

Windows 98 Beta 3 Release - Feature Overview

New Feature	Description
Complete Internet Integration	
Integrated Internet Shell	With the Integrated Internet Shell included with Windows 98 Beta 3, Internet access becomes a seamless part of the user interface. Users will no longer have to learn multiple applications— one to look at their local information, perhaps another to look at their network, and unquestionably another to use the Internet or intranet. With the Integrated Internet Shell, Windows 98 Beta 3 unifies this process into one utility to universally view local, network, intranet, and Internet data, so you can get to the information you need faster and easier.
Advanced Internet Browsing Functionality	Windows 98 Beta 3 provides the easiest, fastest, and most entertaining way to browse the Web. This is done via: <ul style="list-style-type: none">• Advanced browsing capabilities such as AutoComplete, enhanced Web searching, improved favorites, navigation history on the Forward/Back buttons, and improved printing.• Support for all major Internet standards including HTML, Java, ActiveX™, JavaScript, Visual Basic® Scripting, and major security standards.• Improved performance with Dynamic HTML, a just-in-time Java compiler, and basic code "tuning."
Personalized Internet Information Delivery	When users are asked the biggest problem they have with the World Wide Web, the number one response is getting the information they need. Windows 98 Beta 3 addresses this problem by providing a mechanism to automatically select and schedule downloads of the information you care about. This enables you to see what has changed on a Web site without physically visiting the site and even allows you to view the site when you are not connected to the Web.
Suite of Tools for Internet Communication	Windows 98 Beta 3 also contains rich tools for online communication including: <ul style="list-style-type: none">• Outlook™ Express, a full featured e-mail and news reading client.• Microsoft NetMeeting™, a complete Internet conferencing solution providing standards-based audio, data, and video conferencing functionality.• Personal Web Server (and the Web Publishing Wizard), which provides an easy way to publish Web pages on intranets or the Internet.• Microsoft FrontPad is a WYSIWYG (what-you-see-is-what-you-get) HTML editor based on the editing tools in Microsoft FrontPage® 97, the award-winning, full-featured Web authoring and management tool.• Microsoft NetShow™ is a platform for streaming multimedia over networks that range from low bandwidth dial-up Internet connections to high bandwidth switched local area networks. From simple audio to sophisticated interactive Web-based applications, companies use

NetShow to offer new streaming content for applications such as training, corporate communications, entertainment, and advertising to users all over the world. The NetShow player is installed with Windows 98.

Windows Update— Includes the Update Manager	The Windows Update Web Site is an extension to Windows 98. It is a new, centralized Web-based resource site that allows registered Windows 98 users to get more out of their PC. Windows Update keeps users' systems tuned and up-to-date by providing easy access to the latest drivers and operating system files on an on-going basis. Windows Update also makes computing easier by providing product assistance with up-to-date information and answers to users' "how-do-I-do" and "how-do-I-fix" questions.
Dial-Up Networking Improvements (Including Multilink Channel Aggregation)	The Dial-Up Networking included with Windows 98 Beta 3 has been updated to support: Dial-up scripting (which can automate the process of connecting to bulletin boards and online services); Dial-Up Networking user interface enhancements to simplify setting up and using dial-up connections; and support for Multilink Channel Aggregation which enables users to combine all available dial-up lines to achieve higher transfer speeds. For example, you can combine two or more ISDN lines to achieve speeds of up to 128K, or combine two or more standard modem lines. This can provide dramatic performance improvements when dialing into the Internet or corporate network.
Client Support for Virtual Private Networking (VPN)	Virtual Private Networking is a new networking support for remote users to access their corporate network via a secure connection. Virtual Private Networking utilizes the Point-to-Point Tunneling Protocol (PPTP). Support for this service is natively built-in to the operating system.
Online Services Folder	The Windows 98 Beta 3 desktop contains an Online Services Folder with links to America Online (AOL), AT&T WorldNet, CompuServe 3.0, and Prodigy clients. When you click the link to the client, a setup program starts that automatically registers you with that Internet Service Provider.
Internet Connection Wizard	The Internet Connection Wizard is designed to make a first time connection to the Internet simple. The Internet Connection Wizard gives the user a list of National ISPs to choose from, then the Wizard will then do all of the software configuration for the user.
HTML-Based Online Help	To assist users in finding "help" information, Windows 98 includes an HTML-based Online Help system. This help system is extensible and enables simplified help searching.
15 Troubleshooting Wizards	These Troubleshooting Wizards can help you quickly diagnose and solve technical problems with Windows 98. Troubleshooters are scenario-based walkthroughs that the user can customize to their situation by choosing the answer that fits their situation. The Troubleshooting Wizards included in Windows 98 address the following areas: Network, Modem, Startup Shutdown, Print, DriveSpace 3, Memory, MS-DOS Programs, Display, DirectX, Sound, The Microsoft Network, Hardware Conflict, Dial-Up Networking, Direct Cable Connection, and PC Card.

Setup Enhancements	Several enhancements have been made to the Windows 98 Beta 3 setup program in an effort to decrease setup time while increasing setup reliability. In addition, the setup interface shows you how far along you are with the setup process.
Faster Shutdown	The time it takes to shutdown the system has been dramatically reduced in Windows 98.
FAT32	FAT32 is an improved version of the FAT file system that allows disks over two gigabytes to be formatted as a single drive. FAT32 also uses smaller clusters than FAT drives, resulting in a more efficient use of space on large disks. On average users will get as much as 28 percent more hard drive space using FAT32. Need more space on your drive? Find out how much space you can gain with FAT32.
FAT32 Conversion Utility	For added flexibility, Windows 98 Beta 3 includes a graphical FAT32 conversion utility, which can quickly and safely convert a hard drive from the original version of FAT to FAT32.
Power Management Improvements	Windows 98 Beta 3 includes built-in support for Advanced Configuration and Power Interface (ACPI). This allows you to switch on or off your PC like you would your TV set. ACPI is an open industry specification proposed by Intel, Microsoft, and Toshiba which defines hardware interfaces that allow for standard power management functionality throughout a PC system. In addition to ACPI support, Windows 98 Beta 3 includes support for the Advanced Power Management (APM) 1.2 extensions including: Disk spindown, PCMCIA modem power down, and resume on ring.
Windows Scripting Host	Windows 98 Beta 3 supports direct script execution from the user interface or the command line (a script is simply a series of commands that can be automatically executed). This support is provided via the Windows Scripting Host (WSH) and allows administrators and/or users to save time by automating many user interface actions such as creating a shortcut, connecting to a network server, disconnecting from a network server, etc. The WSH is extremely flexible with built-in support for Visual Basic scripts, Java scripts, and a language independent architecture which will allow other software companies to build ActiveX scripting engines for languages such as Perl, TCL, REXX, and Python.
New Accessibility Tools	Windows 98 includes two new accessibility tools including - the Accessibility Configuration Wizard which helps people adapt Windows' options to their needs and preferences, and a low-end screen magnifier which helps people with moderate vision impairments and those working on unfamiliar machines.
Win32® Driver Model (WDM)	The Win32 Driver Model (WDM) is an all new, unified driver model for Windows 95 and Windows NT® . WDM will enable new devices to have a single driver for both operating systems. The WDM has been implemented by adding selected NT Kernel services into Windows 98 Beta 3 via a special virtual device driver (NTKERN.VXD). This allows Windows 98 Beta 3 to maintain full legacy device driver support while adding support for new WDM drivers.
Windows	The Windows Maintenance Wizard was designed to make the PC

Maintenance Wizard	<p>more self-maintainable. The Wizard schedules tune-up jobs to be run automatically on a regular basis. Windows Maintenance Wizard will help you by:</p> <ul style="list-style-type: none"> • Deleting unnecessary files. • Making sure your hard disk is optimized and properly functioning. • Launching applications up to 36 percent faster (in average). <p>You can launch the Windows Maintenance Wizard from the System Tool group off of the Start Menu. Features of Windows Maintenance Wizard include:</p> <p>Disk Defragmenter</p> <p>The new Disk Defragmenter uses the process of disk defragmentation to increase the speed with which your most frequently used applications run. To accomplish, this Disk Defragmenter creates a log file which identifies your most commonly used programs. Once this log file has been created, it can be used by Disk Defragmenter to store the files associated with most commonly run programs (the files will be stored contiguously on the hard disk). Placing all of the files associated with a given application in the same location on your hard disk will optimize the speed with which your application runs.</p> <p>ScanDisk</p> <p>Windows 98 Beta 3 has been enhanced to run ScanDisk automatically in the event the operating system is shut down improperly or your hard disk suffers a hard error. This feature will significantly help people ensure that their hard drives are in proper working order, free of lost clusters, cross-linked files, etc.</p> <p>Disk Cleanup</p> <p>Disk Cleanup is a tool in Windows 98 Beta 3 that automates the task of cleaning unwanted file off of the hard disk, increasing free space. This tool is a especially useful to help users clean out Internet cache files that can accumulate after browsing the Web. Additionally, this tool is customizable by the user to designate files to remove.</p>
Microsoft System Information Utility 4.1	<p>Windows 98 now contains a centralized system information utility that gathers system configuration information for technical support. This tool is comprised of a collection of ActiveX controls, each responsible for collecting and displaying a certain category of system information in the right frame of Microsoft System Information Utility. A Support Engineer can guide the user experiencing an issue to Microsoft System Information Utility to facilitate the information gathering process.</p>
System File Checker Utility	<p>System File Checker keeps track of critical files that make your computer run. If these files are moved or changed, System File Checker provides an easy way to restore these files. Once file changes are detected, System File Checker offers the user several courses of action.</p>

Registry Checker	Registry Checker is a proactive support program that finds and resolves Registry problems, and regularly backs up the Registry. Windows 98 Beta 3 provides both an MS-DOS- and a Windows-based program for scanning the Registry, backing up and restoring the Registry and system configuration files.
Automatic Skip Driver Agent (ASD)	Automatic Skip Driver Agent (ASD) identifies potentially dangerous failures that are known to have caused Windows 98 Beta 3 systems to stop responding and marks them so they are bypassed on subsequent startups. Automatic Skip Driver: <ul style="list-style-type: none"> • Identifies hardware devices that fail to respond when tested by Windows 98 Beta 3. • Displays a dialog box indicating that it has detected a failure that may cause the system to stop responding. • Prompts you with the option to bypass this action on subsequent startups.
New Dr. Watson Utility	Windows 98 Beta 3 includes an enhanced version of the Dr. Watson utility. With Dr. Watson enabled, when a software fault occurs (general protection fault, hang, etc.), Dr. Watson will intercept it and indicate what software faulted and why. In addition, Dr. Watson collects detailed information about the state of your system at the time the fault occurred. It logs this information to disk, and can display it on screen to assist administrative and product support personnel in determining the cause of the fault.
System Configuration Utility	System Configuration Utility is the graphical replacement for Sysedit. This tool allows the user to troubleshoot through a process of elimination with check boxes. System Configuration Utility allows the user to create and restore back ups of configuration files.
Version Conflict Manager	Version Conflict Manager detects file version conflicts with installed programs. Windows 98 Beta 3 will then install the Windows version of the driver. By doing this, Windows 98 Beta 3 puts the system in an optimal compatibility stage. Version Conflict Manager also stores all files and has an easy user interface that enables the user to change the driver if needed.
New Backup Utility	This new backup applet supports SCSI tape devices and makes backing up your data easier and faster.
New Accessibility Tools	Windows 98 includes two new accessibility tools including - the Accessibility Configuration Wizard which helps people adapt Windows' options to their needs and preferences, and a low-end screen magnifier which helps people with moderate vision impairments and those working on unfamiliar machines.
Remote Access Server	Windows 98 Beta 3 includes all of the components necessary to enable your desktop to act as a dial-up server. This allows dial-up clients to remotely connect to a Windows 98 Beta 3 machine for local resource access or connecting to an IPX/SPX and/or NetBEUI network.
Display Setting Enhancements	Display Setting Enhancements provide support for dynamically changing screen resolution and color depth. Adapter refresh rate can also be set with most newer display driver chipsets. Windows 98 Beta 3 also includes the display enhancements previously available in Microsoft Plus!. (Microsoft Plus! is an add-on pack for

Windows 95 which provided several minor operating system enhancements.) The enhancements with Windows 98 Beta 3 include: full window drag, font smoothing, wallpaper stretching, large icons, and hi-color icons.

New Generation of Entertainment Functionality

Broadcast Architecture	With a TV tuner board installed, Windows 98 allows a PC to receive and display television and other data distributed over the broadcast networks. Windows 98's Program Guide, which is updated continuously, lists television shows on now and in the future and allows for instant tuning into shows for viewing on the PC. Windows 98 can also receive Enhanced Television programs, which combine standard television with HTML information related to the programs, as they become available. Additionally, Windows 98 users will be able to receive Internet content or other data services via the broadcast networks, without tying up their existing phone lines.
ActiveMovie™	ActiveMovie is a new media-streaming architecture for Windows that delivers high-quality video playback while exposing an extensible set of interfaces upon which multimedia applications and tools can be built. ActiveMovie enables playback of popular media types including MPEG audio, .WAV audio, MPEG video, AVI video, and Apple QuickTime video.
Support for Intel MMX Processors	Provides support for third parties to build software that exploits the Intel Pentium Multimedia Extensions (MMX) for fast audio and video support on the next generation of Intel Pentium processor.

Enables the Latest Accessories

Multiple Display Support	Multiple Display Support allows you to use multiple monitors and/or multiple graphics adapters on a single PC. The ability to have your work environment displayed on multiple monitors can be extremely beneficial in many areas including: desktop publishing, Web development, video editing, and gaming environments.
Support for New Generation of Hardware	One of the major goals of Windows 98 Beta 3 is to provide complete support for users to take advantage of the array of innovations which have occurred in computer hardware over the last few years. Some of the major hardware standards supported by Windows 98 Beta 3 include: Universal Serial Bus (USB), IEEE 1394, Accelerated Graphics Port (AGP), Advanced Configuration and Power Interface (ACPI), and Digital Video Disc (DVD).
PCMCIA Enhancements	There have been several enhancements to Windows 98 Beta 3 with respect to PCMCIA technology including: <ul style="list-style-type: none">• Support for PC Card32 (Cardbus): Cardbus brings 32-bit performance to the small PC Card form factor. It enables notebooks to implement high-bandwidth applications like video capture and 100Mbps networking.• Support for PC Cards that operate at 3.3 Volts: This enables hardware manufacturers to lower the power consumption of their devices by using 3.3V rather than 5V.• Support for Multifunction PC Cards: Allows two or more

functions (such as LAN and Modem, or SCSI and sound) on a single physical PC Card. Supporting Multifunction Cards helps decrease the cost-per-function of PC Cards, and makes better use of the precious number of slots on most PCs permitting more functions per PC.

Built-In Support for Infrared Data Association (IrDA)

Windows 98 Beta 3 includes support for IrDA, the Infrared Data Association standard for wireless connectivity. IrDA support enables Windows 98 Beta 3 users to easily connect to peripheral devices or other PCs without using connecting cables. This driver set provides infrared-equipped laptop or desktop computers with the capability of networking, transferring files, and printing wirelessly with other IrDA-compatible infrared devices.

Distributed Component Object Model (DCOM)

The Component Object Model (COM) allows software developers to create component applications. Now, Distributed COM (DCOM) in Windows 98 Beta 3 (and Windows NT 4.0) provides the infrastructure that allows DCOM applications (the technology formally known as Network OLE) to communicate across networks without needing to redevelop applications.

Client Support for NetWare Directory Services (NDS)

Windows 98 Beta 3 includes Client Services for NetWare that support Novell NetWare Directory Services (NDS). This enables Windows 98 Beta 3 users to log on to Novell NetWare 4.x servers running NDS to access files and print resources. This service provides the key features that Novell users need, such as: NDS authentication, ability to browse NDS resources, ability to print to NDS print queues, and full support for processing NetWare login scripts, NDS property pages, and NDS passwords.

32-bit Data Link Control (DLC)

The Data Link Control (DLC) protocol is used primarily to access IBM mainframe and IBM AS/400 computers. The 32-bit DLC protocol software built-in to Windows 98 Beta 3 enables a network administrator to add support for 32-bit and 16-bit DLC programs.