C H A P T E R   2 0

Applications and Utilities

Windows 95 includes a set of applications and utilities designed to take advantage of new areas of the operating system, including 32-bit preemptive multitasking, long filenames, new visual elements and common dialog boxes, OLE, TAPI, MAPI, and other Win32 API features. This chapter describes some of the new applications and utilities.

The applications and utilities listed in this chapter have been either completely redesigned or designed from scratch so that novice users' first experiences of using the applications will be good ones. Experienced users will find the applications both powerful and flexible, but the applications were not necessarily designed to satisfy all the needs of advanced users. Many of the applications and utilities will help to inspire third-party developers to further utilize technology included in Windows 95.

The Quick Viewers

The Quick Viewers included in Windows 95 provide a new capability, allowing users to view files in most popular file formats without opening the application used to create the files. The Quick Viewers are really convenient for looking at attachments sent in e-mail messages or browsing files on a network. Figure 121 shows the right-click context menu with the Quick View command chosen and the resulting Quick View window showing the contents of a Microsoft Excel worksheet.
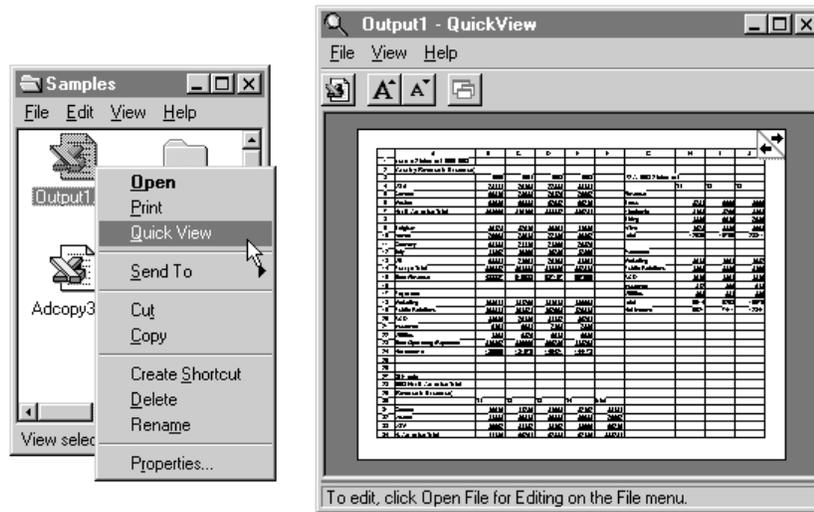
Figure 121. A Microsoft Excel worksheet in a Quick View window

The Quick Viewers also support the ability to drag and drop a file from the Windows Explorer or desktop into an open Quick View window. If the extension of a file is not associated with a known application, the Open With dialog box is displayed so that users can specify whether they want to view the file in a Quick View window or open the selected file with an application.

Users can choose Options from the Window Explorer's View menu and specify the default Open command for any file type to be quick-viewed, which is convenient for users who often view a particular file type but do not have the corresponding application on their hard disk. Users can also assign extensions to applications to view files with those extensions in a specific file format.

Users can customize the Quick View window in the following ways:

- They can view files in standard view or page view, in both landscape and portrait modes.
- They can view files in different fonts and font sizes.
- They can rotate bitmap files so that documents such as fax messages are oriented correctly.

Jointly developed by Microsoft and Systems Compatibility Corporation (SCC), the Quick Viewers are available for most popular file formats. SCC offers additional viewers and features in their Outside In for Windows product. In addition, ISVs are encouraged to include Quick Viewers for the file formats they support in future releases of their software. Windows 95 provides Quick Viewers that support the following file formats:

.ASC   ASCII files

.BMP   Windows Bitmap Graphics files

.CDR   Corel Draw files

.DOC   Files created by Word for MS-DOS versions 5 and 6; Word for Windows versions 2 and 6; and WordPerfect versions 4.2, 5, 6, and 6.1

.DRW   Micrographix Draw files

.EPS   Encapsulated PostScript files

.GIF   CompuServe GIF files

.INF   Setup files

.INI   Configuration files

.MOD   Files created by Multiplan versions 3, 4.0, and 4.1

.PPT   PowerPoint version 4 files

.PRE   Freelance for Windows files

.RLE   Bitmap files (RunLengthEncoding)

.RTF   Rich Text Format files

.SAM   AMI and AMI PRO files

.TIF   TIFF files

.TXT   Text files

.WB1   Quattro Pro for Windows spreadsheet files

.WK1   Lotus 1-2-3 Release 1 and 2 files

.WK3   Lotus 1-2-3 Release 3 files

.WK4   Lotus 1-2-3 Release 4 spreadsheet and chart files

.WKS   Lotus 1-2-3 files and Microsoft Works version 3 files

.WMF   Windows Metafiles

.WPD   WordPerfect demo files

.WPS   Works Word Processing files

.WQ1   Quattro Pro for MS-DOS files

.WQ2   Quattro Pro version 5 for MS-DOS files

.WRI   Windows 3.x Write files

.XLC   Excel 4 chart files

.XLS   Excel 4 spreadsheet and Excel 5 spreadsheet and chart files

WordPad

WordPad is a 32-bit editor that replaces the Write and Notepad applications provided with Windows 3.1. Although it is not a full-blown word processor, WordPad makes creating simple documents and memos easy for users. The WordPad window is shown in Figure 122.
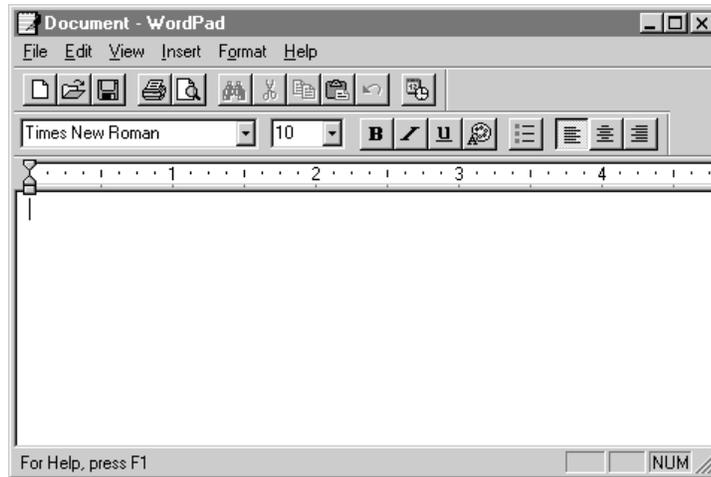

Figure 122. The WordPad application

WordPad was written from scratch as a good example of the user interface style that applications written for Windows 95 should use. It utilizes the new common dialog boxes for opening, saving, and printing files, which makes it easy for users to use long filenames.

As an OLE server and client application, WordPad provides easy integration with other OLE-enabled applications provided with Windows 95 or available from third parties. WordPad uses the same native file format as Microsoft Word for Windows version 6, but also supports the reading and writing of rich text files (RTF) and text files, and the reading of Write (.WRI) files.

WordPad is MAPI-enabled, so it is easily integrated with Microsoft Exchange to allow users to send files over electronic mail, or by fax, directly from within WordPad.

Paint

Like WordPad, Paint is a new 32-bit Windows 95 application. It replaces its Windows 3.1 counterpart, Paintbrush. The Paint window is shown in Figure 123.
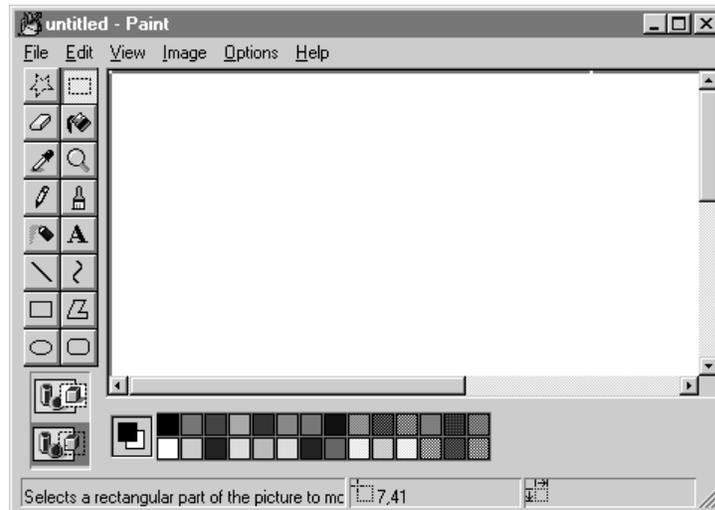
Figure 123. The Paint application

Paint is an OLE server, allowing the creation of OLE object information that can be embedded or linked into other documents. Paint is also MAPI-enabled, so it is easily integrated with Microsoft Exchange for sending images as e-mail messages or as fax messages.

Using the combination of Paint and WordPad allows novice users to see the interaction of good 32-bit applications written for Windows 95.

Backup

Backup is a new 32-bit application for Windows 95 that makes it easy for users to back up information from their computer to another storage medium, such as floppy disk or tape. As shown in Figure 124, the Backup user interface takes full advantage of the Windows 95 user interface. To make understanding and using the Backup user interface easy, it uses standard controls, such as the tree and list view controls, so that both novices and users familiar with these controls in the Windows Explorer can perform backups quickly and simply.
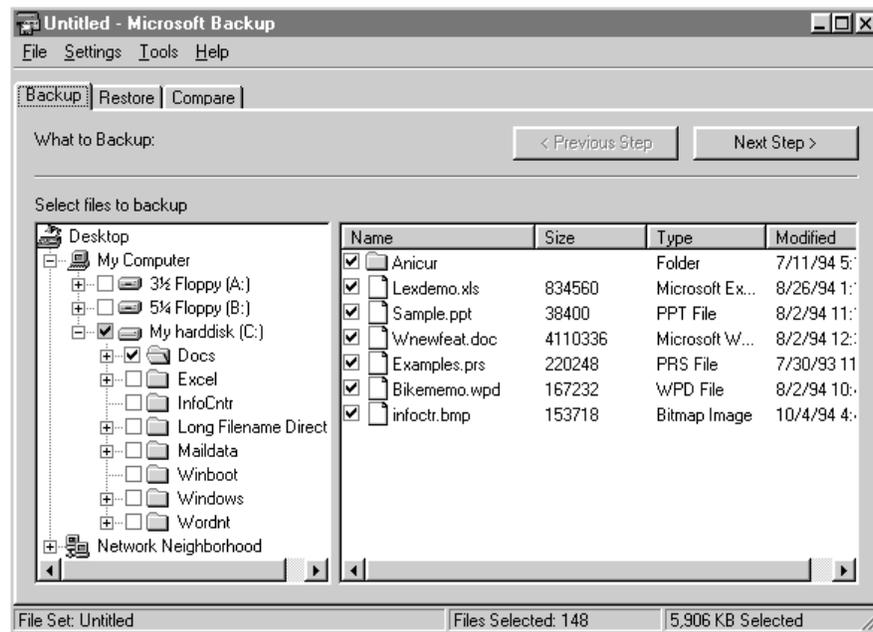
Figure 124. The Backup application, which can back up the local hard disk, floppy disks, or network drives

Backup includes the ability to drag and drop file sets and backup sets onto a link to the Backup application, which can be placed on the desktop to make starting a backup operation a simple "click and drag" procedure. The Backup application can also be run in the usual way, or users can select the Backup option on the Tools tab of the Disk property sheet.

Backup is extremely flexible and allows backing up, restoring, and comparing of files on the following:

- Hard disks

- Network drives

- Floppy disks

- QIC 40, 80, 3010, and 3020 tape drives connected to the primary floppy disk controller

- QIC 40, 80, and 3010 tape drives, manufactured by Colorado Memory Systems, which connect to the parallel port

Backup also supports compression of files to maximize storage space. The on-tape format is the industry-standard QIC-113 format. The Backup application can read tapes created with other backup applications that use this standard, both with and without file compression.

Other standard options include differential and full backup, redirection of files on restore, and always erasing floppies or tapes before a backup. Backup includes a full-system backup/restore feature that allows users to simply select the full-system backup file set (which is automatically created when Backup is first launched), perform the backup, and then restore files later. This feature works even if users replace their hard disk with a

completely different type of hard disk. The Backup application does all the necessary merging of Registry settings and manages the replacement of files in use so that novice users don't have to understand all of the technical details associated with this fairly complex operation.

HyperTerminal

HyperTerminal is a new 32-bit communications application included with Windows 95 that provides asynchronous connectivity to host computers, such as online services, or other PCs. HyperTerminal replaces the Terminal application included in Windows 3.1, and is a completely different application, providing advanced features and functionality not supported by Terminal.

HyperTerminal represents a good communications application written for Windows 95 and is completely integrated with, and takes full advantage of, the new Telephony API and UniModem subsystems built into Windows 95. HyperTerminal uses the new 32-bit communications subsystem and provides error-free data transfer by leveraging the new architecture components in Windows 95, including multithreading and preemptive multitasking. The HyperTerminal user interface reflects the document-centric nature of Windows 95 and focuses on the communications connection that users make, rather than the main application. As with the other applications and utilities included with Windows 95, HyperTerminal uses the new common dialog boxes and supports the use of long filenames.

HyperTerminal makes connecting to remote computers easy for both novices and experienced PC users. Through the use of innovative autosensing technology, complex communications settings, such as baud rate, number of stop bits, parity, and terminal emulation type, are automatically determined by HyperTerminal so that users don't have to deal with these settings at all. The result is a significant usability improvement.

HyperTerminal provides mainstream communications program functionality, including terminal emulation and binary file transfer capability. Terminal emulation support includes emulation of ANSI, TTY, VT52, and VT100 terminals. Binary file transfer protocol support includes Xmodem, Ymodem, Zmodem, and Kermit file transfer protocols. Figure 125 shows HyperTerminal in action.
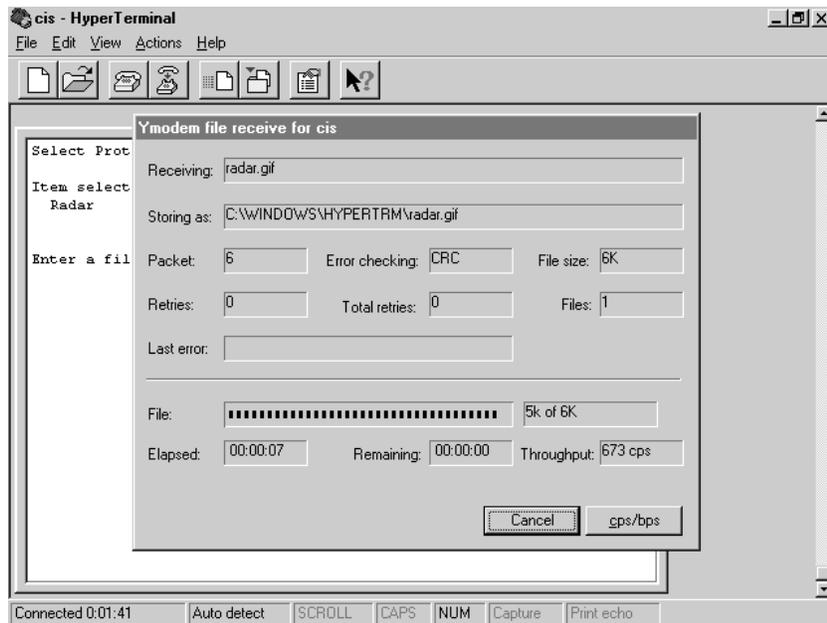
Figure 125. The HyperTerminal application, which makes connecting to host computer services and performing error-free downloading of files easy

The New MS-DOS–Based Editor

Windows 95 includes a new version of the MS-DOS–based text editor, EDIT.COM. Enhancements have been made to the editor provided with MS-DOS to make it easier for users to work with text files in case the Windows 95 shell cannot for some reason be loaded.

Users of MS-DOS will find the Edit program very familiar while at the same time benefiting from several dramatic improvements. Edit is smaller and faster than its MS-DOS predecessor. It allows users to open up to nine files at the same time, split the screen between two files, and easily copy and paste information between files. Users can also open files as large as 4 MB in size. Edit supports long filenames and allows users to open filenames and navigate through their directory structure just as they can in the Windows 95 UI. Figure 126 shows the new Edit window.

Figure 126. The MS-DOS Editor, which supports a split screen and the use of long filenames

Disk Utilities

Windows 95 includes a collection of disk utilities designed to keep the system error-free and performing optimally. In addition to the DriveSpace disk compression tool discussed in the Chapter 4, "Basic System Architecture," Windows 95 provides a disk optimizer tool and a disk checking and repair tool.

The Disk Defragmenter

The Disk Defragmenter optimizes a hard disk by rearranging information so that it is better organized. Rearranging information helps minimize the hard disk area Windows 95 needs to search to load requested information. Unlike the disk defragmenter utility provided with MS-DOS, the Disk Defragmenter is a graphical application that runs under Windows 95.

For convenience, users can defragment their disks in the background while other applications are running on their system. Additionally, users can see details of the defragmentation process and watch its progress, or they can display a minimal status, as shown in Figure 127, that simply shows the status of the defragmentation process.

Figure 127. The Disk Defragmenter utility, which helps users optimize the performance of their disks

ScanDisk

The ScanDisk disk checking and repair tool included with Windows 95 is designed to help users check the integrity of their disks and to remedy problems that are detected. Unlike the Scandisk utility provided with MS-DOS, ScanDisk is a graphical application that runs under Windows 95. As shown in Figure 128, users can run either a standard scan, in which ScanDisk checks the files on the user's system for errors only, or a thorough scan, in which ScanDisk checks the files for errors and performs a disk surface test to check for additional errors.

As with the Disk Defragmenter, users do not need to exit any running applications to run ScanDisk. As a result, checking the integrity of a disk system and thereby preventing possible catastrophic errors in the future is easy and convenient for users.
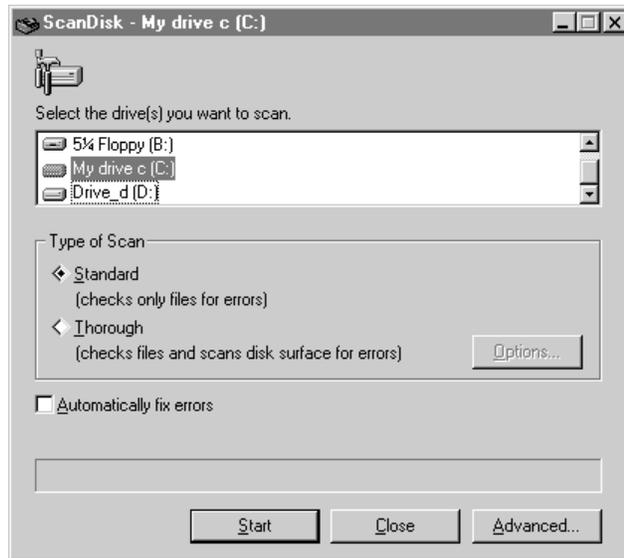
Figure 128. The ScanDisk utility, which allows users to perform a standard or thorough scan to check the integrity of their files and disk