

Moving Information by Dragging

If you wish to move text or object within a document or to another application, you can use the *dragging* alternative. Highlight the information, place the mouse cursor on top of the highlighted area and drag the selected information to its new position.



The Extended Office Clipboard

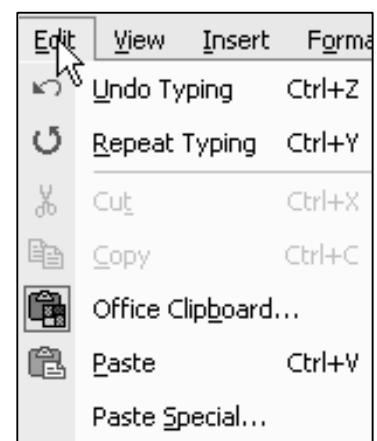


If you are working within MS-Office applications, you can place several items at once on the clipboard.

The Office Clipboard is usually available in a separate task pane, or you can access it from the **Edit** menu (or by clicking on the Office Clipboard Icon on the task bar).

You can then selectively paste certain or all objects into your target document.

Where a large number of objects needs to be copied or transferred, this method saves lots of switching between applications.



Sharing Information between Applications

The “copy-and-paste” process of *embedding* information from one application into another is not always ideal. If you update or modify the object in the original application, its copy (or copies) in other documents will not be updated. However, it is possible to create a dynamic *link* from the original object to all its copies (assuming they reside on the same computer or network). There are two different ways of doing this.

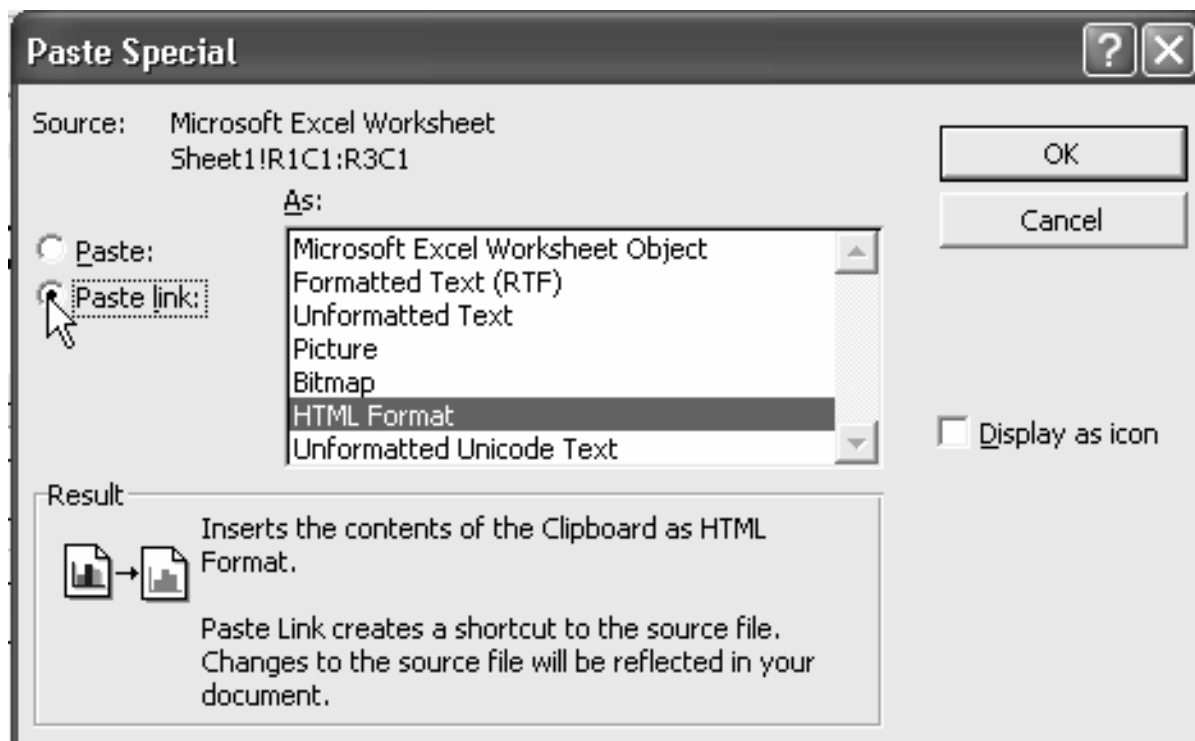


Using the Clipboard

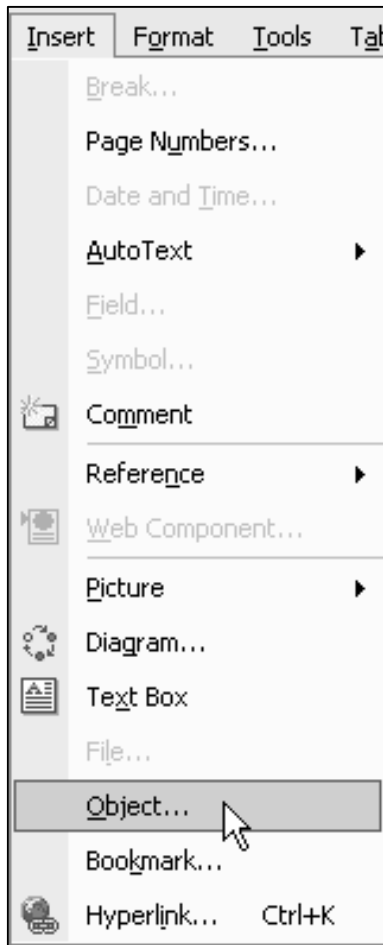
If both the source (or original) and target (or destination) applications are loaded, it is still possible to use the clipboard to create a link.

Copy the object to the clipboard from the source using the *Copy* icon, the **<Ctrl>-C** shortcut key or the *C*opy option on the *E*dit menu.

Insert the object from the clipboard into the target using the *Paste Special ...* option from the *E*dit menu. The *Paste Special* option may display a further window which may require you to tick a box if you wish to maintain a link.



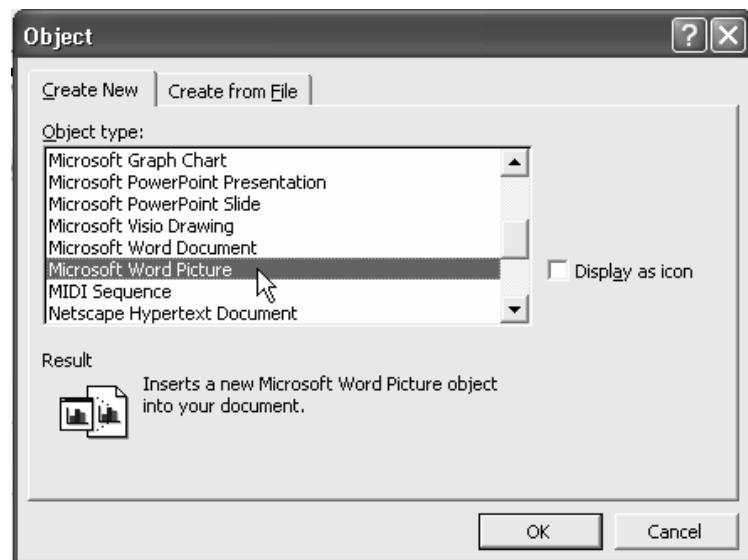
There is no shortcut key or icon equivalent for *Paste Special*. Programs that do not support object linking will not list *Paste Special* as an option under the *Edit* menu.



Using the Insert Object Method

If the object already exists as a separate file on disk, or if you wish to create a new object using another application for insertion (and linking) in the current application, you can use the *Object* option from the *Insert* menu.

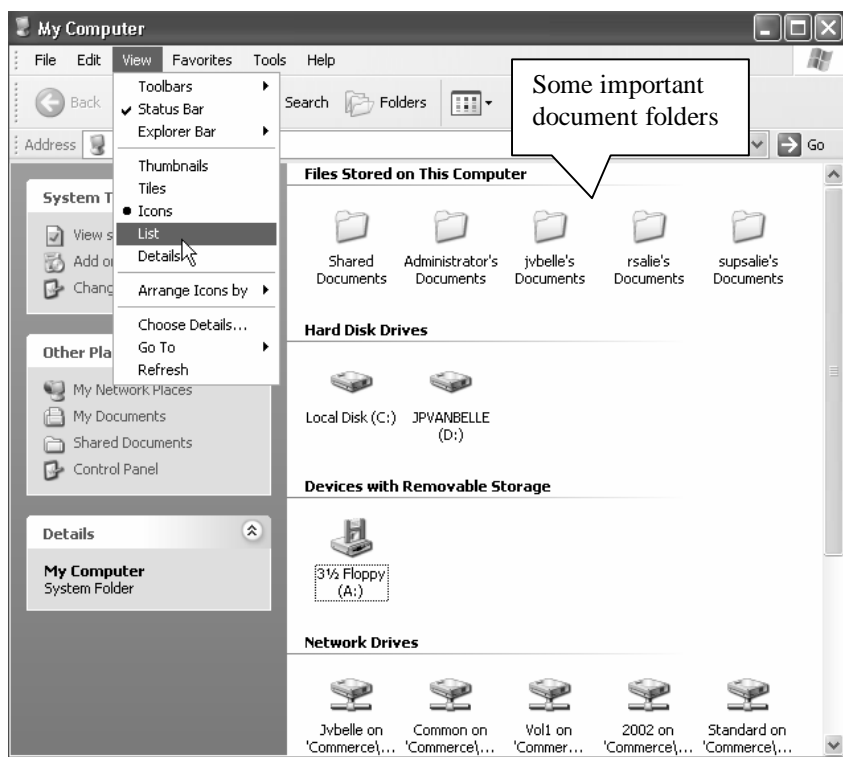
This option will open a window to ask you for the *type* of object (application) and you will also need to specify whether you want an embedded object (which remains the static) or a linked object (dynamic i.e. reflecting updates).



Exploring and Managing Info on Your Computer

You can find out what information is stored on your computer (and the data drives reserved for you by the network) by using “*My Computer*” and “*Network Neighbourhood*”. This opens window allowing you to explore your drives, folders and documents. Because the application used to explore your folders is called *explorer* and previous versions of Windows used to have an application with the name “Windows Explorer”, we shall refer to it as *explorer* in this section.

Using “*My Computer*” to See What’s On Your Computer



Everything on your computer is accessible from the “*My Computer*” icon on your *Desktop*.

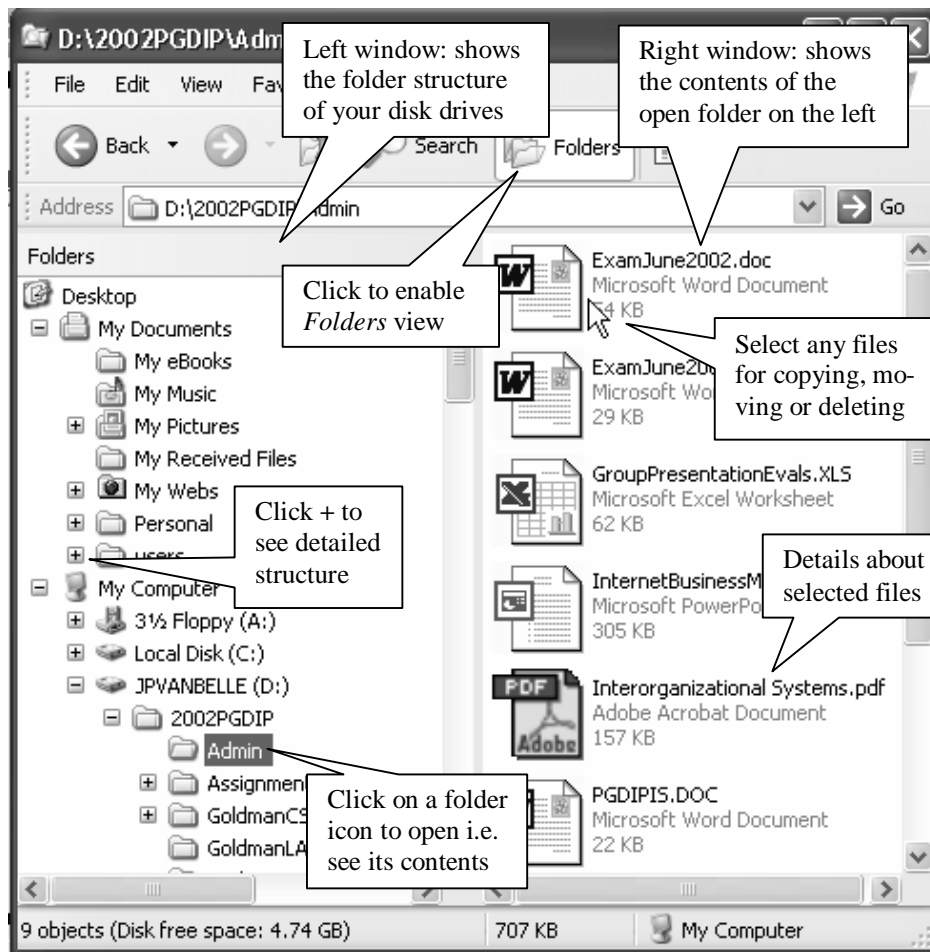


Double-click this icon to get an overview of your computer system.

If you double-click on one of your disk-drive icons, a window will display the information that is stored on your drive.

Using The Folders View to Manage Files and Folders

The most powerful way of managing files and folders on your system is by means of the **Folders** view. Click the **Folders** button on your explorer window to enable the folders view. Below is a typical *explorer* window.



Opening a folder

To display the contents of a folder in the right window, click on its *folder* icon in the left (or right) window.

To see the detailed structure of a folder/disk drive (i.e. its sub-folders), click the symbol next to the *folder/drive* icon in the left window. To *hide* the detailed structure again, click the symbol which will now have appeared.

Selecting files or folders

To select a single file, click it in the *contents* window.

To select additional individual files, hold down the **<Ctrl>**-key while clicking.

To select a continuous series of files: click the first (top) file, point to the last (bottom) file and hold down the **<Shift>**-key while clicking it.

All the selected files you have selected will be highlighted. The number and total size of the selected files appears in the window bottom. You can also select entire *folders* in the same way.

Moving files

To move files to a different folder in the same directory, just *drag* and *drop* them in the folder (in the right or left window).

To move files to another *drive*, use the *Cut* and *Paste* options of the *Edit* menu.

You can also move entire folders in the same way.

Copying files

To copy files to a different folder in the same directory, *drag* them to the selected folder but *hold down the <Ctrl>-key before dropping* them. A *plus* sign should appear underneath the cursor to indicate that a copy will be made. If the sign does not appear, the files will be *moved* instead of copied.

To copy files to another *disk drive*, just *drag* and *drop* them on the drive icon in the left window. You may drop them in any folder that is visible.

Dropping files on the *printer* icon will automatically print them out!

You can also copy entire folders in this way.

Deleting files

Select the files (or folders) you wish to delete and press the **-key or drag them to the *recycle bin* if it is visible.

To create a new folder

Click the folder or drive where you want to create the new folder. Select the *New* option under the *File* menu to create a new folder.

To rename a folder or file

First select the folder or file you wish to rename. Select the *Rename* option under the *File* menu to rename the folder or file. You can also first select (click) the name in the right window, then click the name again which will allow you to edit its name. (This action is not the same as *double-clicking!*)

Right-click menu

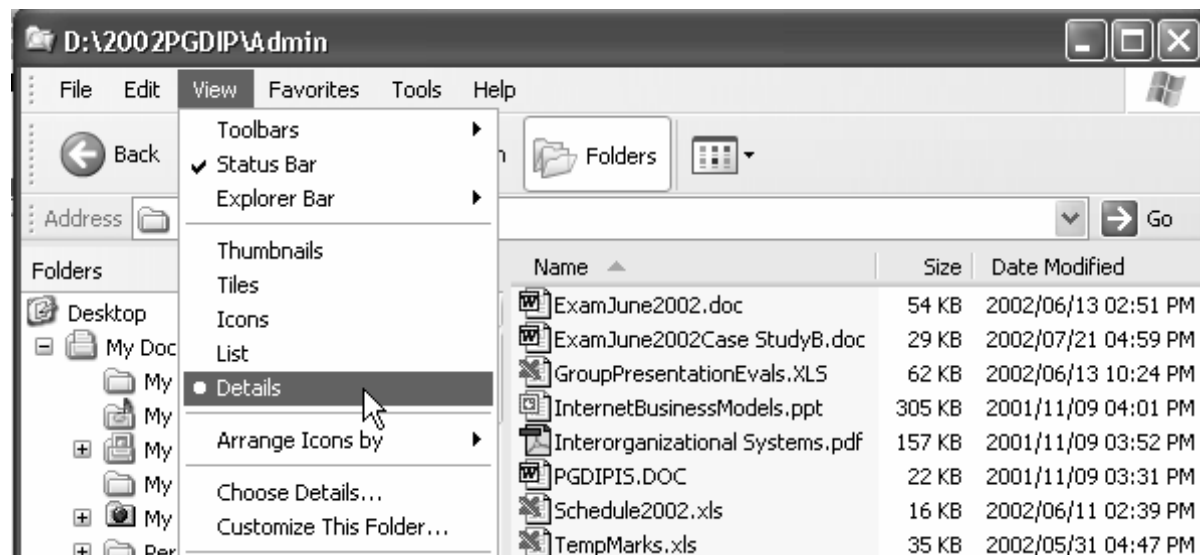
You can also right-click a folder or file to perform most of the above tasks such as copying ("*send to*"), renaming, etc. much more quickly.

For example, to copy a selected file or folder to your diskette in the A: drive, you could drag and drop it to the A: drive icon (in the right window), but the icon may not be visible. A quicker alternative is to right-click the file/folder, select the *Send to* option, and select A: from the available destinations.

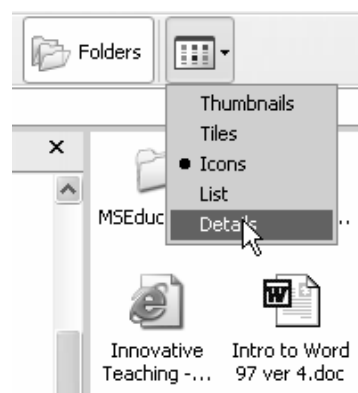
Opening several Explorer windows

If you want to do a lot of file or folder shuffling between two (or more) different folders and/or drives, you may wish to open several *Explorer* windows to make *drag and drop* easier.

Changing the way files are presented in Windows Explorer

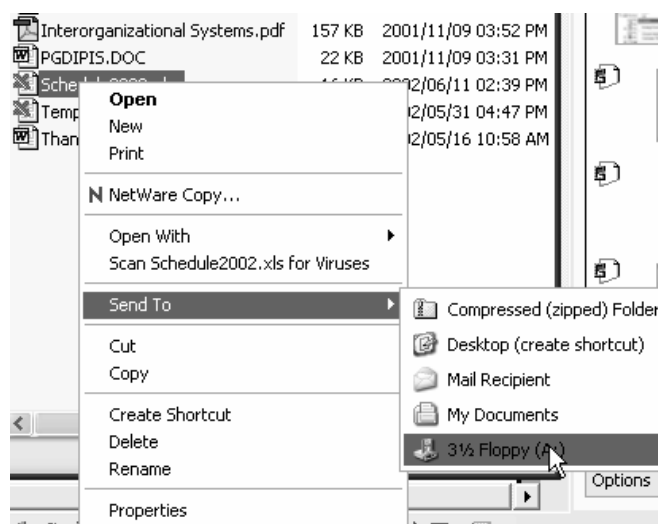


The icons representing folders and files in Windows Explorer are very user-friendly but tend to take up a lot of screen space. If you want to see the list of folders and files in a more condensed textual format, choose the **Details** (or **List**) option on the **View** menu or click the **Views** button on the toolbar.



More information about individual files

It is often useful to find out more about a specific file. Right-click a file and select **Properties** from the menu to find out details about its creation and modification date, author, file size and system attributes.



Creating a File Shortcut and Quick Copying

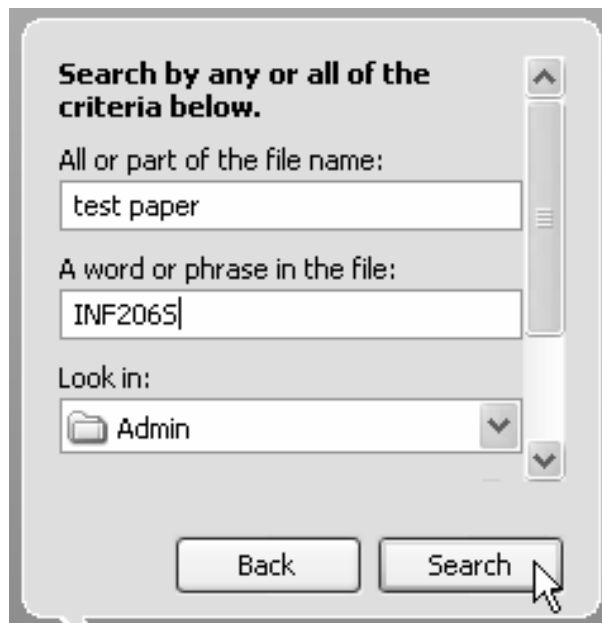
The right-click menu is also very convenient to quickly copy (“send”) a file to a diskette (A: drive) or to create a link to the file, called a **shortcut**, on the desktop.

Searching for a File

Click the Search Button on the toolbar and supply the necessary search criteria.



Note that if you use the “A word or phrase in the file.” option, the search may take quite a while.



Exercises

Here are some exercises for you to try.

1. Load the Paint accessory. Draw a line.
2. Save your drawing as "LINE" in your *My documents* folder on the C: drive.
3. Save it a second time with the new name "MODERN" on your desktop.
4. Open the C: drive with Explorer. How many folders are there?
5. How many files are there in the Windows folder (excluding sub-folders)?
6. What is the size of the newest File in the Windows folder?
7. What is the total size (in Kilobytes) of all files in the Windows folder?
8. Create a folder in *My Documents (C:)* called PRIVATE
9. Copy your LINE file into the PRIVATE folder.
10. Load the help and find "Creating a shortcut in a folder". How many steps does the help suggest to create a shortcut in a folder?
11. Load the Calculator (Accessories). How much is 773322 divided by 789?
12. One way of changing between *running* applications that are *maximised* is by clicking on their open window. What are the two other ways?
13. Load the *help* and *index*. Find "**screen saver**". How *many* steps does the help suggest to set up and customise a screen saver?
14. Create folder within the PRIVATE folder called "PCTEST".
15. Load NotePad and write your student name, student number and home address.
16. Save the note as MyName in the PCTEST folder.
17. What is creation date of the oldest file in the *Program Files* folder on C: ?

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Quick Start to

Windows XP



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