# Microsoft® Windows™ 95

# Summary of New Features in Beta-2

The Beta-2 release of Windows 95 represents fixes and enhancements as well as further refinement of the feature set and functionality to be offered in the final retail product.

The information in this section is designed to give a quick overview of the changes made between Beta-1 and the delivery of Beta-2. Besides the items listed in this section, a significant amount of work is devoted to general cleanup, performance improvements, polish, and increased system robustness.

**Note**   This is *not* an exhaustive list of the new features or changes present in the Beta-2 release, but is intended to provide a quick overview of some of the key enhancements since Beta-1.

## Windows 95 User Interface

- Recycle Bin to recover deleted files
- Multilevel undo for file operations like delete, move, copy, or rename
- Undo for window management operations performed on the Taskbar
- New visual design for the start button, it's bigger with a nice bitmap as the menu background (users can toggle between the larger menu view and a smaller icon view)
- Guided tour to help both new users and Windows 3.1 users learn the Windows 95 user interface
- Integrated "Windows 3.1 help" system to aid Windows 3.1 users in operating in Windows 95
- Quick viewer enhancements to improve speed and support additional formats
- Version and type information will be shown as a property sheet for each file shipped as part of Windows 95, making it easy for users to see the version of system files they have and confirm they have the latest revision
- Document file summary properties shown via a standard system property page, allowing users to see the same summary properties they see in Microsoft Word for Windows, for example, without having to open the application.
- Fonts folder is integrated into the shell as a folder, and is accessible from My Computer
- Application install wizard to guide users through the process of installing both Windows and MS-DOS–based applications.

## Windows 95 System Setup

- Revamped user interface to be a standard Windows 95 wizard. It nicely guides the user through all questions, allowing him/her to go back and change any response. User interface improvements spread to network setup as well. Includes Setup options to perform a typical, portable, compact, or custom install.
- Maintenance mode to add/remove components.
- Support for network server-based install and installation script usage for hands-free installs. Allows files to be placed on a server, and installs performed against user directories on the server or on local PCs.
- Improved support for installing over third party networks
- Improved detection for support of additional devices as well as safer detection when querying legacy PC configurations

## MS-DOS–based Application Support

- Ability to have custom config.sys and autoexec.bat files per session with quick reboot for single MS-DOS application mode.  This is a very nice solution to running those cranky MS-DOS games that insist on having their own configuration files

- MS-DOS application information associated with links so you can have multiple links to a single MS-DOS executable, each with it's own specific settings for that program.  For example, a link to command.com to run it in a window, and a second one to have it run full screen.

- Simplified property sheet UI for configuring options for running MS-DOS–based applications.

- File system compatibility mode, which can be set in setup.  Disables long file names and other new file system features, plus uses old boot file names to support old disk utilities.  Designed for 100% file system compatibility.

## Windows Core

- Vastly improved Device Contexts (DCs) resource limit, raising it from the current limit of around 150 to around 4000.  This will allow users to run many more large resource hungry applications under Windows 95 than  on Windows 3.1.

- Image Color Matching work integrated.  Profiles for the most popular color printers provided.

## File System

- Complete protect mode DriveSpace/DoubleSpace integration.  VXD and real mode compression drivers support both DoubleSpace and DriveSpace.  GUI-based DriveSpace utility to make settings, compress in place, etc.

- Device configurability in the System Control Panel UI; cache write behind control, fixed/removable media settings, use real mode drivers or not, polling versus interrupt driven, reserve letter for removable drives, etc.

- Support for a swapfile on compressed volume.  User won't have to worry about changing various host volume sizes to accommodate the swapfile.  The swapfile just sits on the compressed volume and grows and shrinks as needed.

## Printing

- Bi-directional print monitors for HP LaserJet 4 models and Adobe Postscript printers.

- Browse for printers on the network when doing printer setup

- Print troubleshooter (in Help) to help user diagnose printing problems

## Plug and Play

- "Silent" install scheme where new plug and play devices just start working without prompting the user.

- New Device Wizard in Control Panel enhanced.  This wizard helps guide users through the steps to install legacy and Plug and Play hardware in their system.

- Support for printing various reports on system settings in Device Manager section of System Control Panel application.

- Device Manager UI improved to show hierarchy of devices in the system.  (e.g., CD drive hanging off a SCSI port).

- Support for docking and using a different display adapter in the docking station.

## Mobile support

- Clean up in the UI for dock/undock sequence and naming profiles. Networking components and the display system have been revved to include Plug and Play support (e.g., dynamic load/unload of drivers and automatic switching of display drivers and resolution). This means that docking or undocking is much more pleasant than Beta-1.

- Parallel port network card driver to enable connecting two machines running Windows 95 together for fast data transfer without a network.

## Networking

- Custom network neighborhood by allowing shortcut/links in the Network Neighborhood. Provides control for users and administrators over what does and doesn't show up in the network neighborhood.

- Plug and Play awareness in all protect mode components. Allows dynamic loading/unloading to support docking, PCMCIA card insertion, etc.

- Support for NetWare login scripts, "who am I" NetWare support so you can tell what name you logged in under.

- System policies implemented in components of Windows 95, and configurable with the System Policy Editor

- RIPL support and tools for setting up and booting diskless workstations from servers running NetWare services.

- Remote network access (RNA): PPP stack improved for better interoperability with Windows NT and Internet servers; compression and encryption over PPP; UI greatly improved for things like modem install and dialing from applications thanks to a new dialer app from the TAPI group, the shell is also now slow link aware. You will also see cool stuff like modem lights blinking on the system Taskbar.

## Multimedia

- Support for AutoPlay included. If a CD-ROM is autoplay-enabled, just put it in your CD-ROM drive and it will run automatically. If the desktop is showing, AutoPlay will open a window to show the contents of your CD automatically when you stick in a CD)

- Volume control. A new volume control appears on the Taskbar, making it easy to turn the sound up or down.

- Long filename support. All the multimedia applications now support long filenames.

- More boards, drives, and devices supported. Devices supported in Beta-2 now include Media Vision audio cards.

- New, simpler, UI for Multimedia control panel.

- CD Player application included. The new CD Player makes it easy and enjoyable to play audio CDs in your CD ROM drive. You can even create and save custom play lists, so you can skip over songs you don't like)

- Improved joystick driver. The new joystick driver requires less attention from the CPU (leaving more cycles for your game!) and provides more accurate and responsive user control -- so you'll hit what you aim at more often.

- CDFS Performance enhancements: Since Beta-1, improvements in the CD File System have boosted streaming efficiency while decreasing the CPU overhead for reading from the CD-ROM drive. This means that you can use the CPU to decompress bigger, faster digital video than before.

- 32-bit codecs: Indeo™ and Cinepak have both provided 32-bit versions of their codecs, which ship in Beta-2.

- 32-bit digital video capture subsystems.  The digital video capture subsystems are now fully 32-bit in Beta-2.  When used in combination with a 32-bit codec, this offers dramatically improved digital video capture performance.  We are seeing throughput increases of 30% or greater.  This means you can capture bigger, faster, better looking digital video without upgrading anything but the software.
- Full-screen digital video.  When you play a 640x480 digital video file, Windows 95 now automatically removes the window border in order to play it full-screen.
- TrueSpeech voice compression.  Beta-2 includes this new codec for very efficient compression of voice data.
- Support for the new Sony/Phillips "CD+" format (using stamped multisession technology) built into Windows 95

## Applications and Utilities

- New 32-bit OLE-enabled versions of WordPad and Paint.  Both use new common dialogs in Windows 95 and support the use of long filenames.
- Update to WinPad application.  Includes driver for transferring data to the Timex Data Link Watch.
- Backup application included.  Supports floppy backup, tapes connected to the standard floppy controller interface, and parallel port tape backup interface.
- Long filename support in all the MS-DOS utilities, such as XCOPY.
- GUI Disk defragmenter (optimizer) and ScanDisk (disk checking and repair tool) are included.

## Microsoft Exchange

- Workgroup Post Office setup/administration now in Control Panel
- Microsoft At Work fax software integrated
- Internet Mail Service drivers included
- Microsoft Exchange Setup Wizard simplifies creation of messaging profiles
- OLE 2 drag/drop, Visual Editing now functional
- Drag mail messages to the file system in Windows Explorer
- New mail notification on the Taskbar
- Custom Views fully functional, including categorized views
- Next/Previous mail message fully functional

## The Microsoft Network - Online Service

- Initial online service client for The Microsoft Network is provided in the Beta-2 release of Windows 95