MCSE 2003
MCP- CLINT OPRATION SYSTEM

Lecture-1

Introduction of xp

1. What is Windows XP?

Windows XP is the latest version of Microsoft's graphical user interface. It has several advantages, for the user, over previous versions of Microsoft Windows, these include;

- Windows XP keeps your frequently used programmes within the start menu making it quick and easy to access programmes for a second time.

- All software installed on the computer is now listed alphabetically within the All Programs menu, making it far easier to locate the piece of software you require.

- Windows XP is faster than previous versions of Windows. This means that, as well as the software you are using starting faster, you can switch between software applications much more quickly.

- Windows XP is more stable than previous versions of Windows making it less likely that the computer will crash completely.
- Windows XP have two version one is 32 bit and second is 64bit

2. Login Procedure
Each student must have his or her own User I.D and Novell password.

• Ignore any messages until the screen asking you to "Press Ctrl. Alt + Delete to logon" is displayed.
• Press and hold the Control (CTRL) and ALT keys and then press Delete.
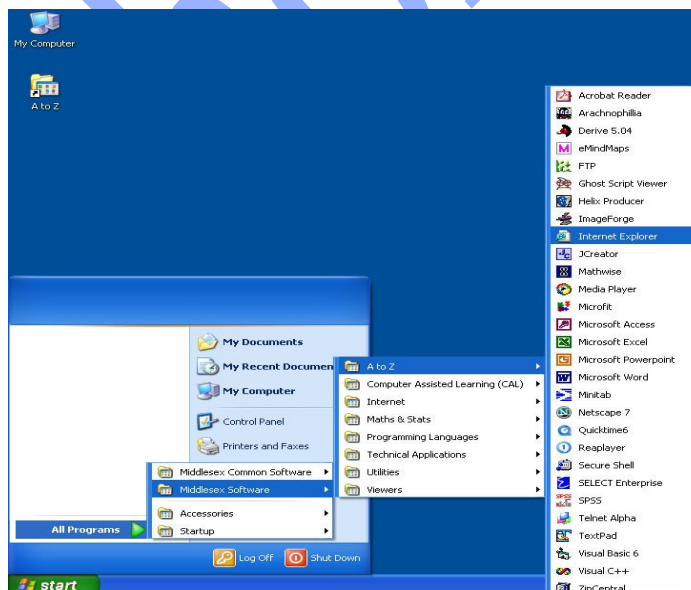   • The following dialog box will appear

- Type in your User I.D and then use the mouse to click in box below and type in your Password.

- Click on the OK button

3. Using Software in Windows XP

Click on **start** and a pop up menu will appear

Select **All Programs,** by moving you mouse over it, this will open a sub menu containing the software installed onto the PC you are using.

Middlesex All Software
contains an alphabetical list of all the software listed
Middlesex Local Software contains all locally installed programs including Microsoft Office
Middlesex Network Software contains all those programs available from the network including Netscape v.6.2

4. Useful Menu Items

These features also appear when you click on the Windows XP **Start** button
My Recent Documents: This shows the latest documents you have used.

My Computer: Gives access to the Hard Disks and other peripherals connected to your computer

Help and Support: If you are not sure how to do something, the 'Help and Support' menu can be very useful. You can select a Help
topic i.e. Windows Basics, Ask for Assistance or select the task you're trying to complete.

Search: Allows you to search for files/folders

5. My Computer

My Computer allows you to explore and maintain your computer by viewing programs, files and folders. It helps you organise files and folders so that they are easier to work with.
You can open **My Computer** by
Double clicking on the **My Computer** icon on the Desktop Clicking on the **Start** button then click on My Computer from the right pane.

Local drives
A: Floppy
C: Hard disk for XP Programmes
D: Hard disk for saving files
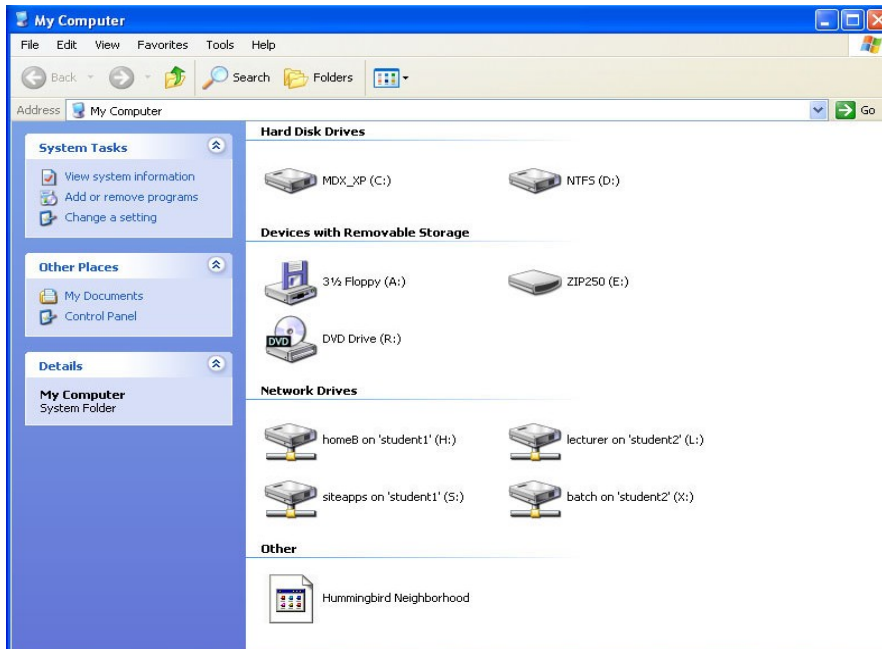E: Zip drive
R: CD ROM / DVI)

Network drives
H: Personal network drive
G: Group drive - shared by a
    School
L: Lecturer Drive
P: Pool drive - drive shared by a
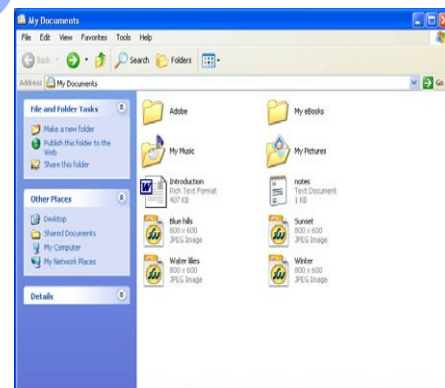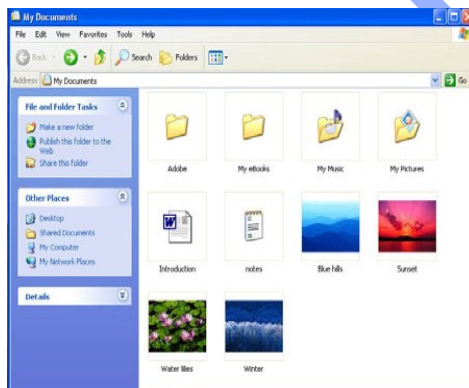   Particular Campus.

Double clicking on the drive folder will open that drive allowing the user to see a list of the files and folders saved

You can change the way the files/folders are displayed in the View menu Click on View from the Menu Bar and choose either
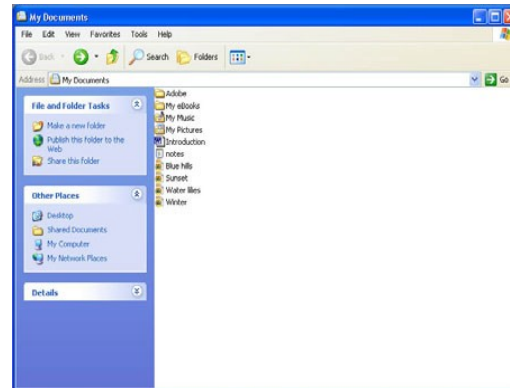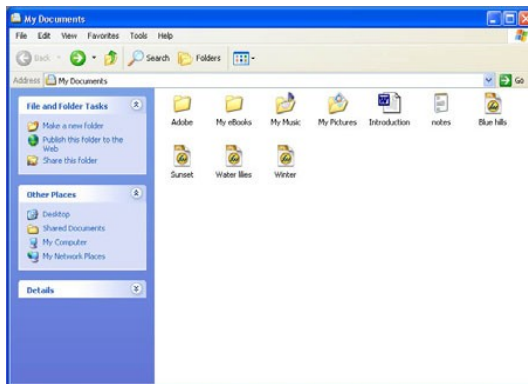
Thumbnails (display images)   ## Tiles (large icons)

Icons   ## List

6. Creating a new folder

- Double click on the drive or folder in which you want to create a new folder

- Click on File from the Menu Bar and point to New, then click on **Folder.**

- Type a name for your **New Folder** and press the Enter key.

7. Rename a file or folder

- Click on the file or folder you want to rename

- Click on File from the Menu Bar and then click Rename

- Type in the new name and press the Enter key

8. Moving a file or folder
There are several methods available for moving files or folders.
Using Drag and Drop

- Click on the file or folder you wish to move with the left mouse button and continue holding the mouse button down

- Drag the icon to the new location (this may be a another folder or drive)

- Release the mouse button.

Using Drop down menu commands

- Click on the file(s) or folder(s) you want to move

- Choose Edit from the Menu Bar and click on Cut

- Open the drive and/or folder where you want to move the file

- Click on Edit and then click on Paste

9. Copying a file or folder

Using Drag and Drop

- Click on the file or folder you wish to move with the right mouse button and continue holding the mouse button down

- Drag the file/folder to the new

- Release the mouse button

- Select copy here form the menu that appears

Using Drop down menu commands

- Click on the file(s) or folder(s) you want to move

- Choose Edit from the Menu Bar and click on Copy

- Open the drive and/or folder where you want to move the file

- Click on Edit and then click on Paste

10. Selecting multiple files or folders

To **select ALL riles/folders in a location**
Click on Edit from the Menu Bar and then click on Select All
To select random riles/folders within a location
Hold down the Control (CTRL) key and then click on each item you want to select
To select a group of files within a location

- Select the first file/folder in the group

- Press and Hold the Shift key

- Select the last file/folder in the group

11. Deleting a file or folder

Select the file or folder you would like to delete with the left mouse button and either;
Click on File from the Menu Bar, and then click on Delete
OR
Press the Delete key on the keyboard

12. Recycle Bin

The Recycle Bin can be seen on the desktop and is used to store deleted files or folders. Once a file has been moved to the recycle bin it can either be;
Removed permanently to create space on your Hard Disc
Or
Retrieved if you didn't mean to delete the file.

(The Recycle Bin only stores files deleted from Local drives i.e. C:\ and W NOT W, Floppy or Zip Drives))

To empty the Recycle Bin

- Click on the Recycle Bin with the right mouse button.

- Select Empty Recycle Bin from the pop up menu

- Click Yes when asked "Are You Sure'

To recover a file from the Recycle Bin

- Double click on the Recycle Bin to view any files currently stored there.

- Right click on the File/Folder you want to recover

- Select Restore

13. Search

The Search feature allows you to search your computer for Files/Folders.
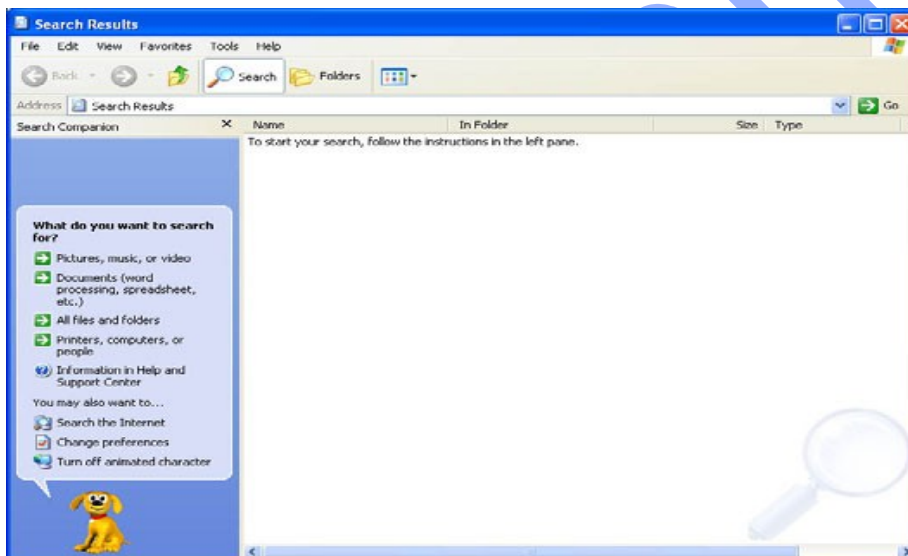
To run this program

- Click on the Start button

- select Search on the main menu.

The Window is divided into 2 main sections
The Left hand section asks **What Do You Want To Search For**
Making a selection based on the type of file you are searching for

14. Printing

To ensure your work is printed you must

- Click on Start

- Select Middlesex Network Software

- Click on Select Printer and choose the printer you require;

To print your work from a software application i.e. Microsoft Word,
Select **Print** from the **File** menu within the application you are working.
This will cause the **Print** options dialog box to appear
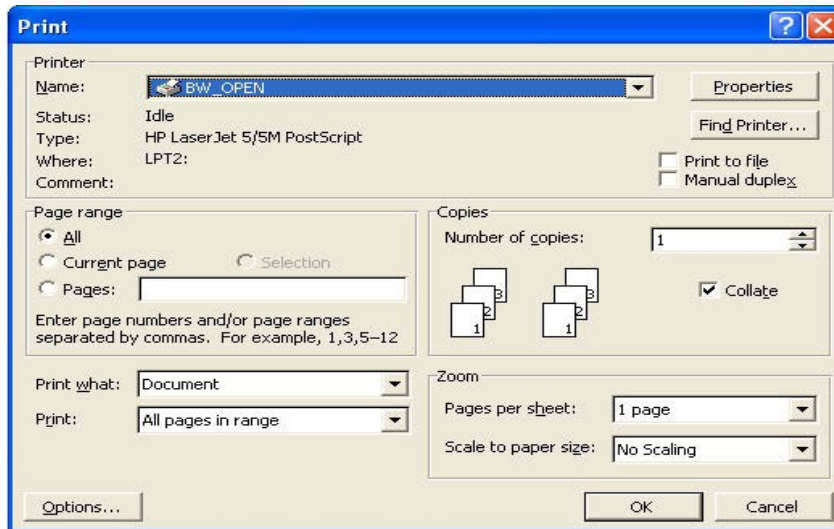
This box allows you to set;

- The name of the printer the work will be sent to (make sure this matches the printer you selected earlier)

- The pages of your document that will be printed

- the number of copies required.

Features new to Windows XP

Improved device support

Windows XP provides new and/or improved drivers and user interfaces for devices compared to Windows Me and 98.

Windows Image Acquisition (WIA), originally introduced in Windows Me, replaced the traditional TWAIN support for scanners and digital cameras. As TWAIN does not separate the user interface from the driver of a device, it is difficult to provide transparent network access; whenever an application loads a TWAIN driver, it is completely undetachable from the supplied manufacturer's GUI.

Still Image (STI) support is provided as a compatibility layer within the WIA subsystem.

On old versions of Windows, when users upgrade a device driver, there is a chance the new driver is less efficient or functional than the original. Reinstalling the old driver can be a major hassle and to avoid this quandary, Windows XP keeps a copy of an old driver when a new version is installed. If the new driver has problems, the user can return to the previous version. This feature does not work with printer drivers.

User interface

Improved interface

Windows XP includes a new set of visual themes, known by its codename, Luna. Available in three schemes, the interface is more task-based than the basic one included since Windows 95, with options available in Explorer windows to interact with each file. It also includes other modifications, such as grouping of related programs, hiding of taskbar icons, and many other elements

Fast User Switching

Fast User Switching allows another user to log in and use the system without having to log out the previous user and quit his or her applications. Previously (on both Windows Me and Windows 2000) only one user at a time could be logged in (except through Terminal Services), which was a serious drawback to multi-user activity. Fast User Switching, like Terminal Services, requires more system resources than having only a single user logged in at a time and although more than one user can be logged in, only one user can be actively using their account at a time. This feature is not available when the Welcome Screen is turned off, such as when joined to a Windows Server Domain or with Novell Client installed

Remote Assistance

Remote Assistance allows a Windows XP user to temporarily take over a remote Windows XP computer over a network or the internet to resolve issues. [6][4] As it can be a hassle for system administrators to personally visit the affected computer, Remote Assistance allows them to diagnose and possibly even repair problems with a computer without ever personally visiting it.

CD burning

Windows XP includes technology from Roxio which allows users to directly burn files to a compact disc through Windows Explorer. Previously, end users had to install CD burning software, such as Nero Burning ROM. Now, CD and DVD-RAM burning has been directly integrated into the Windows interface; users burn files to a CD in the same way they write files to a floppy disk or to the hard drive. The burning functionality is also exposed as an API called the Image Mastering API. Windows XP's CD burning support does not do disk to disk copying or disk images although the API can be used programmatically to do these tasks. Creation of audio CDs is integrated into Windows Media Player.

Clear Type

An example of the effects of Clear Type. The top image example is with Clear Type enabled, the bottom one is not.

Windows XP includes Clear Type sub-pixel font anti-aliasing, which makes onscreen fonts smoother and more readable on liquid crystal display (LCD) screens, although this causes a minor performance hit. Although Clear Type has an effect on cathode ray tube (CRT) monitors, its primary use is for LCD/TFT-based (laptop, notebook and modern 'flatscreen') displays.

Remote Desktop

Users can log into Windows XP Professional remotely through the Remote Desktop service. It is built on Terminal Services technology (RDP), and is similar to Remote Assistance, but allows remote users to access local resources such as printers. . Any Terminal Services client, a special "Remote Desktop Connection" client, or a web-based client using an ActiveX control may be used to connect to the Remote Desktop. (Remote Desktop clients for earlier versions of Windows, Windows 95, Windows 98 and 98 Second Edition, Windows Me, Windows NT 4.0, or Windows 2000, have been made available by Microsoft . This permits earlier versions of Windows to connect to a Windows XP system running Remote Desktop, but not vice-versa.)

There are several resources that users can redirect from the remote server machine to the local client, depending upon the capabilities of the client software used. For instance, File System Redirection allows users to use their local files on a remote desktop within the terminal session, while Printer Redirection allows users to use their local printer within the terminal session as they would with a locally or network shared printer. Port Redirection allows applications running within the terminal session to access local serial and parallel ports directly, and Audio allows users to run an audio program on the remote desktop and have the sound redirected to their local computer. The clipboard can also be shared between the remote computer and the local computer.

Power management

Before Windows 98, power management was based on the Advanced Power Management architecture. It was of limited use to most users and the feature was easily broken by the addition of hardware devices or software. Windows XP's power management architecture is based on the ACPI standard and still supports APM. (In Windows 98 ACPI was supported but disabled by default. Windows Me enabled ACPI by default.) It supports multiple levels of sleep states, including critical sleep states when a mobile (or UPS connected) computer is running out of battery power, processor power control (the ability to adjust the speed of the computer's processor on-the-fly to save energy), selective suspend of externally attached (such as USB) devices, and turning off the power to the screen of a laptop when the lid is closed. In addition, it also dims the screen when the laptop has low battery power.

Hibernate mode

When Windows hibernates it dumps the entire contents of the RAM to disk and powers down the entire machine. On startup it quickly reloads the data back to RAM. This allows the system to be completely powered off while in hibernate mode. This requires a file the size of the installed RAM to be placed in the system's root directory, using up space even when not in hibernation. Hibernation is enabled by default and can be disabled in order to recover disk space.

The Windows hibernation feature conforms to the S4 Sleep State in the ACPI standard.

Standby (Sleep) mode

When Windows enters standby mode, it turns off all nonessential hardware, including the monitor, hard drives, and removable drives. This means that the system reactivates itself very quickly when "woken up". This does not power down the system. In order to save power without user intervention, a system can be configured to go to standby when idle and then hibernate if not re-activated.

The Windows Standby feature conforms to the S1 and S3 Sleep States in the ACPI standard.

Kernel improvements

The Windows XP kernel is completely different from the kernel of the Windows 9x/Me line of operating systems. As an upgrade of the Windows 2000 kernel, the improvements are major, albeit transparent to the end user. They include some enhancements to the scalability and performance of the system.
Windows XP includes Simultaneous Multithreading Support, or the ability to utilize the Hyper-Threading feature of newer Intel Pentium 4 processors. Simultaneous Multithreading is a processor's ability to process more than one data thread at a time. Intel has described the effect as being more or less 70% that of having the processing power of two processors.

The ability to boot in 30 seconds was a design goal for Windows XP, and Microsoft's developers made efforts to streamline the system as much as possible; many people have found that without extra services Windows XP can boot from the PC's power on self-test (POST) to the Windows GUI in about 30 seconds. The Prefetcher is a significant part of this; it monitors what files are loaded during boot, and optimizes the locations of these files on disk so that less time is spent waiting for the hard drive's heads to move.

Application compatibility

As Windows XP merged the consumer and enterprise versions of Windows into one, it folded the user-friendly interface of Windows Me onto the kernel of Windows 2000. A drawback of this is that older software designed for previous versions of Windows may not function. Microsoft addressed this by going to great lengths to improve compatibility with application specific tweaks and shims and providing tools to allow users to try these tweaks and shims on their own applications

Benefit of Windows XP Professional x64 Edition

Windows XP Professional x64 Edition gives you faster performance, more reliability, and greater flexibility than 32-bit systems. You can run memory-intensive and calculation-intensive applications and processes more efficiently. Whether you're a technical workstation user or a cutting-edge home PC enthusiast, it provides a secure platform that can run new 64-bit applications, as well as most existing 32-bit applications, on a single PC—while still having all of the benefits of Windows XP Professional Edition.

While there are many benefits of Windows XP Professional x64 Edition, these 10 are at the top of the list.

Premier performance

Windows XP Professional x6

Performance that is unparalleled in the mainstream 32-bit desktop environment. Sixty-four-bit native applications can deliver more data more quickly, so memory-intensive applications can run more quickly and efficiently. Data in memory is accessed thousands of times faster than it is on a disk drive. Applications can preload substantially more data into virtual memory, allowing rapid access by the 64-bit processor.

Vast memory support

the key difference between 32-bit and 64-bit computing with Windows XP is that the 64-bit version can use more system memory. Windows XP Professional x64 Edition supports up to 128 gigabytes (GB) of RAM and 16 terabytes of virtual memory, so applications can run faster when working with large data sets. Physical memory support will grow in the future as hardware capabilities expand.

64-bit vs. 32-bit architecture		
Address space	64-bit Windows	32-bit Windows
Virtual memory	16 terabytes	4 GB
Paging file	512 terabytes	16 terabytes
Paged pool	128 GB	470 MB
Non-paged pool	128 GB	256 MB
System cache	1 terabyte	1 GB

Optimized platform and improved collaboration

With Windows XP Professional x64 Edition, you can standardize your mainstream desktop computers with your high-end workstations, increasing performance, improving manageability, and freeing up IT resources. You can also improve information sharing and collaboration by using Microsoft productivity tools across your organization. Add Windows XP Professional x64 Edition systems to existing Windows-based networks and manage them alongside 32-bit systems with the same administrative tools that you already use, making life easier for your IT department.

Increased reliability and security for your most important data

Windows XP Professional x64 Edition is built on the Windows Server 2003 Service Pack 1 (SP1) code-base, and provides optimum security and reliability for business-critical desktop computing. Now you can experience the stability and security of a server

product on your PC. Windows XP Professional x64 Edition can help protect you from many types of viruses that try to exploit data. Its improved memory support helps protect your system against malicious attacks, such as memory buffer overruns.

Opportunity for innovation

Most 64-bit computers can manage exponentially more data than 32-bit systems can. With Windows XP Professional x64 Edition you can design, develop, and interact with new applications, games, and tools that weren't possible with older technologies. Windows XP Professional x64 Edition provides solutions for current and future use. It delivers more memory combined with the ease of use of the established Windows platform.

Greater flexibility

Windows XP Professional x64 Edition gives you a robust platform for the integration of 64-bit and 32-bit applications using the Windows on Windows 64 (WOW64) x86 emulation layer. You can move to 64-bit computing while still maintaining your existing investment in 32-bit software and Windows expertise.

Multiprocessing and multicore processor support

Windows XP Professional x64 Edition is designed to support up to two single or multicore x64 processors for maximum performance and scalability.

Advantages for specialized, technical applications

The performance of 64-bit computing offers advantages in fields such as automobile and airplane design by allowing engineers to create larger, more complex models. Engineers can use simulation software to analyze the effects of airflow, stress, and heat on the materials of a car or airplane, and then study the results to improve overall product design. Likewise, 64-bit computing benefits digital content creators, including three-dimensional (3-D) animators, digital artists, and game developers, who can significantly reduce the time they spend digitally rendering 3-D models. In the areas of scientific and high-performance computing, Windows XP Professional x64 Edition can aid in oil and gas exploration, seismic analysis, computational fluid dynamics, and scientific visualization, among other applications.

Single desktop for technical and business applications

Windows XP Professional x64 Edition provides a single PC for technical and business applications, so you don't need to maintain one PC for business applications and a separate workstation for high-end technical applications. Most Windows-compatible 32-bit applications run "as is" in a subsystem of Windows XP Professional x64 Edition, with performance comparable to 32-bit Windows. You can take advantage of rich integration capabilities and productivity tools on the Windows platform. Designers can build a model and easily share it with others in your company, copying it into a Microsoft Office Word document for the finance group or adding it to a Microsoft Office PowerPoint slide deck for the marketing team.

Note: If you use only 32-bit applications and work with data sets that are no larger than 2 GB, you will find that 32-bit Windows XP Professional offers sufficient power for your applications.

Familiar programming model

Developers with 32-bit computing skills will be comfortable and productive in the 64-bit Windows environment, finding the development environments virtually identical. The 64-bit Windows development environment supports the same feature set as 32-bit Windows, including user interface and programming models, networking, security, graphics, multimedia, directory service, Plug and Play, and tools features. Many of the functions have been modified to reflect the computational precision of the platform on which an application is run. The result is programming simplicity and a short learning curve for the developer—writing code for 64-bit Windows is just like writing code for 32-bit Windows.