

Specifies, ~~if present~~ if present, the subnet mask value to be associated with ~~this~~ tnis route entry. If not present, this parameter defaults to 255.255.255.255.

gateway

Specifies the gateway.

~~Chapter 11 Utilities Reference~~

~~rsh~~

Troubleshooting TCP/IP

route

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This connectivity command runs commands on remote hosts running the RSH service. For

information about the .rhosts file, see the ~~RepRcp~~ command.

Syntax

rsh ~~host~~ hosf [-I username] [-n] command

Parameters

host

Specifies the remote host on which to run command.

~~-I~~ I username

Specifies the user name to use on the remote host. ~~If omitted~~ If omitted, the logged on user name is used.

-n

Redirects the input of rsh to NUL.

command

Specifies the command to run.

Notes

Rsh copies standard input to the remote command, standard output of the remote command to

its standard output, and the standard error of the remote command to its standard error. Rsh

normally terminates when the remote command does.

Using Redirection Symbols

Use quotation marks around redirection symbols to redirect onto the remote host. If quotation

marks are not used, redirection occurs on the local computer. For example, the following

command appends the remote ~~file~~ remotefile file remofe file to the local file localfile localHle:

rsh otherhost cat remotefile >> localfile

The following command appends the remote file ~~remotefile~~ remofe 17le to the remote ~~file~~ otherremotefile file ofherremofe file:

rsh otherhost cat remotefile ">>" otherremotefile

Using Rsh on ~~a Windows~~ a Windows NT Server Domain

If the user is logged on to a Windows NT Server domain, the domain controller must be

available to resolve the currently logged on name, because the logged on name is not cached

on the local computer. Because the username is required as part of the rsh protocol, the

command will fail if the username cannot be obtained.

~~telnet~~

## ~~Syntax Parameters~~

### ~~Notes~~

### Troubleshooting TCP/IP

### rsh

### 15of18

This connectivity command starts terminal emulation with a remote system running ~~aTelnet~~ a Telnet service. Telnet provides ~~DEC~~ DEC VT 100, DEC VT 52, or ~~TTY~~ TTY emulation, using connection-based ~~services~~ services of TCP. ~~-~~  
To provide terminal ~~emulation~~ emulation from a Windows NT computer, the foreign host must be configured with the TCP/IP program, the Telnet server program or daemon, and ~~a user~~ a user account for ~~the~~ the Windows NT computer.

### Note

Microsoft does not provide the Telnet ~~server~~ server daemon (telnetd).

### Syntax

```
telnet [host [port, port]]]
```

### Parameters

#### host

Specifies the host name or IP address of the remote system you want to connect to,

providing compatibility with applications such as Gopher and Mosaic.

#### port

Specifies the remote port you want to connect to, providing compatibility with applications

such as Gopher and Mosaic. The default value is specified by the telnet entry in the

SERVICES file. ~~If no~~ If no entry exists in the SERVICES file, the default connection port value is decimal 23.

### Notes

The Telnet application is found in the Accessories program group after you install the TCP/~~IP~~ IP

connectivity utilities. Telnet is a Windows Sockets-based application that simplifies TCP/IP

terminal emulation with Windows NT.

~~-----~~To use Telnet

1. Double-~~click~~ click the Telnet icon in ~~the~~ the Accessories program group.

~~-Or-~~

At the command prompt, type telnet and press ENTER.

2. From the Connect menu in the Telnet window, choose Remote System.

3. In the Connect dialog box, type the host name you want to connect to, and then choose ~~the~~ the Connect button.

~~A connection~~ A connection is made, and you can begin ~~a work~~ a work session.

4. To end a session, choose the Disconnect command from the Connect menu.

## ~~Chapter 11 Utilities Reference~~

You can specify your preferences for items such as emulation options, the screen font, and

color by choosing Preferences from the Terminal menu. You can also use commands from the Edit menu to select, copy, and paste text from the Clipboard. For information about Telnet

[Troubleshooting TCP/IP telnet 16of18](#)

[Select Telnet 11.1 83.41 .12](#)  
[Connect Qdit Terminal Help](#)  
[Terminal pfçfçççnçeç](#)  
[; Terminal U ptionx E mulation](#)  
[Local Qcho vr-52](#)  
[Blinking Culsm © VT-1 UUIANSI](#)  
[>< Block Cursor](#)  
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[Select Telnet 11.1 U3.=11 .12](#)  
[Connect Qdit Terminal Help](#)  
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options, see the online Help.  
~~Select Telnet 11.183.41.12 ...~~  
~~.Connect f.dit Terminal !:!.elp~~

~~Terminal Preferences~~  
~~Terminal 0 pliona 0 localecho 0 !l\_finking Cun01 Block CuiSOI~~

~~Buffer size: la.....,\_.Calal..l~~

tftp  
This connectivity command transfers files to and from a remote computer running the Trivial File Transfer Protocol (~~TFTP~~ [service TFTP](#) [sen/ice](#)). This utility is similar to ftp, but it does not provide user authentication, although the files require read and write UNIX permissions.  
Syntax  
tftp [-i] host [get ~~put~~ [\\_put](#)] source [destination]  
Parameters  
-i  
Specifies binary image transfer mode (also called octet). In binary image mode, the file is moved literally byte by byte. Use this mode when transferring binary files. If -i is omitted, the file is transferred in ASCII mode. This is the default transfer mode. This mode converts the end-of-line (EOL) characters to ~~a~~[carriage](#)[a carriage](#) return for UNIX and a ~~return~~[return](#)/linefeed for personal computers. This mode should be used when

transferring text ~~files~~files. If a file transfer is successful, the data transfer rate is displayed.

host

Specifies the local or remote host.

~~Emulation~~, ~~1-oll-1-0-VT-52~~ ~~VT-100/ANSI~~ ~~I-Cancel~~ ~~I~~

~~II-tl-I~~

~~tracert~~

#### ~~Syntax Parameters~~

get

Transfers destination on the remote computer to source on the local computer. Since the TFTP protocol does not support user authentication, the user must be logged on,

and the files must be writable on the remote computer.

put

Transfers source on the local computer to destination on the remote computer.

source

Specifies the file to transfer.

~~destination~~desUnaUon

Specifies where to transfer the ~~file~~file.

[Troubleshooting TCP/IP 170f18](#)

This diagnostic utility determines the route taken to ~~adestinationa~~destinationa

~~destination~~destination by sending Internet Control

Message Protocol (~~ICMP~~ICMP) echo packets with varying Time-To-Live (~~TTL~~TTL) values to the

destination. Each router along the path is required to decrement the ~~TTL~~TTL on a packet by at

least 1 before forwarding it, so the ~~TTL~~TTL is effectively a hop count. When

the ~~TTL~~TTL on a packet

reaches 0, the router is supposed to send back an ICMP Time Exceeded message to the

source system. Tracert determines the route by sending the first echo packet with a ~~TTL~~TTL of 1

and incrementing the ~~TTL~~TTL by 1 on each subsequent transmission until the target responds or

the maximum ~~TTL~~TTL is reached. The route is determined by examining the ICMP Time Exceeded

messages sent back by intermediate routers. Notice that some routers silently drop packets

with expired time-to-live (TTLs) and will be invisible to tracert.

#### Syntax

tracert [-d] [~~-h~~ ~~maximum~~maximum hops+] [~~-j~~ ~~host~~host-list] [~~-w~~ ~~timeout~~timeout]

~~target\_name~~target\_name [~~-w~~ ~~fimeouf~~fimeouf] [~~fargegname~~fargegname]

#### Parameters

-d

Specifies not to resolve addresses to hostnames.

-h ~~maximum~~maximum/m hops

Specifies maximum number of hops to ~~search~~search for target.

-j host-list

Specifies loose source route ~~alonga~~along host-~~list~~list.

-w timeout

Waits the number of ~~milliseconds~~milliseconds specified by ~~timeout~~timeout

~~for~~for ~~fimeouf~~fimeouf for each reply.

~~Chapter 11 Utilities Reference~~

Notes

The following shows sample output for tracert. The first column is the hop number, which is the Time To Live (~~Time To Live~~) value set in the packet. The next three columns are the round-trip times in milliseconds for three attempts to reach the destination with that ~~Time To Live~~ value. An asterisk (\*) means that the attempt timed out. The fourth column is the hostname (if it was resolved) and IP address of the responding system.

C:\>tracert ds.internic.net

Tracing route to ds.~~internic~~intemic.net [~~198.49.45.10~~198.49.45.10]  
over a maximum of 30 hops:

```
<10 ms <10 ms [131.107.1.100]
*
1 <10ms <10 ms * [131.107.1.100]
2 10 ms <10 ms 10 ms seattleseattle-gw.nwnet.net [192.80.12.82192.80.12.82]
3 * 10 ms 10 ms enss14310ms enss143-enet.nwnet.net [192.35.180.2]*
4 20 ms * 10 ms t3-3.seattle-cnss8.t3.ans.net [140.222.88.4]*
5 30 ms 30 ms 20 ms t3-0_los0.105-angeles-cnss8_88.t3.ans_.net [140.222.8.1]
6 70 ms 70 ms 80ms tmst3-0.new-york-cnss24.t3.ans.net [140.222.24.1]
7 80 ms 81 ms 80 ms tmst3-0.denver-cnss40.t3.ans.net [140.222.40.1]
8 100 ms 91 ms 90 ms t3-11.new-york-cnss32.t3.ans.net [140.222.32.2]
9 90 ms 90 ms 91 ms mfmsmf-0.new-yorkyo1'lyo1'l<-cnss36.t3.ans.net [140.222.32.196]
10 100 ms 90 ms 91 ms t1t1-0.enss222.t3.ans.net [140.222.222.1]
11 140 ms 191 ms 100 ms ds_._.internic.net [198.49.45.10]
Trace complete.
```

~~..,.,. .|| . . .~~  
Troubleshooting TCP/IP  
tracert  
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~~APPENDIX A~~

MIB Object Types ~~for~~for Windows NT  
This appendix lists the objects in the LAN Manager MIB II, DHCP MIB, and WINS MIB, and provides a brief description of each.  
The following MIB objects are listed in this appendix:

• LAN ManagerManag er MIB ~~II~~II for Windows NT ~~objects, including~~objects,  
includin Common group J g g roup, Server group, Workstation group, and Domain group

• Microsoft DHCP objects

• Microsoft WINS objects  
This appendix assumes that you are familiar with network management, TCP/IP, and SNMP. It

also assumes that you are familiar with the concept of a management information base (MIB). If

if you are not familiar with TCP/IP or the ~~Internet-MIB~~ Internet MIB 2, see ~~Internetworking~~ Internetworking with TCP/IP by

Douglas E. Comer (Prentice Hall, ~~1991~~ 1991) and The Simple Book by Marshall T. Rose (Prentice Hall, 1991).

. Appendix A 10f15

A

LAN

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Manager MIB ~~II~~ II for Windows NT Objects

The LAN Manager MIB ~~II~~ II for Windows NT contains ~~aset~~ a set of objects specifically designed to

support computers running Windows NT. Notice that there are fewer objects in the LAN

Manager MIB II for Windows NT than the LAN Manager MIB II for OS/2 because of differences

in the operating system.

All LAN Manager MIB ~~II~~ II objects apply to computers running Windows NT Workstation and

Windows NT ~~Server.~~ Server.

A

LAN Manager MIB II for Windows NT Objects

Common Group

~~comVersionMajor~~ comVersionMajor {common 1}

The major release version number of the Windows NT software.

~~comVersionMin~~ {common 2}

The minor release version number of the Windows NT ~~software~~ software.

~~comType~~ {common 3}

The type of Windows NT software this system is running.

~~comStatStart~~ comStatStart {common 4}

The time, in seconds, since January 1, 1970, at which time the Windows NT statistics on

this node were last cleared. The comStatStart object applies to the ~~following~~ following statistical

objects:

~~comStatNumNetIOs~~ comStatNumNetIOs svStatErrorOuts wkstaStatSessStarts

~~comStatFiNetIOs~~ comStatFiNetIOs svStatPwErrors wkstaStatSessFails

~~comStatFcNetIOs~~ comStatFcNetIOs svStatPermErrors wkstaStatUses

svStatOpens svStatSysErrors wkstaStatUseFails

svStatDevOpens svStatSentBytes wkstaStatAutoRecs

~~svStat.JobsQueued~~ svStatJobsQueued svStatRcvdBytes

svStatSOpens svStatAvResponse

~~comStatNumNetIOs~~ comStatNumNetIOs {common 5}

The number of network ~~1/0~~ operations submitted on this node. ~~comStatFiNetIOs~~

comStatFiNetIOs {common 6}

The number of network ~~1/0~~ operations on this node that failed issue.

~~comStatFcNetIOs~~

comStatFcNetIOs {common 7}

The number of ~~network 1/0~~network I/O operations on this node that failed completion.

~~Appendix A~~ MIB Object Types for Windows NT 3of15

#### LAN Manager MIB 11 for Windows NT Objects

Server Group

svDescription {~~server~~seNer 1}

~~A comment~~A comment describing the server.

svSvcNumber {server 2}

The number of network services installed on the server.

svSvcTable {~~server~~seNer 3}

~~A list~~A list of service entries describing the network service installed on the server.

svSvcEntry {svSvcTable 1}

The names of the network services installed on the server.

svSvcName {svSvcEntry 1}

The name of a Windows NT network service.

svSvcInstalledState {svSvcEntry 2}

The installation status of a network.

svSvcOperatingState {svSvcEntry 3}

The operating status of a network ~~service~~sen/ice.

svSvcCanBeUninstalled {svSvcEntry 4}

Indicates whether the network service specified by this entry can be removed.

svSvcCanBePaused {svSvcEntry 5}

Indicates whether the network service specified by this entry can be paused.

svStatsOpen {server 4}

The total number of files that were opened on the server.

svStatDevOpens {~~server~~seNer 5}

The total number of communication devices that were opened on the server.

~~svStatQueuedJobs~~svStatQueuedJobs {server 6}

The total number of print jobs that were spooled on the server.

svStatSOpens {~~server~~sewer 7}

The number of sessions that were started on the server.

svStatErrorOuts {server 8}

The number of sessions disconnected because of an error on the server.

svStatPwErrors {server 9}

The number of password violations encountered on the server ~~-~~.

svStatPermErrors {server 10}

The number of access-permission violations encountered on the server.

svStatSysErrors {server ~~11~~11}

The number of system errors encountered on the server.

svStatSentBytes {server ~~12~~12}

The number of bytes sent by the server.

svStatRcvdBytes {server 13}

The number of bytes received by the server.

svStatAvResponse {server 14}

The mean number of milliseconds it took the server to process ~~a workstation~~a workstation ~~1/0~~l/o request

. MIB Object Types for Windows NT 4of15

(for example, the average time an NCB sat at the server).

svSecurityMode {server 15}

The type of security running on the server.

svUsers {~~server~~seNer 16}

The number of concurrent users the server can support.  
svStatReqBufsNeeded {~~server~~seNer 17}  
The number of times the server requested allocation of additional buffers.  
svStatBigBufsNeeded {server 18}  
The number of times the server needed but could not allocate a big buffer while processing a client request.  
svSessionNumber {~~server~~sen/er 19}  
The number of sessions on the server.  
svSessionTable {~~server~~sewer 20} ~~A list~~  
A list of session entries corresponding to the current sessions that clients have with the server.  
svSessionEntry {svSessionTable 1} ~~A session~~  
A session that is currently established on the server.  
~~svSesClientName~~svSesCIientName {svSessionEntry 1}  
The name of the remote computer that established the session.  
svSesUserName {svSessionEntry 2}  
The number of connections to server resources that are active in the current ~~session~~session.  
svSesNumConns {svSessionEntry 3}  
The number of connections to server resources that are active in the current ~~session~~session.  
svSesNumOpens {svSessionEntry 4}  
The number of ~~files~~offiles, devices, and pipes that are open in the current session.  
svSesTime {svSessionEntry 5} ~~})~~  
The length of time, in seconds, since the current session began.  
svSesIdleTime {svSessionEntry 6}  
The length of time, in seconds, that the session has been idle.  
~~Appendix A MIB Object Types for Windows NT~~  
~~svClientType~~svCClientType {svSessionEntry 7}  
The type of client that established the session.  
svSesState {svSessionEntry 8}  
The state of the current session. (Setting the state of an active session to deleted with netSessionDel deletes the client session. The session state cannot be set to active.)  
svAutoDisconnects {server 21}  
The number of sessions that the server automatically disconnected because of inactivity.  
svDisConTime {~~server~~(sewer 22}  
The number of seconds the server waits before disconnecting an idle session.  
svAuditLogSize {~~server~~seNer 23} ~~The~~  
Time maximum size, in kilobytes, of the server's audit ~~log~~log.  
svUserNumber {server 24}  
The number of users who have accounts on the server.  
svUserTable {server 25} ~~A table~~  
A table of active user accounts on the server.  
svUserEntry {svUserTable 1} ~~A user~~  
A user account on the server.  
svUserName {svUserEntry 1}

The name of ~~user~~a user account.



svShareNumber {server 26}  
The number of shared resources on the server.  
svShareTable {~~server~~seNer 27} ~~A~~table  
A table of the shared resources on the server.  
svShareEntry {svShareTable 1} ~~A~~table  
A table corresponding to a ~~single~~Single shared resource on the server.  
svShareName {svShareEntry 1}  
The name of a shared resource.  
svSharePath {svShareEntry 2}  
The local name of a shared resource.  
svShareComment {svShareEntry 3} ~~A~~comment  
A comment associated with ~~ashared~~a shared resource.  
svPrintQNumber {server 28~~+~~1}  
The number of printer queues on the server.  
svPrintQTable {server 29} ~~A~~table  
A table of the printer queues on the server.  
svPrintQEntry {svPrintQTable 1} ~~A~~table  
A table entry corresponding to ~~asinglea~~a single printer queue on the server.  
svPrintQName {svPrintQEntry 1}  
The name of a printer queue.  
svPrintQNumJobs {svPrintQEntry 2}  
The number ~~of jobs~~of jobs currently in a printer.

A  
LAN Manager MIB II for Windows NT Objects

Workstation Group  
wkstaStatSessStarts {workstation 1}  
The number of sessions the workstation initiated.  
wkstaStatSessFails {workstation 2~~+~~1}  
The number of failed sessions the workstation had.  
wkstaStatUses {workstation 3}  
The number of connections the workstation initiated.  
wkstaStatUseFails {workstation 4}  
The number of failed connections the workstation had.  
wkstaStatAutoRecs {workstation 5}  
The number of sessions that were broken and then automatically reestablished.  
~~wkstaErrorwgSize~~wkstaErrorLogSize {workstation 6}  
The maximum size, in kilobytes, of the workstation error log.  
wkstaUseNumber {workstation 7}  
This object will always return the value 0.  
. NIIB Object Types for Windows NT 5of15

MIB Object Types for Windows NT e of15  
LAN Manager MIB II for Windows NT Objects

Domain Group  
~~domPrimaryDomain~~domPrimaryDomain {domain 1}  
The name of the primary domain to which the computer belongs.  
~~Appendix A MIB Object Types for Windows NT~~

A  
Microsoft DHCP Objects  
Enterprises are defined in RFC 1155-~~SMI~~S|\AI. Object Type is defined in RFC 1212. DisplayString is defined in RFC 1213.

## MIB Object Types for Windows NT 7of15

### Microsoft DHCP Objects

DHCP MIB Parameters

~~ParDhcpStartTime~~ {DhcpPar ~~1~~}

DHCP Server start time.

~~ParDhcpTotalNoOfDiscovers~~ ParDhcpTotalNoOfDiscovers {DhcpPar 2}

Indicates the number of discovery messages received.

~~ParDhcpTotalNoOfRequests~~ ParDhcpTotalNoOfRequests {DhcpPar 3}

Indicates the number of ~~request~~ requests received.

~~ParDhcpTotalNoOfReleases~~ ParDhcpTotalNoOfReleases {DhcpPar 4}

Indicates the number of releases received. ~~ParDhcpTotalNoOfOffers~~

ParDhcpTotalNoOfOffers {DhcpPar 5}

Indicates the number of offers sent.

~~ParDhcpTotalNoOfAcks~~ ParDhcpTotalNoOfAcks {DhcpPar 6}

Indicates the number of acknowledgments sent.

~~ParDhcpTotalNoOfNacks~~ ParDhcpTotalNoOfNacks {DhcpPar 7}

Indicates the number of negative acknowledgments sent.

~~ParDhcpTotalNoOfDeclines~~ ParDhcpTotalNoOfDeclines {DhcpPar 8}

Indicates the number of declines received.

## MIB Object Types for Windows NT 8of15

### Microsoft DHCP Objects

DHCP Scope Group

ScopeTable {DhcpScope ~~1~~}

A list of subnets maintained by the server.

sScopeTableEntry {ScopeTable ~~1~~}

The row corresponding to ~~asubnet~~ a subnet.

SubnetAdd {sScopeTableEntry ~~1~~}

The subnet address.

NoAddInUse {sScopeTableEntry 2}

The number of addresses in use.

NoAddFree {sScopeTableEntry 3}

The number of free addresses available.

NoPendingOffers {sScopeTableEntry 4}

The number of addresses currently in the offer state - that is, those that are used

temporarily.

## MIB Object Types for Windows NT 9of15

Microsoft WINS Objects

Enterprises are defined in RFC 1155-SMI. Object Type is defined in RFC 1212.

DisplayString

is ~~defined~~ defined in RFC 1213.

AY

## MIB Object Types for Windows NT 10of15

A

### Microsoft WINS Objects

WINS Parameters

~~ParWinsStartTime~~ {Par 1} ParWinsStartTime {Par 1}

WINS start time.

ParLastPScvTime {Par 2}

Most recent date and time at which planned scavenging took place. Planned scavenging happens at intervals specified in the Registry. Scavenging involves changing owned nonrenewed entries to the released state. Further, released records may be changed to extinct records, extinct records may be deleted, and revalidation of old replicas may take place.

ParLastATScvTime {Par 3}

Most recent date and time at which scavenging took place as a result of administrative action.

ParLastTombScvTime {Par 4}

Most recent date and time at which extinction scavenging took place.

ParLastVerifyScvTime {Par 5}

Most recent date and time at which revalidation of old active replicas took place.

~~ParLastPRpiTime~~ParLastPRplTime {Par 6}

Most recent date and time at which planned replication took ~~place~~piece. Planned replication

happens at intervals specified in the Registry.

~~ParLastATRpiTime~~ParLastATRplTime {Par 7}

Most recent date and time at which administrator-triggered replication took place.

~~ParLastNTRpiTime~~ParLastNTRplTime {Par 8}

Most recent date and time at which network-triggered replication took place. Network-triggered replication happens as a result of an update notification message from a remote WINS.

~~ParLastACTRpiTime~~ParLastACTRplTime {Par 9}

Most recent date and time at which address change-triggered replication took place.

Address change-triggered replication happens when the address of an owned name changes because of a new registration.

ParLastlnitDbTime {Par 10}

Most recent date and time at which the local database was generated statically from one or more data files.

~~Appendix A MIB Object Types for Windows NT~~

ParLastCounterResetTime {Par 11}

Most recent date and time at which the local counters were initialized to zero.

~~ParWinsTotalNoOfReg~~ParWinsTotalNoOfReg {Par 12}

Indicates the number of registrations received.

~~ParWinsTotalNoOfQueries~~ParWinsTotalNoOfQueries {Par 13} ~~Indicates~~

indicates the number of queries received.

~~ParWinsTotalNoOfRel~~ParWinsTotalNoOfRel {Par 14}

Indicates the number of releases received.

~~ParWinsTotalNoOfSuccRel~~ParWinsTotalNoOfSuccRel {Par 15}

Indicates the number of releases that succeeded.

~~ParWinsTotalNoOfFailRel~~ParWinsTotalNoOfFailRel {Par 16} ~~)~~

. MIB Object Types for Windows NT 11 of 15

Indicates the number of releases that failed because the address of the requestor did not match the address of the name.

[ParWinsTotalNoOfSuccQueries](#)[ParWinsTotalNoOfSuccQueries](#) {Par 17}

Indicates the number of queries that succeeded.

[ParWinsTotalNoOfFaiIQueries](#)[ParWinsTotalNoOfFaiIQueries](#) {Par 18}

Indicates the number of queries that failed.

[ParRefreshInterval](#) {Par 19}

Indicates the Renewal interval in seconds (sometimes called the refresh interval).

[ParTombstoneInterval](#) {Par 20}

Indicates the Extinct interval in seconds.

[ParTombstoneTimeout](#) {Par 21}

Indicates the Extinct timeout in seconds.

[ParVerifyInterval](#)[ParVerifyInteNa!](#) {Par 22}

Indicates the Verify [interval](#)[interval](#) in seconds.

[ParVersCounterStartVal](#)[ParVersCounterStartVal](#) \_LowWord {Par 23}

Indicates the Low Word of the version counter that WINS should start with.

[ParVersCounterStartVal](#)[ParVersCounterStartVal](#) \_HighWord {Par 24}

Indicates the High Word of the version counter that WINS should start with.

[ParRplOnlyWCnfPnrs](#)[ParRplOnlyWCnfPnrs](#) {Par 25}

Indicates whether replication is allowed with nonconfigured partners. If not set to zero,

replication will be done only with partners listed in the Registry (except when an update

notification comes in).

[ParStaticDataInIt](#) {Par 26}

Indicates whether static data should be read in at initialization and reconfiguration time.

Update of any MIB [variable](#)[variable](#) in the parameters group constitutes reconfiguration.

[ParLogFlag](#)[ParLogFlag](#) {Par 27}

Indicates whether logging should be done. Logging is the default behavior.

[ParWgFileName](#)[ParLogFileName](#) {Par 28}

Specifies the path to the log file.

[ParBackupDirPath](#) {Par 29}

Specifies the path to the backup directory.

[ParDoBackupOnTerm](#)[ParDoBackupOnTerm](#) {Par30}

Specifies whether WINS should perform a database backup upon termination.

Values can

be 0 (no) or 1 (yes). Setting this value to 1 has no meaning unless

[ParBackupDirPath](#) is

also set.

[ParMigration](#) (Par 31)

Specifies whether static records in the WINS database should be treated as dynamic

records during conflict with new name registrations. Values can be 0 (no) or 1 (yes).

### Microsoft WINS Objects

WINS Datafiles Group

[DFDatafilesTable](#) {Datafiles 1} [A list](#)

[A list](#) of datafiles specified under the \Datafiles key in the Registry. These [files](#) are used for

static initialization of the WINS database.

dDFDatafileEntry {DFDatafilesTable 1}

Data file name record.

dDFDatafileIndex {dDFDatafileEntry 1}

Used for indexing entries in the datafiles table. It has no other use.

dDFDatafileName {dDFDatafileEntry 2}

Name of the datafile to use for static initialization.

[MIB Object Types for Windows NT 120f15](#)

### [Microsoft WINS Objects](#)

WINS Pull Group

~~PullInitTime~~ [PuI|InitTime](#) {[PuUPuII](#) 1}

Indicates whether pull should be done at WINS invocation and at reconfiguration. ~~If~~ [If](#) any

pull or push group's MIB variable is set, that constitutes reconfiguration.

~~PullCommRetryCount~~ {~~PuUPullCommRetryCount~~ {[Pul](#) 2}

Specifies the retry count in case of communication failure when doing pull replication. This

is the maximum number of retries to be done at the interval specified for the partner before

WINS stops for ~~aset~~ [set](#) number of replication-time intervals before trying again.

~~PullPnrTable~~ [PullPnrTable](#) {[PuUPuI](#) 3} ~~A list~~

[A list](#) of partners with which pull replication needs to be done.

~~Appendix A MIB Object Types for Windows NT~~

~~pPulPnrEntry~~ {~~PuI|PnrTable~~ 1} ~~pPul|PnrEntry~~ {[PullPnrTable](#) 1}

The row corresponding to a partner.

~~PuI|PnrAdd~~ {~~pPulPnrEntry~~ 1} ~~PuI|PnrAdd~~ {[pPulIPnrEntry](#) 1}

The address of the remote WINS partner.

~~PuI|PnrSpTime~~ {~~pPulPnrEntry~~ 2} ~~PuI|PnrSpTime~~ {[pPuI|PnrEntry](#) 2}

Specifies the specific time at which pull replication should occur.

~~PuI|PnrTimeInterval~~ {~~pPulPnrEntry~~ 3} ~~PullPnrTimeInteNaI~~ {[pPullPnrEntry](#) 3}

Specifies the time interval for pull ~~replication~~ [replication](#).

~~PuI|PnrMemberPrec~~ {~~pPulPnrEntry~~ 4} ~~Pul|PnrMemberPrec~~ {[pPullPnrEntry](#) 4}

The precedence to be given to members of the special group pulled from the WINS. The

precedence of locally registered members of ~~aspecial~~ [special](#) group is more than any replicas

pulled in.

~~PuI|PnrNoOfSuccRpls~~ {~~pPulPnrEntry~~ 5} ~~PullPnrNoOfSuccRpls~~ {[pPullPnrEntry](#) 5}

The number of times replication was successful with the WINS after invocation or reset of counters.

~~PuI|PnrNoOfCommFails~~ {~~pPulPnrEntry~~ 6} ~~PullPnrNoOfCommFails~~ {[pPullPnrEntry](#) 6}

The number of times replication was unsuccessful with the WINS because of communication failure (after invocation or reset of counters).

~~PuI|PnrVersNoLowWord~~ {~~pPulPnrEntry~~ 7} ~~PuI|PnrVersNoLowWord~~ {[pPul|PnrEntry](#) 7}

The Low Word of the highest version number found in records owned by this WINS.

~~PuI|PnrVersNoHighWord~~ {~~pPulPnrEntry~~ 8} ~~PullPnrVersNoHighWord~~ {[pPuI|PnrEntry](#) 8}

The High Word of the highest version number found in records owned by this WINS.

MIB Object Types for Windows NT 13of15

A

Microsoft WINS Objects

WINS Push Group

PushInitTime {Push ~~1~~1}

Indicates whether a push (that is, notification message) should be done at invocation.

~~PushRpiOnAddChg~~PushRp|OnAddChg {Push 2}

Indicates whether a notification message should be sent when an address changes.

PushPnrTable {Push 3}

~~Alias~~A list of WINS partners with which push replication is to be initiated.

pPushPnrEntry {PushPnrTable ~~1~~1}

The row corresponding to the WINS partner.

PushPnrAdd {pPushPnrEntry ~~1~~1}

Address of the WINS partner.

PushPnrUpdateCount {pPushPnrEntry 2}

Indicates the number of updates that should result in a push message.

MIB Object Types for Windows NT 14 of15

A

Microsoft WINS Objects

WINS Cmd Group

~~CmdPuiiTrigger~~CmdPu|ITrigger {Cmd 1}

This variable when set will cause the WINS to pull replicas from the remote WINS server

identified by the IP address.

CmdPushTrigger {Cmd 2}

If set, causes WINS to push a notification message to the remote WINS server identified

by the IP address.

CmdDeleteWins {Cmd 3}

If set, causes all ~~infonnation~~information pertaining to a WINS server (data records, context ~~infonnation~~

information) to be deleted from the local WINS server. Use this only when the owner-address mapping table is nearing capacity. Deleting all

~~infonnation~~information pertaining to the

managed WINS is not ~~pennitted~~permitted.

CmdDoScavenging {Cmd 4}

If set, causes WINS to do scavenging.

CmdDoStaticlnit {Cmd 5}

If set, WINS ~~will~~Wm do static initialization using the file specified as the value. ~~If~~if 0 is specified,

WINS will do static initialization using the files specified in the Registry (filenames can be

read and written to using the Datafile table).

CmdNoOfWrkThds {Cmd 6}

Reads the number ~~of worker~~ofvworker threads in WINS.

~~CmdPriorityClass~~CmdPriorityClass {Cmd 7}

Reads the priority class of WINS to ~~nonnal~~normal or high.

CmdResetCounters {Cmd 8}

Resets the counters. Value is ignored.

CmdDeleteDbRecs {Cmd 9}

If set, causes all data records pertaining to a WINS server to be deleted from the local

WINS server. Only data records are deleted.

CmdDRPopulateTable {Cmd 10}

Retrieves records of a WINS server whose IP address is provided. When this variable is

set, the following table is generated immediately.

CmdDRDataRecordsTable {Cmd 11}

The table that stores the data records. The records are sorted

~~lexicographically~~lexicographically by name.

The table is cached for ~~acertain time~~a certain time (to save overhead on WINS).

To regenerate the

table, set the CmdDRPopulateTable MIB variable.

CmdDRRecordEntry {CmdDRDataRecordsTable 1}

Data record owned by the WINS server whose address was specified when

CmdDRPopulateTable was set.

~~Appendix A MIB Object Types for Windows NT~~

CmdDRRecordName {cCmdDRRecordEntry 1}

Name in the record.

CmdDRRecordAddress {~~cCmdDRRecordEntry~~cCmdDRRecordEntry 2}

Address(es) of the record. If the record is a multihomed record or an internet group, the

addresses are returned sequentially in pairs. Each pair comprises the address of the

owner WINS server followed by the address of the computer or of the internet group

member. The records are always returned in network byte order.

MIB Object Types for Windows NT 15of15

CmdDRRecordType {cCmdDRRecordEntry 3}

Type of record as unique, multihomed, normal group, or internet group.

CmdDRRecordPersistenceType {cCmdDRRecordEntry 4}

Persistence type of the record as static or dynamic~~-.u~~

CmdDRRecordState {cCmdDRRecordEntry 5}

State of the record as active, released, or extinct.

~~CmdWinsVersNewWord~~CmdWinsVersNoLowWord {Cmd 12}

The Low Word of the version number counter of the record.

CmdWinsVersNoHighWord {Cmd 13}

The High Word of the version number counter of the record.

~~APPENDIX B-3;~~

Windows Sockets Applications

Vendors

AGE Logic, Inc.

9985 Pacific Heights Blvd.

San Diego, CA 92121

Phone: (619) 455-8600

Fax: (619) 597-6030

X ~~Window~~Window software

American Computer ~~&8~~ Electronics Corp.

209 Perry Parkway

Gaithersburg, MD 20877

Phone: (301) 258-9850

Fax: (301) 921-0434

Network management  
Attachmate Corporation ~~3617131st Avenue~~  
3617 131st Avenue SE  
Bellevue, ~~W-AWA~~ 98006-9930  
Phone: (800) 426-6283  
Fax: (206) 747-9924  
Terminal emulation  
Beame and Whiteside  
P.O. Box 8130  
Dundas, Ontario ~~L9H~~LQH 5E7  
CANADA  
Phone: (416) 765-0822  
Fax: (416) 765-0815  
Terminal emulation, ~~file transfer,~~nie fransfen remote process execution,  
e-mail, NFS, network printing  
Digital Equipment Corporation  
Attn: Lori Heron

2 Results Way  
MR02-2/~~D10-Marlboro~~D10  
Mariboro, MA 01752-3011  
Phone: (508) 467-7855  
Fax: (508) 467-1926  
eXcursion, X Window ~~server~~sen/er and ~~client~~clienf libraries

Distinct Corporation  
14395 Saratoga Ave. Suite 120  
Saratoga, CA 95070  
Phone: (408) 741-0781  
Fax: (408) 741-0795  
Terminal emulation, ~~file transfer, X Window~~Hle transfen X VWndow, remote  
process execution, e-mail, NFS, ONC+/RPC  
Esker, Inc.

1181 Chess Drive, Suite C  
Foster City, CA 94404

Appendix B lof1

Phone: (415) 341-9065  
Fax: (415) 341-6412  
Terminal emulation, ~~file~~Hle transfer, X ~~Window~~VWndow, remote process  
execution, NFS

Executive Systems/XTree Company  
4115 Broad Street Bldg. #1  
San Luis Obispo, CA 93401-7993  
Phone: (805) 541-0604  
Fax: (805) 541-4762

Network management  
Frontier Technologies Corporation  
10201 North Port Washington Road  
Mequon, Wisconsin 53092  
Phone: (414) 241-4555  
Fax: (414) 241-7084 ~~Hypercube, Inc. Unit 7 419 Phillip Street Waterloo,~~  
~~Ontario N2L 3X2 CANADA Phone: (519) 725-4040~~  
~~Terminal~~Terminai emulation, ~~file transfer,~~hle fransfen remote ~~Fax: (519)~~  
~~725-5193~~ process execution, e-mail, NFS, NNTP, ~~Telnet~~DTelnefD,  
network printing



Gallagher & Robertson ~~NSA/S~~

Postboks 1824, Vika

0123 OSLO

NORWAY

Phone: (+47) 2 ~~4185~~41 85 51

Fax: (+47) 2 42 89 22

Terminal emulation, ~~file~~Hle transfer

Genisys Comm, Inc.

314 S. Jay Street

Rome, NY 13440

Phone: (315) 339-5502

Fax: (315) 339-5528

Terminal emulation, file transfer

Gradient Technologies, Inc.

577 Main Street, Suite 4

Hudson, ~~MANIA~~ 01749

Phone: (508) 562-2882

Fax: (508) 562-3549

DCE (OSF distributed computing environment)

Hummingbird Communications Ltd.

2900 John Street, Unit 4

Markham, Ontario ~~LSR~~LSR 5G3

CANADA

Phone: (416) 470-1203

Fax: (416) 470-1207

File ~~transfer~~,transfen remote process execution, terminal emulation, X Window

Hypercube, Inc.

Unit 7-419 Phiitip Street

Waterloo, Ontario N2L 3X2

CANADA

Phone: (519) 725-4040

Fax: (519) 725-5193

Modeling software, remote process execution

~~1~~-Kinetics, Inc.

19 Bishop Allen Drive

Cambridge, ~~MANIA~~ 02139

Phone: (617) 661-8181

Fax: (617) 661-8625

Middleware, remote process execution

John Fluke Mfg. Co.

P.O. Box 9090

Everett, ~~WAWA~~ 98206

Phone: (206) 356-5847

Fax: (206) 356-5790

Instrument control software

JSB Computer Systems Ltd.

Cheshire House, Castle Street

Macclesfield, Cheshire

ENGLAND ~~SK11~~SK11 6AF

Phone: (~~t~~+44) 625-433618

Fax: (~~t~~+44) 625-433948

JSB Corporation [USA]

Suite 115, 108 Whispering Pines Drive

Scotts Valley, CA 95066  
Phone: (408) 438-8300  
Fax: (408) 438-8360  
Terminal emulation, ~~file transfer, X Window~~ Hle transfen X iMndow, remote  
process execution, virtual sockets library

~~Appendix B Windows Sockets Applications~~

~~Lanera~~ Lanera Corporation  
516 Valley Way  
Milpitas, CA 95035  
Phone: (~~40X~~-1)56-~~X344~~408) 956-8344  
Fax: (~~40X~~408) 956-~~X343~~8343  
Terminal emulation, ~~file transfer, X Window~~ #le fransfen X VWIvdow, remote  
process execution, NFS, SNMP  
Microdyne Corp.

239 Littleton Road  
Westford, MA ~~01XX6~~01886  
Phone: (~~SOH~~508) 392-~~1)1)S3~~9953  
Fax: (~~SOX~~508) 392-9962

File ~~transfer~~ transfer

~~NetManage~~ NetManage, Inc.  
20823 Stevens Creek Blvd.  
Cupertino, CA ~~95014~~95014  
Phone: (~~40X~~408) 973-7171  
Fax: (408) 257-~~MOS~~6405

Terminal emulation, ~~file tran.\fer,~~ #le fransfen X Wndow, e-mail, NFS, TN3270,  
BLND, SNMP

Network Computing Devices

9590 SW Gemini  
Beaverton, OR 97005  
Phone: (503) 641-2200  
Fax: (503) 643-8642  
X Window

Spry, Inc.

1319 Dexter Ave. N  
Seattle, WA 98109  
Phone: (206) 286-1412  
Fax: (206) 286-1722

Terminal emulation, Hle fransfen e-mail, network printing

SunSelect

2 Elizabeth Drive  
Chelmsford, MA ~~0-I-X24-419S~~01824-4195  
Phone: (~~SOX~~508) 442-2300  
Fax: (~~SOX~~508) ~~280~~250-2300

E-mail

~~TurhoSoft~~ TurboSoft Pty Ltd. ~~24X~~

248 Johnston Street  
Annandale, NSW ~~203X~~2038  
AUSTRALIA

Phone: (+612) ~~552~~ 552-1266

Fax: (+612) 552-~~3286~~3256

Terminal emulation, file ~~transfer,~~ fransfen network printing

Unipalm Ltd.

216, Science Park, Milton Road  
Cambridge, Cambridgeshire  
CB4 4WA ENGLAND

Phone: (+44) 223-420002

Fax: (+44) 223-~~426X68~~[426868](tel:426868)

~~X Window, e-mail, NFS, TN3270, BIND, E-mail~~

~~SNMP~~

~~Network Computing Devices l)S90 SW Gemini Beaverton, OR 9700S Phone: (503)-  
641-2200 Fax: (503)-643-8642~~

~~X Window~~

~~Spry, Inc. 1319 Dexter Ave. N Seattle, WA 98109 Phone: (206) 286-1412 Fax:  
(206) 286-1722~~

~~Terminal emulation, file transfer, e-mail, network printing~~

VisionWare UK

57 Cardigan Lane

Leeds, ENGLAND LS4 2LE

Phone: (+44) ~~832~~ [532](tel:532)-788858

Fax: (+44) 532-304676

~~VisionWare~~[Visionware](http://www.visionware.com) USA ~~1020~~

[1020](http://www.visionware.com) Marsh Road

Suite 220

Menlo Park, CA ~~9402S~~[94025](tel:94025)

Phone: (~~41S~~)~~32S~~[415](tel:415) [325](tel:325)-2113

Fax: (415) ~~32S~~[325](tel:325)-8710

Terminal emulation, ~~file tramfer, X Window~~[Hle fransfen X VVndow](http://www.visionware.com), remote  
process execution

VisiSoft

430 ~~10th~~[10m](http://www.visisoft.com) Street NW, Suite S008

Atlanta, GA 30318

Phone: (404) 874-0428

Fax: (404) 874-6412

Network management

Walker Richer & Quinn, Inc.

1500 Dexter Ave. N.

Seattle, WA 98109

Phone: (206) 217-7500

Fax: (206) 217-0293

Terminal emulation, ~~file~~[Hle](http://www.visisoft.com) transfer, X ~~Window~~[VMndow](http://www.visisoft.com)

XSoft

3400 Hillview Ave.

Palo Alto, CA 92304

Phone: (800) 428-2995

Fax: (~~415~~[415](tel:415)) ~~813~~[813](tel:813) ~~3~~-7028

Document management

~~Appendix B Windows Sockets Applications~~

~~HTIPS~~

Internet Sources for [Applications](http://www.visisoft.com)

~~emwac.ed.ac.ukApplications/pub/https hsi386.zip or hsalphazip~~

~~Cello ftpCelloftp.law.comellcomell.edu/pub/LII!Cello Internet Help File~~

~~cello.zip, lview31.zip, gswin.zip. ftp.ccs.queensu.ca~~

~~cellofaq.zip/pub/LII/Cellocellozip, lview31.zip, gswinzip, cellofaqzip,~~

~~wingif14.zip,~~

~~wplny09b.zip -pu /m dos/tepip~~

~~lpwm.zip~~ ~~Cookie Server Micro X-Win~~  
[Cookie Servers.unc.edu/pub/micro/pc-stuff/ms-windows/winsock/appscooksockzip](http://CookieServers.unc.edu/pub/micro/pc-stuff/ms-windows/winsock/appscooksockzip)  
~~E|Net Weis Client~~[ftp.cica.indiana.edu/pub/pc/win3/winsockewais154.zip](http://ftp.cica.indiana.edu/pub/pc/win3/winsockewais154.zip)  
~~Finger Daemons~~[sunsite.unc.edu/pub/micro/pc-stuff/ms-windows/winsock/appsfingerd.zip](http://sunsite.unc.edu/pub/micro/pc-stuff/ms-windows/winsock/appsfingerd.zip)  
~~Finger31~~[ftp.cica.indiana.edu/pub/pc/win3/winsockfinger31.zip](http://ftp.cica.indiana.edu/pub/pc/win3/winsockfinger31.zip)  
~~GopherBook~~[ftp.cica.indiana.edu/pub/pc/win3/winsockgophbki1.zip](http://ftp.cica.indiana.edu/pub/pc/win3/winsockgophbki1.zip)  
~~GopherSemwac~~[ed.ac.uk/pub/gophersgsi386.zip](http://ed.ac.uk/pub/gophersgsi386.zip) or [gsalphazip](http://gsalphazip)  
~~HGopher~~[ftp.cica.indiana.edu/pub/pc/win3/winsockhgoph24.zip](http://ftp.cica.indiana.edu/pub/pc/win3/winsockhgoph24.zip)  
~~HTTPSemwac~~[ed.ac.uk/pub/httpslws1386.zip](http://ed.ac.uk/pub/httpslws1386.zip) or [hsalphazip](http://hsalphazip)  
~~Internet Help File~~[ftp.ccs.queensu.ca/pub/msdos/tcpipwinzip](http://ftp.ccs.queensu.ca/pub/msdos/tcpipwinzip)  
~~sunsite.unc.edu /pub/micro/pc-stuff bart.starnet.com~~  
~~/ms-windows/winsock/apps /pub-cooksock.zip xwindemo.exe or xwin287h~~[MicroX-Winbartstamet.com/pubxwindemoexe](http://MicroX-Winbartstamet.com/pubxwindemoexe) or [xwin287b.exe](http://xwin287b.exe)  
~~Mosaic~~  
~~E|Net Wais Client~~ ~~ftp.cica.indiana.edu~~ ~~ftp.ncsa~~[Mosaicftp.ncsa.uiuc.edu/pub/pc/win3/winsock/PC/Mosaic-ewais154.zip](http://Mosaicftp.ncsa.uiuc.edu/pub/pc/win3/winsock/PC/Mosaic-ewais154.zip) ~~wmos20a-1/PC/Mosaicwmos20a1.zip~~  
~~NCSA Telnet~~[ftp.cica.indiana.edu/pub/pc/win3/winsockwintelb3.zip](http://ftp.cica.indiana.edu/pub/pc/win3/winsockwintelb3.zip)  
~~Finger Daemon NCSA Telnet~~ ~~sunsite.unc.edu~~ ~~ftp.cica.indiana.edu~~  
~~/pub/micro/pc-stuff /pub/pc/win3/winsock /ms-windows/winsock/apps~~  
~~wintelb3.zip fingerd.zip PCEudora Finger31~~ ~~ftp.qualcomm.com~~  
~~ftp.cica.indiana.edu~~ [PCEudoreftp.qualcomm.com/pceudora/windows](http://PCEudoreftp.qualcomm.com/pceudora/windows)  
~~/pub/pc/win3/winsock eudora 14.exe finger31.zip QWS3270 GopherBook~~  
~~windowseudora14.exe~~  
~~QWS3270~~[ftp.ccs.queensu.ca/ftp.cica.indiana.edu/queensuca/pub/msdos/tcpip](http://ftp.ccs.queensu.ca/ftp.cica.indiana.edu/queensuca/pub/msdos/tcpip)  
~~/pub/pc/win3/winsock qws/tcpipqws3270.zip gophbk11.zip SerWeb GopherS~~ ~~ftp~~  
~~SerWeb~~[ftp.cica.indiana.edu/emwac.ed.ac.uk/pub/pc/win3/winsock](http://ftp.cica.indiana.edu/emwac.ed.ac.uk/pub/pc/win3/winsock)  
~~/pub/gophers serweb03.zip gsi386.zip or gsalpha.zip Text Server~~  
~~winsocksen/veb03.zip~~  
~~HGopher~~ ~~sunsite.unc.edu~~ ~~ftp.cica.indiana.edu~~  
~~TextServers~~[sunsite.unc.edu/pub/micro/pc-stuff/pub/pc/win3/winsockstuff](http://sunsite.unc.edu/pub/micro/pc-stuff/pub/pc/win3/winsockstuff)  
~~/ms-windows/winsock/apps~~ [winsock/appstxtsrvzip](http://winsock/appstxtsrvzip)  
~~hgoph24.zip txtsrv.zip~~  
~~TimeSyne~~  
~~ftphost.eac.washington~~ [TimeSyncftphost.caewashington.edu/pub/winsock](http://TimeSyncftphost.caewashington.edu/pub/winsock)  
~~teynel~~ [winsocktsynct\\_4.zip](http://winsocktsynct_4.zip)  
~~Trumpet for Windows~~ ~~ftp.utas.edu~~ [Windowsftp.utasedu.au/pub/trumpet/wintrump](http://Windowsftp.utasedu.au/pub/trumpet/wintrump)  
~~wtwsk-10awintrumpwtwsk1\_0a.zip~~  
~~Trumpet Telnet~~ ~~petros.psychol~~ [Telnetpetroepsychol.utas.edu.au](http://Telnetpetroepsychol.utas.edu.au)  
~~/pc/trumpet/trmptel trmptel.exe trmpteltrmptetexe~~  
~~Trumpet Winsock~~ ~~ftp.utas.edu~~ [Winsockftp.utasedu.au/pc/trumpet/wintrump](http://Winsockftp.utasedu.au/pc/trumpet/wintrump)  
~~winsock.zip wintrumpwinsockzip~~  
~~USGS WAIS Client~~ ~~ridgisd~~ [Clientridgisd.er.usgs.gov/software/wais](http://Clientridgisd.er.usgs.gov/software/wais)  
~~wwais23-waiswwais2V.zip~~  
~~Wais Manager~~ ~~ftp~~ [Managerftp.cnidr.org/pub/NIDR.tools/wais/pc/windows](http://Managerftp.cnidr.org/pub/NIDR.tools/wais/pc/windows)  
~~waisman~~ [windowswaisman3.zip](http://windowswaisman3.zip)  
~~WFFPD~~  
~~sunsite~~ [WFFPDsunsite.unc.edu/pub/micro/pc-stuff/ms-windows/winsock/apps](http://WFFPDsunsite.unc.edu/pub/micro/pc-stuff/ms-windows/winsock/apps)  
~~wffpd18/appswffpd18b.zip~~  
~~Windows SMTP~~ ~~sunsite~~ [SMTPsunsite.unc.edu/pub/micro/pepc-stuff](http://SMTPsunsite.unc.edu/pub/micro/pepc-stuff)  
~~/ms-windows/winsock/apps~~ ~~wsmtpd~~ [winsocklappswsmtpd16.zip](http://winsocklappswsmtpd16.zip)

~~WinFSP-ftp~~[WinFSPftp.cica.indiana.edu-indianaedu/pub/pc/win3/winsock/winfspvwin3/winsocwinfsp12.zip](http://WinFSPftp.cica.indiana.edu-indianaedu/pub/pc/win3/winsock/winfspvwin3/winsocwinfsp12.zip)  
~~WinIRC-dorm~~[WinIRCdorm.rutgers.edu](http://WinIRCdorm.rutgers.edu) (ftp.utas.edu.au) /pub/msdos/trumpet/irc/pc/trumpet/irc/winirc-beta-winirebetawinirc.exe, winirc.doc  
~~WinLPR-sunsite.unc.edu~~[WinLPRsunsite.unc.edu](http://WinLPRsunsite.unc.edu)/pub/micro/pc-stuff/ms-windows/winsock/~~apps-winlpr10~~.[appswinlpr10.zip](http://appswinlpr10.zip)  
WinQVT/~~Net-sunsite~~[Netsunsite.unc.edu](http://Netsunsite.unc.edu) /pub/micro/pc-stuff/ms-windows/winsock/~~apps-qvtne~~[appsqvtne394.zip](http://appsqvtne394.zip)  
WinQVT/Net for ~~NT-sunsite~~[NTsunsite.unc.edu](http://NTsunsite.unc.edu) /pub/micro/pc-stuff/ms-windows/winsock/~~apps-qvtnt~~[appsqvtnt394.zip](http://appsqvtnt394.zip)  
~~WinQVTNet-biochemistry~~[WinQVTNetbiochemistry.cwru.edu](http://WinQVTNetbiochemistry.cwru.edu) /pub/~~qvtnet~~[qvtwsqvtnetqvtws396.zip](http://qvtwsqvtnetqvtws396.zip)  
~~WinTalk-elf.com~~ /pub/wintalk-wintalk.zip  
[WinTalkelf.com/pub/wintalkwintalkzip](http://WinTalkelf.com/pub/wintalkwintalkzip)  
~~WinVN-titan~~[WinVNTitan.ksc.nasa.gov-nasagov](http://WinVNTitan.ksc.nasa.gov-nasagov)/pub/win3/~~winvn~~[winvnstdwinvnwinvnstd90\\_\\_2.zip](http://winvnstdwinvnwinvnstd90__2.zip)  
WS ~~Gopher-sunsite.unc.edu~~[Gophersunsite.unc.edu](http://Gophersunsite.unc.edu)/pub/micro/~~pe-pc~~stuff/ms-windows/winsock/~~apps-wsg-09g~~.[appswsg-099.exe](http://appswsg-099.exe)  
~~Appendix B Windows Sockets Applications~~  
WS ~~Finger-sunsite~~[Fingersunsite.unc.edu](http://Fingersunsite.unc.edu) /pub/micro/pc-stuff/ms-windows/winsock/~~apps-wsfinger~~[appswsfinger.zip](http://appswsfinger.zip)  
WS ~~ITP-ttp~~[FTPftp.usma.edu-edu](http://FTPftp.usma.edu-edu)/pub/~~msdos-ws~~[msdosws](http://msdosws) ftp.zip  
WS ~~ITPb-sunsite~~[FTPbsunsite.unc.edu](http://FTPbsunsite.unc.edu) /pub/micro/pc-~~stuff~~[stuff](http://stuff)/ms-~~windows~~[windovvs](http://windovvs)/winsock/~~apps-ws~~[appsws](http://appsws) ftpb.zip, view.zip  
~~WSArchie-ftp~~[WSArchieftp.demon.co.uk-uk](http://WSArchieftp.demon.co.uk-uk)/pub/ibmpc/winsock/apps/~~wsarchie~~[wsarchie](http://wsarchie)  
~~wsarchie~~[wsarchie](http://wsarchie).zip

## ABCDEFGHIJKLMNPOQRSTUVWXYZ

### Glossary Microsoft NT Sewer Glossary

#### A

~~address classes~~ Predefined groupings of Internet addresses, with each class defining networks of a certain size. The range of numbers that can be assigned for the first octet in the IP address is based on the address class. Class A networks (values 1-126) are the largest, with over 16 million hosts per network. Class B networks (128-191) have up to 65,534 hosts per network, and Class C networks (192-223) can have up to 254 hosts per network.

~~Address Resolution Protocol (ARP)~~

~~A protocol in the TCP/IP suite that provides IP address to media access control (MAC) address resolution for IP packets.~~

~~agent~~ In SNMP, agent information consists of comments about the user, the physical location of the computer, and the types of service to report based on the computer's configuration.

#### B

~~binding~~ A process that establishes the communication channel between a protocol driver and a network adapter driver.

~~b-node~~ A NetBIOS over TCP/IP mode that uses broadcasts to resolve computer names as addresses.

~~BOOTP~~ See Bootstrap Protocol.

~~Bootstrap Protocol (BOOTP)~~ An internetworking protocol used to configure systems across

~~internetworks. DHCP is an extension of BOOTP.~~

~~Broadcast name resolution mechanism defined in RFC 1001-1002 that uses broadcasts to resolve names to IP addresses through a process of registration, resolution, and name release.~~

~~e~~

~~checksum The mathematical computation used to verify the accuracy of data in TCP/IP packets.~~

~~community names A group of hosts to which a server belongs that is running the SNMP service. The community name is placed in the SNMP packet when the trap is sent. Typically, all hosts belong to public, which is the standard name for the common community of all hosts.~~

~~computer name The unique name to which the computer responds. In Windows NT, the computer name is set by choosing the Network icon in Control Panel, and it is a name of up to 15 uppercase characters that cannot contain spaces. See also host name.~~

~~D~~

~~daemon A networking program that runs in the background.~~

account

See user account.

Account policy

Controls the way passwords must be used by all user accounts of a domain, or of an individual computer.

administrative alerts

Relate to server and resource use, warn about problems in areas such as security and access, user

sessions, server shutdown because of power loss (when UPS is available), directory replication, and

printing. When a computer generates an administrative alert, a message is sent to a predefined list of users

and computers. See also Alerter service.

Alerter service

Notifies selected users and computers of administrative alerts that occur on a computer. Used by the

Server and other services. Requires the Messenger service. See also administrative alerts.

archive bit

Backup programs use the archive bit to mark files after backing them up, using the normal or incremental

backup types.

ASCII file

See text file.

associate

To identify a filename extension as belonging to a certain application so that when you open any file with that extension,

the application starts automatically.

Audit policy

For a domain or for an individual computer, defines the type of security events that are logged,

determines what Windows NT will do when the security log becomes full.

auditing

Tracking activities of users by recording selected types of events in the security log of a server or a

Workstation.

authentication

Validation of a users logon information. When a user logs on to an account on a Windows NT computer, the authentication is performed by that computer. When a user logs on to an account on a Windows NT Server domain, that authentication may be performed by any server of that domain. See also server, trust relationship.

~~datagram A packet of data and other delivery information that is routed through a packet switched network or transmitted on a local area network. default gateway~~

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backup domain controller

For Windows NT Server domains, refers to a computer that receives a copy of the domains security policy and domain database, and authenticates network logons. See also primary domain controller.

batch program

An ASCII file (unformatted text file) that contains one or more Windows NT commands. A batch programs filename has a .BAT or .CMD extension. When you type the filename at the command prompt, the commands are processed sequentially.

boot loader

Defines the information needed for system startup, such as the location for the operating systems files. Windows NT automatically creates the correct configuration and checks this information whenever you start your system.

boot partition

The volume, formatted for either an NTFS, FAT, or HPFS file system, that contains the Windows NT operating system and its support files. The boot partition can be (but does not have to be) the same as the system partition.

branch

A segment of the directory tree, representing a directory and any subdirectories it contains.

browse

To look through lists of directories, files, user accounts, groups, domains, or computers.

buffer

A temporary storage place for information.

built-in groups

The default groups provided with Windows NT Workstation and Windows NT Server.

Built-in groups

have been granted useful collections of rights and built-in abilities. In most cases, a built-in group will provide all the capabilities needed by a particular user. For example, if a domain user account belongs to the built-in Administrators group, logging on with that account gives a user administrative capabilities over the domain and the servers of the domain.

To provide a needed set of capabilities to a user account, assign it to the appropriate built-in group. See also group, User Manager, User Manager for Domains.

~~default gateway The intermediate network device on the local network that has knowledge of the network IDs of the other networks in the internet, so it can forward the packets to other gateways until the packet is eventually delivered to a gateway connected to the specified destination. Gateways are usually dedicated computers called routers.~~

~~DHCP See Dynamic Host Configuration Protocol.~~

~~DNS See Domain Name System.~~

~~DNS name servers In the DNS client-server model, the servers containing information about a portion of the DNS database, which makes computer names available to client resolvers querying for name resolution across the internet.~~

~~domain name space The database structure used by the Domain Name System (DNS). Domain Name System (DNS) Sometimes referred to as the BIND service in BSD UNIX, DNS offers a static, hierarchical name service for TCP/IP hosts. The network administrator configures the DNS with a list of hostnames and IP addresses, allowing users of computers configured to query the DNS to specify remote systems by hostnames rather than IP addresses. For example, a computer configured to use DNS name resolution could use the command ping remotehost rather than ping~~

~~127.0.0.1 if the mapping for the system named remotehost was contained in the DNS database. DNS domains should not be confused with Windows NT networking domains.~~

~~Dynamic Host Configuration Protocol~~

~~A protocol for automatic TCP/IP configuration that provides static and dynamic address allocation and management.~~

~~F~~

~~file replication service A Windows NT service that allows specified file(s) to be replicated to remote systems, ensuring that copies on each system are kept in synchronization. The system that maintains the master copy is called the exporter, and the systems that receive updates are known as importers.~~

~~file sharing The ability for a Windows NT computer to share parts (or all) of its local file system(s) with remote computers. An administrator creates share points by using either File Manager or the net share command from the command prompt.~~

~~File Transfer Protocol (FTP) A service that supports file transfers between local and remote systems that support this protocol. FrP supports several commands that allow bidirectional transfer of binary and ASCII files between systems. The~~

~~FrP Server service can be installed in~~

~~Windows NT but is not installed by default, because of security considerations. The FrP client~~

~~is installed with the TCP/IP connectivity utilities.~~

~~FQDN See fully qualified domain name.~~

~~FTP See File Transfer Protocol.~~

~~fully qualified domain name (FQDN)~~

~~Host names with their domain names appended to them. For example, a host with host name corp001 and DNS domain name trey-research.com has an FQDN of corp001.trey-research.com. (DNS domains should not be confused with Windows NT networking domains.)~~

~~G~~



~~gateway Used interchangeably with IP router to describe a system connected to multiple physical TCP/IP networks, capable of routing or delivering IP packets between them.~~

~~H~~

~~ABCDEFGHIJKLMNOPQRSTUVWXYZ - v vCMA& M M vç \$ 4 %M U \$M »M M M çA u U N WJ  
»M » u » u u A v ~ . v . . . . U A A. A f~~

check box

A small, square box in a dialog box that can be selected or cleared, representing an option that you can turn on or off When a check box is selected, an X appears in the box.

choose

To pick an item that begins an action in Windows NT. You often choose a command on a menu to

perform a task, and you choose an icon to start an application.

click

To quickly press and release a mouse button.

client

A computer that accesses shared network resources provided by another computer (called a server).See

also server.

Clipboard

A temporary storage area in memory, used to transfer information. You can cut or copy information onto

the Clipboard and then paste it into another document or application, or into the ClipBook.See also

ClipBook<.

ClipBook

Permanent storage of information you want to save and share with others. This differs from the

Clipboard, which temporarily stores information. You can save the current contents

of the Clipboard by using the ClipBook Viewer to copy it into your local ClipBook. You can then share

that information, allowing others to connect to the ClipBook on your computer.See alsoClipboard,

ClipBook page.

ClipBook page

A unit of information pasted

onto a local ClipBook. The ClipBook page is permanently saved. Information on a ClipBook< page can be

copied back onto the Clipboard and then pasted into documents. You can share ClipBook pages on the

network.

Clipbook sen/ice

Supports the ClipBook< Viewer application, allowing pages to be seen by remote ClipBooks.

Computer Browser service

Maintains an upto-

date list of computers and provides the list

to applications when requested. Provides the computer lists displayed in the Select Computer and Select

Domain dialog boxes, and for Windows NT Server only, the lists in the Server Manager Window.

computer name

A unique name of up to 15 characters that identifies a computer to the network. The name cannot be the same as any other computer or domain name in the network.  
configuration registry  
A database repository for information about a computers configuration.

~~header The data inserted at the beginning of a packet that contains control information. For a TCP packet, the header contains the port ID, checksum, sequence number, and other information.~~

connected user

A user accessing a computer or a resource across the network.

Control menu

A menu that contains commands you can use to manipulate a window.

Control-menu box

The icon at the left of the title bar. This icon opens the Control menu for a window.

controller

See domain controller.

~~heterogeneous environment An internetwork with servers and workstations from different vendors, using a mix of different operating systems and transport protocols.~~

~~h-node A Net BIOS over TCP/IP mode that uses p-node first for name queries, then b-node if the name service is unavailable to resolve computer names as addresses.~~

~~host Any device that is attached to the internetwork and uses TCP/IP.~~

~~host 10 The portion of the IP address that identifies a computer within a particular network 10.~~

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DDE

See dynamic data exchange.

default printer

The printer that is used if you choose the Print command Without first specifying which printer you want to use with an application. You can have only one default printer, it should be the printer you use most often.

default profile

See system default profile, user default profile.

dependent sen/ice

A service that requires the support of another service. For example, the Aleiter service is dependent on the Messenger service.

desktop

The background of your screen, on which windows, icons, and dialog boxes appear.

destination directory

The directory to which you intend to copy or move one or more files.

destination document

The document into which a package or a linked or embedded object is being inserted. For an embedded object, this is sometimes also called the container document.

device contention

The way Windows NT allocates access to peripheral devices, such as a modem or a printer, when more than one application is trying to use the same device.

device driver

A program that enables a specific piece of hardware (device) to communicate with

Windows NT. Although a device may be installed on your system, Windows NT cannot recognize the device until you have installed and configured the appropriate driver.

dimmed

Unavailable, disabled, or grayed. A dimmed button or command is displayed in light gray instead of black, and it cannot be chosen.

directory

Part of a structure for organizing your files on a disk. A directory can contain files and other directories (called subdirectories). See also directory tree.

directory replication

The copying of a master set of directories from a server (called an export server) to specified servers or workstations (called import computers) in the same or other domains. Replication simplifies the task of maintaining identical sets of directories and files on multiple computers, because only a single master copy of the data must be maintained. Files are replicated when they are added to an exported directory and every time a change is

~~host name The name of a device on an internet network. For a device on a Windows network, this can be the same as the computer name, but it may not be. The host name must be in the host table or be known by a DNS server for that host to be found by another computer attempting to communicate with it.~~

~~host table The HOSTS and LMHOSTS files, which contain mappings of known IP addresses mapped to host names.~~

~~HOSTS file A local text file in the same format as the 4.3 Berkeley Software Distribution (BSD) UNIX /etc/hosts file. This file maps host names to IP addresses. In Windows NT, this file is stored in the \systemroot\SYSTEM32\DRIVERS\ETC directory.~~

~~IP address 247~~

~~ICMP~~

~~See Internet Control Message Protocol.~~

~~IETF See Internet Engineering Task Force.~~

~~Internet Control Message Protocol (ICMP)~~

~~A maintenance protocol in the TCP/IP suite, required in every TCP/IP implementation, that allows two nodes on an IP network to share IP status and error information. ICMP is used by the ping utility to determine the readability of a remote system.~~

~~Internet Engineering Task Force (IETF) Consortium that introduces procedures for new technology on the Internet. IETF specifications are released in documents called Requests for Comments (RFCs).~~

~~Internet group name In Windows NT networking, a name registered by the domain controller that contains a list of the specific addresses of systems that have registered the name. The name has a 16th character ending in 0x 1C.~~

~~Internet Protocol (IP) The messenger protocol of TCP/IP, responsible for addressing and sending TCP packets over the network.~~

~~IP See Internet Protocol.~~

~~IP address Used to identify a node on a network and to specify routing information on an internetwork. Each node on the internetwork must be assigned a unique IP address, which is made up of the network ID, plus a unique host ID assigned by the network administrator. In Windows NT, the IP address can be configured statically on the computer or configured dynamically through DHCP.~~

maintained. Files are replicated when they are added to an exported directory and every time a change is saved to the file. See also Directory Replicator service.

Directory Replicator service  
Replicates directories, and the files in those directories, between computers. See also directory replication.

directory tree  
A graphical display of a disk's directory structure. The directories on the disk are shown as a branching structure. The top-level directory is the root directory.

directory window  
A File Manager window that displays the contents of a disk. The window shows both the directory tree and the contents of the current directory.

disabled user account  
A user account that does not permit logons. The account appears in the user account list of the User Manager Window and can be restored to enabled status at any time. See also user account.

disk configuration information  
The Windows NT Registry includes information on the configuration of your disk(s): assigned drive letters, stripe sets, mirror sets, Volume sets, and stripe sets with parity.

disk duplexing  
Establishing a mirrored copy on a disk with a different controller.

disk mirroring  
Maintaining a fully redundant copy of a partition on another disk.

disk striping  
Writing data in stripes across a volume that has been created from areas of free space on from 2 to 32 disks.

domain  
For Windows NT Server, a collection of computers that share a common domain database and security policy. Each domain has a unique name. See also workgroup.

domain controller

For a Windows NT Server domain, the server that authenticates domain logons and maintains the security policy and the master database for a domain. See also backup domain controller, server.

domain database

See SAM database.

domain name

The name by which a domain is known to the network.

domain synchronization

See synchronize.

double-click

To rapidly press and release a mouse button twice Without moving the mouse. Double-clicking carries out an action, such as starting an application.

~~IP router A system connected to multiple physical TCP/IP networks that can route or deliver IP packets between the networks. See also Gateway. IPX/SPX Transport protocols used in Novell NetWare networks. For Windows NT, NWLink is used to implement this protocol.~~

~~I~~

downloaded fonts

Fonts that you send to a printer either before or during the printing of a document. When you send a font to a printer, it is stored in printer memory until it is needed.

drive icon

An icon in a directory window in

File Manager that represents a disk drive on your system. Different icons depict floppy disk drives, hard disk drives, network drives, RAM drives, and CD-ROM drives.

drivebar

Allows you to change drives by selecting one of the drive icons.

dynamic data exchange

A form of interprocess communication (IPC) implemented in the Microsoft Windows family of operating systems. Two or more programs that support dynamic data exchange (DDE) can exchange information and commands.

~~LMHOSTS file A local text file that maps IP addresses to the NetBIOS computer names of Windows networking computers outside the local subnet. In Windows NT, this file is stored in the \systemroot\SYSTEM32\DRIVERS\ETC directory.~~

~~M~~

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embedded object

Presents information created in another application. information in the embedded object does not exist in another file outside your document.

encapsulated PostScript (EPS) file

A file that prints at the highest possible resolution for your printer. An EPS file may print faster than

other graphical representations. Some Windows NT and non-Windows NT graphical applications can import EPS tiles.

environment variable

A string consisting of environment information, such as a drive, path, or filename, associated with a symbolic name that can be used by Windows NT.

You use the System

option in Control Panel or the set command from the Windows NT command prompt to define

environment variables.

event

Any significant occurrence in the system or in an application that requires users to be notified, or an entry

to be added to a log.

Event Log service

Records events in the system, security, and application logs.

export path

In directory replication, a path from which subdirectories, and the files in those subdirectories, are

automatically exported from an export server. See also directory replication.

export server

In directory replication, a server from which a master set of directories is exported to specified servers or

workstations (called import computers) in the same or other domains. See also directory replication.

extended partition

Created from free space on

a hard disk, it can be subpartitioned into zero

or more logical drives. Only one of the four partitions allowed per physical disk can be an extended

partition, and no primary partition needs to be present to create an extended partition.

extension

The period and up to three characters

at the end of a filename. An extension usually indicates the type of file or directory.

external command

A command that is stored in its own file and loaded from disk when you use the command.

~~MAC address The address for a device as it is identified at the media access control layer in the network architecture.~~

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family set

A collection of related tapes containing several backup sets.

FAT

File allocation table, a table or list maintained by some operating systems to keep track of the status of

various segments of disk space used for file storage.

file allocation table (FAT)

See FAT.

file system