

# DFS Client for Windows NT™

## Online Help

<b>Audience</b>	Users of the DFS Client for Windows NT who are either familiar with Microsoft® Windows NT or have a basic knowledge of using windows applications.	
<b>Purpose</b>	To provide DFS users with an overview of DFS and information and instructions for using, administering, and maintaining the DFS Client.	
<b>Production Notes</b>	Text	Microsoft Word and Doc-to-Help
<b>Research</b>	Discussion with development and training and experimentation with the system.	
<b>Sample Information</b>	This sample includes help topics related to the dfsadmin command suite.	

# dfsadmin getpreferences

## NAME

**dfsadmin getpreferences** — Displays the DFS Cache Manager's preferences for File Servers

## SYNOPSIS

**dfsadmin getpreferences [-help]**

## OPTIONS

**-help**

Displays the name, short description, and syntax of the command. All other valid options that you specify with the command are ignored.

## DESCRIPTION

The **dfsadmin getpreferences** command displays File Server preferences. The DFS Cache Manager maintains a local collection of File Server preferences. A preference consists of the hostname of a File Server followed by the File Server's rank. The rank determines the DFS Cache Manager's preference for accessing data from read-only filesets that reside on that server.

The DFS Cache Manager sets default rankings for File Servers it has contacted. It bases its default rankings on the location of the File Server on the network relative to your DFS Client. You can allow the DFS Cache Manager to use the default rankings or you can specify different rankings with the **dfsadmin setpreferences** command.

When the DFS Cache Manager must access data from the read-only version of a fileset, it determines which File Servers house the read-only replica. If multiple File Servers house the replica, the DFS Cache Manager attempts to access the replica on the machine that has the lowest recorded rank.

If the DFS Cache Manager cannot access the replica on the machine that has the lowest rank, it attempts to access it on the machine that has the next-lowest rank. It continues in this manner until it accesses the replica or until it determines that all the File Servers on which the replica resides are unavailable. The DFS Cache Manager records a rank for each File Server that it contacts or that houses a replica of a read-only fileset from which it has accessed data. It also records a rank for each File Server for which you specify a rank.

If two or more File Servers have the same rank, the DFS Cache Manager randomly chooses the one from which to request data. If you want the DFS Cache Manager to choose one File Server over the other, use the **dfsadmin setpreferences** command to change the ranks to force the DFS Cache Manager's preference of one File Server.

## OUTPUT

The **dfsadmin getpreferences** command displays a separate line of output for each File Server machine for which it has a preference. Each line consists of the name of the File Server followed by the File Server's active rank. DFS displays the IP address instead of the name of the File Server if it cannot determine the name of the File Server (for example, if a network outage prevents the DFS Cache Manager from resolving the IP address into a name).

## EXAMPLES

The following command displays the File Server preferences associated with the DFS Cache Manager. The command shows the IP address of one of the machines because it cannot currently determine the name.

**dfsadmin getpreferences**

jupiter.ddc.com	30011
121.86.33.40	30006

**RELATED INFORMATION**

Commands: dfsadmin setpreferences

# dfsadmin help

## NAME

**dfsadmin help** — Displays the name, short description, and syntax of a specified command or a short description of all **dfsadmin** commands

## SYNOPSIS

**dfsadmin help** [-topic *string...*] [-help]

## OPTIONS

**-topic *string...***

Specifies the command whose name, short description, and syntax you want to display. Provide only the second part of the command name (for example, **flush**, not **dfsadmin flush**). Type all strings for **dfsadmin** commands in lowercase letters. If you omit this option, the command describes all **dfsadmin** commands briefly.

**-help**

Displays the name, short description, and syntax of the command. All other valid options that you specify with the command are ignored.

## DESCRIPTION

The **dfsadmin help** command displays the entire command help entry for the command specified by the **-topic** option. The **dfsadmin help** command displays the first line of the command help entry for every command in the **dfsadmin** command suite if you omit the **-topic** option. To display the first line of a help entry whose command name or brief description contains a specified string, use the **dfsadmin apropos** command.

## OUTPUT

Each **dfsadmin** command help entry consists of the following two lines:

- First line The name and brief description of the command
- Second line The syntax of the command, showing the command options in the prescribed order

## EXAMPLES

The following command lists the first line of the help entry for each **dfsadmin** command:

### dfsadmin help

```
dfsadmin: Commands are:
apropos          search by help text
checkfilesets    check fileset/name mappings
dfslog           enable/disable DFS Cache Manager logging
flush            flush file data and status information from cache
flushfileset     flush file data and status information from cache
getpreferences   get server preferences
help             get help on commands
lscellinfo       list cells contacted since workstation reboot
lsquota         list fileset quota
```

lsstores	list retrying stores
resetconns	reset user's server connections
resetstores	reset retrying stores
service	start and stop the DFS service
setpreferences	set server preferences
statservers	check functioning servers
uncprovider	register/deregister as a UNC provider
whereis	list cell, server, and fileset on which file resides

The following command lists the entire help entry for the **dfsadmin setpreferences** command:

**dfsadmin help -topic setpreferences**

dfsadmin setpreferences: set server preferences

Usage: dfsadmin setpreferences -server <machine rank>... [-help]

**RELATED INFORMATION**

Commands: dfsadmin apropos



# dfsadmin lscellinfo

## NAME

**dfsadmin lscellinfo** — Displays the cells your DFS Cache Manager has contacted since you started your DFS Client and those cells' Fileset Location (FL) Servers

## SYNOPSIS

**dfsadmin lscellinfo [-help]**

## OPTIONS

**-help**

Displays the name, short description, and syntax of the command. All other valid options that you specify with the command are ignored.

## DESCRIPTION

The **dfsadmin lscellinfo** command formats and displays the DFS Cache Manager's list of cells and Fileset Location (FL) Servers. This list consists of FL Servers in the DFS Cache Manager's local cell and any foreign cells the DFS Cache Manager has contacted.

## OUTPUT

The **dfsadmin lscellinfo** command displays a separate line of output for the local cell and for each cell contacted by the DFS Cache Manager. A list of the FL Servers in each cell, called hosts in the output, follows the name of the corresponding cell.

## EXAMPLES

The following command lists the cells the DFS Cache Manager has contacted and their FL Servers:

**dfsadmin lscellinfo**

2 cells contacted:

Cell ddc.com on hosts: fs2.ddc.com fs4.ddc.com

Cell state.edu on hosts: fs11.fs.state.edu

# dfsadmin lsquota

## NAME

**dfsadmin lsquota** — Displays quota and usage information for filesets and aggregates

## SYNOPSIS

**dfsadmin lsquota** [-path *filename...*] [-help]

## OPTIONS

**-path *filename...***

Specifies one or more D<sub>FS</sub> objects. Separate each DFS object with one or more spaces.

**-help**

Displays the name, short description, and syntax of the command. All other valid options that you specify with the command are ignored.

## DESCRIPTION

The **dfsadmin lsquota** command displays the quota for the filesets that contain one or more specified DFS objects. It also displays usage information for the fileset and disk usage and available disk space information for the aggregate that contains the fileset.

Quota is the maximum amount of disk space a fileset can occupy. Each DCE LFS fileset has a quota. The quota is independent of the amount of disk space actually used by the fileset.

Non-LFS filesets do not support quota assignment. Only one non-LFS fileset can reside on a partition. If you request quota information for a non-LFS fileset, the **dfsadmin lsquota** command displays disk and usage information for the partition.

## OUTPUT

The **dfsadmin lsquota** command displays a separate line of output for each fileset. The output consists of a header with columns under which DFS displays the appropriate quota and disk information for each fileset. The command displays the information in the following format:

Fileset Name	Quota	Used	%Used	Aggregate
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For a DCE LFS fileset, the **dfsadmin lsquota** command provides the following information:

- Fileset Name — the name of the fileset that contains the specified DFS object
- Quota — the amount of quota, in kilobytes, allocated to the fileset
- Used — the amount of quota, in kilobytes, currently in use by the fileset
- %Used — the percentage of quota in use by the fileset
- Aggregate — the percentage of disk space in use on the aggregate that contains the fileset; the size of the aggregate, in kilobytes; and the amount of disk space, in kilobytes, currently in use on the aggregate

The **dfsadmin lsquota** command displays only disk information for non-LFS filesets. When you request quota information for a non-LFS fileset, the command displays the following information:

- Fileset Name — the name of the fileset that contains the specified DFS object

- Quota — the size of the partition that houses the fileset
- Used — the amount of disk space in use on the partition
- %Used — the percentage of disk space in use on the partition
- Aggregate — the percentage of disk space in use on the partition; the size of the partition, in kilobytes; and the amount of disk space, in kilobytes, currently in use on the partition

Notice that the Aggregate field and the Quota, Used, and %Used fields show the exact information.

## EXAMPLES

The following command displays quota information for the DCE LFS fileset that contains the directory named `\\...\ddc.com\fs\usr\judy\dfs` and disk information for the aggregate that contains the fileset:

**dfsadmin lsquota \\...\ddc.com\fs\usr\judy\dfs**

Fileset Name	Quota	Used	%Used	Aggregate
user.judy	5000	4129	82%	76% = 44143/57840

The following command displays disk information for the non-LFS fileset and partition that contain the directory named `\\...\ddc.com\fs\usr\dev`:

**dfsadmin lsquota \\...\ddc.com\fs\usr\dev**

Fileset Name	Quota	Used	%Used	Aggregate
usf_dfs	173153	171488	99%	99% = 171488/173153

Notice that the fileset and partition information is the exact same.



# dfsadmin lsstores

## NAME

**dfsadmin lsstores** — Lists names of filesets that contain data the DFS Cache Manager cannot write back to a File Server

## SYNOPSIS

**dfsadmin lsstores [-help]**

## OPTIONS

### -help

Displays the name, short description, and syntax of the command. All other valid options that you specify with the command are ignored.

## DESCRIPTION

The **dfsadmin lsstores** command lists the names of filesets that contain data the DFS Cache Manager cannot write back to a File Server.

Circumstances such as machine outage or a network problem can prevent the DFS Cache Manager from writing data to a File Server. If the DFS Cache Manager cannot write data back to a File Server, it continues to contact the File Server to attempt to store the data.

Examine the list of filesets to be sure you know to which filesets the DFS Cache Manager cannot write unstored data. To force the DFS Cache Manager to discard unstored data, use the **dfsadmin resetstores** command.

## OUTPUT

The **dfsadmin lsstores** command displays the names of filesets that contain data the DFS Cache Manager cannot write back to a File Server. The command displays the following message if the DFS Cache Manager has been able to store all data.

No failed stores are being retried

## RELATED INFORMATION

Commands: dfsadmin resetstores

# dfsadmin resetconns

## NAME

**dfsadmin resetconns** — Forces the DFS Cache Manager to make new user connections

## SYNOPSIS

**dfsadmin resetconns [-help]**

## OPTIONS

### -help

Displays the name, short description, and syntax of the command. All other valid options that you specify with the command are ignored.

## DESCRIPTION

The **dfsadmin resetconns** command forces the DFS Cache Manager to reset user connections for the identity of the user who issues the command. The DFS Cache Manager maintains user connections for each user in DCE. When a user requests data, the DFS Cache Manager uses the user connections to obtain the information.

When you reset user connections, the DFS Client discards old connections; new connections are created when you request data. Old user connections are discarded each time you issue the **dce\_login** command.

The **dfsadmin resetconns** command is useful if the DCE Login Utility fails to discard old user connections. If the DFS Client appears to be using the connections from a previous user (for example, you cannot access data because the previous user did not have proper permissions), you can reset the user connections manually.

# dfsadmin resetstores

## NAME

**dfsadmin resetstores** — Forces the DFS Cache Manager to stop contacting unavailable File Servers and discard all data it cannot store to such machines

## SYNOPSIS

**dfsadmin resetstores** [-help]

## OPTIONS

### -help

Displays the name, short description, and syntax of the command. All other valid options that you specify with the command are ignored.

## DESCRIPTION

The **dfsadmin resetstores** command forces the DFS Cache Manager to discard unstored data. Circumstances such as an unavailable File Server or a network problem can prevent the DFS Cache Manager from writing data to a File Server. The DFS Cache Manager continues to attempt to contact the File Server to attempt to store the data.

You can use the **dfsadmin resetstores** command to force the DFS Cache Manager to stop trying to contact the File Server and to discard all unstored data. You cannot recover unstored data discarded from the cache. You can use the **dfsadmin lsstores** command to lists the names of filesets that contain data the DFS Cache Manager cannot store to a File Server. Examine this list to be sure you know the filesets from which the DFS Cache Manager will discard unstored data.

## RELATED INFORMATION

Commands: dfsadmin lsstores

# dfsadmin service

## NAME

**dfsadmin service** — Starts and stops the DFS Client

## SYNOPSIS

**dfsadmin service** [{-start | -stop}] [-help]

## OPTIONS

### -start

Starts the DFS Client.

### -stop

Stops the DFS Client.

### -help

Displays the name, short description, and syntax of the command. All other valid options that you specify with the command are ignored.

## DESCRIPTION

The **dfsadmin service** command starts and stops the Distributed File Service (DFS). Your DFS Client starts automatically when you restart Windows NT after installing DFS. You can stop and restart your DFS Client manually using the **dfsadmin service** command. If you stop your DFS Client, all DFS commands from the File Manager, Control Panel, and Command Prompt fail. The default is to start the DFS Client. If you omit both the **-start** and **-stop** options, the command starts your DFS Client.

## EXAMPLES

The following command starts DFS:

**dfsadmin service -start**

The following command stops DFS:

**dfsadmin service -stop**



# dfsadmin setpreferences

## NAME

**dfsadmin setpreferences** — Sets the DFS Cache Manager's preferences for File Servers

## SYNOPSIS

**dfsadmin setpreferences -server machine rank... [-help]**

## OPTIONS

**-server machine rank...**

Specifies one or more pairs of File Servers and their respective ranks. Separate each File Server name and its rank with one or more spaces.

**-help**

Displays the name, short description, and syntax of the command. All other valid options that you specify with the command are ignored.

## DESCRIPTION

The **dfsadmin setpreferences** command specifies the DFS Cache Manager's preference for File Servers. The DFS Cache Manager maintains a local collection of File Server preferences in pairs of values. The first value is the hostname or Internet Protocol (IP) address, in dotted decimal form, of the File Server machine. The second value is the File Server's numerical rank, an integer in the range from 1 to 65,534. The rank determines the DFS Cache Manager's preference for accessing data from read-only filesets that reside on that server.

The DFS Cache Manager sets default rankings for File Servers it has contacted. It bases its default rankings on the locations of the File Servers on the network relative to your DFS Client. You can allow the DFS Cache Manager to use the default rankings or you can specify different rankings with the **dfsadmin setpreferences** command.

When the DFS Cache Manager must access data from the read-only version of a fileset, it determines which File Servers house a read-only replica of the fileset. If multiple File Servers house a replica of the fileset, the DFS Cache Manager attempts to access the replica on the machine that has the lowest recorded rank.

If the DFS Cache Manager cannot access the replica on the machine that has the lowest rank, it attempts to access the replica on the machine that has the next-lowest rank. It continues in this manner until it accesses the replica or until it determines that all the File Servers on which the replica resides are unavailable.

If two or more File Servers have the same rank, the DFS Cache Manager randomly chooses the one from which to request data. If you want the DFS Cache Manager to choose one File Server over another, change the ranks to force the DFS Cache Manager's preference of one File Server.

The DFS Cache Manager adds a random number in the range from 0 (zero) to 15 to each rank to minimize the chances that multiple File Servers have the same rank. For example, if you give a File Server the rank of 15,000, the DFS Cache Manager records a rank in the range from 15,000 to 15,015. The ranking after the DFS Cache Manager assigns a random number is the active rank. The DFS Cache Manager assigns an active rank each time you restart your Windows NT machine.

The **dfsadmin getpreferences** command displays the current File Server preferences.

### **Allowing the DFS Cache Manager to Assign Preferences**

The DFS Cache Manager uses the following method to assign default ranks to File Servers:

- The DFS Cache Manager assigns each File Server in the same subnetwork as the DFS Client an initial rank of 20,000.
- The DFS Cache Manager assigns each File Server in the same network as the DFS Client an initial rank of 30,000.
- The DFS Cache Manager assigns each File Server in a different network from the DFS Client an initial rank of 40,000.
- The DFS Cache Manager assigns each File Server for which it can find no network information an initial rank of 40,000.

If multiple File Servers house a replica of the fileset, the DFS Cache Manager attempts to access the replica on the machine that has the lowest recorded rank.

### **EXAMPLES**

The following command assigns a rank of 40,000 to the File Server **neptune**:

**dfsadmin setpreferences -server neptune 40000**

The following command assigns a rank of 40,000 to the File Server **neptune** and a rank of 30,000 to the File Server **jupiter**:

**dfsadmin setpreferences -server neptune 40000 jupiter 30000**

### **RELATED INFORMATION**

Commands: [dfsadmin getpreferences](#)

# dfsadmin statsservers

## NAME

**dfsadmin statsservers** — Checks the status of File Servers and displays any unavailable File Servers

## SYNOPSIS

**dfsadmin statsservers** [{-all | -cell *cellname*}] [-fast] [-help]

## OPTIONS

### -all

Directs the DFS Cache Manager to report File Server status for all cells it has contacted. Use this option or use the -cell option. Omit both options if you want the DFS Cache Manager to report only on File Servers in the local cell.

### -cell *cell\_name*

Specifies the cell for which the DFS Cache Manager is to report File Server status. Use this option or use the -all option. Omit both options if you want the DFS Cache Manager to report only on File Servers in the local cell.

### -fast

Forces the DFS Cache Manager to use its current list of available servers rather than probe the machines to update the list. You can use this option with the -cell or -all option or if you omit both the -cell and -all options.

### -help

Displays the name, short description, and syntax of the command. All other valid options that you specify with the command are ignored.

## DESCRIPTION

The **dfsadmin statsservers** command reports the status of File Servers that your DFS Cache Manager has contacted. You can check the status of File Servers in the local cell, in a specified cell, or in all cells. DFS displays a list of the unavailable File Servers.

The DFS Cache Manager maintains a list of File Servers it has contacted and their statuses. The DFS Cache Manager updates the list periodically by attempting to contact each File Server. When a machine does not respond to a probe, the DFS Cache Manager marks it as unavailable. If a machine that did not respond begins to respond again, the DFS Cache Manager erases the mark.

When you request File Server status information, the DFS Cache Manager contacts the File Servers to update its list of available servers immediately. You can use the -fast option to force the DFS Cache Manager to use its current listing of File Servers and statuses instead of updating its list.

## OUTPUT

If no servers are down, the **dfsadmin statsservers** command displays the message `All servers are running`. This message does not mean that all File Servers in the specified cells are running; it means that all the File Servers the DFS Cache Manager probed are running.

If one or more File Servers fail to respond to the DFS Cache Manager's probes, the command displays



the following output:

The following servers are down: *hostname...*

where *hostname* is the name of each File Server that fails to respond.

## EXAMPLES

The following command checks the status of File Servers in the local cell without probing the File Servers:

**dfsadmin statservers -fast**

The following servers are down: neptune.ddc.com

The following command checks the status of File Servers in the cell **zzz.com** after probing the File Servers:

**dfsadmin statservers -cell zzz.com**

All servers are running.

The following command probes the File Servers in all cells contacted by the DFS Cache Manager and reports their statuses:

**dfsadmin statservers -all**

The following servers are down: neptune.ddc.com



# dfsadmin whereis

## NAME

**dfsadmin whereis** — Reports names of File Servers that house specified DFS objects

## SYNOPSIS

**dfsadmin whereis** [-path *filename...*] [-help]

## OPTIONS

**-path** *filename...*

Specifies one or more DFS objects about which you want to display information. Separate the name of each DFS object with one or more spaces.

**-help**

Displays the name, short description, and syntax of the command. All other valid options that you specify with the command are ignored.

## DESCRIPTION

The **dfsadmin whereis** command reports information about the fileset and DCE cell in which each specified DFS object resides.

## OUTPUT

The **dfsadmin whereis** command displays a separate line of output for each DFS object specified with the **-path** option. Each line of output provides the following information:

The file '*filename*' resides in the cell '*cellname*',  
in fileset *fileset\_name* (*fileset\_ID*) on: *hostname*

where

*filename*

Specifies the pathname of a DFS object specified with the **-path** option.

*cellname*

Specifies the name of the cell in which the DFS object resides.

*fileset\_name*

Specifies the name of the fileset in which the DFS object resides.

*fileset\_ID*

Specifies the fileset ID of the fileset in which the DFS object resides.

*hostname*

Specifies the name of each File Server on which the fileset resides. If the fileset is a read/write or backup fileset, the command lists only one File Server. If the fileset is a read-only fileset, the command lists all File Servers that house a copy of the fileset.

## EXAMPLES

The following command uses a network drive pathname to list information for the directory h:\usr\gunter:

**dfsadmin whereis -path h:\usr\gunter**

The file 'h:\usr\gunter' resides in the cell 'ddc.com',  
in fileset usr (0,,5) on: neptune.ddc.com

The following command uses a complete DFS pathname to list information for the directory  
\\...\ddc.com\fs\usr\gunter:

**dfsadmin whereis -path \\...\ddc.com\fs\usr\gunter**

The file '\\...\ddc.com\fs\usr\gunter' resides in the cell 'ddc.com',  
in fileset usr (0,,5) on: neptune.ddc.com