RHI Consulting Quick Reference Guide

Windows NT® 4.0

RHICONSULTING®
Information Technology Professionals

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This quick reference guide has been developed to provide "at-your-fingertips" information for **Windows NT version 4.0**.

Windows NT is a powerful, 32-bit operating system that is available in two forms: **NT Workstation** and **NT Server**. NT Workstation includes outstanding peer-to-peer networking features and is designed for professional and business use. It can be run on multiple hardware platforms and includes advanced security options. NT Server contains all of the features available in NT Workstation, plus advanced network management tools for administering large and complex LANs and WANs.

This guide breaks down the common features that are shared by both NT Workstation and NT Server. It also contains features that are specific to Workstation or Server, as well as a comprehensive list of **NT Commands**.
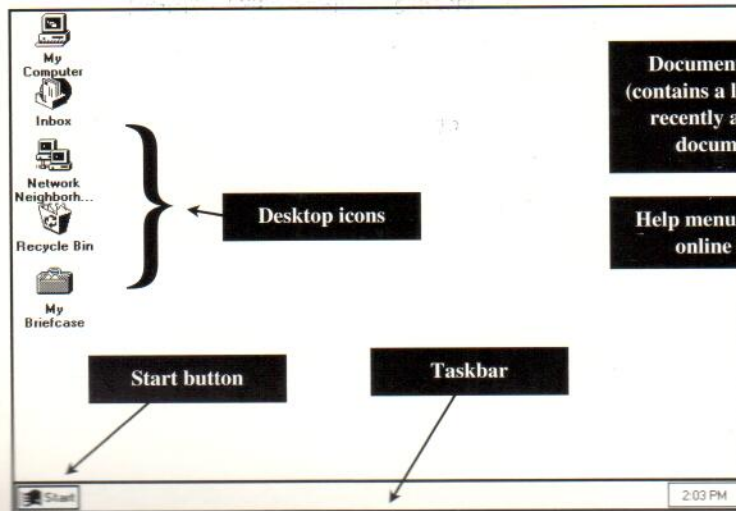
Note that many of the features listed in this guide will only be available to your system if they were installed with the **Windows NT Setup** program or with a **Control Panel** option.

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Windows 95 User Interface

Desktop

My Computer

Inbox

Network Neighborh...

Recycle Bin

My Briefcase

Desktop icons

Start button

Taskbar

Start   2:03 PM

Start Menu

Windows NT Workstation

Programs
Documents
Settings
Find
Help
Run...
Shut Down...

Start

Documents menu (contains a list of most recently accessed documents)

Help menu (displays online help)
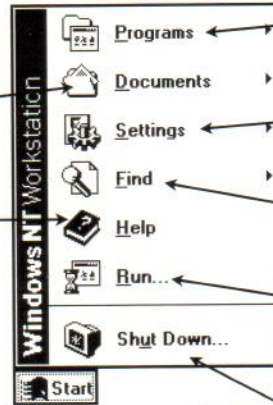
Programs menu (contains programs and program groups)

Settings menu (changes system and environment settings)

Find command (searches for a file or folder)

Run command (allows you to launch a program by typing its name and location)

Shutdown command (allows you to log off or shut down the computer)

Click the **Start** button or press **Ctrl+Esc** to access the **Start** menu.

Differences Between NT Workstation and NT Server

FEATURE	NT WORKSTATION 4.0	NT SERVER 4.0
Administrative Control	Local administrative control and restricted administration	Centralized administrative control across all desktops and servers
DHCP Server	No	Yes
Directory Services Manager for NetWare	No	Yes - add-on product
DNS Server	No	Yes
Fault Tolerance	None	Mirroring, Duplexing, RAID 5
File & Print Serving	Peer (limited - see license)	Yes - requires Client Access Licenses
File and Print Services for NetWare	No	Yes - add-on product
File Cache	Foreground process given highest priority for maxium response	File cache is given highest priority to boost network performance
Hard Disk	Minimum 110 Meg	Minimum 160 Meg
HTTP, Gopher, FTP Serving	Peer (limited - see license)	Yes - Internet Information Server
I/O Throughput	Access to key system resources is dynamically and equally parcelled out	Incoming network requests are funnelled through a single que

Differences Between NT Workstation and NT Server (continued)

FEATURE	NT WORKSTATION 4.0	NT SERVER 4.0
Index Server	No	Yes - available free on Internet
Memory	Minimum 12 MB RAM/12+ MB RAM Recommended	Minimum 16 MB RAM/32+ MB RAM Recommended
Memory Allocation	Minimum necessary is allocated at load time	All requested memory is allocated at load time
Number of Processors Supported	2	32
Numer of Inbound Dial-in Connections	1	256
Runs Microsoft BackOffice Applications	No	Yes
Services for Macintosh	No	Yes
Task Scheduling	Time is divided into very short time slices so multiple tasks can be loaded and unloaded rapidly	Time is divided into longer time slices to handle network requests
Web Authoring	No	Yes - Microsoft FrontPage included
Win32 API	Yes	Yes
Windows 95 User Interface	Yes	Yes
WINS Server	No	Yes

Windows Accessories

PROGRAM	DESCRIPTION
Freecell, Minesweeper, Pinball, Solitaire	Various games that can be installed with Windows NT.
Calculator	Calculator that can be used in standard view to perform simple calculations, or in scientific view to perform advanced statistical and scientific calculations.
Clock	Displays an analog or digital clock with various options.
Paint	Used to create, edit, and view bitmap images.
WordPad	A simple word processing programming that can read or save documents as Word for Windows files.
Notepad	A simple text editing program.
Phone Dialer	Places telephone calls from your computer to another telephone with a modem or Windows NT telephony device.
Hyper Terminal	A modem communications software.
CD Player	Plays audio compact disks in a CD-ROM drive.
Media Player	Plays audio, video, and animation files.
Sound Recorder	Plays and records computer-based sound files.
Volume Control	Controls the volume level and speaker balance for an installed sound card.
My Computer	Used for browsing through files and folders and for managing disks.
Network Neighborhood	Allows you to view and connect to other computers on a network.
Recycle Bin	Temporarily stores deleted files and allows you to restore them if you change your mind.
Briefcase	Updates and synchronizes copies of files that are used on both a desktop computer and a portable computer. Two computers must be connected through a network or with a cable.

Control Panel

Control Panel is used to manage the majority of Windows NT's system and environment settings.

To access Control Panel:

```
Windows NT Workstation

  Programs          ▶
  Documents         ▶
  Settings          ▶      Control Panel
  Find              ▶      Printers
  Help                     Taskbar...
  Run...
  Shut Down...

Start
```

```
Control Panel                                    _ □ ✕
File   Edit   View   Help

Add/Rem...   Console    Date/Time   Devices    Dial-Up
Programs                                        Monitor

Display      Fonts      Keyboard    Mail       Microsoft
                                               Mail Po...

Modems       Mouse      Multimedia  Network    PC Card
                                               (PCMCIA)

Ports        Printers   Regional    SCSI       Server

26 object(s)
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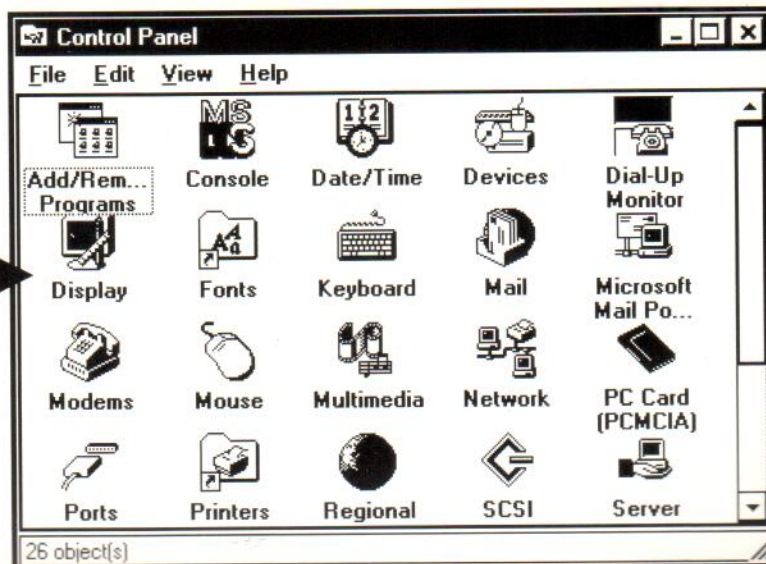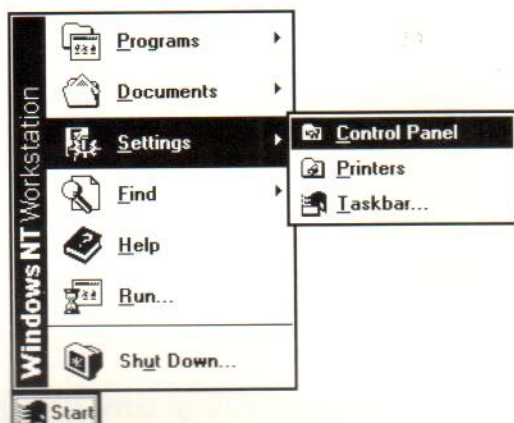

Control Panel (continued)

Below is a partial list of the options that may appear in Control Panel. Other options may be available to you depending on your system configuration.

Add/Rem... Programs — Sets up programs and creates shortcuts.

Console — Configures console settings.

Date/Time — Changes date, time, and time zone information.

Devices — Starts and stops device drivers.

Dial-Up Monitor — Monitors status of dial-up connections.

Display — Changes display settings.

Fonts — Displays, adds, and removes fonts.

Keyboard — Changes keyboard settings.

Mail — Adds, removes, and changes Microsoft Exchange profiles.

Microsoft Mail Po... — Administers a Microsoft Worksgroup Postoffice.

Modems — Installs a new modem and changes modem properties.

Mouse — Changes mouse settings.

Multimedia — Changes multimedia device settings.

Network — Configures network hardware and software.

PC Card (PCMCIA) — Enables PCMCIA sockets and changes PC Card (PCMCIA) settings.

Ports — Specifies serial port communication settings.

Printers — Adds, removes, and changes printer properties.

Regional — Changes the appearance of numbers, currency, dates, and times.

SCSI — Adds and removes SCSI adapters and displays their properties.

Server — Displays and manages local server properties.

Services — Stops, starts, and configures services.

Sounds — Changes system and program sounds.

System — Provides system information and changes environment settings.

Tape Devices — Detects tape devices and displays their properties.

Telephony — Configures Telephone Drivers and Dialing Properties.

**UPS** — Configures the Uninterruptible Power Supply.

Task Manager

Task Manager is used for launching and closing applications, and for switching to open application windows. It also monitors system performance and displays information on processes that are currently active. To access Task Manager, click your right mouse button on any blank area of the **Task Bar**, then click **Task Manager** from the **Shortcut** menu. When the **Windows NT Task Manager** dialog box appears, click the desired tab: **Applications**, **Processes**, or **Performance**.
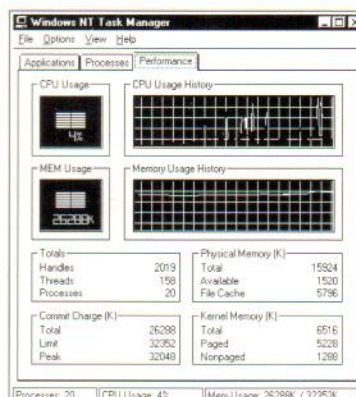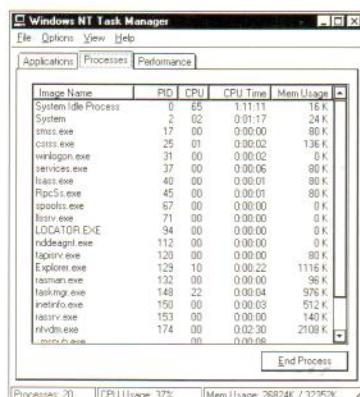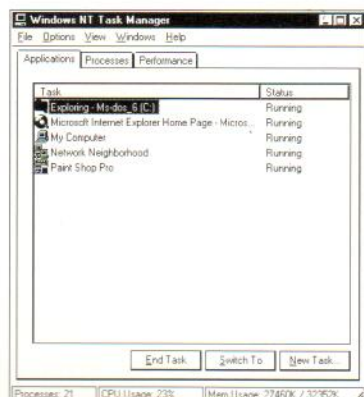
Administrative Tools

A number of common administrative tools, used for network and system administration, are shared by NT Workstation and NT Server.

To access Administrative Tools:
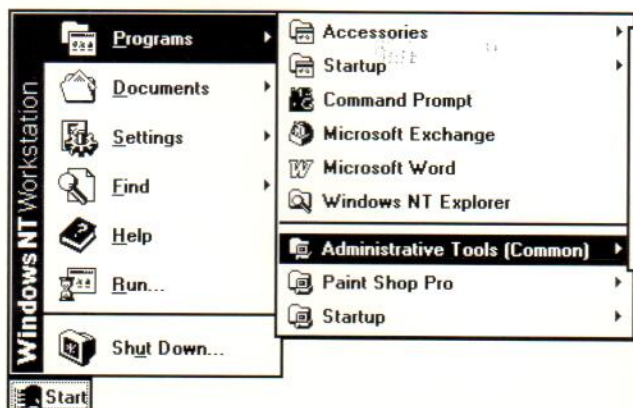
Backs up files from one disk to another.

Manages physical and other aspects of hard disks and logical drives.

Monitors system events, and manages system security and application event logs.

Monitors the performance of a local computer or a computer on a network.

Remote Access Service (RAS). Manages user access from remote sites to a network.

Manages user accounts, group accounts, and security for a workstation or network.

Contains various utilities for identifying system problems.

Programs
Documents
Settings
Find
Help
Run...
Shut Down...
Start

Accessories
Startup
Command Prompt
Microsoft Exchange
Microsoft Word
Windows NT Explorer
Administrative Tools (Common)
Paint Shop Pro
Startup

Backup
Disk Administrator
Event Viewer
Performance Monitor
Remote Access Admin
User Manager
Windows NT Diagnostics

Dial-Up Networking

Dial-Up Networking allows you to gain access to shared information on a computer or network from a remote computer using a modem or ISDN adapter.

To access Dial-Up Networking:
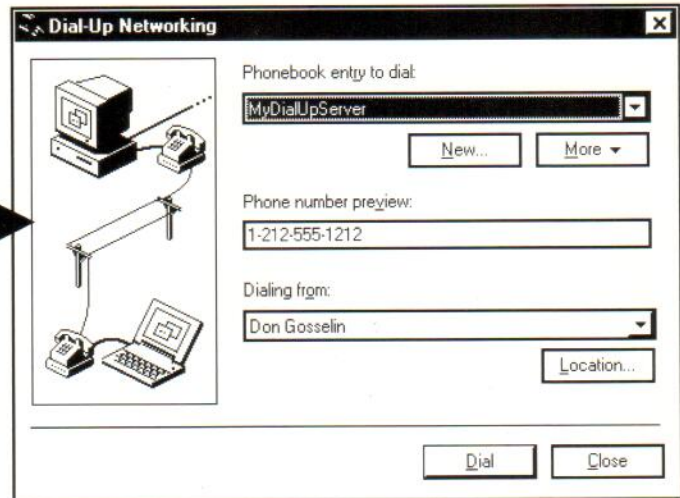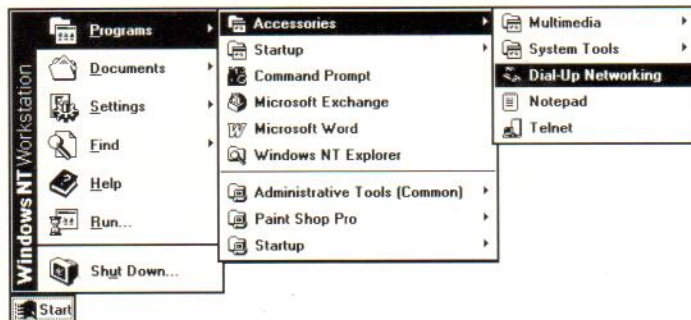
Windows NT Explorer

Windows NT Explorer is used for managing files, folders, and network drive connections. It is very similar to **File Manager**, found in earlier versions of Windows, and works in much the same way .

To access Windows NT Explorer:
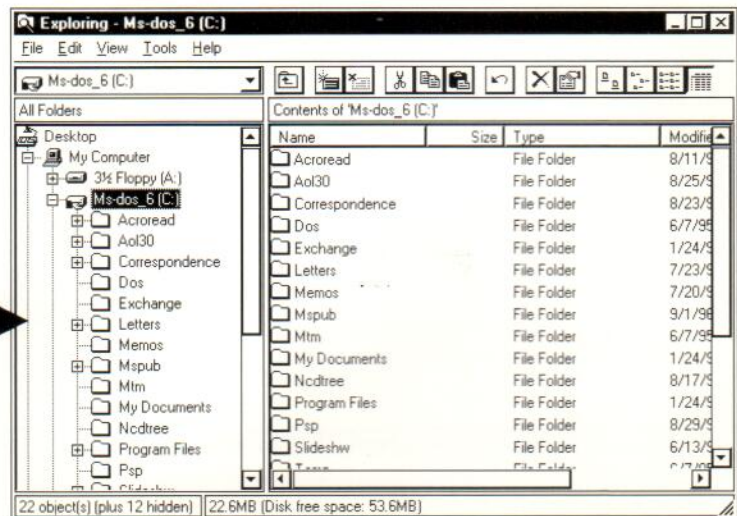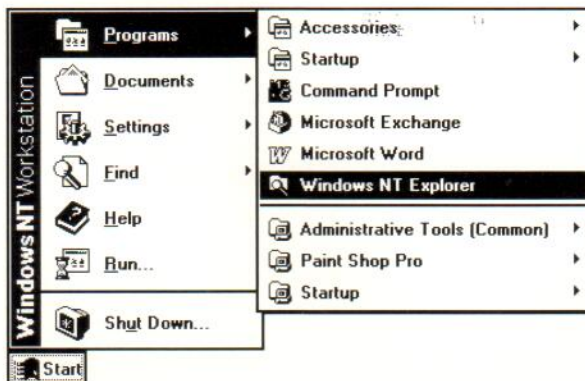
Internet Explorer

Internet Explorer is a Web browser used for navigating through Web pages on the Internet or on an intranet. It allows you to subscribe to newsgroups and to maintain lists of favorite Web sites. Internet access is required through an internal Internet site or through an Internet Service Provider.

To access Windows Internet Explorer:

Double-click the Internet Explorer icon on the desktop
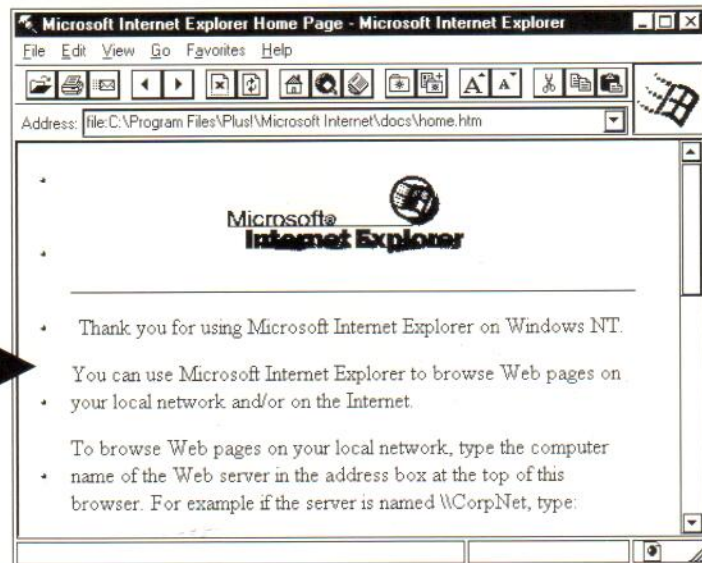
Microsoft Exchange

Microsoft Exchange is used for sending and receiving electronic mail messages. It includes a universal inbox which allows you to manage electronic messages and other types of information.

To access Windows NT Explorer:
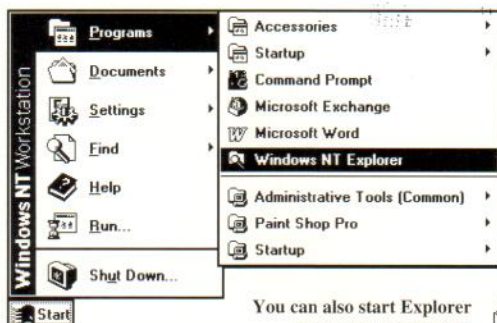
You can also start Explorer by double-clicking the Inbox icon on the desktop.
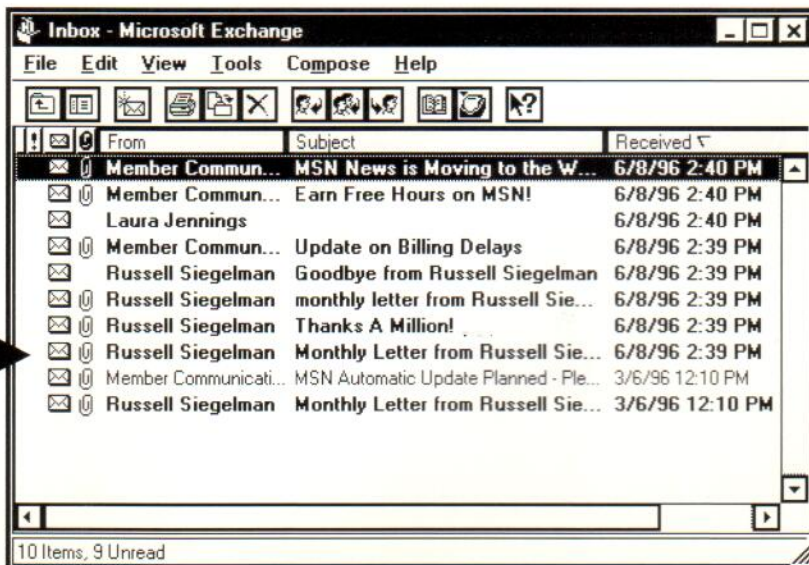
Peer Web Services

Peer Web Services allow you to create a Web site on your Windows NT Workstation. Web sites are designed using HTTP protocol and can also be configured for FTP and gopher services. Note that Peer Web Services are installed using the **Network** icon in **Control Panel**.

To access Peer Web Services:

- Manages the configuration and performance of a server.
- Manages Key pairs and Certificates.
- Launches the Peer Web Services setup program.
- Peer Web Services documentation in HTML format.
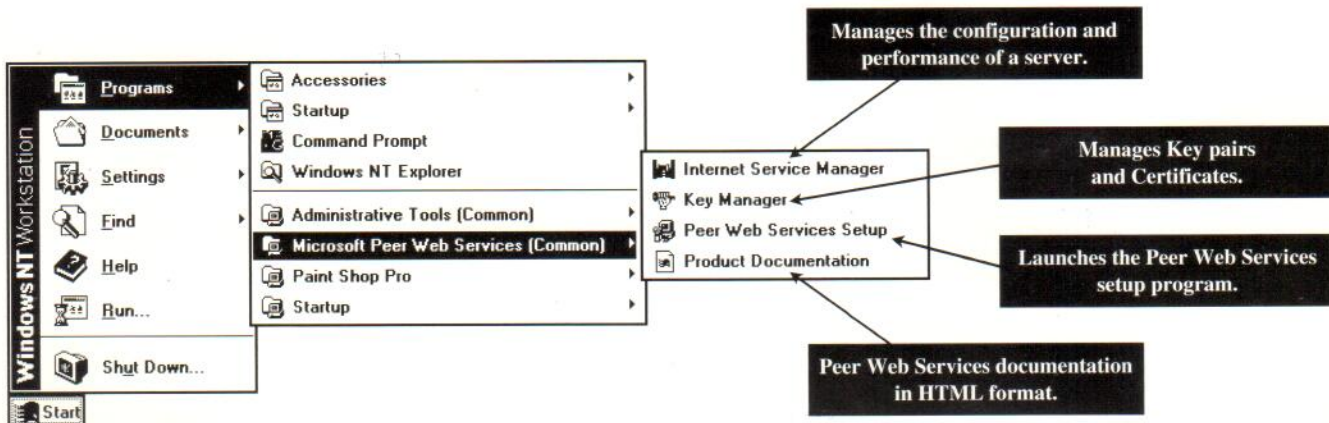
Client Services for NetWare

Client Services for NetWare provides access to file and print resources on NetWare servers from a computer configured with Windows NT Workstation. Resources can be accessed from NetWare 4.x servers using NDS. Several NetWare utilities and applications are supported by Client Service for NetWare. Note that Client Services for NetWare are installed using the **Network** icon in **Control Panel**.

To access Client Services for Netware:

Double-click the CSNW icon from Control Panel

Internet and Intranet Services

Internet Information Server version 2.0 for Windows NT® Server 4.0 is a network file and application server used for creating and maintaining World Wide Web sites. Web pages, created with HyperText Markup Language (HTML) are transmitted using HyperText Transport Protocol (HTTP). In additional to Web pages, Internet Information Server supports a variety of other types of information services including ISAPI, CGI, FTP, and gopher.

FrontPage 1.1 is used for creating Web pages and managing Web sites. It is included in Windows NT Server 4.0 and contains a variety of features including web page wizards and WYSIWYG editing.

Index Server is available as an add-on component that can be downloaded free from Microsoft. It is used to automatically index the full text and properties of files on a server, including HTML files. Index Server can be used on an Internet, Intranet, or as a file-and-print server.

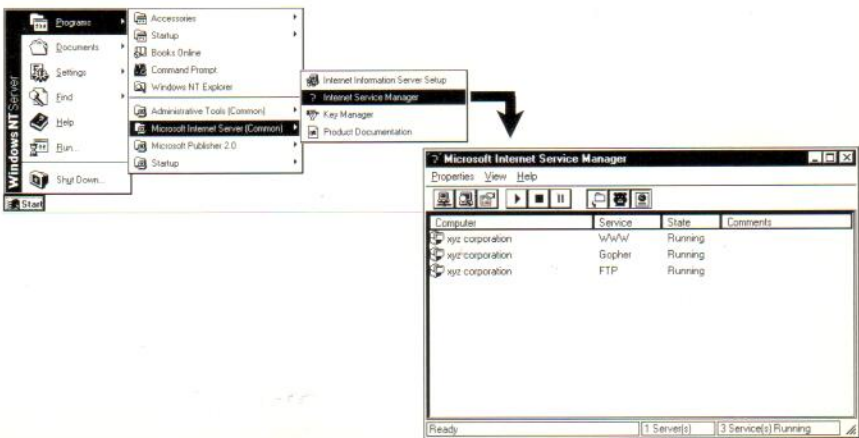**Internet Service Manager** is a component of Internet Information Server that is used for configurating the various components and features of an Internet site.

To access Internet Information Server:

Networking Tools and Services

FEATURE	DESCRIPTION
Administrative Wizards	Various wizards that guide you through the steps required for a number of common server management tasks.
DHCP Manager	Dynamic Host Configuration Protocol (DHCP) dynamically configures IP addresses and related information.
Migration Tools for NetWare	Assists in migrating NetWare servers to computers running Windows NT Server. Information that can be migrated includes user and group accounts, volumes, folders, and files.
License Manager	Allows system administrators to display and change various licensing options for BackOffice products.
Network Client Administrator	Creates media for installing various network client software and administration tools.
Network Monitor	Used for monitoring a network data stream.
System Policy Editor	Controls system configuration for all computers runningWindows NT Server and Windows NT Workstation.
Services for Macintosh	Integrates several AppleTalk print services into Windows NT Server.
Remote Boot Service	Starts MS-DOS and Microsoft Windows workstations (including Windows 95 clients) over a network.
User Manager for Domains	Adds, deletes, and disables domain user accounts, sets security policies, and adds user accounts to groups.
WINS Manager	WINS (Windows Internet Name Service) Manager is used for maintaining WINS servers, for adding, deleting, and configuring local and remote WINS servers, and for displaying WINS server statistics.

Windows NT Commands

Windows NT commands are character-based commands that can be run at the command prompt for any of the operating systems for which they were designed: Windows NT, Windows 3.1, MS-DOS, MS OS/2 1.x, or POSIX. For a complete listing of parameters and options, type a command name at the command prompt, followed by slash question mark (/?).

COMMAND	DESCRIPTION	SYNTAX
Aclconv	OS/2 HPFS386 file and directory permissions are converted to NTFS volumes.	`aclconv /data:datafile /log:logfile [/newdrive:drive] [/domain:domain] [/codepage:n] aclconv /list /log:logfile / codepage:n`
Append	Enables "appended directories" that allow data files to be opened in specified directories as if they were in the current directory.	`append [;] [[drive:]path[;...]] [/x:{on	off}][/path:{on	off}] [/e]`

Arp	IP-to-Ethernet or token ring physical address translation tables, used by address resolution protocol (ARP), are displayed and modified.	`arp -a [inet_addr] [-N [if_addr]]`
		`arp -d in_addr [if_addr]`
		`arp -s in_addr ether_addr [if_addr]`

Assoc	File extension associations are displayed and modified.	`assoc [.ext[=[filetype]]]`
At	Schedules commands and programs to run on a computer at a specified time and date. The Schedule service must be running to use this command.	`at [\\computername] [[id] [/delete [/yes]]` `at [\\computername] time [/interactive] [/every:date[,...]	/ next:date[,...]] "command"`
Attrib	File and directory attributes (read-only, archive, system, and hidden attributes) are displayed and modified.	`attrib [+r|-r][+a|-a] [+s|-s] [+h|-h][[drive:] [path] filename] [/s]`
Backup	Files are backed up between disks.	`backup source destination-drive: [/s] [/m] [/a][/f[:size]] [/ d:date [/t:time][/l[:[drive:][path]logfile]]`
Break	Sets or clears Ctrl+C checking. Used for MS-DOS compatibility only.	`break [on	off]`
Buffers	Used in CONFIG.SYS to allocate memory for a specified number of disk buffers. Used for MS-DOS compatibility only.	`Buffers=n[,m]`

Windows NT Commands (continued)

COMMAND	DESCRIPTION	SYNTAX
Call	A batch program is called from within another back program without causing the parent batch program to stop.	`call [drive:][path] filename [batch-parameters]`
Chcp	The active console code page is displayed or modified.	`chcp [nnn]`
Chdir (Cd)	The current directory name is displayed or accessed.	`chdir [/d] [drive:][path] [..] -or- cd [/d] [drive:][path] [..]`
Chkdsk	A status report is created and displayed for a disk based on the active file system.	`chkdsk [drive:][[path] filename] [/f] [/v] [/r]`
Cls	Clears the screen display and shows only the command prompt and cursor.	`cls`
Cmd	Launches a new session of the Windows NT command interpreter, CMD.EXE.	`cmd [/x	/y] [/a	/u] [/q] [/t:fg] [[/c	/k] string]`
Codepage	Used in the OS/2 CONFIG.SYS file to select the code pages that the system will use for the MS OS/2 subsystem.	`codepage=xxx[,yyy]`
Color	The foreground and background colors for the default console are selected.	`color bf`
Comp	Two files or sets of files are compared on a byte-by-byte basis.	`comp [data1] [data2] [/d] [/a] [/l] [/n=number] [/c]`
Compact	The compression of files and directories are displayed or modified.	`compact [/c] [/u] [/s] [/i] [/f] [/l] filename`
Conditional Processing Symbols	Used to control the execution of commands.	Ampersand (&) separates multiple commands on one command line. Semicolon or comma (; ,) separates command parameters. Caret (^) allows command symbols to be used as text. Double ampersand (&&) allows the next command to run only if the current command is successful. Double pipe (||) allows the next command to run only if the current command fails.
Convert	FAT volumes are converted to NTFS.	`convert [drive:] /fs:ntfs [/v] [/nametable:filename]`
Copy	Copies selected files to a different drive and/or directory.	`copy [/a|/b] source [/a|/b] [+ source [/a|/b] [+ ...]] [destination [/a|/b]] [/v] [/n] [/z]`
Country	Selects country-specific conventions for displaying time, dates, currency, case conversion, and decimal separators.	`country=xxx[,[yyy][,[drive:][path] filename]]`

Windows NT Commands (continued)

COMMAND	DESCRIPTION	SYNTAX
Date	Displays and modifies the system date.	`date [mm-dd-yy]`
Debug	Launches the DEBUG program, used for testing and debugging MS-DOS executable files.	`debug [[drive:][path] filename [testfile-parameters]]`
Del (Erase)	Deletes selected files.	`del [drive:][path] filename [; ...] [/p] [/f] [/s] [/q] [/a[:attributes]]` `erase [drive:][path] filename [; ...] [/p] [/f] [/s] [/q] [/a[:attributes]]`
Device	Loads specified device drivers into memory.	`device=[drive:][path] filename [dd-parameters]`
Devicehigh	Loads specified device drivers into the upper memory area.	`devicehigh=[drive:][path] filename [dd-parameters]`
Devinfo	Used in the OS/2 CONFIG.SYS file to prepare a device to use code pages.	`devinfo=devtype,subtype,[drive:][path]filename [,ROM=[[()xxx[,yyy]]][,...]]`
Dir	A directory's files and subdirectories are displayed.	`dir [drive:][path][filename] [; ...] [/p] [/w] [/d] [/a[[:]attributes]][/o[[:]sortorder]] [/t[[:]timefield]] [/s] [/b] [/l] [/n] [/x]`
Diskcomp	The contents of two floppy disks are compared.	`diskcomp [drive1: [drive2:]]`
Diskcopy	Copies the contents of one floppy disk to another.	`diskcopy [drive1: [drive2:]] [/v]`
Diskperf	The system disk performance counters are started and stopped.	`diskperf [-y|-n] [\\computername]`
Dos	MS-DOS subsystem maintains a link with the upper memory area and/or loads part of itself into the high memory area.	`dos=high|low[,umb|,noumb]` `dos=[high,|low,]umb|noumb`
Doskey	Launches previously selected Windows NT commands, edits command lines, and creates macros.	`doskey [/reinstall] [/listsize=size] [/macros:[all	exename] [/history] [/insert|/overstrike] [/exename=exename] [/macrofile=filename] [macroname=[text]]`
Dosonly	Application other than MS-DOS applications are prevented from starting at the command prompt.	`Dosonly`

Windows NT Commands (continued)

COMMAND	DESCRIPTION	SYNTAX
Drivparm	Used in CONFIG.SYS to define parameters for devices such as disk and tape drives. Used for MS-DOS compatibility only.	`Drivparm=/d:number [/c] [/f:factor] [/h:heads] [/I] [/n] [/s:sectors] [/t:tracks]`
Echo	The command echoing feature is turned on or off, or a message is displayed.	`echo [on	off] [message]`
Echoconfig	Mesages are displayed while the MS-DOS subsystem CONFIG.NT and AUTOEXEC.NT files are being processed.	`Echoconfig`
Edit	Creates and modifies ASCII text files by launching the MS-DOS editor.	`edit [[drive:][path] filename] [/b] [/g] [/h] [/nohi]`
Edlin	Creates and modifies ASCII text files line-by-line.	`edlin [drive:][path] filename [/b]`
Endlocal	Localization of environment changes in a batch file are ended.	`Endlocal`
Erase (Del)	Erases selected files.	`del [drive:][path] filename [; ...] [/p] [/f] [/s] [/q] [/a[:attributes]]` `erase [drive:][path] filename [; ...] [/p] [/f] [/s] [/q] [/a[:attributes]]`
Exe2bin	Executable files (.EXE) are converted to binary format.	`exe2bin [drive1:][path1]input-file [[drive2:][path2]output-file]`
Exit	Closes the command interpreter (CMD.EXE).	`exit`
Expand	One or more compressed files are expanded.	`expand [-r] source [destination]`
Fastopen	Improves performance on computers with large directories. Used for MS-DOS compatibility only.	`fastopen drive:[[=]n] drive:[[n][...]][/x]`
Fc	Compares and displays the differences between two files.	`fc [/a] [/b] [/c] [/l] [/lbn] [/n] [/t] [/u] [/w] [/nnnn] [drive1:][path1]filename1 [drive2:][path2]filename2`
Fcbs	The maximum number of file control blocks that can be opened at the same time are specified. Used by the MS-DOS subsystem.	`fcbs=x`
Files	The maximum number of files that can be accessed at one time are specified. Used by the MS-DOS subsystem.	`files=x`

Windows NT Commands (continued)

COMMAND	DESCRIPTION	SYNTAX
Find	Specified strings of text are located and displayed in selected files.	`find [/v] [/c] [/n] [/i] "string" [[drive:][path]filename[...]]`
Findstr	Specified strings of text using literal text or regular expressions are located and displayed in selected files.	`findstr [/b] [/e] [/l] [/c:string] [/r] [/s] [/i] [/x] [/v] [/n] [/m] [/o] [/g:file] [/f:file] strings files`
Finger	Information about a user on a specified system running the Finger service is displayed.	`finger [-l] [user]@computer [...]`
For	File specific commands are run for each file in a set of files.	`for %%variable in (set) do command [command-parameters]`
Forcedos	Specified programs are launched in the MS-DOS subsystem.	`forcedos [/d directory] filename [parameters]`
Format	Prepares a disk for use with Windows NT files.	`format drive: [/fs:file-system] [/v[:label]] [/a:unitsize] [/q] [/f:size] [/t:tracks /n:sectors] [/1] [/4] [/8]`
Ftp	Files are transferred to and from a computer running an FTP server service.	`ftp [-v] [-d] [-i] [-n] [-g] [-s:filename] [-a] [-w:windowsize] [computer]`
Ftype	File types used in file extension associations are displayed or modified.	`Ftype [filetype[=[command]]]`
Goto	Switches to a line in a batch program marked by a specified label.	`goto label`
Graftabl	Windows NT is enabled to display the extended characters of a specified code page in full-screen mode.	`graftabl [xxx] [/status]`
Graphics	Allows Windows NT to print the displayed contents of the screen when using a color or graphics adaptor.	`graphics [type] [[drive:][path] filename] [/r] [/b] [/lcd] [/printbox:std	/printbox:lcd]`
Help	Displays online help information about Windows NT commands.	`help [command]`
Hostname	The name of the current host computer is printed.	`Hostname`

If	Used in batch programs to perform conditional processing.	`if [not] errorlevel number command`
		`if [not] string1==string2 command`
		`if [not] exist filename command`

Install	A memory-resident program is loaded into memory.	`install=[drive:][path] filename [command-parameters]`

Windows NT Commands (continued)

COMMAND	DESCRIPTION	SYNTAX
Ipconfig	Displays all current TCP/IP network configuration values.	`ipconfig [/all	/renew [adapter]	/release [adapter]]`

Ipxroute	Information about the routing tables used by the IPX protocol are displayed and modified.	`ipxroute servers [/type=x]`
		`ipxroute stats [/show] [/clear]`
		`ipxroute table`

Keyb	Configures a keyboard for use with a specific language other than United States English.	`keyb [xx[,[yyy][,[drive:][path] filename]] [/e] [/id:nnn]`
Label	The volume label (name) of a disk is created, modified, or deleted.	`label [drive:] [label]`
Lastdrive	Specifies the maximum number of drives that can be accessed. Used for MS-DOS compatibility only.	`lastdrive=x`
Libpath	Used in the OS/2 CONFIG.SYS file to specify the directories the OS/2 subsystem is to search for dynamic-link libraries.	`libpath=[drive:]path[;[drive:]path][...]`
Loadfix	Runs a program after checking that it is loaded above the first 64K of conventional memory.	`loadfix [drive:][path] filename [program-parameters][drive:][path]`
Loadhigh (Lh)	Programs are loaded into the upper memory area.	`loadhigh [drive:][path] filename [parameters]` `lh [drive:][path] filename [parameters]`
Lpq	Obtains the status of a print queue on a computer running the LPD server.	`lpq -SServer  -PPrinter [-l]`
Lpr	Used to print a file to a computer running an LPD server.	`lpr -SServer  -PPrinter [-CClass] [-JJobname] [-O option] filename`
Mem	Information about allocated memory areas, free memory areas, and programs currently loaded into memory in the MS-DOS subsystem is displayed.	`mem [/program|/debug|/classify]`
Mkdir (md)	Creates a directory or subdirectory.	`mkdir [drive:]path` `md [drive:]path`
Mode	Configures system devices.	`mode [options]`

Windows NT Commands (continued)

COMMAND	DESCRIPTION	SYNTAX
More	Displays one screen of output at a time.	`command name	more [/e] [/c] [/p] [/s] [/tn] [+n]` `more [/e] [/c] [/p] [/s] [/tn] [+n] < [drive:] [path] filename` `more [/e] [/c] [/p] [/s] [/tn] [+n] files`
Move	Moves files from one directory to another.	`move [source] [target]`
Nbtstat	Displays protocol statistics and current TCP/IP connections using NBT (NetBIOS over TCP/IP).	`nbtstat [-a remotename] [-A IP address] [-c] [-n] [-R] [-r] [-S] [-s] [interval]`
Netstat	Protocol statistics and current TCP/IP network connections are displayed.	`netstat [-a] [-e] [-n] [-s] [-p protocol] [-r] [interval]`
Net Accounts	User account databases, passwords, and logon requirements are updated and modified.	`net accounts [/forcelogoff:{minutes	no}] [/minpwlen:length] [/maxpwage:{days	unlimited}] [/minpwage:days] [/uniquepw:number] [/domain]` `net accounts [/sync] [/domain]`
Net Computer	Computers are added or deleted from a domain database.	`net computer \\computername {/add	/del}`
Net Config	Configurable services that are currently running are displayed, and settings for a service are displayed or modified.	`net config [service [options]]`
Net Config Server	Settings for the Server service are displayed or modified while the service is running.	`net config server [/autodisconnect:time] [/srvcomment:"text"] [/hidden:{yes	no}]`
Net Config Workstation	Settings for the Workstation service are displayed or modified while the service is running.	`net config workstation [/charcount:bytes] [/chartime:msec] [/charwait:sec]`
Net Continue	Reactivates suspended services.	`net continue service`
Net File	The names of all open shared files on a server and the number of file locks, if any, on each file are displayed	`net file [id [/close]]`
Net Group	Global groups on Windows NT Server domains are added, displayed, or changed.	`net group [groupname [/comment:"text"]] [/domain]` `net group groupname {/add [/comment:"text"]	/delete} [/domain]` `net group groupname username[...] {/add	/delete} [/domain]`

Windows NT Commands (continued)

COMMAND	DESCRIPTION	SYNTAX
Net Help	Displays available network commands and topics for which help is available, and provides help on specific commands or topics.	`net help [command]` `net command {/help	/?}`
Net Helpmsg	Displays help on Windows NT error messages.	`net helpmsg message#`
Net Localgroup	Adds, displays, or modifies local groups.	`net localgroup [groupname [/comment:"text"]] [/domain]` `net localgroup groupname {/add [/comment:"text"]	/delete} [/domain]` `net localgroup groupname name [...] {/add	/delete} [/domain]`
Net Name	Messaging names or aliases are added or deleted, and lists of names the computer will accept messages for are displayed.	`net name [name [/add	/delete]]`
Net Pause	Pauses running services.	`net pause service`
Net Print	Displays and/or controls print jobs and printer queues.	`net print \\computername\sharename` `net print [\\computername] job# [/hold	/release	/delete]`
Net Send	Messages are sent to other users, computers, or messaging names on the network.	`net send {name	*	/domain[:name]	/users} message`
Net Session	Sessions between a local computer and the clients connected to it are listed or disconnected.	`net session [\\computername] [/delete]`
Net Share	Creates, deletes, or displays shared resources.	`net share sharename` `net share sharename=drive:path [/users:number	/unlimited] [/remark:"text"]` `net share sharename [/users:number	unlimited] [/remark:"text"]` `net share {sharename	drive:path} /delete`
Net Start	Launches a service, or displays a list of started services.	`net start [service]`
Net Start Alerter	Launches the Alerter service, which sends alert messages.	`net start alerter`

Windows NT Commands (continued)

COMMAND	DESCRIPTION	SYNTAX
Net Start Client Service for NetWare	Launches the Client Service for NetWare service.	`net start "client service for netware"`
Net Start ClipBook Server	Launches the ClipBook Server service.	`net start "clipbook server"`
Net Start Computer Browser	Launches the Computer Browser service.	`net start "computer browser"`
Net Start DHCP Client	Launches the DHCP Client service.	`net start "dhcp client"`
Net Start Directory Replicator	Launches the Directory Replicator service.	`net start "directory replicator"`
Net Start Eventlog	Launches the event logging service, which logs events on the local computer.	`net start eventlog`
Net Start File Server for Macintosh	Launches the File Server for Macintosh service, permitting the sharing of files with Macintosh computers.	`net start "file server for macintosh"`
Net Start FTP Publishing Service	Launches the FTP publishing service.	`net start "ftp publishing service"`
Net Start Gateway Service for NetWare	Launches the Gateway Service for NetWare service.	`net start "gateway service for netware"`
Net Start Lpdsvc	Launches the Lpdsvc service.	`net start lpdsvc`
Net Start Messenger	Launches the Messenger service.	`net start messenger`
Net Start Microsoft DHCP Server	Launches the Microsoft DHCP Server service.	`net start "microsoft dhcp server"`
Net Start Net Logon	Launches the Net Logon service.	`net start "net logon"`
Net Start Network DDE	Launches the Network DDE service.	`net start "network dde"`
Net Start Network DDE DSDM	Launches the Network DDE server service.	`net start "network dde dsdm"`
Net Start Network Monitor Agent	Launches the Network Monitor Agent service.	`net start "network monitor agent"`
Net Start NT LM Security Support Provider	Launches the NT LM Security Support Provider service.	`net start "nt lm security support provider"`
Net Start Print Server for Macintosh	Launches the Print Server for Macintosh service, permitting printing from Macintosh computers.	`net start "print server for macintosh"`

Windows NT Commands (continued)

COMMAND	DESCRIPTION	SYNTAX
Net Start Remoteboot	Launches the Remoteboot service, permitting computers on the network to load the operating system from the computer.	`net start remoteboot`
Net Start Remote Access Connection Manager	Launches the Remote Access Connection Manager service.	`net start "remote access connection manager"`
Net Start Remote Access ISNSAP Service	Launches the Remote Access ISNSAP Service service.	`net start "remote access isnsap service"`
Net Start Remote Access Server	Launches the Remote Access Server service.	`net start "remote access server"`
Net Start Remote Procedure Call (RPC) Locator	Launches the RPC Locator service.	`net start "remote procedure call (RPC) locator"`
Net Start Remote Procedure Call (RPC) Service	Launches the Remote Procedure Call (RPC) Service service.	`net start "remote procedure call (rpc) service"`
Net Start Schedule	Launches the Schedule service.	`net start schedule`
Net Start Server	Launches the Server service.	`net start server`
Net Start Simple TCP/IP Services	Launches the Simple TCP/IP Services service.	`net start "simple tcp/ip services"`
Net Start SNMP	Launches the SNMP service.	`net start snmp`
Net Start Spooler	Launches the Spooler service.	`net start spooler`
Net Start TCP/IP NetBIOS Helper	Activates the Netbios over TCP service.	`net start "tcp/ip netbios helper"`
Net Start UPS	Launches the Uninterruptible Power Supply service.	`net start ups`
Net Start Windows Internet Name Service	Launches the Windows Internet Name Service service.	`net start "windows internet name service"`
Net Start Workstation	Launches the Workstation service.	`net start workstation`
Net Statistics	The statistics log for the local Workstation or Server service is displayed.	`net statistics [workstation | server]`
Net Stop	Stops a Windows NT network service.	`net stop service`

Windows NT Commands (continued)

COMMAND	DESCRIPTION	SYNTAX
Net Time	The computer's clock is synchronized with that of another computer or domain.	`net time [\\computername	/domain[:name]] [/set]`
Net Use	Computers are connected or disconnected from a shared resource, or information is displayed about computer connections.	`net use [devicename	*] [\\computername\sharename` ` [\volume]] [password	*]] [/user:[domainname\]username]` ` [[/delete]	[/persistent:{yes	no}]]` `net use devicename [/home[password	*]]` ` [/delete:{yes	no}]` `net use [/persistent:{yes	no}]`
Net User	Use account information is displayed, or user accounts are added or changed.	`net user [username [password	*] [options]] [/domain]` `net user username (password	*} /add [options] [/domain]` `net user username [/delete] [/domain]`
Net View	Displays a list of domains, a list of computers, or the resources being shared by the specified computer.	`net view [\\computername	/domain[:domainname]]` `net view /network:nw [\\computername]`
Nlsfunc	Loads country-specific information for national language support. Used for MS-DOS compatibility only.	`nlsfunc [[drive:][path][filename]`
Nslookup	Displays information from Domain Name System (DNS) name servers.	`nslookup [-option ...] [computer-to-find	- [server]]`
Ntbooks	Accesses online Windows NT manuals.	`ntbooks [/s] [/w] [/n:path]`
Ntcmdprompt	Runs CMD.EXE, the Windows NT command interpreter, rather than COMMAND.COM, after running a TSR or after starting the command prompt from within an MS-DOS application.	`ntcmdprompt`
Path	Defines a search path for executable files.	`path [[drive:]path[;...]] [%path%]`
Pause	Pauses the processing of a batch program and prompts the user to press any key to continue.	`pause`

Windows NT Commands (continued)

COMMAND	DESCRIPTION	SYNTAX

Pax	Launches the Portable Archive Interchange (Pax) utility.	`pax [-cimopuvy] [-f archive] [-s replstr] [-t device] [pattern...]`
		`pax -r [-cimnopuvy] [-f archive] [-s replstr]`
		`    [-t device] [pattern...]`
		`pax -w [-adimuvy] [-b blocking] [-f archive] [-s replstr]`
		`    [-t device] [-x format] [pathname...]`
		`pax -rw [-ilmopuvy] [-s replstr] [pathname...] directory`

Ping	Connections to a remote computer or computers are verified.	`ping [-t] [-a] [-n count] [-l length] [-f] [-i ttl] [-v tos]` ` [-r count] [-s count] [[-j computer-list]	[-k computer-list]] [-` ` w timeout] destination-list`
Pentnt	Detects floating point division errors in Pentium chips, disables floating point calculations in hardware, and turns on floating point emulation.	`pentnt [-c] [-f] [-o] [-?|-h]`
Popd	Switches to the directory stored by the **pushd** command.	`popd`
Portuas	LAN Manager 2.x user accounts databases are merged into an existing Windows NT user accounts database.	`portuas -f filename [-u username] [-v] [/codepage codepage]` `    [/log filename]`
Print	Prints a text file while other Windows NT commands are being used	`print [/d:device] [drive:][path] filename[ ...]`
Prompt	Switches to the Windows NT command prompt.	`prompt [text]`
Protshell	Used for compatibility with files from MS OS/2 version 1.3 and earlier.	`protshell [options]`
Pushd	Changes to a specified directory after storing the current directory for use by the **popd** command.	`pushd [path	..]`
Qbasic	Launches Windows NT QBasic.	`qbasic [/b] [/editor] [/g] [/h] [/mbf] [/nohi] [[/run][drive:][path]` `    filename]`
Rcp	Copies files between a Window NT computer and a system running **rshd**, the remote shell daemon.	`rcp [-a	-b] [-h] [-r] source1 source2 ... sourceN destination`
Recover	Recovers readable information from a bad or defective disk.	`recover [drive:][path] filename`

Windows NT Commands (continued)

COMMAND	DESCRIPTION	SYNTAX
Redirection Symbols	Used to change where a command receives and sends information.	Greater-than sign (>) sends the output of a command to a file or device. Less-than sign (<) receives input from a file. Double greater-than sign (>>) appends the output from a command to a file.
Rem	Creates comments in a batch file or configuration file.	rem [comment]
Rename (Ren)	Renames a selected file or files.	rename [drive:][path] filename1 filename2 ren [drive:][path] filename1 filename2
Replace	Files in a destination directory are replaced with files from a source directory.	replace [drive1:][path1] filename [drive2:][path2] [/a] [/p] [/r] [/w] replace [drive1:][path1] filename [drive2:][path2] [/p] [/r] [/s] [/w] [/u]
Restore	Restores files backed with the MS-DOS backup command.	restore drive1: drive2:[path[filename]] [/s] [/p] [/b:date] [/a:date] [/e:time] [/l:time] [/m] [/n] [/d]
Rexec	Runs commands on remote computers running the REXEC service.	rexec computer [-l username] [-n] command
Rmdir (Rd)	Deletes a directory.	rmdir [drive:]path [/s] rd [drive:]path [/s]
Route	Manages network routing tables.	route [-f] [-p] [command [destination] [mask subnetmask] [gateway] [metric costmetric]]
Rsh	Runs commands on remote computers running the RSH service.	rsh computer [-l username] [-n] command
Set	Displays, creates, or removes environment variables.	set [variable=[string]]
Setlocal	Initializes localization of environment variables in a batch file.	setlocal
Setver	Sets the MS-DOS version number reported to a program by the MS-DOS subsystem.	setver [drive:path] [filename n.nn] setver [drive:path] [filename [/delete [/quiet]] To display the current version table, use the following syntax: setver [drive:path]

Windows NT Commands (continued)

COMMAND	DESCRIPTION	SYNTAX
Share	Installs file sharing and locking capabilities on disks and network drives. Used for MS-DOS compatibility only.	share [/f:space] [/l:locks]
Shell	Defines the command interpreter to use with the MS-DOS subsystem.	shell=[[drive:]path] filename [parameters]
Shift	Changes the position of replaceable parameters in a batch file.	shift
Sort	Receives data, sorts it, then writes the results to the screen, a file, or another device (such as a printer).	sort [/r] [/+n] [<] [drive1:][path1] filename1 [> [drive2:][path2] filename2] [command |] sort [/r] [/+n] [> [drive2:][path2] filename2]
Stacks	Used in CONFIG.NT to support the dynamic use of data stacks to handle hardware interrupts.	stacks=n,s
Start	Initializes a separate window in which to run a specified program or command.	start ["title"] [/dpath] [/i] [/min] [/max] [/separate] [/low] [/normal] [/high] [/realtime] [/wait] [/b] [filename] [parameters]
Subst	Associates a path with a drive letter.	subst [drive1: [drive2:]path] subst drive1: /d
Switches	Used in CONFIG.NT to force an enhanced keyboard to behave like a conventional keyboard.	switches=/k
Tftp	Transfers files to and from a remote computer running the TFTP service.	tftp [-i] computer [get	put] source [destination]
Time	Displays and modifies the system time.	time [hours:[minutes[:seconds[.hundredths]]][A|P]]
Title	Sets the title for the command prompt window.	title [string]
Tracert	Determines the route taken to a destination by sending Internet Control Message Protocol (ICMP) echo packets with varying Time-To-Live (TTL) values to the destination.	tracert [-d] [-h maximum_hops] [-j computer-list] [-w timeout] target_name
Tree	Displays the directory structure of the current drive and path.	tree [drive:][path] [/f] [/a]

Windows NT Commands (continued)

COMMAND	DESCRIPTION	SYNTAX
Type	Displays the contents of a text file.	`type [drive:][path] filename [...]`
Ver	Displays the Windows NT version number.	`ver`
Verify	Verifies that files are correctly written to disk. Used for MS-DOS compatibility only.	`verify [on	off]`
Vol	Displays the disk volume label and serial number.	`vol [drive:]`
Winnt32	Installs or upgrades from Windows NT version 3.51.	`winnt32 [/s:sourcepath] [/i:inf_file] [/t:drive_letter] [/x] [/b] [/o[x]]`
Xcopy	Copies files, directories, and subdirectories.	`xcopy source [destination] [/w] [/p] [/c] [/v] [/q] [/f] [/l] [/d[:date]] [/u] [/i] [/s [/e]] [/t] [/k] [/r] [/h] [/a|/m] [/n] [/exclude:filename] [/z]`