Windows XP Professional: Product Features

Feature	Description	Benefit
Reliable		
Built on the new Windows engine	Built on the proven code base of Windows NT & Windows 2000 – with a 32-bit computing architecture and a fully protected memory model.	A dependable computing experience for all business users.
Enhanced device driver verifier	Building on the device driver verifier found in Windows 2000, Windows XP Professional will provide even greater stress tests for device drivers.	Device drivers that pass these tests will be the most robust drivers available - ensuring maximum system stability.
Dramatically reduced reboot scenarios	Eliminates most scenarios that force end users to reboot in Windows NT 4.0 and Windows 95/98/Me. Also, many software installations will not require reboots.	Users will experience higher levels of system uptime.
Improved code protection	Critical kernel data structures are read-only, so that drivers and applications cannot corrupt them. All device driver code is read-only and page protected.	Rogue applications cannot adversely affect core operating system areas.
Side-by-side DLL support	Provides a mechanism for multiple versions of individual Windows components to be installed and run "side by side."	This helps to address the "DLL hell" problem by allowing an application written and tested with one version of a system component to continue to use that version even if an application that uses a newer version of the same component is installed.
Windows File Protection	Protects core system files from being overwritten by application installations. If a file is overwritten, Windows File Protection will restore the correct version.	By safeguarding system files, Windows XP Professional mitigates many of the most common system failures encountered in earlier versions of Windows.
Windows Installer	A system service that helps users install, configure, track, upgrade, and remove software programs correctly.	Will help minimise user downtime and increase system stability.
Enhanced software restriction policies	Provide administrators with a policy-driven mechanism to identify software running in their environment and control its ability to execute. This facility can be used in virus and Trojan horse prevention and software lockdown.	Can contribute to improved system integrity, manageability, and, ultimately, lower cost of PC ownership.
Pre-emptive	Designed to allow multiple	Run your most demanding

multitasking architecture	applications to run simultaneously, while ensuring great system response and stability.	applications while still experiencing impressive system response time.
Scalable memory and processor support	Supports up to 4 gigabytes (GB) of RAM and up to two symmetric multiprocessors.	Users who need the highest level of performance will be able to work with the latest hardware.
Encrypting File System (EFS) with multi-user support	Encrypts each file with a randomly generated key. The encryption and decryption processes are transparent to the user. In Windows XP Professional, EFS can provide multiple users with access to an encrypted document.	Highest level of protection from hackers and data theft.
IP Security (IPSec)	Helps protect data transmitted across a network. IPSec is an important part of providing security for virtual private networks (VPNs), which allow organisations to transmit data securely over the Internet.	IT administrators will be able to build secure VPNs quickly and easily.
Kerberos support	Provides industry-standard and high-strength authentication with fast, single logon to Windows 2000 based enterprise resources. Kerberos is an Internet standard, which makes it especially effective for networks that include different operating systems such as UNIX.	Windows XP Professional will offer single logon for end-users for resources and supported applications hosted on both Windows 2000 and our next-generation server platform, Windows .NET Server.
Smart card support	Smart card capabilities are integrated into the operating system, including support for smart card logon to terminal server sessions hosted on Windows .NET Server-based (the next-generation server platform) terminal servers.	Smart cards enhance software-only solutions such as client authentication, interactive logon, code signing, and secure e-mail.
Easy to Use		
Fresh visual design	While maintaining the core of Windows 2000, Windows XP Professional has a fresh visual design. Common tasks have been consolidated and simplified, and new visual cues have been added to help users navigate their computers more easily. Administrators or end users can choose this updated user interface or the classic Windows 2000 interface with the click of a button.	Allows the most common tasks to be exposed easily, helping users get the most of out of Windows XP Professional.
Adaptive user environment	Adapts to the way an individual user works. With a redesigned Start menu, the most frequently used applications	A cleaner work environment allows the user to be more efficient. Users can find the crucial data and

	are shown first. When you open multiple files in the same application, (such as multiple e-mail messages in the Microsoft Outlook messaging and collaboration client) the open windows will be consolidated under a single task bar button. To remove some of the clutter from the notification area, items that are not being used will be hidden. All of these features can be set using Group Policy.	applications they need quickly and easily. All of these settings can be controlled using Group Policy, so IT administrators can decide what features are most appropriate for their environments.
Work with rich media	Windows Media Player for Windows XP is the first player to combine all of your common digital media activities into a single, easy-to-use player. The player makes it easy for you to: • View rich media information, for example, virtual company meetings or "just-in-time" learning. • Receive the best-possible audio and video quality, because the player adapts to network conditions. • Tune in to nearly 3,000 Internet radio stations. • Create custom CDs up to 700 percent faster than other solutions. • View DVD movies.	
Context-sensitive task menus	When a file is selected in Windows Explorer, a dynamic menu appears. This menu lists tasks that are appropriate for the type of file selected.	Common tasks that were hard to find in previous versions of Windows are exposed for easy access.
Integrated CD burning	Support for burning CDs on CD-R and CD-RW drives is integrated into Windows Explorer.	Archiving data onto CD is now as easy as saving to a floppy disk, and does not require an expensive third-party solution.
Easily publish information to the Web	Files and folders can be easily published to any Web service that uses the WebDAV protocol.	Users will be able to publish important information to Web servers on the company's intranet.
Dual view	A single computer desktop can be displayed on two monitors driven off of a single display adapter. With a laptop computer, a user could run the internal LCD display as well as an external monitor. A variety of high-end display adapters will support this	Users will be able to maximise their productivity by working on multiple screens, while removing the need for multiple CPUs.

	functionality for desktops.	
Trouble shooters	Helps users and administrators configure, optimise, and troubleshoot numerous Windows XP Professional functions.	Enables users to be more self-sufficient, resulting in greater productivity, fewer help desk calls, and better customer service.

Advanced Tools at Your Fingertips

Feature	Description	Benefit
Revolutionises the Way Remote Users Work		
Remote Desktop	Allows users to create a virtual session onto their desktop computers using the Microsoft Remote Desktop Protocol (RDP).	Allows users to access all of their data and applications housed on their desktop computers from another computer running Windows 95 or later that is connected to their machine via a network.
Credential Manager	A secured store for password information. It allows users to input user names and passwords once, and then have the system automatically supply that information for subsequent visits.	Users who are not connected to a domain, or who need to access resources in multiple domains without trust relationships, will be able to easily access network resources.
Offline Files and Folders	A user can specify which network-based files and folders she needs when she disconnects from the network. Offline folders can now be encrypted to provide the highest level of security.	Users can work with documents while disconnected from the network in the same manner they do when they're connected.
ClearType	A new text display technology that triples the horizontal resolution available for rendering text through software.	Microsoft ClearType display technology offers a clearer display of text on a Liquid Crystal Display (LCD) screen.
Offline viewing	Makes entire Web pages with graphics available for viewing offline.	Customers can view critical Web pages while disconnected from the Internet.
Synchronisation Manager	Lets users compare and update their offline files and folders with those on the network.	After working with files and folders offline, the changes will be automatically replicated back to the network, ensuring the latest version is always available.
Improved power management	By intelligently monitoring CPU state, Windows XP Professional can reduce the amount of power it is using. The operating system will provide more accurate data on the amount of power left; this will prevent the system from shutting down prematurely. Also, by allowing for the	Users will be able to work longer on battery power and more accurately forecast how long their batteries will last.

	system to wake up as the battery nears a drained state, the computer can be put into hibernation, and save work in progress. Power management can now be set for each computer, or each user on a computer.	
Hibernate	After a set period of time, or on demand, Windows XP Professional will save memory to disk, and shut the power down. When power is restored, all the applications are reopened exactly as they were left.	Users can maximise battery life, and still be able to quickly resume working where they left off, reducing downtime.
Hot docking	Lets you dock or undock your notebook computer without changing hardware configuration or rebooting.	Laptop users can move easily between docked and undocked configurations without rebooting the system.
Advanced Configuration and Power Interface (ACPI)	Provides the latest in power management and Plug & Play support.	Provides key features for mobile professionals including Plug & Play, hot docking, and full power management support.
Wireless networking support	Provides secured access, as well as performance improvements, for wireless networks.	Makes it much easier for users who need to move between wireless networks, while supporting high levels of encryption to enhance security.
Network Location Awareness	Provides an underlying service that allows the operating system and applications to determine when a machine has changed network locations.	Applications and network services can be written to react intelligently when a network location change is detected. For example, an application could connect an end user to a closer server if that user moved from one building to another.
Easier remote access configuration wizards	Guide users through the steps for setting up remote access to a network or virtual private network (VPN).	Make it easier to connect to a corporate network or the Internet.
Improved Help and Support Services	The Help and Support Centre combines features users are familiar with from previous versions of Windows (such as Search, Index, and Favourites) with content from the World Wide Web to give users more chances to get the help they need when they need it. If the content in the Help and Support Centre doesn't answer their question, it can be used to contact a friend, a support community, or a professional to get assistance. Tools such as My Computer Information and System	Users can quickly and easily find the answers they need, reducing help desk calls and increasing user satisfaction.

	Restore are also available to diagnose and fix common problems.	
Remote Assistance	Remote Assistance enables a user to share control of his or her computer with someone on a network or the Internet. An administrator or friend can view the user's screen, and control the pointer and keyboard to help solve a technical problem. IT departments can build custom solutions, on top of published APIs using HTML, to tailor Remote Assistance to their needs, and the feature can be centrally enabled or disabled.	Will reduce the amount of time system administrators spend at users' desks. Many administrative and troubleshooting tasks can now be done from the administrators' own desks.
System Restore	The System Restore feature enables users and administrators to restore a computer to a previous state without losing data. System Restore automatically creates easily identifiable restore points, which allow you to restore the system to a previous time.	If users experience system failure or another significant problem, they can use System Restore from Safe Mode or Normal Mode to go back to a previous system state, restoring optimal system functionality. System Restore will not revert user data or document files, so restoring will not cause users to lose their work, mail, or even browsing history and favourites.
Recovery Console	Provides a command-line console for administrators to start and stop services, format drives, read and write data on a local drive, and perform many other administrative tasks.	In the event of errors that prevent Windows XP Professional from starting, administrators can boot the system to a command console and potentially repair the operating system.
Device Driver Rollback	When certain classes of new device drivers are installed, Windows XP Professional will maintain a copy of the previously installed driver, which can be reinstalled if problems occur.	If a new device driver is causing Windows XP Professional to malfunction, an administrator can easily reinstall the previous driver.
Windows Messenger	The easy way to communicate with your customers, partners, friends, and family in real time. Will keep you updated with your contacts' online status. Choose text, voice, or video and experience the best online voice and video quality. Collaborate with contacts, transfer files, and share applications and whiteboard drawings.	Provides users with great platform for online conferencing and collaboration.
Internet Connection Firewall	A firewall client that can protect small businesses from common Internet attacks.	Small business owners will be able to securely connect their Windows XP Professional computers to the Internet.

Network Setup Wizard	Makes it easy for a small business owner to set up and manage a network. The wizard walks through key steps, such as sharing files and printers, sharing the Internet connection, and configuring the Internet Connection Firewall.	Small businesses can get a productive and secure network up and running without relying on network experts.
Network Bridge	Simplifies the setup and configuration of small networks that use mixed network connections (such as Cat-5 Ethernet and wireless) by linking the different types of networks together.	Small businesses have more flexibility when choosing network media and do not need to purchase extra equipment, such as bridges and routers.
Internet Connection Sharing (ICS)	Connects a small office network to the Internet, using a dial-up or broadband connection. Windows XP Professional can provide network address translation, addressing, and name resolution services for all computers on a small business network to share a single connection.	Small business owners can connect their computer systems to the Internet with a single Internet connection, resulting in potential savings in ISP and hardware costs.
Peer-to-peer networking support	Enables Windows XP Professional to interoperate with earlier versions of Windows on a peer-to-peer level, allowing the sharing of all resources, such as folders, printers, and peripherals.	Small business owners can easily integrate Windows XP Professional into existing peer-to-peer networks.

Advanced Management, Deployment, and Support Tools

Feature	Description	Benefit
Application compatibility	We've provided fixes to hundreds of applications that didn't run on Windows 2000 Professional to run on Windows XP Professional. As new application fixes are published, we will make them available via the Windows Update service. In addition to the application fixes, Windows XP Professional has a mechanism that allows the user or IT administrator to specify if an application needs to run in either Windows NT 4.0 or Windows 95/98 or Windows Me compatibility mode. In this mode, Windows XP Professional system DLLs provide appropriate responses to the running application, allowing it to execute appropriately without a noticeable loss of	Users will experience increased application compatibility when compared with Windows 2000 Professional, and as more application fixes are rolled out, they'll be automatically available. Application compatibility modes will potentially allow thousands of applications to run that don't have applications fixes on Windows XP Professional.

	performance.	
User State Migration Tool	Helps administrators to migrate a user's data and application/operating system settings from an old computer to a new Windows XP Professional desktop computer.	IT administrators can reduce the number of help desk calls after a migration, and end users will have less downtime because they will retain their familiar operating environment.
Automatic Updates	With the user's permission, Windows XP Professional automatically downloads critical and security updates in the background when the user is connected to the Internet. These downloads are designed to minimise the impact on Internet browsing, and the update automatically resumes upon reconnection if the computer is disconnected before the download is complete. Once the update has been downloaded, the user can choose to install it.	Users will automatically receive critical updates without impacting their ability to use network connections.
Windows Update improvements	As application compatibility updates, new device drivers, and other updates are released for Windows XP Professional, they become available on the Windows Update Web site. (Users can also find critical and security updates here, if they choose not to use automatic updating.) Administrators can disable user access to Windows Update. The Windows Update Catalogue is provided for administrators to download updates and deploy them as appropriate in their organisations.	The operating system updates will always be available to ensure the most reliable and full-featured computing experience.
Support for latest hardware standards	Windows XP Professional supports the latest hardware standards. It supports UDF 2.01, the latest standard for reading DVD discs. It also supports the formatting of DVD-RAM drives with the FAT32 file system. Microsoft DirectX® 8 API support will be included, and Windows XP Professional fully supports standards for Infrared Data Association (IrDA), Universal Serial Bus (USB), and the high-speed bus known as IEEE 1394.	Will support the latest hardware standards, and be optimised for the latest applications.
Setup with Dynamic Update	The Setup routine ensures that the operating system files are up to date. Before any files are installed, Windows XP Professional checks the	Will ensure that you install the most recent updates to the operating system for the best installation experience.

	Web for critical system updates and downloads them for installation.	
Unattended installation	Provides the ability to specify a greater number of options than previous versions of Windows, and allows for a greater degree of security by encrypting passwords in the answer files.	Allows administrators a greater degree of flexibility in scripting unattended Setup routines, ensuring the most flexible installation options available today.
Internet Explorer 6 Administration Kit	Internet Explorer 6 is more customisable using the Internet Explorer Administration Kit (IEAK 6), so it's easier to deploy and maintain the browser. Version 6 of the IEAK adds control over new features such as the Media bar, Auto Image Resize, and the Personal bar.	Administrators have a greater degree of flexibility in deploying Internet Explorer 6.
System Preparation tool (SysPrep)	SysPrep helps administrators clone computer configurations, systems, and applications. A single image, which includes the operating system and business applications, can be restored to multiple different machine configurations.	SysPrep will allow administrators to reduce the number of operating system images they maintain, while reducing the time it takes to deploy a typical desktop system.
Setup Manager	A graphical wizard that guides administrators in designing installation scripts.	It's now easier to create answer files for unattended installations.
Remote OS Installation	Windows XP Professional can be installed across the network (including SysPrep images). **Note:** This feature requires the Active Directory service.	Saves time and reduces deployment costs by allowing administrators to standardise desktop environments to match organisational requirements.
Multilingual support	Allows users to easily create, read, and edit documents in many languages with the English version of Windows XP Professional. The Multilingual User Interface Pack, an add-on pack to the English version of Windows XP Professional, lets you change the user interface language for each user.	IT administrators will no longer need to deploy multiple localised versions of the operating system. This will speed deployments, reduce operating system images, and lower cost of ownership.
Windows Management Instrumentation (WMI)	Provides a standard infrastructure for monitoring and managing system resources.	Allows system administrators to monitor and control the system using scripting and third-party applications.
Safe Mode start-up options	Allows Windows XP Professional to boot the system at the most basic level, using default settings and minimum device drivers.	Provides a means to boot the system into the GUI so that IT professionals can repair the operating system.

Group Policy	Group Policy settings simplify the administration of users and objects by letting administrators organise them into logical units, such as departments or locations and then assign the same settings, including security, appearance, and management options, to all employees in that group. There are hundreds of new policies available for Windows XP Professional, in addition to those provided for Windows 2000 Professional.	As users move from location to location, they still have access to critical data, and they maintain their own customised work environment.
Resultant Set of Policy (RSoP)	Allows administrators to see the effect of Group Policy on a targeted user or computer. With RSoP, administrators have a powerful and flexible base-level tool to plan, monitor, and troubleshoot Group Policy.	Administrators can more easily implement and manage Group Policy using the new RSoP tool.
Microsoft Management Console (MMC)	Provides a centralised and consistent environment for management tools.	IT administrators will be able to create customised application consoles.