WinBiff 2.1
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WinBiff is a Windows 3.1 mail notification program for use in conjunction with several different mail systems, including UUPC/extended, Waffle, Pegasus Mail, Eudora for Windows, FirstMail, Novell MHS, Mini-Host, FSUUCP, and sendmail (with PC-NFS).

WinBiff is distributed as shareware.   See Registering WinBiff for more information.

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Installing WinBiff

Copy the files WINBIFF.EXE and WINBIFF.HLP to any convenient directory.   Typically, users keep these files in a directory along with other small Windows utilities.

Add WinBiff as a new Program Item to an appropriate Program Group in Windows Program Manager. Optionally, you may specify the name of a configuration file as an argument in the Command Line.   By default, WinBiff will create a configuration file with the name WINBIFF.INI in the Working Directory.   A configuration file must have the extension .INI, but the extension need not be specified explicitly.   If you supply a file name without a path, WinBiff will place the configuration file in the **Working Directory**.   A path without a drive letter is considered to be on the same drive as the **Working Directory**.

See also:
Example command lines
Multiple mailboxes
Network installation
Configuring for UUPC/extended

Example command lines

By using a given Command Line, you can specify the name and location of the .INI file used by WinBiff.

Examples:

Command line	Effect
WINBIFF	creates WINBIFF.INI in Working Directory
WINBIFF MYCONFIG	creates MYCONFIG.INI in **Working Directory**
WINBIFF C:\MYCONFIG.INI	creates MYCONFIG.INI in root directory of C: drive

Installing WinBiff for multiple mailboxes

You may run multiple copies of WinBiff to monitor multiple mailboxes. For each mailbox to be monitored, you will need a separate configuration file.

With some mail systems, you may already have a directory for each of your mailboxes; you can use these directories to store corresponding configuration files.   For each mailbox, add a Program Item to a Program Group in Program Manager, and specify one of the directories just created as the Working Directory.   WinBiff will create a WINBIFF.INI in each of these directories.

Otherwise, create a **Program Item** for each mailbox to be monitored, and explicitly specify a configuration file in each Command Line.   You may wish to name the configuration files after the accounts with mailboxes to be monitored.   For example, if you have mailboxes for accounts *fred* and *sally,* you might use configuration files named FRED.INI and SALLY.INI.

See also:
Example command lines
Network installation
Configuring for UUPC/extended

Network installation

You may run WinBiff from a network server.   You may use multiple configuration files stored on individual network nodes, or a single configuration file stored on the server.

If you use multiple configuration files, the configuration file at a given node provides the settings used by WinBiff when run by a user at that node.

If you use a single configuration file stored on the server, you can use environment variables to specialize settings at each node.   For example, the configuration file might give the Mail file specification as C:\ MAIL\$USER$, which contains the environment variable USER.   The AUTOEXEC.BAT file at each node should set the environment variable USER to an appropriate value.   See your DOS manual for details on how to set environment variables.

See also:
Multiple mailboxes
Using DOS environment variables
Configuring for Netware and Pegasus Mail

Configuring WinBiff

To configure WinBiff the first time, start the program. The **Setup** dialog box will appear on the Windows desktop.   To change the configuration, choose **Setup** from the system menu.

From the **Setup** dialog box:

Press   `  OK  `   to use the configuration settings you have chosen, without saving them.

Press   `  Save  `   to save (and use) the chosen settings.

Press   `  Cancel  `   to cancel any changes you have made.

See the following topics for more configuration information:

Required fields

Polling interval
Mail file

Optional fields

Alarm interval
Window caption
Mail reader
Sound file

More options

Startup and display options   Sound options
Window action   Customizing WinBiff colors
       Using the WAVBase

Special topics

Using custom icons   PC-NFS
Using DOS environment variables   UUPC/extended
Netware and Pegasus Mail   WinOS2
Eudora

Required fields

Polling interval

The polling interval tells WinBiff how often to check for new mail.   Five (5) seconds is the minimum polling interval.

Mail file

The mail file specification gives the name of the file(s) containing mail messages.   For example, if mail is stored in the file USER.MBX in the directory MAIL on drive C, the mail file specification would be C:\MAIL\ USER.MBX.

You may use DOS wildcard characters ("*" and "?") and DOS environment variables in the **Mail File** specification.

You may click on the adjacent Browse button to choose a **Mail file** from a Windows Common Dialog box.   DOS wildcard characters, however, must be entered manually.

Unless running under NetWare, Pegasus Mail users should use "*.CNM" in the mail file specification.   If you run **Pegasus Mail** under **NetWare**, see Configuring for NetWare and Pegasus Mail.

Waffle creates two mailbox files, a text file with a   ".F" extension, and an index file with a ".I" extension. If you use **Waffle**, specify the ".F" file.

Novell MHS mail systems create mail files without an extension, so **MHS** users should use "*." in the mail file specification.   You may use the SYS: volume name or a mapped drive name in the mail file specification.   If you use the SYS: volume name, you may also specify a server.

By default, UUPC/extended creates mail files with an extension of .SPB (see also Configuring for UUPC/extended).

Users of PC-NFS should specify a mail file on an NFS-mounted drive (see Configuring for PC-NFS).

See also:
Netware and Pegasus Mail
PC-NFS
UUPC/extended
Using DOS environment variables

Optional fields

Alarm interval

If you set the alarm (see <u>Alarm on</u>), you may choose an appropriate alarm interval.

Window caption

Enter a caption for the WinBiff title bar.   If no caption is specified, the mail file name will be used.

Mail reader

Enter the command to invoke your mail reader (including any command-line arguments).   The string "%s" in the mail reader specification will expand to the full pathname of the specified <u>Mail file</u>.

Sound file

Enter the name of a ".WAV" file to play when mail is received.   This field is disabled unless the <u>Sound option</u> is set to **Custom** or **WAVBase**.   The file is used only as the **Alarm** file if the **Sound option** is set to **WAVBase**.

For the **Mail reader** and **Sound file** fields, you can use the [Browse] buttons to pick files.   You may use DOS <u>environment variables</u> in the **Window caption**, **Mail reader** and **Sound file** fields.

See also:
<u>Mail file</u>
<u>Alarm on</u>
<u>Sound options</u>
<u>Using DOS environment variables</u>

More options

See the following topics for additional configuration options:

Startup and display options

By clicking with the left mouse button in the appropriate boxes, you may choose the following **Startup options**.

Launch reader	whether to launch the mail reader
Show old mail	whether to display old mail left in your mailbox
Last icon position	whether to position the WinBiff icon at its last location

The following **Display options** are available:

Show headers	whether to show mail headers
Reverse sort	whether to sort headers by reverse order of their arrival

The **Reverse Sort** option is inapplicable, and its checkbox disabled, unless the **Show headers** option is selected.

See also:
Window action

Window action

The **Window action** choice tells WinBiff what to display when mail arrives.   Normally, WinBiff shows an image of a mailbox with its flag down.   When mail arrives, WinBiff will raise the flag on the mailbox and change the background.   If the window is displayed and the Show headers option is checked, then up to 150 message headers will be shown.   The **To top** option causes the WinBiff window or icon to remain visible even though other windows cover it.   The **Restore** option causes the icon to become a window when mail arrives; when all mail has been read, the window again becomes an icon.

The **Activate** option makes WinBiff the active window when mail arrives.   This option is not recommended for most users.   If you are running a DOS program in full-screen mode, this option will activate WinBiff on the Windows desktop when mail arrives (but see the following restrictions). Otherwise, if the **Activate** option is not set, the DOS full-screen application remains active; hence, WinBiff will not change when mail arrives.   In Windows standard mode (the mode used by 286-class machines), the **Activate** option has no effect when a DOS application is running.   In Windows enhanced mode (the default mode for 386, 486, and Pentium machines), the **Activate** option has no effect if a DOS application is running and has the "Exclusive" option set in its .PIF file.

Sound options

You can choose what sound WinBiff will make when new mail is received, by choosing a **Sound option**. Choosing **Beep** uses the Windows "Default Beep" sound.   Choosing **Custom** plays the .WAV file given in the <u>Sound file</u> field.   Choosing <u>WAVBase</u> uses the associations in the **WAVBase** to determine which sound files to play when mail arrives.   If the **WAVBase** option is chosen, the **Sound file** is used as the **Alarm** sound.

The <u>Test</u> button allows you to play the sound file during setup.

The **Alarm on** option enables the WinBiff alarm.   When mail arrives, the alarm will sound   repeatedly until turned off.   The <u>Alarm interval</u> indicates how often the alarm should be sounded.   Note that if **No sound** is chosen, the alarm cannot be set.   Similarly, if the alarm is not set, the **Alarm interval** cannot be chosen.

Customizing WinBiff colors

Pressing the [Colors...] button from the **Setup** dialog opens another dialog box.   Using this dialog box, you can change the colors used by WinBiff.

Pick which color area you wish to change by clicking on the list of areas, or by clicking in the appropriate color display box.   For example, clicking on the words "From line" allows you to change the color of "from" text in mail headers.   Adjust the red, green, and blue sliders to achieve the color you want.   Note that moving all sliders to their maximum positions gives white, while moving all of them to their minimum positions gives black.   As you adjust the sliders, the color changes will be displayed in the appropriate color display box.

Pressing [OK] closes the **Colors** dialog, and returns control to the Setup dialog.

Pressing [Defaults] will restore the WinBiff default colors.

Pressing [Cancel] will cancel the effect of any color changes, and returns control to the **Setup** dialog. The color changes you make will take effect only if you choose the **OK** or **Save** buttons from the **Setup** dialog.

Using the WAVBase

Pressing the   **WAVBase...**   button from the **Setup** dialog opens the WAVBase dialog box.   The WinBiff WAVBase associates strings with sound files (.WAV files).   If the Sound Option is set to **WAVBase**, then when a message arrives that containts in its "From" line a string in the **WAVBase**, the associated sound file is played.   Matching does not depend on the case of the letters in the string.   You may use environment variables in an associated sound file specification, but not in the string itself.   A typical string might be the sender's e-mail address, or the sender's name.   WinBiff does not display the entire "From" line, so you may wish to inspect the mail file itself, or use the information displayed by your mail program as a guide in selecting a   string.

Press the   **Add...**   button to add a new entry to the **WAVBase**.   Once an entry has been made, the **Sound file** may be edited by changing the text in the "Sound file" edit control.   The   button deletes an entry in the WAVBase.   Use the
Browse   button to browse for sound files, and the
Test   button to test entries.

The **Default** entry is the name of a sound file to be played for messages which do not match any other **WAVBase** string.   Note that the Default is played for each such message, so many users will want to leave this entry blank.   Use the **Browse** and **Test** buttons as for other sound files.   You may use **environment variables** in the **Default** entry.

Pressing   **OK**   closes the **WAVBase** dialog, and returns control to the Setup dialog.

Pressing   **Cancel**   cancels any **WAVBase** changes you have made.   Any changes made will take effect only if you choose the **OK** or **Save** buttons from the **Setup** dialog.

See also:
Sound options
Adding a WAVBase entry
Using DOS environment variables

Adding a WAVBase entry

Pressing the [Add...] button from the **WAVBase** dialog opens another dialog box in which you can specify a new WAVBase entry.   In the **String** field, enter the string to compare against the "From" line in mail messages.   It does not matter whether the string is upper or lower case.   In the **Sound file** field, enter the full filename of the file to play when a match is made.   Use the **Browse** and **Test** buttons as for other sound file fields.   You may use underlined environment variables in the **Sound file** entry.

Press the **OK** button to confirm the new entry, or the **Cancel** button to cancel it.   The new entry will take effect only if the **WAVBase** changes are confirmed by **OK** and the **Setup** changes are confirmed by **OK**.

See also:
Sound options
Using the WAVBase
Using DOS environment variables

Special configuration topics

See the following topics for special configuration information:

Using custom icons
Using DOS environment variables
PC-NFS
Netware and Pegasus Mail
Eudora
UUPC/extended
WinOS2

Using custom icons

By default, WinBiff uses built-in icons to display when the window is minimized.   There are two such icons, one used when there is mail, and the other used when there is no mail.   The user may instead use custom icons created by a Windows icon drawing tool.   Icon files created by such tools have a .ICO extension in their name.

A custom icon to be used when the user has no mail is specified by placing a file with the name NOMAIL.ICO in the Working Directory.   A custom icon to be used when the user does have mail is specified by placing a file with the name NEWMAIL.ICO in the **Working Directory**.

Using DOS environment variables

In the <u>Window caption</u>, <u>Mail file</u>, <u>Mail reader</u>, and <u>Sound file</u> specifications, you may use DOS <u>environment variables</u> by bracketing each variable name with dollar signs.   For example, if the DOS **environment variable** LOGIN indicates a subdirectory where mail is sent, you might enter "C:\MAIL\ $LOGIN$*.*" as the mail file specification.   If you need to indicate a literal dollar sign, use two of them. For example, the specification "C:\MAIL\$$USER*.*" indicates that mail is sent to the directory C:\MAIL\ $USER.   **Environment variable** names used by WinBiff may not contain dollar signs.

Configuring for NetWare and Pegasus Mail

If you use the DOS or Windows versions of Pegasus Mail (PMail) under Novell Netware, WinBiff provides a special macro to simplify setup.   In the Mail file field, enter "<NW-PMAIL>", and WinBiff will figure out the full mail file specification on the preferred server, if any, else on the default server.   In a multi-server environment, you may enter *"SERVER*/<NW-PMAIL>", where *SERVER* is the real name of the server. Since the macro relies on the **NetWare** bindery, you must be running bindery emulation in **NetWare** 4.x. See Problems using the <NW-PMAIL> macro, if you use the macro but fail to receive mail notification.

You may instead enter the **Mail file** specification manually, which should be:

    SYS:MAIL\<objid>*.CNM

or

    SERVER/SYS:MAIL\<objid>*.CNM

where <objid> is the hexadecimal digit NetWare object id assigned to the user.

Configuring for Eudora for Windows

Eudora for Windows has its own own mail notification mechanisms, but you can use WinBiff for more flexible mail notification.   **Eudora** normally creates a file named "IN.MBX" in the directory where Eudora is located.   Set the WinBiff Mail file field to that file.   For instance, if **Eudora** is located in the directory "C:\EUDORA", then the WinBiff **Mail file** specification should be "C:\EUDORA\IN.MBX".   **Eudora** also allows the user to create custom mailboxes; you may specify such a mailbox file in the **Mail file** field. You may use separate WinBiff instances to monitor separate **Eudora** mailboxes, for instance, the "Out" mailbox ("OUT.MBX") and the "Trash" mailbox ("TRASH.MBX").

While it is running, **Eudora** does not automatically remove mail messages after they have been read. Therefore, WinBiff will show messages as pending, even after they have been read, until the button for compacting a mailbox is pressed, the "Compact Mailboxes" option is chosen from the "Special" menu, or **Eudora** is exited.

Since **Eudora** transfers mail from a POP host and is itself a mail reader, it is recommended that you choose the "Launch reader" option from the Startup and display options.

See also:
Multiple mailboxes

Configuring for PC-NFS

If your PC is on a network with a Unix machine which can export directories using Sun Microsystems' Network File System (NFS), and you run PC-NFS, WinBiff can monitor mail sent to the Unix machine. Export the mail spool directory where your mail arrives so that it appears as a directory on a logical DOS drive on the PC.   In the WinBiff **Setup** dialog, specify the file that is created on the logical drive when mail arrives as the Mail file.

Configuring for UUPC/extended

UUPC/extended places new messages in a file in the mail spool directory as they are received.   You should specify this file as the Mail file, so that you will be notified of new messages.

If you set the "Multitask" option, when the **UUPC/extended** mail reader MAIL.EXE (either the DOS or the OS/2 version) is started, messages are moved to another file in the account's home directory.   If you wish to track old messages (those that remain after MAIL.EXE is run), you will need to run a second copy of WinBiff with the **Mail file** set to the mailbox in the account's home directory.

See also:
Multiple mailboxes

WinBiff and WinOS2

You may run WinBiff under <u>WinOS2</u> (version 3.1 or above).   If you run WinOS2 in a full-screen session, you can run WinBiff as you would run it under Windows itself.   Similarly, if you minimize windows to the Desktop, WinBiff may be run in a <u>seamless mode</u> session as it would run under Windows.

If you wish to run WinBiff in a **WinOS2 seamless mode** session, and you hide minimized windows, or you minimize windows to the Minimized Window Viewer, you need to exercise a little care.   In this case, Windows icons are not visible in **seamless mode**.   Therefore, you should either (1) run WinBiff as a window all the time (choose **To Top** or **No action** as the <u>Window action)</u>, or (2) choose the **Restore** option as the **Window action**.

If you run WinBiff in a **seamless mode** session, and you pick WinBiff from the OS/2 Window List, the window may not be restored to the proper size.   This is due to an idiosyncrasy of the integration of OS/2 and **WinOS2**.   If you run WinBiff as described above, it should not be necessary to use the Window List. If the window is restored to a wrong size, simply resize the window manually.

Using WinBiff

After you have configured WinBiff, you should test the configuration by sending a mail message to the account being monitored.   WinBiff should respond when the message is delivered.

See also:
Modifying the configuration
Clearing the mailbox and the alarm
Launching the mail reader
Resizing and moving the window
WinBiff Help

Modifying the configuration

To modify the configuration, select **Setup** from the system menu.   You can pop up the system menu by clicking on the WinBiff icon, or, if WinBiff is running as a window, by clicking on the box in the upper-left corner.   For either the icon or window, pressing ALT-SPACE will also pop up the system menu.

See also:
Configuring WinBiff

Clearing the mailbox and the alarm

After mail has arrived, the user may force the appearance of the original, no-mail icon (or window) by selecting **Clear** from the system menu.   If **Clear** is chosen, the menu item changes to **Show**.   Choosing **Show** will re-display the mail window or headers. If mail is pending, but not displayed on startup (because the **Show** old mail option has not been selected), choosing **Show** will also display the mail window or mail headers for the old mail.

If you have set the WinBiff alarm, when mail arrives, the alarm will sound repeatedly until turned off.   Any of the following actions will turn off the alarm:

- Mouse-clicking on the WinBiff icon or window
- Scrolling the WinBiff window   (horizontally or vertically)
- Restoring WinBiff from an icon to a window
- Popping up the system menu
- Launching the mail reader
- Starting WinBiff Help

See also:
Alarm interval
Alarm on
Launching the mail reader
WinBiff Help

Launching the mail reader

To launch the mail reader, double-click with the right mouse button on the icon or window.   If the window (not the icon) is displayed, you may also double-click with the left mouse button or hit RETURN.   The reader is invoked whether or not you actually have mail pending.

See also:
Startup and display options

Resizing and moving the window

You may freely move or resize the WinBiff window. WinBiff maintains two window sizes, one for when headers are displayed, and the other for the plain window.   When WinBiff is started, the last window position and the two window sizes from the last WinBiff session are used.

You may also move the WinBiff icon to any location on the screen.   If you select Last icon position, the next time you run WinBiff, the icon will appear at its location from the previous session.

WinBiff Help

The WinBiff Help system can be called from the system menu, or from the **Setup** and **Color** dialog boxes.

From the system menu, choose **Help** or press the F1 key.

From either dialog, press the [Help...] button or press the F1 key.

Errors/Bugs/Problems

See the following topics for possible problems running WinBiff.

Problems using the <NW-PMAIL> macro
Problems with DOS applications
False alerts
Dropped characters

Problems using the <NW-PMAIL> macro

To use the <NW-PMAIL> macro, <u>NetWare</u> must be loaded and a user logged in.   If a dialog box pops up which says "No NetWare connection or invalid server", make sure **NetWare** is loaded and the specified server name (if any) is correct.   If the dialog box pops up which says, "No NetWare user logged in", make sure a **NetWare** user is logged in.   In either case, after correcting the error condition, you should enter the **Setup** dialog, and choose **OK**.   When the macro is invoked successfully, either by loading WinBiff or exiting the **Setup** dialog, WinBiff writes an entry to the file NW-PMAIL.LOG in the <u>Working Directory</u>, containing the actual mail file specification used.   Use of the <NW-PMAIL> macro has unpredictable results if you are not running **NetWare**.

See also:
<u>Configuring for NetWare and Pegasus Mail</u>

Problems with DOS applications

In Windows standard mode (used by 286-class machines), all Windows applications are suspended while a DOS applications runs.   Therefore, in standard mode, WinBiff cannot check for mail while a DOS application is running.   Similarly, in enhanced mode (used by 386, 486, and Pentium machines), if a DOS application has the "Exclusive" option set in its .PIF file, WinBiff will be suspended while the DOS application runs.   Also, in enhanced mode, if a DOS application is running full-screen, WinBiff will check for mail somewhat less frequently than is specified by the nominal polling interval.   All these effects are limitations of the Windows environment.

False alerts

If you read some, but not all, of the messages in a mailbox, WinBiff may behave as if the remaining messages are new, so that the Window action is taken.   This is because some mail readers temporarily delete mail files before writing the remaining messages back to the file.   If WinBiff polls the file while the file is deleted, WinBiff will behave as if the mailbox is empty; when the remaining messages are written, these messages are considered new.

If you use the Elm mail reader, and you do not discard messages after reading them, **Elm** adds some information to mail files.   This extra information increases the size of mail files, which, in some cases, causes WinBiff to react as if there is new mail.

Dropped characters

If you play a .WAV file on the receipt of mail, use SPEAKER.DRV as your sound driver, and disable interrupts during playback, a serial-port communications program (such as UUPC/extended's UUIO) may lose characters.   Normal operation of a single UUIO process should not be a problem, since mail delivery occurs after all files have been transferred.

Registering WinBiff

WinBiff is a shareware program.   It is not free software.   If you use the program in a commercial setting, or non-commercially on a regular basis, you must submit a registration contribution.   The suggested contribution amounts are:

No. of copies	Price per copy (U.S. dollars)
1	15.00
2	10.00
3	9.00
4	8.00
5	7.00
6	6.50
7	6.00
8	5.50
9 or more	5.00

Site licenses are available.   Please contact the author for details.

Contributors will automatically receive updates as uuencoded .ZIP files by e-mail.   When submitting your registration, be sure to contact the author at *steck@acm.org* or at *75354,16* in CompuServe so your e-mail address can be placed on the update list.

CompuServe users may register WinBiff in the Shareware Registration Forum (GO SWREG).   After entering the forum, simply follow the menus that appear.

You may submit your WinBiff registration contribution by credit card.   To register using your MasterCard, Visa, American Express, or Discover card, call **Public Software Library** at 800/242-4PsL (800/242-4775); outside the US and Canada, +1 713/524-6394; FAX: 713/524-6398; Internet: *71355.470@compuserve.com*.

These numbers are for credit card registrations only.   The WinBiff author cannot be reached at those numbers.   To reach the author about site licensing, volume discounts, version information, or technical information, please contact the author at *steck@acm.org* or at *75354,16* in CompuServe.

Contacting the author

E-mail correspondence about WinBiff may be submitted to:

steck@acm.org

on the Internet, or at

75354,16

in CompuServe.

Suggestions for improvements are particularly welcome.

Obtaining WinBiff updates

The latest version of WinBiff is available via anonymous ftp as:

ftp.cica.indiana.edu:pub/pc/win3/util/wnbffXXX.zip

where XXX represents the version number.

Elm

A popular mail reader for Unix systems.   Contact: *elm@dsi.com*.

UUPC/extended

A uucp system for PC's running DOS, Windows, Windows NT, and OS/2, distributed by Kendra Electronic WonderWorks *(software@kew.com)*.   Archived at *ftp.clarkson.edu*.

Waffle

A mail and news system for Unix and DOS systems, archived at *ftp.halcyon.com*.

Pegasus Mail (PMail)

Davis Harris' mail system for PC's, available in DOS and Windows versions, usually run with Novell NetWare.   Archived at *risc.ua.edu* and *tyr.let.rug.nl*, or contact *david@pmail.gen.nz*.

Eudora for Windows

A POP (Post Office Protocol) mail client, available in freeware and commercial versions.   The freeware version is archived at *ftp.qualcomm.com*.

FirstMail

A mail system distributed with some versions of Novell NetWare which uses the MHS file format.

Novell MHS

A family of mail systems for PC's running Novell NetWare which use the MHS file format.

FSUUCP

A uucp implementation for PC's running DOS, distributed by Fubar Systems, archived at *toys.fubarsys.com*.

Mini-Host

A uucp implementation for PC's running Windows, distributed by SuperPhysica *(minihost@sph.spb.su)*. Demo available at *ftp.cica.indiana.edu*.

PC-NFS

A PC-hosted implementation of Sun Microsystems' Network File System, alllowing remote file systems to appear as logical DOS drives.

sendmail

The mail transport agent program used by many Unix systems.   Not normally run by users.

WinOS2

The version of Windows built into the OS/2 operating system.

NetWare

An operating system sold by Novell, Inc., for creating PC-hosted local area networks (LAN's).

Working Directory

The directory from which a Windows application is started.

Program Item

An entry within a Program Group of Windows Program Manager, shown as an icon, which represents an application.

Program Group

A collection of icons contained in a Windows Program Manager window, representing a group of applications.

Command Line

The string Windows uses to run an application, including any arguments.

.INI file

A file which contains startup options used by a Windows application.

.PIF file

A Windows Program Information File with settings for running a DOS application.

seamless mode

The mode used by OS/2 when running a Windows application in the Workplace Shell.

environment variable

A variable with a string value maintained by DOS, available to DOS and Windows programs.

AUTOEXEC.BAT

The DOS batch file that is run automatically when a system is booted.