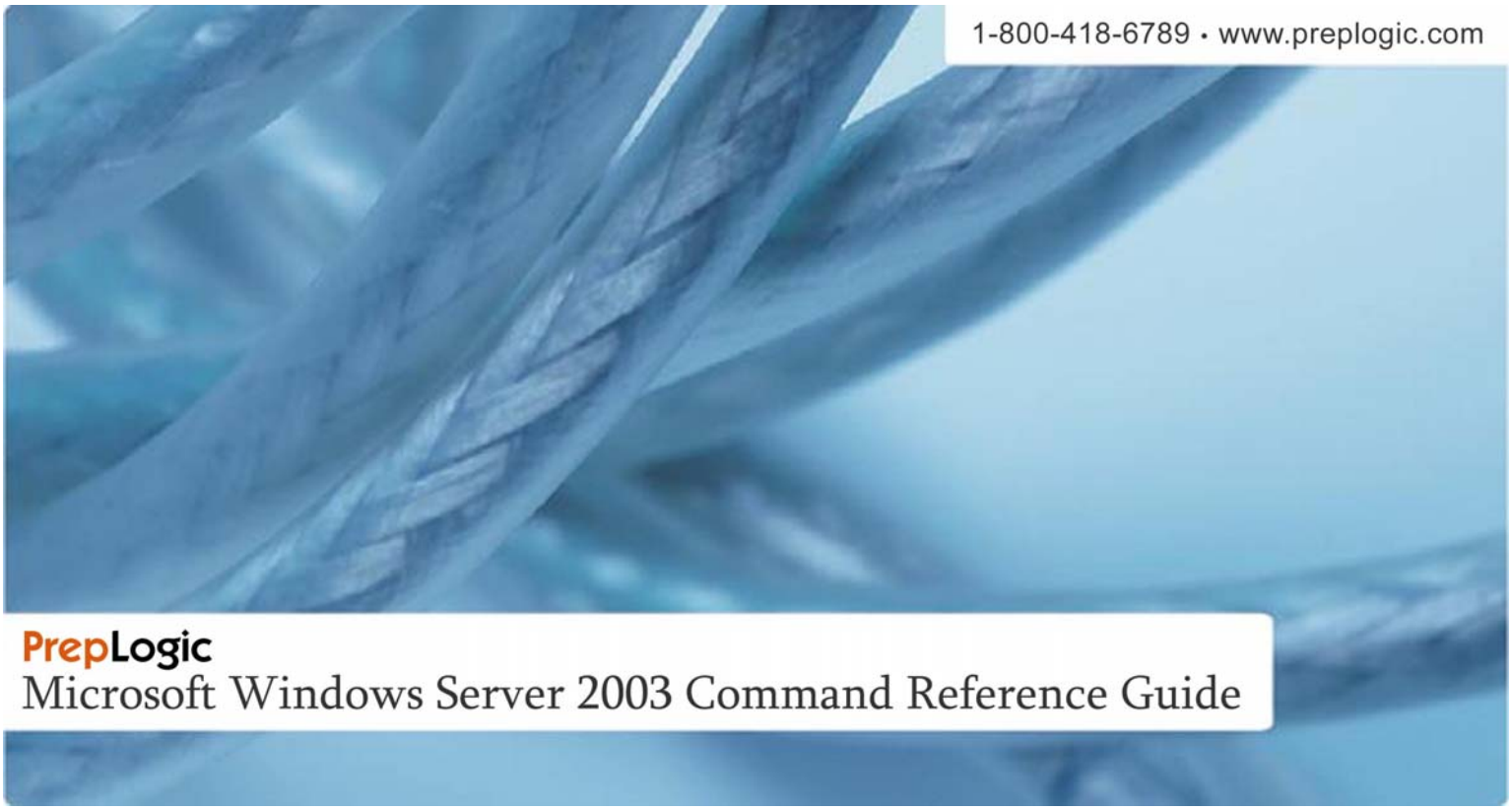

GENERAL SYSTEM COMMANDS

BOOTCFG

The **bootcfg** command configures, queries, or modifies the Boot.ini file. It is available in the Windows Server 2003 operating system and in the Recovery Console.

Bootcfg Subcommands

Addsw	Allows the user to add predefined switches and operating system load options on a remote computer.
Copy	Makes a copy of an existing boot entry.
Dbg1394	Allows the user to configure 1394 port for debugging.
Debug	Allows the user to specify the port and baud rate for remote debugging.
Default	Sets the default operating system option on the **Startup** menu (this command selects the operating system entry automatically).
Delete	Deletes an existing boot entry from the BOOT.INI file.
EMS	Allows the user to configure the /redirect switch for headless support.
Query	Displays the current boot entries and their settings.
Raw	Allows the user to specify any switch to be added.
Rmsw	Allows the user to remove predefined switches.
Timeout	Allows the user to change the Timeout value.

Syntax

bootcfg /addsw [**/s** *Computer* [**/u** *Domain\User* **/p** *Password*]] [**/mm** *MaximumRAM*] [**/bv**] [**/so**] [**/ng**]**/id** *OSEntryLineNum*

Parameters

/s *Computer*	Specifies the name or IP address of a remote computer (**do not use backslashes**). The default is the local computer.
/u *Domain\User*	Runs the command with the account permissions of a specified user. The default is the permissions of the user on the computer issuing the command.
/p *Password*	Specifies the password of the user account identified in the **/u** parameter.
/mm *MaximumRAM*	Specifies the maximum amount of RAM that the operating system can use. This value must be equal to or greater than 32 Megabytes.
/bv	Adds the /basevideo option to the specified *OSEntryLineNum*, directing the operating system to use standard VGA mode for the installed video driver.
/so	Adds the /sos option to the specified *OSEntryLineNum*, directing the operating system to display device driver names while they are being loaded.
/ng	Adds the /noguiboot option to the specified *OSEntryLineNum*, disabling the Windows XP Professional progress bar that appears before the CTRL+ALT+DEL logon prompt.
/id *OSEntryLineNum*	Specifies the operating system entry line number in the [operating systems] section of the Boot.ini file to which the operating system load options are added. The first line after the [operating systems] section header is 1.

Examples

bootcfg /addsw /mm 64 /id 2
bootcfg /addsw /so /id 3
bootcfg /addsw /so /ng /s srvmain /u hiropln /id 2
bootcfg /addsw /ng /id 2
bootcfg /addsw /mm 96 /ng /s srvmain /u maindom\hiropln /p p@ssW23 /id 2

Syntax

bootcfg /dbg1394 {**ON** | **OFF**}[**/s** *Computer* [**/u** *Domain\User* **/p** *Password*]] [**/ch** *Channel*] **/id** *OSEntryLineNum*

Parameters

{**ON** | **OFF**}	Specifies the value for 1394 port debugging. **ON** Enables remote debugging support by adding the /dbg1394 option to the specified *OSEntryLineNum*. **OFF** Disables remote debugging support by removing the /dbg1394 option from the specified *OSEntryLineNum*.
/s *Computer*	Specifies the name or IP address of a remote computer (**do not use backslashes**). The default is the local computer.
/u *Domain\User*	Runs the command with the account permissions of a specified user. The default is the permissions of the current user at the computer issuing the command.
/p *Password*	Specifies the password of the user account identified in the **/u** parameter.
/ch *Channel*	Specifies the channel to use for debugging. Valid values are integers between 1 and 64. **NOTE**: Do not use the **/ch** *Channel* parameter if 1394 port debugging is being **disabled**.
/id *OSEntryLineNum*	Specifies the operating system entry line number in the [operating systems] section of the Boot.ini file to which the 1394 port debugging options are added. The first line after the [operating systems] section header is 1.

Examples

bootcfg /dbg1394 /id 2
bootcfg /dbg1394 on /ch 1 /id 3
bootcfg /dbg1394 edit /ch 8 /id 2
bootcfg /s srvmain /u maindom\hiropln /p p@ssW23 /dbg1394 off /id 2

Syntax

bootcfg /delete [**/s** *Computer* [**/u** *Domain\User* **/p** *Password*]] [**/id** *OSEntryLineNum*]

Parameters

/s *Computer*	Specifies the name or IP address of a remote computer (**do not use backslashes**). The default is the local computer.
/u *Domain* **** *User*	Runs the command with the account permissions of a specified user. The default is the permissions of the current user at the computer issuing the command.
/p *Password*	Specifies the password of the user account identified in the **/u** parameter.
/id *OSEntryLineNum*	Specifies the operating system entry line number in the [operating systems] section of the Boot.ini file to delete. The first line after the [operating systems] section header is 1.

Examples

bootcfg /delete /id 1
bootcfg /delete /s srvmain /u maindom\hiropln /p p@ssW23 /id 3

Syntax

bootcfg /ems {**ON** | **OFF** | **EDIT**} [**/s** *Computer* [**/u** *Domain\User* **/p** *Password*]] [**/port** {**COM1** | **COM2** | **COM3** | **COM4** | **BIOSSET**}] [**/baud** {**9600** | **19200** | **38400** | **57600** | **115200**}] [**/id** *OSEntryLineNum*]

Parameters

{**ON** | **OFF**| **EDIT**}	Specifies the value for Emergency Management Services redirection. **ON** Enables remote output for the specified *OSEntryLineNum*. Adds a /redirect option to the specified *OSEntryLineNum* and a redirect=com*X* setting to the [boot loader] section. The value of com*X* is set by the **/port** parameter. **OFF** Disables output to a remote computer. Removes the /redirect option from the specified *OSEntryLineNum* and the redirect=com*X* setting from the [boot loader] section. **EDIT** Allows changes to port settings by changing the redirect=com*X* setting in the [boot loader] section. The value of com*X* is reset to the value specified by the **/port** parameter.
/s *Computer*	Specifies the name or IP address of a remote computer (**do not use backslashes**). The default is the local computer.
/u *Domain\User*	Runs the command with the account permissions of a specified user. The default is the permissions of the current user at the computer issuing the command.
/p *Password*	Specifies the password of the user account identified in the **/u** parameter.
/port {**COM1** | **COM2** | **COM3** | **COM4** | **BIOSSET**}	Specifies the COM port to be used for redirection. **BIOSSET** directs Emergency Management Services to get the BIOS settings to determine which port should be used for redirection. **NOTE**: Do not use the **/port** parameter if remotely administered output is disabled.
/baud {**9600** | **19200** | **38400**| **57600** | **115200**}	Specifies the baud rate to be used for redirection. **NOTE**: Do not use the **/baud** parameter if remotely administered output is disabled.
/id *OSEntryLineNum*	Specifies the operating system entry line number to which the Emergency Management Services option is added in the [operating systems] section of the Boot.ini file. The first line after the [operating systems] section header is 1. This parameter is required when the Emergency Management Services value is set to **ON** or **OFF**.

Examples

bootcfg /ems on /port com1 /baud 19200 /id 2
bootcfg /ems on /port biosset /id 3
bootcfg /s srvmain /ems off /id 2
bootcfg /ems edit /port com2 /baud 115200
bootcfg /s srvmain /u maindom\hiropln /p p@ssW23 /ems off /id 2

Syntax

bootcfg /raw [**/s** *Computer* [**/u** *Domain\User* **/p** *Password*]] *OSLoadOptionsString* [**/id** *OSEntryLineNum*] [**/a**]

Parameters

/s *Computer*	Specifies the name or IP address of a remote computer (**do not use backslashes**). The default is the local computer.
/u *Domain* **** *User*	Runs the command with the account permissions of a specified user. The default is the permissions of the current logged on user on the computer issuing the command.
/p *Password*	Specifies the password of the user account identified in the **/u** parameter.
OSLoadOptionsString	Specifies the operating system load options to add to the operating system entry. These load options will replace any existing load options associated with the operating system entry. There is no validation of *OSLoadOptions*.
/id *OSEntryLineNum*	Specifies the operating system entry line number in the [operating systems] section of the Boot.ini file to update. The first line after the [operating systems] section header is 1.
/a	Specifies that the operating system options being added should be appended to any existing operating system options.

Examples

Bootcfg raw is used to add text to the end of an operating system entry, overwriting any existing operating system entry options. This text should contain valid OS Load Options such as **/debug**, **/fastdetect**, **/nodebug**, **/baudrate**, **/crashdebug**, and **/sos**. For example, the following command adds "**/debug/fastdetect**" to the end of the first operating system entry, replacing any previous operating system entry options:
bootcfg /raw "/debug /fastdetect" /id 1

bootcfg /raw "/debug /sos" /id 2
bootcfg /raw /s srvmain /u maindom\hiropln /p p@ssW23 "/crashdebug " /id 2

For more information about the boot.ini file go to the Microsoft Support Web site to view Article #833721: **Available switch options for the Windows XP and the Windows Server 2003 Boot.ini files.**

CLIP

The **Clip** command redirects command output from the command line to the Clipboard. **Clip** may be used to copy data directly into any application, such as Word, that can receive text from the Clipboard.

Syntax

clip

Parameters

There are no parameters for this command

Examples

To copy the list of contents in the c:\Windows folder to the Clipboard, at the C:\Windows prompt type **dir|clip**

To copy the contents of Readme.txt to the Clipboard, type: **clip < readme.txt**

To copy the output of the Generic.awk program to the Clipboard, type: **awk -f generic.awk input.txt | clip**

GETTYPE

The **Gettype** command sets the system environment variable %ERRORLEVEL% to the value associated with the specified Windows operating system. **Gettype** can be used to detect Windows software installations in a mixed environment before performing some action in a batch file. Sometimes it is necessary to run software or scripts only on client computers or servers that are running a specific Windows operating system.

Gettype determines the operating system type by querying the registry for the installation type and then setting the error value as listed in the following table:

ERRORLEVEL	Description
1	Windows XP Home Edition
2	Windows XP Professional
3	Windows Server 2003, Standard Edition
4	Windows Server 2003, Enterprise Edition
5	Windows Server 2003, Datacenter Edition
6	Windows Server 2003, Web Edition

Syntax

gettype [**/s** *Computer* [**/u** [*Domain*****]*User* [**/p** [*Password*]]]] {**/role** | **/sp** | **/ver** | **/minv** | **/majv** | **/type** | **/build**}

Parameters

/s *Computer*	Specifies the name or IP address of a remote computer (**do not use backslashes**). The default is the local computer. This parameter applies to all files and folders specified in the command.
/u [*Domain*****]*User*	Runs the script with the permissions of the specified user account. The default is system permissions.
/p [*Password*]	Specifies the password of the user account identified in the **/u** parameter.
/role	Returns the role of the operating system.
/sp	Returns the latest service pack installed.
/ver	Returns version information.
/minv	Returns only the minor version.
/majv	Returns only the major version.
/type	Returns the type of operating system installed.
/build	Returns the build number of the installed operating system.

Examples

By using **gettype** within a batch file, you can create scripts that run only if a specific platform is detected.

PAGEFILECONFIG.VBS

The **Pagefileconfig.vbs** command enables an administrator to display and configure the system's paging file Virtual Memory settings.

Pagefileconfig.vbs scripts should be executed from a command prompt using the Cscript.exe application, as in the following example:

cscript c:\windows\system32\pagefileconfig.vbs <arguments>

If Cscript is the default application for .vbs files then the above command example can be run without the preceding "cscript." Use the following command to set Cscript as the default application:

cscript //h:cscript //s

Pagefileconfig Subcommands

Change	Changes a system's existing paging file Virtual Memory settings.
Create	Creates or adds an additional paging file to a system.
Delete	Deletes a paging file from a system.
Query	Queries and displays a system's paging file Virtual Memory settings.

NOTE: The syntax and usage of all the Pagefileconfig.vbs subcommands are very similar. Also, a system's maximum paging file size is limited to available free disk space minus the crashdump recovery settings for that boot drive.

Syntax

pagefileconfig[**.vbs**] **/change** [**/s** *Computer* [**/u** *Domain\User* [**/p** *Password*]]] {[**/I** *InitialPageFileSize*] | [**/m** *MaximumPageFileSize*]} **/vo** {*VolumeLetter* | ***}[**/vo** {*VolumeLetter2* | ***} [...]]

Parameters

/s *Computer*	Specifies the name or IP address of a remote computer (**do not use backslashes**). The default is the local computer.
/u*Domain******User*	Runs the script with the account permissions of the specified user. The default is the permissions of the current user on the computer issuing the command.
/p *Password*	Specifies the password of the user account identified in the **/u** parameter.
/i *InitialPageFileSize*	Specifies the new initial size (in MB) to use for the indicated paging file.
/m *MaximumPageFileSize*	Specifies the new maximum size (in MB) to use for the indicated paging file.
/vo {*VolumeLetter* | *}	Specifies the volume or volumes of the paging file settings to be changed. The volume is identified by a letter, followed by a colon (for example, "C:").

Examples

pagefileconfig.vbs /change /m 400 /vo c:
pagefileconfig.vbs /change /s srvmain /u maindom\hiropln /m 400 /vo c:
pagefileconfig.vbs /change /s srvmain /u maindom\hiropln /i 20 /vo *
pagefileconfig.vbs /change /s srvmain /u maindom\hiropln /p p@ssW23 /i 200 /m 500 /vo c: /vo d:

Syntax

pagefileconfig.vbs /create [**/s** *Computer* [**/u** *Domain******User* [**/p** *Password*]]] **/i** *InitialPageFileSize* **/m** *MaximumPageFileSize* **/vo** {*VolumeLetter* | ***}[**/vo** {*VolumeLetter2* | ***} [...]]

Parameters

/s *Computer*	Specifies the name or IP address of a remote computer (**do not use backslashes**). The default is the local computer.
/u*Domain******User*	Runs the script with the account permissions of the specified user. The default is the permissions of the current user on the computer issuing the command.
/p *Password*	Specifies the password of the user account identified in the **/u** parameter.
/i *InitialPageFileSize*	Specifies the new initial size (in MB) to use for the indicated paging file.
/m *MaximumPageFileSize*	Specifies the new maximum size (in MB) to use for the indicated paging file.
/vo {*VolumeLetter* | ***}	Specifies the volume, or volumes, of the paging file settings to be created. The volume is identified by a letter, followed by a colon (for example, "C:").

Examples

pagefileconfig.vbs /create /i 140 /m 300 /vo d:
pagefileconfig.vbs /create /s srvmain /u maindom\hiropln /i 150 /m 300 /vo d:
pagefileconfig.vbs /create /s srvmain /u maindom\hiropln /i 50 /m 200 /vo *
pagefileconfig.vbs /create /s srvmain /u maindom\hiropln /p p@ssW23 /i 100 /m 600 /vo d: /vo e: /vo f:

Syntax

pagefileconfig.vbs /delete [**/s** *Computer* [**/u** *Domain\User* [**/p** *Password*]]] **/vo** {*VolumeLetter* | ***}** [**/vo** {*VolumeLetter2* | ***}** [...]]

Parameters

/s *Computer*	Specifies the name or IP address of a remote computer (**do not use backslashes**). The default is the local computer.
/u *Domain\User*	Runs the script with the account permissions of the specified user. The default is the permissions of the current user on the computer issuing the command.
/p *Password*	Specifies the password of the user account identified in the **/u** parameter.
/vo {*VolumeLetter*	***}**	Specifies the volume, or volumes, of the paging file settings to be deleted. The volume is identified by a letter followed by a colon (for example, "C:").

Examples

pagefileconfig.vbs /delete /vo d:
pagefileconfig.vbs /delete /s srvmain /u maindom\hiropln /vo d:
pagefileconfig.vbs /delete /s srvmain /u maindom\hiropln /p p@ssW23 /vo d: /vo e: /vo f:

Syntax

pagefileconfig.vbs /query [**/s** *Computer* [**/u** *Domain\User* [**/p** *Password*]]] [**/fo** {**TABLE** | **LIST** | **CSV**}]

Parameters

/s *Computer*	Specifies the name or IP address of a remote computer (**do not use backslashes**). The default is the local computer.
/u *Domain\User*	Runs the script with the account permissions of the specified user. The default is the permissions of the current user on the computer issuing the command.
/p *Password*	Specifies the password of the user account identified in the **/u** parameter.
/fo {**TABLE**| **LIST**| **CSV**}	Specifies the format to use for the query output. Valid values are **TABLE**, **LIST**, and **CSV**. The default value is **LIST**.

Examples

pagefileconfig.vbs /query
pagefileconfig.vbs /query /fo table
pagefileconfig.vbs /query /s srvmain /u maindom\hiropln
pagefileconfig.vbs /query /s srvmain /u maindom\hiropln /p p@ssW23 /fo list

RELOG

The **Relog** command extracts performance counters from performance counter logs into other formats, such as text-TSV (for tab-delimited text), text-CSV (for comma-delimited text), binary-BIN, or SQL. **Relog** may also be used to create new performance logs from data in existing performance logs by changing the sampling rate and/or converting the file format. This command supports all performance log formats, including Windows NT 4.0 compressed logs.

Syntax

relog [*FileName* [*FileName ...*]] [**-a**] [**-c** *Path* [*Path ...*]] [**-cf** *FileName*] [**-f** {**bin** | **csv** | **tsv** | **SQL**}] [**-t** *Value*] [**-o** {*OutputFile* | *DSN!CounterLog*}] [**-b** *MIDIYYYY* [[*HH***:**]*MM***:**]*SS*] [**-e** *MIDIYYYY* [[*HH***:**]*MM***:**]*SS*] [**-config** {*FileName* | *i*}] [**-q**]

Parameters

FileName [*FileName ...*]	Specifies the pathname of an existing performance counter log. Multiple input files can be specified.
-a	Appends the output file, instead of overwriting it. This option does not apply to SQL format where the default is *always* to append.
-c *Path* [*Path ...*]	Specifies the path of the performance counter to log. To specify multiple counter paths, separate them with a space and enclose the counter paths in quotation marks (for example, **"***CounterPath1 CounterPath2***"**). *****
-cf *FileName*	Specifies the pathname of the text file that lists the performance counters to be included in a relog file. Use this option to list counter paths in an input file, one per line. The default setting relogs all counters in the original log file.
-f {**bin**| **csv**| **tsv**| **SQL**}	Specifies the pathname of the output file format. The default format is **bin**. For a SQL database, the output file specifies the *DSN!CounterLog*. You can specify the database location by using the ODBC manager to configure the DSN (Database System Name).
-t *Value*	Specifies sample intervals in "*N*" records. Includes every nth data point in the relog file. The default includes *every* data point.
-o {*OutputFile* | *DSN!CounterLog*}	Specifies the pathname of the output file or SQL database where the counters will be written.
-b *MIDIYYYY* [[*HH***:**]*MM***:**]*SS*	Specifies a start time for copying the *first* record from the input file. The date and time must be in this *exact* format *MIDIYYYYHH***:***MM***:***SS*.
-e *MIDIYYYY* [[*HH***:**]*MM***:**]*SS*	Specifies an end time for copying the *last* record from the input file. Date and time must be in this *exact* format *MIDIYYYYHH***:***MM***:***SS*.
-config {*FileName* | *i*}	Specifies the pathname of the settings file that contains command-line parameters. Use *-i* in the configuration file as a placeholder for a list of input files that can be placed on the command line. On the command line, however, *i* is not necessary. Wildcards, such as *.blg, can be used to specify multiple input file names.
-q	Displays the performance counters and time ranges of log files specified in the input file.
-y	Bypasses prompting by answering "yes" to all questions.

*** NOTE**: The general format for counter paths is as follows: [*****Computer*]*****Object*[*ParentIInstance#Index*]*****Counter*] where the parent, instance, index, and counter components of the format may contain either a valid name or a wildcard character. The computer, parent, instance, and index components are not necessary for all counters.

If the **Relog** command stops responding, go to the Microsoft Support Web site to view Article #829200: **A script that uses the RELOG command stops working when the log file size limit is reached in Windows Server 2003**

Examples

relog logfile.csv -c "\Processor(_Total)\% Processor Time" -o logfile.blg
relog logfile.blg -cf counters.txt -f bin
relog logfile.blg -f csv -o logfile.csv -t 2
relog logfile.blg -q -o counters.txt

To resample existing trace logs at fixed intervals of 30, list counter paths, output files and formats:
Relog c:\perflogs\daily_trace_log.blg -cf counter_file.txt -o c:\perflogs\reduced_log.csv -t 30 -f csv

To resample existing trace logs at fixed intervals of 30, list counter paths and output files:
Relog c:\perflogs\daily_trace_log.blg -cf counter_file.txt -o c:\perflogs\reduced_log.blg -t 30

SC

The **SC** command communicates with the Service Controller and installed services. **SC** retrieves and sets control information about services. The **SC** command can be used for testing and debugging service programs. Batch files or scripts can be created using the **SC** command to automate the startup or shutdown sequence of services. The **SC** command provides capabilities similar to Services in the Administrative Tools item in the Control Panel.

SC Subcommands

BOOT (ok | bad)	Indicates whether the last boot should be saved as the last-known-good boot configuration
CONFIG serviceName	Modifies a service entry in the registry and Service Database.
CONTINUE serviceName	Continues a paused service
LOCK	Locks the Service Database
PAUSE serviceName	Pauses a service
QUERY	Returns the status of all installed services
QUERY serviceName	Returns the status of a specific service
QUERYLOCK	Queries the LockStatus for the SCManager Database
START serviceName	Starts a service
STOP serviceName	Stops a service

NOTE: There are many more **SC** subcommands available. Type ***SC*** at a command prompt to get a complete list of available commands.

Syntax

SC [*ServerName*] **boot** [{**bad** | **OK**}]

Parameters

ServerName	Specifies the name of the remote server on which the service is located. The name must use the Universal Naming Convention (UNC) format ("\\myserver"). To run SC locally, ignore this parameter.
[{**bad** | **OK**}]	Specifies whether the last boot was bad or whether it should be saved as the last-known-good boot configuration.

Examples

The following examples show how the **sc boot** command is used:
sc boot ok
sc boot bad

Syntax

SC [*ServerName*] **config** [*ServiceName*] [**type=** {**own** | **share** | **kernel** | **filesys** | **rec** | **adapt** | **interacttype=** {**own** | **share**}}] [**start=** {**boot** | **system** | **auto** | **demand** | **disabled**}] [**error=** {**normal** | **severe** | **critical** | **ignore**}] [**binpath=** *BinaryPathName*] [**group=** *LoadOrderGroup*] [**tag=** {**yes** | **no**}] [**depend=** *dependencies*] [**obj=** {*AccountName* | *ObjectName*}] [**displayname=** *DisplayName*] [**password=** *Password*]

Parameters

ServerName	Specifies the name of the remote server on which the service is located. The name must use the Universal Naming Convention (UNC) format ("\\myserver"). To run SC locally, ignore this parameter.	
ServiceName	Specifies the service name returned by the **getkeyname** operation.	
type= {**own** | **share** | **kernel** | **filesys** | **rec** | **adapt** | **interacttype=** {**own** | **share**}}	Specifies the service type.	
	own	The service runs in its own process. It does not share an executable file with other services. This is the default.
	share	The service runs as a shared process. It shares an executable file with other services.
	kernel	Driver.
	filesys	File system driver.
	rec	File system-recognized driver (identifies file systems used on the computer).
	adapt	Adapter driver (identifies hardware items such as keyboard, mouse, and disk drive).
	interact	The service can interact with the desktop, receiving input from users. Interactive services must be run under the LocalSystem account. This type must be used in conjunction with **type= own** or **type= shared** (for example, **type= interact type= own**). Using **type= interact** by itself will generate an invalid parameter error.
start= {**boot** | **system** | **auto** | **demand** | **disabled**}	Specifies the start type for the service.	
	boot	A device driver that is loaded by the boot loader.

	system	A device driver that is started during kernel initialization.
	auto	A service that automatically starts each time the computer is restarted and runs even if no one logs on to the computer.
	demand	A service that must be manually started. This is the default value if **start=** is not specified.
	disabled	A service that cannot be started. To start a disabled service, change the start type to some other value.
error= {**normal** | **severe** | **critical** | **ignore**}	Specifies the severity of the error if the service fails to start during boot.	
	normal	The error is logged and a message box is displayed informing the user that a service has failed to start. Startup will continue. This is the default setting.
	severe	The error is logged (if possible). The computer attempts to restart with the last-known-good configuration. This could result in the computer being able to restart, but the service may still be unable to run.
	critical	The error is logged (if possible). The computer attempts to restart with the last-known-good configuration. If the last-known-good configuration fails, startup also fails, and the boot process halts with a Stop error.
	ignore	The error is logged and startup continues. No notification is given to the user beyond recording the error in the Event Log.
binpath= *BinaryPathName*	Specifies a path to the service binary file.	
group= *LoadOrderGroup*	Specifies the name of the group of which this service is a member. The list of groups is stored in the registry in the HKLM\System\CurrentControlSet\Control\ServiceGroupOrder subkey. The default is null.	
tag= {**yes** | **no**}	Specifies whether or not to obtain a TagID from the CreateService call. Tags are only used for boot-start and system-start drivers.	
depend= *dependencies*	Specifies the names of services or groups which must start before this service. The names are separated by forward slashes (*/*).	
obj= {*AccountName* | *ObjectName*}	Specifies the name of an account in which a service will run, or specifies the name of a Windows driver object in which the driver will run. The default is **LocalSystem**.	
displayname= *DisplayName*	Specifies a friendly, meaningful name that can be used in user-interface programs to identify the service to users. For example, the *subkey name* of one service is wuauserv. As this is not necessarily helpful to the user, the service's *display name* is "Automatic Updates".	
password= *Password*	Specifies a password. This is required if an account other than the LocalSystem account is used.	

Examples

sc config NewService binpath= "ntsd -d c:\windows\system32\NewServ.exe"

Syntax

sc [*ServerName*] **lock**

Parameters

ServerName	Specifies the name of the remote server on which the service is located. The name must use the UNC format ("\\myserver"). To run SC locally, ignore this parameter.

NOTE:

- Locking the Service Control Manager's database prevents any services from starting. Use this if you want to make sure that a service will not be started after it has been stopped. This will allow you to take some action (for example, deleting the service) without system interference.
- Using the **lock** operation locks the Service Control Manager's database and then allows the database to be unlocked by typing **u**. You can also stop the process from which you locked the database.

Examples

sc lock

Syntax

Sc [*ServerName*] **pause** [*ServiceName*]

Parameters

ServerName	Specifies the name of the remote server on which the service is located. The name must use the UNC format ("\\myserver"). To run SC locally, ignore this parameter.
ServiceName	Specifies the service name returned by the **getkeyname** operation.

NOTE:

- Use the **pause** operation to pause a service before shutting it down.
- Not all services can be paused.
- Not all services perform the same when paused. Some continue to service existing clients, but refuse to accept new clients. Others cease to service existing clients in addition to refusing new clients.

Examples

sc pause tapisrv

Syntax

Sc [*ServerName*] **query** [*ServiceName*] [**type=** {**driver** | **service** | **all**}] [**type=** {**own** | **share** | **interact** | **kernel** | **filesys** | **rec** | **adapt**}] [**state=** {**active** | **inactive** | **all**}] [**bufsize=** *BufferSize*] [**ri=** *ResumeIndex*] [**group=** *GroupName*]

Parameters

ServerName	Specifies the name of the remote server on which the service is located. The name must use the UNC format ("\\myserver"). To run SC locally, ignore this parameter.
ServiceName	Specifies the service name returned by the **getkeyname** operation. This **query** parameter is not used in conjunction with other **query** parameters (other than *ServerName*).
type= {**driver** | **service** | **all**}	Specifies what to enumerate. The default type is **service**. **driver** Only drivers are enumerated. **service** Only services are enumerated. **all** Both drivers and services are enumerated.
type= {**own** | **share** | **interact** | **kernel** | **filesys** | **rec** | **adapt**}	Specifies the type of services or type of drivers to enumerate. The default type is **own**. **own** The service runs in its own process. It does not share an executable file with other services. **share** The service runs as a shared process. It shares an executable file with other services. **interact** The service can interact with the desktop, receiving input from users. Interactive services must be run under the LocalSystem account. **kernel** Driver. **filesys** File system driver.
state= {**active** | **inactive** | **all**}	Specifies the started state of the service being enumerated. The default state is **active**. **active** Specifies all active services. **inactive** Specifies all paused or stopped services. **all** Specifies all services.
bufsize= *BufferSize*	Specifies the size (in bytes) of the enumeration buffer. The default size is 1024 bytes. Increase the size of the enumeration buffer when the display resulting from a query exceeds 1024 bytes.
ri= *ResumeIndex*	Specifies the index number at which to begin or resume the enumeration. The default is 0. Use this parameter in conjunction with the **bufsize=** parameter when more information is returned by a query than the default buffer can display.
group= *GroupName*	Specifies the service group to enumerate. The default is all groups.

NOTE:

- Without a space between a parameter and its value (that is, **type= own**, not **type=own**), the operation will fail.
- The **query** operation displays the following information about a service: SERVICE_NAME (service's registry subkey name), TYPE, STATE (as well as states which are not available), WIN32_EXIT_B, SERVICE_EXIT_B, CHECKPOINT, and WAIT_HINT.
- The **type=** parameter can be used twice in some cases. The first appearance of the **type=** parameter specifies whether to query services, drivers, or all. The second appearance of the **type=** parameter specifies a type from the **create** operation, in order to further narrow a query's scope.
- When the display resulting from a **query** command exceeds the size of the enumeration buffer, a message similar to the following is displayed: Enum: more data, need 1822 bytes start resume at index 79
- To display the remaining **query** information, rerun **query**, setting **bufsize=** to be the number of bytes and **ri=** to the specified index. In the example above, the remaining output would be displayed by typing the following at the command line: **sc query bufsize= 1822 ri= 79**

Examples

sc query
sc query messenger
sc query type= driver
sc query type= service
sc query state= all
sc query bufsize= 50
sc query ri= 14
sc query type= service type= interact
sc query type= driver group= ndis

SYSTEMINFO

The **Systeminfo** command displays detailed configuration information about a computer and its operating system, including operating system configuration, security information, product ID, and hardware properties, such as RAM, disk space, and network cards.

Syntax

Systeminfo [**/s** *Computer* [**/u** *Domain**UserName* [**/p** *Password*]]] [**/fo** {**TABLE** | **LIST** | **CSV**}] [**/nh**]

Parameters

/s *Computer*	Specifies the name or IP address of a remote computer (**do not use backslashes**). The default is the local computer.
/u *Domain\UserName*	Runs the command with the account permissions of the specified user. The default is the permissions of the current user on the computer issuing the command.
/p *Password*	Specifies the password of the user account identified in the **/u** parameter.
/fo *Format*	Specify the output format with one of the following values: Table Displays output in a table. List Displays output in a list. Csv Displays output in the Comma Separated Values format.
/nh	Suppresses column headers in the output. Valid when the **/fo** parameter is set to **TABLE** or **CSV**.

NOTE: The **/u** and **/p** command-line options are available only when **/s** is used. **/p** must be used with **/u** in order to provide the specified user's password.

Examples

To view configuration information for a computer named Srvmain, type:
systeminfo /s srvmain

To remotely view configuration information for a computer named Srvmain2 located on the Maindom domain, type:
systeminfo /s srvmain2 /u maindom\hiropln

To remotely view configuration information (in list format) for a computer named Srvmain2 located on the Maindom domain, type:
systeminfo /s srvmain2 /u maindom\hiropln /p p@ssW23 /fo list

TASKLIST

The **Tasklist** command displays a list of currently running processes on either a local or remote machine.

Syntax

tasklist [**/s** *Computer* [**/u** *Domain\User* [**/p** *Password*]]] [{**/m** *Module* | **/svc** | **/v**}] [**/fo** {**TABLE** | **LIST** | **CSV**}] [**/nh**] [**/fi** *Filter* [**/fi** *Filter* [...]]]

Parameters

/s *Computer*	Specifies the name or IP address of a remote computer (**do not use backslashes**). The default is the local computer.
/u *Domain\User*	Runs the command with the account permissions of the specified user. The default is the permissions of the current user on the computer issuing the command.
/p *Password*	Specifies the password of the user account identified in the **/u** parameter.
/m *Module*	Lists all tasks that have DLL modules loaded in them matching the given pattern name. If the module name is not specified, this option displays all modules loaded by each task.
/svc	Lists all the service information for each process without truncation. Valid when the **/fo** parameter is set to **TABLE**.
/v	Specifies that verbose task information be displayed in the output. To see complete verbose output, without truncation, use in conjunction with the **/svc** parameter.
/fo{ **TABLE**| **LIST**| **CSV**}	Specifies the format to use for the output. Valid values are **TABLE**, **LIST**, and **CSV**. The default format for output is **TABLE**.
/nh	Suppresses column headers in the output. Valid when the **/fo** parameter is set to **TABLE** or **CSV**.
/fi *Filter*	Specifies the type(s) of process(es) to include in, or exclude from, the query, using one of the following valid filter names, operators, and values:

Status	**eq**, **ne**	**RUNNING** | **NOT RESPONDING** | **UNKNOWN**
Imagename	**eq**, **ne**	Any valid string.
PID	**eq**, **ne**, **gt**, **lt**, **ge**, **le**	Any valid positive integer.
Session	**eq**, **ne**, **gt**, **lt**, **ge**, **le**	Any valid session number.
SessionName	**eq**, **ne**	Any valid string.
CPUTime	**eq**, **ne**, **gt**, **lt**, **ge**, **le**	Valid time in the format of *hh*:*mm*:*ss*. The *mm* and *ss* parameters should be between 0 and 59 and *hh* can be any valid unsigned numeric value.
Memusage	**eq**, **ne**, **gt**, **lt**, **ge**, **le**	Any valid integer.
Username	**eq**, **ne**	Any valid user name ([*Domain*\]*User*).
Services	**eq**, **ne**	Any valid string.
Windowtitle	**eq**, **ne**	Any valid string.

NOTE:

- The "WindowTitle" and "Status" filters are not supported when querying on a remote system.
- **Tasklist** is a replacement for the **tlist** tool.

Examples

tasklist /v /fi "PID gt 1000" /fo csv
tasklist /fi "USERNAME ne NT AUTHORITY\SYSTEM" /fi "STATUS eq running"
tasklist /v /fi "STATUS eq running"
tasklist /s srvmain /nh tasklist /s srvmain /svc /fi "Modules eq ntdll*"
tasklist /s srvmain /u maindom\hiropln /p p@ssW23 /nh

TIMEOUT

The Timeout command pauses the command processor for the specified number of seconds.

Syntax

timeout/t*TimeoutInSeconds* [**/nobreak**]

Parameters

/t *TimeoutInSeconds*	Specifies the decimal number of seconds (between -1 and 99999) to wait before the command processor continues processing. The value -1 causes the computer to wait indefinitely for a keystroke.
/nobreak	Specifies to ignore a user key stroke.

NOTE:

- The **timeout** command is typically used in batch and script files.
- A user keystroke resumes the command processor execution immediately, even if the time-out period has not expired.
- **Timeout** is similar to the MS-DOS **pause** command when you use it in conjunction with the **sleep** command.

Examples

To pause the command processor for ten seconds, type:
timeout /t 10

To pause the command processor for 100 seconds and to ignore any key press, type:
timeout /t 100 /nobreak

To pause the command processor indefinitely until a key is pressed, type:
timeout /t -1

WHERE

The **Where** command locates and displays all of the files that match the given parameter. By default, the search is done in the current directory and in the PATH environment variable.

Syntax

where [**/r** *Dir*] [**/q**] [**/f**] [**/t**] *Pattern* ...

Parameters

/r*Dir*	Indicates a recursive search, starting with the specified *Dir* directory.
/q	Returns either an exit code of 0 for success or 1 for failure without displaying the files.
/f	Displays the output file name in quotation marks.
/t	Displays the size, time stamp and date stamp of the file.
Pattern	Specifies the name of a directory, file or set of files to be found. You can use wildcard characters (that is, "?" or "*").

NOTE: The **Where** command can be used to run recursive searches, display file information such as date or size and can accept environment variables in place of paths on local computers.

Examples

To find all directories named Program Files in the current directory and path of the current computer, type:
where "program files"
To find all files named Test in drive C: of the current computer and its subdirectories, type:
where /r c:\ test

To find all files named Notepad in drive C: of the remote computer Computer1 and its subdirectories, and report the executable type for executable files, type:
where /r \\computer1\c /e notepad.*

WHOAMI

The **Whoami** command returns domain name, computer name, user name, group names, logon identifier, and privileges for the user who is currently logged on.

Syntax

whoami {**/upn** | **/fqdn** | **/logonid**}
whoami [{**/user** | **/groups** | **/priv**}] [**/fo***Format*]
whoami/all [**/fo***Format*]

Parameters

/upn	Displays the user name in user principal name (UPN) format.	
/fqdn	Displays the user name in fully qualified domain name (FQDN) format.	
/logonid	Displays logon ID.	
/user	Displays the current user name.	
/groups	Displays group names.	
/priv	Displays privileges.	
/fo *Format*	Specifies the output format using one of the following valid *Format* values:	
	table	Displays output in a table. This is the default value.
	list	Displays output in a list.
	csv	Displays output in comma-delimited (.csv) format.
/all	Displays the active user name and groups, and the security identifiers (SID) and privileges in the current access token.	

NOTE: **Whoami** displays the complete contents of the access token (for example, the current user's security context) in the command window. It displays the user name and security identifier (SID), the group names, types, attributes and their SIDs, the privileges and their status (for example, enabled or disabled), and the logon ID.

Examples

To learn the domain and user name of the person who is currently logged on to this computer, type:
whoami

To display all of the information in the current access token, type:
whoami /all

ACTIVE DIRECTORY COMMANDS

ADPREP

The **Adprep** command is used to prepare Windows 2000 domains and forests for an upgrade to all versions of Windows Server 2003, except for the Web Edition. **Adprep** extends the schema, updates default security descriptors of selected objects, and adds new directory objects as required by some applications.

Syntax

Adprep {**/forestprep** | **/domainprep** | **/gpprep**}

Parameters

/forestprep	Prepares a Windows 2000 forest for an upgrade to a Windows Server 2003 forest. **NOTE**: **/forestprep** must be run on the schema master.
/domainprep	Prepares a Windows 2000 domain for an upgrade to a Windows Server 2003 domain. **NOTE**: **/domainprep** must be run on each infrastructure master in each domain, and only after **adprep /forestprep** has been run successfully for the forest.
/domainprep /gpprep	Available only when you prepare a Windows 2000 domain for an upgrade to a Windows Server 2003 SP1 domain. Adds inheritable ACEs to the GPOs that are located in the SYSVOL shared folder, and synchronizes the SYSVOL shared folder among the domain controllers in the domain. **NOTE**: **/domainprep /gpprep** must be run on the infrastructure master of each domain. It can be run anytime after **adprep /forestprep** and **adprep /domainprep** have been run, when network bandwidth permits the replication of all GPOs among the domain controllers in the domain.

NOTE:

- You should run **adprep** from Windows Server 2003 installation media, such as a CD-ROM or a shared network resource.
- You must wait for the changes made by **adprep /forestprep** to replicate from the schema master to the infrastructure masters before running **adprep /domainprep**. If you try to run **adprep /domainprep** on an infrastructure master before the **adprep /forestprep** changes have replicated, you will receive notification that the forest preparation has not finished.
- For more information about the enhancements to Adprep.exe in Windows Server 2003 with SP1, see article 324392, "Enhancements to Adprep.exe in Windows Server 2003 Service Pack 1 and in hotfix 324392," in the Microsoft Knowledge Base.
- For more information about how to prepare your forest and domains using Adprep.exe, see article 325379, "How to Upgrade Windows 2000 Domain Controllers to Windows Server 2003," in the Microsoft Knowledge Base.
- For more information about problems upgrading from a Windows 2000 Domain, see article 555040 "Common Mistakes When Upgrading a Windows 2000 Domain To a Windows 2003 Domain," in the Microsoft Knowledge Base.

Examples

To prepare a Windows 2000 forest for upgrade to the Windows Server 2003 family, type:
adprep /forestprep

To prepare a Windows 2000 domain for upgrade to the Windows Server 2003 family, type:
adprep /domainprep

To prepare a Windows 2000 domain for upgrade to Windows Server 2003 with SP1, by adding inheritable ACEs to the GPOs in the SYSVOL shared folder and synchronizing the SYSVOL shared folder among the domain controllers in a domain, type:
adprep /domainprep /gpprep

DSADD

The **Dsadd** command is used to add specific types of objects to the directory.

NOTE:

- If you do not supply a target object at the command prompt, the target object is obtained from standard input (stdin). Stdin data can be accepted from the keyboard, a redirected file, or as piped output from another command. To mark the end of stdin data from the keyboard or in a redirected file, use the end-of-file character (CTRL+Z).
- If a value that you supply contains spaces, use quotation marks around the text (for example, "CN=DC 2,OU=Domain Controllers,DC=Microsoft,DC=Com").

Dsadd Subcommands

computer	Adds a computer to the directory.
contact	Adds a contact to the directory.
group	Adds a group to the directory.
ou	Adds an organizational unit to the directory.
quota	Adds a quota specification to a directory partition.
user	Adds a user to the directory.

Syntax

dsadd computer *ComputerDN* [**-samid** *SAMName*] [**-desc** *Description*] **[-loc** *Location*] [**-memberof** *GroupDN ...*] [{**-s** *Server* | **-d** *Domain*}] [**-u** *UserName*] [**-p** {*Password* | *}]
[**-q**] [{-uc | -uco | -uci}]

Parameters

ComputerDN	Required. Specifies the distinguished name of the computer you want to add. If the distinguished name is omitted, it will be taken from standard input (stdin).
-samid *SAMName*	Specifies that DSAdd use the SAM name as the unique SAM account name for this computer (for example, TESTPC2$). If this parameter is not specified, then a SAM account name is derived from the value of the common name attribute used in *ComputerDN*.
-desc *Description*	Specifies the description of the computer you want to add.
-loc *Location*	Specifies the location of the computer you want to add.
-memberof *GroupDN ...*	Specifies the group(s) in which you want the computer as a member.
{-s *Server* | **-d** *Domain*}	Connects the computer to either a specified server or a specified domain. By default, the computer is connected to the domain controller in the logon domain.
-u *UserName*	Specifies the user name with which the user logs on to a remote server. By default, **-u** uses the account of the currently logged on user. You can use any of the following formats to specify a user name: user name (for example, Linda), domain\user name (for example, widgets\Linda) or user principal name (UPN) (for example, Linda@widgets.microsoft.com)
-p {*Password*| *}	Specifies to use either a password or a * to log on to a remote server. If you type *****, you will be prompted for a password.
-q	Suppresses all output to standard output (quiet mode).
{**-uc** | **-uco** | -**uci**}	Specifies that output or input data is formatted in Unicode using one of the following formats:

-uc	Specifies a Unicode format for input from, or output to, a pipe (|).
-uco	Specifies a Unicode format for output to a pipe (|) or a file.
-uci	Specifies a Unicode format for input from a pipe (|) or a file.

Examples

To add the Sales99 computer to the Sales OU in the sales.geeks.com domain, type:
dsadd computer cn=Sales99,ou=sales,dc=sales,dc=geeks,dc=com
Syntax

dsadd group *GroupDN* [**-secgrp** {yes | no}] [**-scope** {**l** | **g** | **u**}] [**-samid** *SAMName*] [**-desc** *Description*] [**-memberof** *Group ...*] [**-members** *Member ...*] [{**-s** *Server* | **-d** *Domain*}] [**-u** *UserName*] [**-p** {*Password* | *}] [**-q**] [{**-uc** | **-uco** | **-uci**}]

Parameters

GroupDN	Required. Specifies the distinguished name of the group you want to add. If the distinguished name is omitted, it will be taken from standard input (stdin).
-secgrp {yes | no}	Specifies whether the group you want to add is a security group (**yes**) or a distribution group (**no**). By default, the group is added as a security group (**yes**).
-**scope** {**l** | **g** | **u**}	Specifies whether the scope of the group you want to add is domain local (**l**), global (**g**) or universal (**u**). If the domain is in mixed-mode, then the universal scope is not supported. By default, the scope of the group is set to global.
-samid *SAMName*	Specifies that DSadd use the SAM name as the unique SAM account name for this group (for example, operators). If this parameter is not specified, it is generated from the relative distinguished name.
-desc *Description*	Specifies the description of the group you want to add.
-memberof *Group ...*	Specifies the groups to which this new group should be added.
-members *Member ...*	Specifies members to add to this new group.
{**-s** *Server* | **-d** *Domain*}	Connects to a specified remote server or domain. By default, the computer is connected to the domain controller in the logon domain.
-u *UserName*	Specifies the user name with which the user logs on to a remote server. By default, **-u** uses the account of the currently logged on user. You can use any of the following formats to specify a user name: user name (for example, Linda), domain\user name (for example, widgets\Linda) or user principal name (UPN) (for example, Linda@widgets.microsoft.com)
-p {*Password* | *}	Specifies to use either a password or a * to log on to a remote server. If you type *****, you will be prompted for a password.
-q	Suppresses all output to standard output (quiet mode).
{**-uc** | **-uco**| **-uci**}	Specifies that output or input data is formatted in Unicode according to one of the following formats: **-uc** Specifies a Unicode format for input from or output to a pipe (|). **-uco** Specifies a Unicode format for output to a pipe (|) or a file. **-uci** Specifies a Unicode format for input from a pipe (|) or a file.

Examples
To add the Sales global security group to the Sales OU in the sales.geeks.com domain, type:
dsadd group "cn=Sales,ou=sales,dc=sales,dc=geeks,dc=com" -secgrp yes -scope g

Syntax

dsadd ou *OrganizationalUnitDN* [**-desc** *Description*] [{**-s** *Server* | **-d** *Domain*}][**-u** *UserName*] [**-p** {*Password* | *}] [**-q**] [{**-uc** | **-uco** | **-uci**}]

Parameters

OrganizationalUnitDN	Required. Specifies the distinguished name of the organizational unit you want to add. If the distinguished name is omitted, it will be taken from standard input (stdin).
-desc *Description*	Specifies the description of the organizational unit you want to add.
{**-s** *Server* | **-d** *Domain*}	Connects to a specified remote server or domain. By default, the computer is connected to the domain controller in the logon domain.
-u *UserName*	Specifies the user name with which the user logs on to a remote server. By default, **-u** uses the account of the currently logged on user. You can specify a user name using one of the following formats: user name (for example, Linda), domain\user name (for example, sales\Linda) or user principal name (UPN) (for example, Linda@sales.microsoft.com)
-p {*Password* | *}	Specifies to use either a password or a * to log on to a remote server. If you type *****, you will be prompted for a password.
-q	Suppresses all output to standard output (quiet mode).
{**-uc** | **-uco** | **-uci**}	Specifies that output or input data is formatted in Unicode in one of the following formats:
	-uc Specifies a Unicode format for input from or output to a pipe (|).
	-uco Specifies a Unicode format for output to a pipe (|) or a file.
	-uci Specifies a Unicode format for input from a pipe (|) or a file.

Examples

To add the Sales OU in the sales.geeks.com domain, type:
dsadd ou "ou=Sales,dc=sales,dc=geeks,dc=com" -desc Sales

Syntax

dsadd user ***UserDN*** [**-samid** *SAMName*] [**-upn** *UPN*] [**-fn** *FirstName*] [**-mi** *Initial*] [**-ln** *LastName*] [**-display** *DisplayName*] [**-empid** *EmployeeID*] [**-pwd** {*Password* | *}] [**-desc** *Description*] [**-memberof** *Group ...*] [**-office** *Office*] [**-tel** *PhoneNumber*] [**-email** *Email*] [**-hometel** *HomePhoneNumber*] [**-pager** *PagerNumber*] [**-mobile** *CellPhoneNumber*] [**-fax** *FaxNumber*] [**-iptel** *IPPhoneNumber*] [**-webpg** *WebPage*] [**-title** *Title*] [**-dept** *Department*] [**-company** *Company*] [**-mgr** *Manager*] [**-hmdir** *HomeDirectory*] [**-hmdrv** *DriveLetter:*][**-profile** *ProfilePath*] [**-loscr** *ScriptPath*] [**-mustchpwd** {yes | no}] [**-canchpwd** {yes | no}] [**-reversiblepwd** {yes | no}] [**-pwdneverexpires** {yes | no}] [**-acctexpires** *NumberOfDays*] [**-disabled** {yes | no}] [{**-s** *Server* | **-d** *Domain*}] [**-u** *UserName*] [**-p** {*Password* | *}] [**-q**] [{**-uc** | **-uco** | **-uci**}]

Parameters

UserDN	Required. Specifies the distinguished name of the user you want to add. If the distinguished name is omitted, it will be taken from standard input (stdin).
-samid *SAMName*	Specifies that DSadd use the SAM name as the unique SAM account name for this user (for example, Linda). If not specified, dsadd will attempt to create a SAM account name using up to the first 20 characters from the common name (CN) value of *UserDN*.
-upn *UPN*	Specifies the user principal name of the user you want to add, (for example, Linda@widgets.microsoft.com).
-fn *FirstName*	Specifies the first name of the user you want to add.
-mi *Initial*	Specifies the middle initial of the user you want to add.
-ln *LastName*	Specifies the last name of the user you want to add.
-display *DisplayName*	Specifies the display name of the user you want to add.
-empid *EmployeeID*	Specifies the employee ID of the user you want to add.
-pwd {*Password*| *}	Specifies the password for the user to be set to *Password* or *****. If set to *, you are prompted for a user password.
-desc *Description*	Specifies the description of the user you want to add.
-memberof *GroupDN ...*	Specifies the distinguished names of the groups in which you want the user to be a member.
-office *Office*	Specifies the office location of the user you want to add.
-tel *PhoneNumber*	Specifies the telephone number of the user you want to add.
-email *Email*	Specifies the e-mail address of the user you want to add.
-hometel *HomePhoneNumber*	Specifies the home telephone number of the user you want to add.
-pager *PagerNumber*	Specifies the pager number of the user you want to add.
-mobile *CellPhoneNumber*	Specifies the cell phone number of the user you want to add.
-fax *FaxNumber*	Specifies the fax number of the user you want to add.
-iptel *IPPhoneNumber*	Specifies the IP phone number of the user you want to add.
-webpg *WebPage*	Specifies the Web page URL of the user you want to add.
-title *Title*	Specifies the title of the user you want to add.
-dept *Department*	Specifies the department of the user you want to add.
-company *Company*	Specifies the company information of the user you want to add.
-mgr *ManagerDN*	Specifies the distinguished name of the manager of the user you want to add.
-hmdir *HomeDirectory*	Specifies the home directory location of the user you want to add. If *HomeDirectory* is given as a Universal Naming Convention (UNC) path, then you must specify a drive letter to be mapped to this path using the **-hmdrv** parameter.
-hmdrv *DriveLetter* :	Specifies the home directory drive letter (for example, E:) of the user you want to add.
-profile *ProfilePath*	Specifies the profile path of the user you want to add.

-loscr *ScriptPath*	Specifies the logon script path of the user you want to add.
-mustchpwd {yes | no}	Specifies if users must change their passwords at the time of next logon (**yes**) or not (**no**). By default, the user does not need to change the password (**no**).
-canchpwd {yes | no}	Specifies if users can change their passwords at all (**yes**) or not (**no**). By default, the user is allowed to change the password (**yes**). The value of this parameter must be **yes** if the value of the **-mustchpwd** parameter is **yes**.
-reversiblepwd {yes | no}	Specifies if the user password should be stored using reversible encryption (**yes**) or not (**no**). By default, the user cannot use reversible encryption (**no**).
-pwdneverexpires {yes | no}	Specifies if the user password never expires (**yes**) or not (**no**). By default, the user password does expire (**no**).
-acctexpires *NumberOfDays*	Specifies the number of days from today that the user account will expire. A value of 0 sets expiration at the end of today. A positive value sets expiration in the future. A negative value sets expiration in the past. The value **never** sets the account to never expire. For example, a value of **0** implies that the account expires at the end of today. A value of **-5** implies that the account has already expired 5 days ago and sets an expiration date in the past. A value of **5** sets the account expiration date for 5 days in the future.
-disabled {yes | no}	Specifies if the user account is disabled for log on (**yes**) or enabled (**no**). For example, the command **dsadd user CN=Nicolettew,CN=Users,DC=Widgets,DC=Microsoft,DC=Com pwd-Password1 -disabled no** creates a Nicolettew user account in an enabled state. By default, the user account is disabled for log on (**yes**). For example, the command **dsadd user CN=Nathanp,CN=Users,DC=Widgets,DC=Microsoft,DC=Com** creates a Nathanp user account in a disabled state.
{**-s** *Server* | **-d** *Domain*}	Connects to a specified remote server or domain. By default, the computer is connected to the domain controller in the logon domain.
-u *UserName*	Specifies the user name with which the user logs on to a remote server. By default, **-u** uses the account of the currently logged on user. You can use any of the following formats to specify a user name: user name (for example, Linda)domain\user name (for example, widgets\Linda)user principal name (UPN) (for example, Linda@widgets.microsoft.com)
-p {*Password* | *}	Specifies to use either a password or a * to log on to a remote server. If you type *****, you will be prompted for a password.
-q	Suppresses all output to standard output (quiet mode).
{**-uc** | **-uco** | **-uci**}	Specifies that output or input data is formatted in Unicode. The following table lists and describes each format: **-uc** Specifies a Unicode format for input from or output to a pipe (|). **-uco** Specifies a Unicode format for output to a pipe (|) or a file. **-uci** Specifies a Unicode format for input from a pipe (|) or a file.
UserDN	Required. Specifies the distinguished name of the user you want to add. If the distinguished name is omitted, it will be taken from standard input (stdin).

NOTE: The special token $username$ (case insensitive) may replace the SAM account name in the value of the **-email**, **-hmdir**, **-profile**, and **-webpg** parameters. For example, if a SAM account name is "Mary," the **-hmdir** parameter can be written in either of the following formats:
-hmdir\users\Mary\home
-hmdir\users\$username$\home

Examples

To add the user account for Mary Jones to the Sales OU in the sales.geeks.com domain, type:
dsadd user "cn=mjones,ou=sales,dc=Sales,dc=geeks,dc=com" -samid mjones -fn Mary -ln Jones -display "Mary Jones" -pwd 1Nn@ewpass

DSGET

The **Dsget** command is used to display the selected properties of a specific object in the directory.

NOTE:

- If you do not supply a target object at the command prompt, the target object is obtained from standard input (stdin). Stdin data can be accepted from the keyboard, a redirected file, or as piped output from another command. To mark the end of stdin data from the keyboard or in a redirected file, use the end-of-file character (CTRL+Z).
- As a result of **dsquery** searches, you can pipe returned objects to **dsget** and obtain object properties.
- If a value that you supply contains spaces, use quotation marks around the text (for example, "CN=DC2,OU=Domain Controllers,DC=Microsoft,DC=Com").
- If you supply multiple values for a parameter, use spaces to separate the values (for example, a list of distinguished names).

Dsget Subcommands

computer	Displays properties of computers in the directory. **NOTE**: There are two variations of this command. The first allows you to view the properties of multiple computers. The second allows you to view the membership information of a single computer.
contact	Displays properties of contacts in the directory.
subnet	Displays properties of subnets in the directory.
group	Displays properties of groups in the directory. **NOTE**: There are two variations of this command. The first allows you to view the properties of multiple groups. The second allows you to view the group membership information of a single group.
ou	Displays properties of organizational unit's in the directory.
server	Displays properties of servers in the directory. **NOTE**: There are three variations of this command. The first displays the general properties of a specified domain controller. The second displays a list of the security principals who own the largest number of directory objects on the specified domain controller. The third displays the distinguished names of the directory partitions on the specified server.
site	Displays the properties of sites in the directory.
user	Displays the properties of users in the directory. **NOTE**: There are two variations of this command. The first allows you to view the properties of multiple users. The second allows you to view the group membership information of a single user.
quota	Displays the properties of a quota specification defined in the directory. A quota specification determines the maximum number of directory objects a given security principal can own in a specific directory partition.
partition	Displays properties of partitions in the directory.

Syntax

dsget computer*ComputerDN ...*[**-dn**] [**-samid**][**-sid**][**-desc**][**-loc**][**-disabled**][{**-s***Server* | **-d***Domain*}][**-u***UserName*] [**-p** {*Password* | *****}] [**-c**][**-q**][**-l**] [{**-uc** | **-uco** | **-uci**}][**-part***PartitionDN*[**-qlimit**][**-qused**]]

dsget computer*ComputerDN*[**-memberof** [**-expand**]][{**-s***Server* | **-d***Domain*}][**-u***UserName*] [**-p** {*Password* | *****}] [**-c**][**-q**][**-l**] [{**-uc** | **-uco** | **-uci**}]

Parameters

ComputerDN ...	Required. Specifies the distinguished names of the computer object list that you want to view. If values are omitted, they are obtained through standard input (stdin) to support piping of output from another command as input to this command. Compare with *ComputerDN* in the next command variation.
-dn	Displays the distinguished names of the computers.
-samid	Displays the computer SAM account names.
-sid	Displays the computer security IDs (SIDs).
-desc	Displays the descriptions of the computers.
-loc	Displays the computer locations.
-disabled	Displays the status of the computer accounts. A value **yes** returned establishes that the account is disabled; a value of **no** establishes that the account is enabled.
ComputerDN	Required. Specifies the distinguished name of the single computer you want to view.
-memberof	Displays the immediate list of groups of which the computer is a member. This only takes a single target object as an input parameter.
-expand	Displays the recursively expanded list of groups of which the computer is a member. This option takes the immediate group membership list of the computer and then recursively expands each group in this list to determine its group memberships, as well as to arrive at a complete closure set of the groups.
{ **-s***Server*| **-d***Domain*}	Connects to a specified remote server or domain. By default, the computer is connected to the domain controller in the logon domain.
-u*UserName*	Specifies the user name with which the user logs on to a remote server. By default, **-u** uses the account of the currently logged on user. You can use any of the following formats to specify a user name: user name (for example, Linda), domain\user name (for example, widgets\Linda) or user principal name (UPN) (for example, Linda@widgets.microsoft.com)
-p{ *Password* | *****}	Specifies to use either a password or a * to log on to a remote server. If you type *****, you will be prompted for a password.
-c	Reports errors, but continues with the next object in the argument list when multiple target objects are specified (continuous operation mode). Without this option, the command exits on the first error.
-q	Suppresses all output to standard output (quiet mode).
-l	Displays entries in a list format. By default, entries are displayed in a table format.
-part*PartitionDN*	Connects to the directory partition with the distinguished name of *PartitionDN*.
-qlimit	Displays the effective quota of the computer within the specified directory partition.

-qused	Displays how much of its quota the computer has used within the specified directory partition.
{ **-uc**| **-uco**| **-uci**}	Specifies that output or input data is formatted in Unicode. The following table lists and describes each format:

-uc	Specifies a Unicode format for input from or output to a pipe (|).
-uco	Specifies a Unicode format for output to a pipe (|) or a file.
-uci	Specifies a Unicode format for input from a pipe (|) or a file.

Examples

To display the descriptions of all computers in a given organizational unit whose name starts with "tst", type:
dsquery computer OU=Test,DC=Microsoft,DC=Com -name tst* | dsget computer -desc

To display the list of groups, recursively expanded, to which a given computer "MyDBServer" belongs, type:
dsget computer CN=MyDBServer,CN=computers,DC=Microsoft,DC=Com -memberof -expand

Syntax

dsget group*GroupDN ...*[**-dn**][**-samid**][**-sid**][**-desc**][**-secgrp**][**-scope**][{**-s***Server* | **-d***Domain*}][**-u***UserName*] [**-p** {*Password* | ***}] [**-c**][**-q**][**-l**][{**-uc** | **-uco** | **-uci**}][**-part***PartitionDN*[**-qlimit**][**-qused**]]

dsget group*GroupDN*[{**-memberof** | **-members**}][**-expand**][{**-s***Server* | **-d***Domain*}][**-u***UserName*][**-p** {*Password* | ***}] [**-c**][**-q**][**-l**] [{**-uc** | **-uco** | **-uci**}]

Parameters

GroupDN ...	Required. Specifies the distinguished names of the group objects that you want to view. If values are omitted, they are obtained through standard input (stdin) to support piping of output from another command as input to this command. Compare with *GroupDN* in the next command variation.
-dn	Displays the distinguished names of the groups.
-samid	Displays the SAM account names of the groups.
-sid	Displays the group security IDs (SIDs).
-desc	Displays the descriptions of the groups.
-secgrp	Displays information about whether groups are security groups (**yes**) or distribution groups (**no**).
-scope	Display information about whether group scopes are local, global or universal.
GroupDN	Required. Specifies the distinguished name of the computer you want to view.
{ **-memberof**| **-members**}	Displays the immediate list of groups of which the group is a member (-memberof). Displays the immediate list of members of the group (-members).
-expand	In the case of the **-memberof** parameter, this command requests that the recursively expanded list of groups, in which the group is a member, be returned. This option takes the immediate group membership list of the group, and then recursively expands each group in this list to determine its group memberships, as well as to arrive at a complete closure set of the groups. In case of the **-members** parameter, this command requests that the recursively expanded list of members of the group be displayed. This parameter takes the immediate list of members of the group, and then recursively expands each group in this list to determine its group memberships, as well as to arrive at a complete closure set of the members.

{ **-s***Server*| **-d***Domain*}	Connects to a specified remote server or domain. By default, the computer is connected to the domain controller in the logon domain.
-u*UserName*	Specifies the user name with which the user logs on to a remote server. By default, **-u** uses the account of the currently logged on user. You can specify a user name using one of the following formats: user name (for example, Linda), domain\user name (for example, widgets\Linda) or user principal name (UPN) (for example, Linda@widgets.microsoft.com)
-p{ *Password* | ***}**	Specifies to use either a password or a * to log on to a remote server. If you type *****, you will be prompted for a password.
-c	Reports errors, but continues with the next object in the argument list when multiple target objects are specified (continuous operation mode). Without this option, the command exits on the first error.
-q	Suppresses all output to standard output (quiet mode).
-l	Displays entries in a list format. By default, entries are displayed in a table format.
-part*PartitionDN*	Connects to the directory partition with the distinguished name of *PartitionDN*.
-qlimit	Displays the effective quota of the group within the specified directory partition.
-qused	Displays how much of its quota the group has used within the specified directory partition.
{ **-uc**| **-uco**| **-uci**}	Specifies that output or input data is formatted in Unicode. The following table lists and describes each format:

-uc	Specifies a Unicode format for input from or output to a pipe (|).
-uco	Specifies a Unicode format for output to a pipe (|) or a file.
-uci	Specifies a Unicode format for input from a pipe (|) or a file.

Examples

To display the descriptions of all groups in a given organizational unit whose names start with "adm," type:
dsquery group OU=Test,DC=Microsoft,DC=Com -name adm* | dsget group -desc

To display the list of members, recursively expanded, of the group Backup Operators, type:
dsget group "CN=Backup Operators,OU=Test,DC=Microsoft,DC=Com" -members -expand

Syntax

dsget server*ServerDN ...*[**-dn**] [**-desc**] [**-dnsname**] [**-site**] [**-isgc**][{**-s***Server* | **-d***Domain*}][**-u***UserName*] [**-p** {*Password* | ***}] [**-c**][**-q**][**-l**] [{**-uc** | **-uco** | **-uci**}]

dsget server*ServerDN*[{**-s***Server* | **-d***Domain*}][**-u***UserName*] [**-p** {*Password* | ***}] [**-c**][**-q**][**-l**] [{**-uc** | **-uco** | **-uci**}][**-topobjowner***Display*]

dsget server*ServerDN*[{**-s***Server* | **-d***Domain*}][**-u***UserName*] [**-p** {*Password* | ***}] [**-c**][**-q**][**-l**] [{**-uc** | **-uco** | **-uci**}][**-part***PartitionDN*]

Parameters

ServerDN ...	Required. Specifies the list of server object distinguished names to view. If values are omitted, they are obtained through standard input (stdin) to support piping of output from another command as input to this command.
-dn	Displays the distinguished names of the servers.
-desc	Displays the descriptions of the servers.
-dnsname	Displays the DNS host names of the servers.
-site	Displays the site names to which the servers belong.
-isgc	Displays information about whether the server is a global catalog (**yes**) or not (**no**).
{ **-s***Server*| **-d***Domain*}	Connects to a specified remote server or domain. By default, the computer is connected to the domain controller in the logon domain.
-u*UserName*	Specifies the user name with which the user logs on to a remote server. By default, **–u** uses the account of the currently logged on user. You can specify a user name using one of the following formats: user name (for example, Linda), domain\user name (for example, widgets\Linda) or user principal name (UPN) (for example, Linda@widgets.microsoft.com)
-p{ *Password* | *****}	Specifies to use either a password or a * to log on to a remote server. If you type *****, you will be prompted for a password.
-c	Reports errors, but continues with the next object in the argument list when multiple target objects are specified (continuous operation mode). Without this option, the command exits on the first error.
-q	Suppresses all output to standard output (quiet mode).
-l	Displays entries in a list format. By default, entries are displayed in a table format.
-part*PartitionDN*	Connects to the directory partition with the distinguished name of *PartitionDN*.
-topobjowner*Display*	Displays a sorted list of the security principals (users, computers, security groups, and inetOrgPersons) that own the largest number of directory objects across all directory partitions on the server and the number of directory objects that they own. The number of accounts to display in the list is specified by *Display*.To display all object owners, type **0**. If you do not specify *Display*, the number of principals listed defaults to 10.
{ **-uc**| **-uco**| **-uci**}	Specifies that output or input data is formatted in Unicode. The following table lists and describes each format: **-uc** Specifies a Unicode format for input from or output to a pipe (|). **-uco** Specifies a Unicode format for output to a pipe (|) or a file. **-uci** Specifies a Unicode format for input from a pipe (|) or a file.

NOTE: The properties requested by this command may reside either in the Server object for the domain controller, or in the NTDSDSA object corresponding to the server.

Examples

To find all domain controllers for domain widgets.microsoft.com and display their DNS host name and site name, type:
dsquery server -domain widgets.microsoft.com | dsget server -dnsname -site

To show if a domain controller with the name DC1 is also a global catalog server, type:
dsget server CN=DC1,CN=Servers,CN=Site10,CN=Sites,CN=Configuration,DC=Microsoft,DC=Com -isgc

To display a sorted list of security principals who own the largest number of objects on the domain controller server1.widgets.microsoft.com, type:
dsget server CN=server1,CN=widgets,DC=Microsoft,DC=com -topobjowner

Syntax

dsget user*UserDN ...*[**-dn**][**-samid**] [**-sid**][**-upn**] [**-fn**] [**-mi**] [**-ln**] [**-display**] [**-empid**][**-desc**][**-office**] [**-tel**] [**-email**] [**-hometel**] [**-pager**] [**-mobile**][**-fax**] [**-iptel**][**-webpg**][**-title**][**-dept**][**-company**][**-mgr**][**-hmdir**][**-hmdrv**][**-profile**][**-loscr**][**-mustchpwd**][**-canchpwd**][**-pwdneverexpires**][**-disabled**][**-acctexpires**][**-reversiblepwd**][{**-uc** | **-uco** | **-uci**}][**-part***PartitionDN*[**-qlimit**][**-qused**]]

dsget user*UserDN*[**-memberof**] [**-expand**][{**-uc** | **-uco** | **-uci**}]

Parameters

UserDN ...	Required. Specifies the distinguished names of the user objects that you want to view. If values are omitted, they are obtained through standard input (stdin) to support piping of output from another command as input to this command. Compare with *UserDN* in the next command variation.
-dn	Displays the distinguished names of the users.
-samid	Displays the SAM account names of the users.
-sid	Displays the user security IDs (SIDs).
-upn	Displays the user principal names of the users.
-fn	Displays the first names of the users.
-mi	Displays the middle initials of the users.
-ln	Displays the last names of the users.
-display	Displays the display names of the users.
-empid	Displays the employee IDs of the users.
-desc	Displays the descriptions of the users.
-full	Displays the full names of the users.
-office	Displays the office locations of the users.
-tel	Displays the telephone numbers of the users.
-email	Displays the e-mail addresses of the users.
-hometel	Displays the home telephone numbers of the users.
-pager	Displays the pager numbers of the users.
-mobile	Displays the mobile phone numbers of the users.
-fax	Displays the fax numbers of the users.

-iptel	Displays the user IP phone numbers.
-webpg	Displays the user Web page URLs.
-title	Displays the titles of the users.
-dept	Displays the departments of the users.
-company	Displays the company information for the users.
-mgr	Displays the user managers of the users.
-hmdir	Displays the drive letter to which the home directory of the user is mapped to, if the home directory path is a UNC path.
-hmdrv	Displays the user's home drive letter, if the home directory path is a UNC path.
-profile	Displays the user profile paths.
-loscr	Displays the user logon script paths.
-mustchpwd	Displays information about whether users must change their passwords at the time of next logon (**yes**) or not (**no**).
-canchpwd	Displays information about whether users can change their password (**yes**) or not (**no**).
-pwdneverexpires	Displays information about whether the user's passwords never expire (**yes**) or do expire (**no**).
-disabled	Displays information about whether user accounts are disabled for logon (**yes**) or not (**no**).
-acctexpires	Displays dates indicating when user accounts expire. If the accounts never expire, **never** is displayed.
-reversiblepwd	Displays information about whether the user passwords are allowed to be stored using reversible encryption (**yes**) or not (**no**).
UserDN	Required. Specifies the distinguished name of the user you want to view.
-memberof	Displays the immediate list of groups of which the user is a member.
-expand	Displays the recursively expanded list of groups of which the user is a member. This option takes the immediate group membership list of the user, and then recursively expands each group in this list to determine its group memberships, as well as to arrive at a complete closure set of the groups.
-part*PartitionDN*	Connect to the directory partition with the distinguished name of *PartitionDN*.
-qlimit	Displays the effective quota of the user within the specified directory partition.
-qused	Displays how much of the quota the user has used within the specified directory partition.
{ **-uc**| **-uco**| **-uci**}	Specifies that output or input data is formatted in Unicode. The following table lists and describes each format: **-uc** Specifies a Unicode format for input from or output to a pipe (|). **-uco** Specifies a Unicode format for output to a pipe (|) or a file. **-uci** Specifies a Unicode format for input from a pipe (|) or a file.

NOTE:

- The **-canchpwd** is only an estimate as to whether or not the user is allowed to change his or her password. This estimate has to do with the way the access control lists (ACLs) on the object are interpreted, in order to arrive at the yes or no answer. The precise certainty regarding a user's ability to change a password can only be known by trying to change the password. This non-authoritative answer is not specific to this command-line tool, but is also inherent in the User Properties dialog box in Active Directory Users and Computers in Microsoft Management Console (MMC).
- When none of the specific property parameters are specified for the dsget user command, the default set of user properties to display include the following: distinguished name, SAM account name, and description.
- When the **-memberof** parameter is specified, it overrides all other parameters and only the membership list for the user is displayed.

Examples

To find all users in a given organizational unit whose name starts with "jon" and show their descriptions, type:
dsquery user OU=Test,dc=ms,dc=tld -name jon* | dsget user -desc

To show the list of groups, recursively expanded, to which a given user "Mike Danseglio" belongs, type:
dsget user "CN=Mike Danseglio,CN=users,dc=ms,dc=tld" -memberof -expand

DSMOD

The **Dsmod** command is used to modify an existing object of a specific type in the directory.

Dsmod Subcommands

computer	Modifies an existing computer in the directory.
contact	Modifies an existing contact in the directory.
group	Modifies an existing group in the directory.
ou	Modifies an existing organizational unit in the directory.
server	Modifies an existing domain controller in the directory.
user	Modifies an existing user in the directory.
quota	Modifies an existing quota specification in the directory.
partition	Modifies an existing quota specification in the directory.

NOTE:

- This command only supports a subset of commonly used object class attributes.
- If a value that you supply contains spaces, use quotation marks around the text (for example, "CN=DC2,OU=Domain Controllers,DC=Microsoft,DC=Com").
- If you supply multiple values for a parameter, use spaces to separate the values (for example, a list of distinguished names).
- Dsmod does not support the addition of security principals in one forest to groups that are located in another forest when both forests are joined by a forest trust. You can use the Active Directory Users & Computers snap-in to add security principals across a forest trust.

Syntax
dsmod computer *ComputerDN ...* [**-desc** *Description*] [**-loc** *Location*] [**-disabled** {**yes** | **no**}] [**-reset**] [{**-s** *Server* | **-d** *Domain*}] [**-u** *UserName*] [**-p** {*Password* | *****}] [**-c**] [**-q**] [{**-uc** | **-uco** | **-uci**}]

Parameters

ComputerDN ...	Specifies the distinguished names of one or more computers to modify. If values are omitted, they are obtained through standard input (stdin) to support the piping of output from another command as input to this command.
-desc*Description*	Specifies the description of the computer you want to modify.
-loc*Location*	Specifies the location of the computer you want to modify.
-disabled {**yes** | **no**}	Specifies if the computer account is disabled for log on (**yes**) or not (**no**).
-reset	Resets computer accounts.
{**-s** *Server* | **-d** *Domain*}	Connects to a specified remote server or domain. By default, the computer is connected to the domain controller in the logon domain.
-u*UserName*	Specifies the user name with which the user logs on to a remote server. By default, **-u** uses the account of the currently logged on user. You can use any of the following formats to specify a user name: user name (for example, Linda), domain\user name (for example, widgets\Linda) or user principal name (UPN) (for example, Linda@widgets.microsoft.com)
-p {*Password* | *****}	Specifies to use either a password or a * to log on to a remote server. If you type *****, you will be prompted for a password. Reports errors, but continues with the next object in the argument list when multiple target objects are specified (continuous operation mode). Without this option, the command exits on the first error.
-q	Suppresses all output to standard output (quiet mode).
{**-uc** | **-uco** | **-uci**}	Specifies that output or input data is formatted in Unicode using one of the following formats: **-uc** Specifies a Unicode format for input from or output to a pipe (|). **-uco** Specifies a Unicode format for output to a pipe (|) or a file. **-uci** Specifies a Unicode format for input from a pipe (|) or a file.

Examples

To disable multiple computer accounts, type:
dsmod computer CN=MemberServer1,CN=Computers,DC=Microsoft,DC=Com CN=MemberServer2,CN=Computers,DC=Microsoft,DC=Com -disabled yes

To reset multiple computer accounts, type:
dsmod computer CN=MemberServer1,CN=Computers,DC=Microsoft,DC=Com CN=MemberServer2,CN=Computers,DC=Microsoft,DC=Com -reset

Syntax

dsmod group *GroupDN ...* [**-samid** *SAMName*] [**-desc** *Description*] [**-secgrp** {**yes** | **no**}] [**-scope** {**l** | **g** | **u**}] [{**-addmbr** | **-rmmbr** | **-chmbr**} *MemberDN ...*] [{**-s** *Server* | **-d** *Domain*}] [**-u** *UserName*] [**-p** {*Password* | *****}] [**-c**] [**-q**] [{**-uc** | **-uco** | **-uci**}]

Parameters

GroupDN ...	Required. Specifies the distinguished names of the groups you want to modify. If values are omitted, they are obtained through standard input (stdin) to support piping of output from another command as input to this command. If *GroupDN ...* and *Member ...* are used together then only one parameter can be taken from standard input, requiring that at least one parameter be specified at the command line.
-samid*SAMName*	Specifies the SAM account names of the groups you want to modify.
-desc*Description*	Specifies the descriptions of the groups you want to modify.
-secgrp {**yes** | **no**}	Sets the group types to security group (**yes**) or distribution group (**no**).
-scope {**l** | **g** | **u**}	Sets the scope of the groups to local, global or universal. If the domain is in mixed mode, then the universal scope will not be supported. Also, it is not possible to convert a domain local group to global group or vice versa.
{**-addmbr** | **-rmmbr** | **-chmbr**} *MemberDN ...*	Specifies that members identified by *MemberDN ...* are to be added, removed or replaced to, from or in the group. Only one of these parameters can be specified in any single command invocation. *MemberDN ...* specifies the distinguished names of one or more members to be added to, deleted from or replaced in the group identified by *GroupDN*. Each member must given as a distinguished name (for example, CN=Mike Danseglio,OU=Users,DC=Microsoft,DC=Com). The list of members must follow the **-addmbr**, **-rmmbr**, and **-chmbr** parameters. If values are omitted, they are obtained through standard input (stdin) to support piping of output from another command as input to this command. If *GroupDN ...* and *MemberDN ...* are used together then only one parameter can be taken from standard input, requiring that at least one parameter be specified at the command line.
{**-s** *Server* | **-d** *Domain*}	Connects to a specified remote server or domain. By default, the computer is connected to the domain controller in the logon domain.
-u*UserName*	Specifies the user name with which the user logs on to a remote server. By default, **-u** uses the account of the currently logged on user. You can use any of the following formats to specify a user name: user name (for example, Linda), domain\user name (for example, widgets\Linda) or user principal name (UPN) (for example, Linda@widgets.microsoft.com)
-p {*Password* | *****}	Specifies to use either a password or a * to log on to a remote server. If you type *****, you will be prompted for a password.
-c	Reports errors, but continues with the next object in the argument list when multiple target objects are specified (continuous operation mode). Without this option, the command exits on the first error.
-q	Suppresses all output to standard output (quiet mode).
{**-uc** | **-uco** | **-uci**}	Specifies that output or input data is formatted in Unicode, using one of the formats listed below: **-uc** Specifies a Unicode format for input from or output to a pipe (|). **-uco** Specifies a Unicode format for output to a pipe (|) or a file. **-uci** Specifies a Unicode format for input from a pipe (|) or a file.

Examples

To add the user Mike Danseglio to all administrator distribution list groups, type:
dsquery group "OU=Distribution Lists,DC=microsoft,DC=com" -name adm* | dsmod group -addmbr "CN=Mike Danseglio,CN=Users,DC=microsoft,DC=com"

To add all members of the US Info group to the Cananda Info group, type:
dsget group "CN=US INFO,OU=Distribution Lists,DC=microsoft,DC=com" -members | dsmod group "CN=CANADA INFO,OU=Distribution Lists,DC=microsoft,DC=com" -addmbr

To convert the group type of several groups from security to non-security, type:
dsmod group "CN=US Info,OU=Distribution Lists,DC=Microsoft,DC=Com" "CN=Canada Info,OU=Distribution Lists,DC=Microsoft,DC=Com" "CN=Mexico Info,OU=Distribution Lists,DC=Microsoft,DC=Com" -secgrp no

To add two new members to the group "CN=US Info,OU=Distribution Lists,DC=Microsoft,DC=Com", type:
dsmod group "CN=US Info,OU=Distribution Lists,DC=Microsoft,DC=Com" -addmbr "CN=Mike Danseglio,CN=Users,DC=Microsoft,DC=Com" "CN=Legal,OU=Distribution Lists,DC=Microsoft,DC=Com" "CN=Denise Smith,CN=Users,DC=Microsoft,DC=Com"

To add all users from the Marketing organization unit to the existing group called Marketing Staff, type:
dsquery user OU=Marketing,DC=Microsoft,DC=Com | dsmod group "CN=Marketing Staff,OU=Marketing,DC=Microsoft,DC=Com" -addmbr

To delete two members from the existing group "CN=US Info,OU=Distribution Lists,DC=Microsoft,DC=Com", type:
dsmod group "CN=US Info,OU=Distribution Lists,DC=Microsoft,DC=Com" -rmmbr "CN=Mike Danseglio,CN=Users,DC=Microsoft,DC=Com" "CN=Legal,OU=Distribution Lists,DC=Microsoft,DC=Com"

Syntax

dsmod ou *OrganizationalUnitDN ...* [**-desc** *Description*] [{**-s** *Server* | **-d** *Domain*}] [**-u** *UserName*] [**-p** {*Password* | *****}][**-c**] [**-q**] [{**-uc** | **-uco** | **-uci**}]

Parameters

OrganizationalUnitDN ...	Required. Specifies the distinguished names of the organizational units you want to modify. If values are omitted, they are obtained through standard input (stdin) to support piping of output from another command as input to this command.
-desc*Description*	Specifies the description of the organizational unit you want to modify.
{**-s***Server* | **-d***Domain*}	Connects to a specified remote server or domain. By default, the computer is connected to the domain controller in the logon domain.
-u*UserName*	Specifies the user name with which the user logs on to a remote server. By default, **-u** uses the account of the currently logged on. You can use any of the following formats to specify a user name: user name (for example, Linda), domain\user name (for example, widgets\Linda) or user principal name (UPN) (for example, Linda@widgets.microsoft.com)
-p{*Password* | *****}	Specifies to use either a password or a * to log on to a remote server. If you type *****, you will be prompted for a password.
-c	Reports errors, but continues with the next object in the argument list when multiple target objects are specified (continuous operation mode). Without this option, the command exits on the first error.
-q	Suppresses all output to standard output (quiet mode).
{**-uc** | **-uco** | **-uci**}	Specifies that output or input data is formatted in Unicode using one of the following formats:

-uc	Specifies a Unicode format for input from or output to a pipe (|).
-uco	Specifies a Unicode format for output to a pipe (|) or a file.
-uci	Specifies a Unicode format for input from a pipe (|) or a file.

Examples

To change the description of several organizational units at the same time, type:
dsmod ou "OU=Domain Controllers,DC=Microsoft,DC=Com" "OU=Resources,DC=Microsoft,DC=Com" "OU=Troubleshooting,DC=Microsoft,DC=Com" -desc "This is a test OU"

Syntax

dsmod server *ServerDN ...* [**-desc** *Description*] [**-isgc** {**yes** | **no**}] [{**-s** *Server* | **-d** *Domain*}] [**-u** *UserName*] [**-p** {*Password* | *****}] [**-c**] [**-q**] [{**-uc** | **-uco** | **-uci**}]

Parameters

ServerDN ...	Required. Specifies the distinguished names of one or more servers that you want to modify. If values are omitted, they are obtained through standard input (stdin) to support piping of output from another command as input to this command.
-desc*Description*	Specifies the description of the server you want to modify.
-isgc {**yes** | **no**}	Sets this server as a global catalog (**yes**) or disables it (**no**).
{**-s** *Server* | **-d** *Domain*}	Connects to a specified remote server or domain. By default, the computer is connected to the domain controller in the logon domain.
-u*UserName*	Specifies the user name with which the user logs on to a remote server. By default, **-u** uses the account of the currently logged on user. You can use any of the following formats to specify a user name: user name (for example, Linda), domain\user name (for example, widgets\Linda) or user principal name (UPN) (for example, Linda@widgets.microsoft.com)
-p {*Password* | *****}	Specifies to use either a password or a * to log on to a remote server. If you type *****, you will be prompted for a password.
-c	Reports errors, but continues with the next object in the argument list when multiple target objects are specified (continuous operation mode). Without this option, the command exits on the first error.
-q	Suppresses all output to standard output (quiet mode).
{**-uc** | **-uco** | **-uci**}	Specifies that output or input data is formatted in Unicode using one of the following formats:

-uc	Specifies a Unicode format for input from or output to a pipe (|).
-uco	Specifies a Unicode format for output to a pipe (|) or a file.
-uci	Specifies a Unicode format for input from a pipe (|) or a file.

Examples

To enable the domain controllers CORPDC1 and CORPDC9 to become global catalog servers, type:
dsmod server "CN=CORPDC1,CN=Servers,CN=Site1,CN=Sites,CN=Configuration,DC=Microsoft,DC=Com" "CN=CORPDC9,CN=Servers,CN=Site2,CN=Sites,CN=Configuration,DC=Microsoft,DC=Com" -isgc yes

Syntax

dsmod user *UserDN ...* [**-upn** *UPN*] [**-fn** *FirstName*] [**-mi** *Initial*] [**-ln** *LastName*] [**-display** *DisplayName*] [**-empid** *EmployeeID*] [**-pwd** (*Password* | *****)] [**-desc** *Description*] [**-office** *Office*] [**-tel** *PhoneNumber*] [**-email** *E-mailAddress*] [**-hometel** *HomePhoneNumber*] [**-pager** *PagerNumber*] [**-mobile** *CellPhoneNumber*] [**-fax** *FaxNumber*] [**-iptel** *IPPhoneNumber*] [**-webpg** *WebPage*] [**-title** *Title*] [**-dept** *Department*] [**-company** *Company*] [**-mgr** *Manager*] [**-hmdir** *HomeDirectory*] [**-hmdrv** *DriveLetter***:**] [**-profile** *ProfilePath*] [**-loscr** *ScriptPath*] [**-mustchpwd** {**yes** | **no**}] [**-canchpwd** {**yes** | **no**}] [**-reversiblepwd** {**yes** | **no**}] [**-pwdneverexpires** {**yes** | **no**}] [**-acctexpires** *NumberOfDays*] [**-disabled** {**yes** | **no**}] [{**-s** *Server* | **-d** *Domain*}] [**-u** *UserName*] [**-p** {*Password* | *****}][**-c**] [**-q**] [{**-uc** | **-uco** | **-uci**}]

Parameters

UserDN ...	Required. Specifies the distinguished names of the users you want to modify. If values are omitted, they are obtained through standard input (stdin) to support piping of output from another command as input to this command.
-upn*UPN*	Specifies the user principal names of the user objects you want to modify (for example, Linda@widgets.microsoft.com)
-fn*FirstName*	Specifies the first names of the user objects you want to modify.
-mi*Initial*	Specifies the middle initials of the user objects you want to modify.
-ln*LastName*	Specifies the last names of the user objects you want to modify.
-display*DisplayName*	Specifies the display names of the user objects you want to modify.
-empid*EmployeeID*	Specifies the employee IDs of the user objects you want to modify.
-pwd {*Password* | *****}	Resets the passwords for the user objects as *Password* or *. If ***** is specified, then you will be prompted for a user password.
-desc*Description*	Specifies the descriptions of the user objects you want to modify.
-office*Office*	Specifies the office locations of the user objects you want to modify.
-tel*PhoneNumber*	Specifies the telephone numbers of the user objects you want to modify.
-email*E-mailAddress*	Specifies the e-mail addresses of the user objects you want to modify.
-hometel*HomePhoneNumber*	Specifies the home telephone numbers of the user objects you want to modify.
-pager*PagerNumber*	Specifies the pager numbers of the user objects you want to modify.
-mobile*CellPhoneNumber*	Specifies the cell numbers of the user objects you want to modify.
-fax*FaxNumber*	Specifies the fax numbers of the user objects you want to modify.
-iptel*IPPhoneNumber*	Specifies the IP phone numbers of the user objects you want to modify.
-webpg*WebPage*	Specifies the Web page URLs of the user objects you want to modify.
-title*Title*	Specifies the titles of the user objects you want to modify.
-dept*Department*	Specifies the departments of the user objects you want to modify.
-company*Company*	Specifies the company information of the user objects you want to modify.
-mgr*Manager*	Specifies the distinguished names of the managers of the user objects you want to modify. The manager can only be specified using the distinguished name format.
-hmdir*HomeDirectory*	Specifies the home directory locations of the user objects you want to modify. If *HomeDirectory* is given as a UNC name, you must specify a mapped drive to this path by using the **-hmdrv** parameter.
-hmdrv*DriveLetter***:**	Specifies the home directory drive letters (for example, E:) of the user objects you want to modify.
-profile*ProfilePath*	Specifies the profile paths of the user objects you want to modify.
-loscr*ScriptPath*	Specifies the logon script paths of the user objects you want to modify.

-mustchpwd{ **yes**| **no**}	Specifies if users must change their passwords at the time of next logon (**yes**) or not (**no**).
-canchpwd {**yes** | **no**}	Specifies if users can change their passwords at all (**yes**) or not (**no**). The value of this parameter must be **yes** if the value of the **-mustchpwd** parameter is **yes**.
-reversiblepwd {**yes** | **no**}	Specifies if user passwords should be stored using reversible encryption (**yes**) or not (**no**).
-pwdneverexpires {**yes** | **no**}	Specifies if user accounts never expires (**yes**) or not (**no**).
-acctexpires*NumberOfDays*	Specifies the number of days from today that the user accounts will expire. A value of 0 sets expiration at the end of today. A positive value sets expiration in the future. A negative value sets expiration in the past. The value of **never** sets the account to never expire. For example, a value of **0** implies that the account expires at the end of today. A value of **-5** implies that the account has already expired 5 days ago and sets an expiration date in the past. A value of **5** sets the account expiration date for 5 days in the future.
-disabled {**yes** | **no**}	Specifies if the user account is disabled for log on (**yes**) or not (**no**).
{**-s** *Server* | **-d** *Domain*}	Connects to a specified remote server or domain. By default, the computer is connected to the domain controller in the logon domain.
-u*UserName*	Specifies the user name with which the user logs on to a remote server. By default, **-u** uses the account of the currently logged on user. You can use any of the following formats to specify a user name: user name (for example, Linda), domain\user name (for example, widgets\Linda) or user principal name (UPN) (for example, Linda@widgets.microsoft.com)
-p {*Password* | *****}	Specifies to use either a password or a * to log on to a remote server. If you type *****, you will be prompted for a password.
-c	Reports errors, but continues with the next object in the argument list when multiple target objects are specified (continuous operation mode). Without this option, the command exits on the first error.
-q	Suppresses all output to standard output (quiet mode).
{**-uc** | **-uco** | **-uci**}	Specifies that output or input data is formatted in Unicode using one of the following formats: **-uc** Specifies a Unicode format for input from or output to a pipe (|). **-uco** Specifies a Unicode format for output to a pipe (|) or a file. **-uci** Specifies a Unicode format for input from a pipe (|) or a file.

NOTE: The special token $username$ (case insensitive) may replace the SAM account name in the value of the **-webpg**, **-profile**, **-hmdir**, and **-email** parameters. For example, if a SAM account name is "Mary," the **-hmdir** location parameter can be written in either of the following formats:
-hmdir \users\Mary\home
-hmdir \users\$username$\home

Examples

To reset Don Funk's password and force him to change his password the next time he logs on to the network, type:
dsmod user "CN=Don Funk,CN=Users,DC=Microsoft,DC=Com" -pwd A1b2C3d4 -mustchpwd yes

To reset multiple user passwords to a common password and force users to change their passwords the next time they log on to the network, type:
**dsmod user "CN=Don Funk,CN=Users,DC=Microsoft,DC=Com"
"CN=Denise Smith,CN=Users,DC=Microsoft,DC=Com" -pwd A1b2C3d4 -mustchpwd yes**

To disable multiple user accounts at the same time, type:
**dsmod user "CN=Don Funk,CN=Users,DC=Microsoft,DC=Com"
"CN=Denise Smith,CN=Users,DC=Microsoft,DC=Com" -disabled yes**

To modify the profile path of multiple users to a common path using the $username$ token, type:
**dsmod user "CN=Don Funk,CN=Users,DC=Microsoft,DC=Com"
"CN=Denise Smith,CN=Users,DC=Microsoft,DC=Com" -profile \users\$username$\profile**

DSMOVE

Moves a single object, within a domain, from its current location in the directory to a new location, or renames a single object without moving it in the directory tree.

Syntax

dsmove *ObjectDN* [**-newname** *NewName*] [**-newparent** *ParentDN*] [{**-s** *Server* | **-d** *Domain*}] [**-u** *UserName*] [**-p** {*Password* | *****}] [**-q**] [{**-uc** | **-uco** | **-uci**}]

Parameters

ObjectDN	Required. Specifies the distinguished name of the object you want to move or rename. If the value is omitted, it is obtained through standard input (stdin) to support piping of output from another command as input to this command.
-newname*NewRDN*	Renames the object with a new relative distinguished name.
-newparent*ParentDN*	Specifies the new location to which you want to move the object. The new location is specified as the distinguished name of the new parent node.
{**-s** *Server* | **-d** *Domain*}	Connects to a specified remote server or domain. By default, the computer is connected to the domain controller in the logon domain.
-u*UserName*	Specifies the user name with which the user logs on to a remote server. By default, **-u** uses the account of the currently logged on user. You can use any of the following formats to specify a user name: user name (for example, Linda), domain\user name (for example, widgets\Linda) or user principal name (UPN) (for example, Linda@widgets.microsoft.com)
-p {*Password* | *****}	Specifies to use either a password or a * to log on to a remote server. If you type *****, you will be prompted for a password.
-q	Suppresses all output to standard output (quiet mode).
{**-uc** | **-uco** | **-uci**}	Specifies that output or input data is formatted in Unicode using one of the following formats: **-uc** Specifies a Unicode format for input from or output to a pipe (|). **-uco** Specifies a Unicode format for output to a pipe (|) or a file. **-uci** Specifies a Unicode format for input from a pipe (|) or a file.

NOTE:

- To move an object across domains, use the Movetree command-line tool.
- If a value that you supply contains spaces, use quotation marks around the text (for example, "CN=Mike Danseglio,CN=Users,DC=Microsoft,DC=Com").
- If you supply multiple values for a parameter, use spaces to separate the values (for example, a list of distinguished names).

Examples

To rename a user object from Kim Akers to Kim Ralls, type:
dsmove "CN=Kim Akers,OU=Sales,DC=Microsoft,DC=Com" -newname "Kim Ralls"

To move Kim Akers from the Sales organization to the Marketing organization, type:
dsmove "CN=Kim Akers,OU=Sales,DC=Microsoft,DC=Com" -newparent OU=Marketing,DC=Microsoft,DC=Com

To combine the rename and move operations, type:
dsmove "CN=Kim Akers,OU=Sales,DC=Microsoft,DC=Com" -newparent OU=Marketing,DC=Microsoft,DC=Com -newname "Kim Ralls"

DSQUERY

The **Dsquery** command queries Active Directory according to specified criteria. Each of the following **dsquery** commands finds objects of a specific object type, with the exception of **dsquery ***, which can query for any type of object:

Dsquery Subcommands

computer	finds computers in the directory.
contact	finds contacts in the directory.
subnet	finds subnets in the directory.
group	finds groups in the directory.
ou	finds organizational units in the directory.
site	finds sites in the directory.
server	finds domain controllers in the directory.
user	finds users in the directory.
quota	finds quota specifications in the directory.
partition	finds partitions in the directory.
*	finds any object in the directory by using a generic LDAP query.

NOTE:

- The results from a **dsquery** search can be piped as input to one of the other directory service command-line tools, such as **dsget**, **dsmod**, **dsmove**, or **dsrm**.
- If a value that you supply contains spaces, use quotation marks around the text (for example, "CN=Mike Danseglio,CN=Users,DC=Microsoft,DC=Com").
- If you supply multiple values for a parameter, use spaces to separate the values (for example, a list of distinguished names).

Syntax

dsquery computer [{***StartNode***| **forestroot** | **domainroot**}] [**-o** {**dn** | **rdn** | **samid**}] [**-scope** {subtree | onelevel | base}] [**-name** *Name*] [**-desc** *Description*] [**-samid** *SAMName*] [**-inactive** *NumberOfWeeks*] [**-stalepwd** *NumberOfDays*] [**-disabled**] [{**-s** *Server*| **-d** *Domain*}] [**-u** *UserName*] [**-p** {*Password*|*}] [**-q**] [**-r**] [**-gc**] [**-limit** *NumberOfObjects*] [{**-uc** | **-uco** | **-uci**}]

Parameters

{***StartNode***| **forestroot** | **domainroot**}	Specifies the node where the search will start. You can specify the forest root (**forestroot**), domain root (**domainroot**), or a node's distinguished name (*StartNode)*. If **forestroot** is specified, the search is done using the global catalog. The default value is domainroot.
-o {**dn** | **rdn** | **samid**}	Specifies the format in which the list of entries found by the search will be displayed. A **dn** value displays the distinguished name of each entry. An **rdn** value displays the relative distinguished name of each entry. A **samid** value displays the SAM account name of each entry. By default, the **dn** format is used.
-scope {subtree | onelevel | base}	Specifies the scope of the search. A value of **subtree** indicates that the scope is a subtree rooted at start node. A value of **onelevel** indicates the immediate children of start node only. A value of **base** indicates the single object represented by start node. If **forestroot** is specified as *StartNode*, **subtree** is the only valid scope. By default, the **subtree** search scope is used.
-name *Name*	Searches for computers whose name attributes (the value of the CN attribute) matches *Name*. For example, "jon*" or "*ith" or "j*th".
-desc *Description*	Searches for computers whose description attribute matches *Description*. For example, "jon*" or "*ith" or "j*th".
-samid *SAMName*	Searches for computers whose SAM account name matches *SAMName*.
-inactive NumberOfWeeks	Searches for all computers that have been inactive (stale) for the specified number of weeks.
-stalepwd *NumberOfDays*	Searches for all computers that have not changed their password for the specified number of days.
-disabled	Searches for all computers whose accounts are disabled.
{**-s** Server | **-d** *Domain*}	Connects to a specified remote server or domain. By default, the computer is connected to the domain controller in the logon domain.
-u *UserName*	Specifies the user name with which the user logs on to a remote server. By default, **-u** uses the account of the currently logged on user. You can use any of the following formats to specify a user name: user name (for example, Linda), domain\user name (for example, widgets\Linda) or user principal name (UPN) (for example, Linda@widgets.microsoft.com)
-p {*Password*|*}	Specifies to use either a password or a * to log on to a remote server. If you type *****, you will be prompted for a password.
-q	Suppresses all output to standard output (quiet mode).
-r	Specifies that the search use recursion or follow referrals during search. By default, the search will **not** follow referrals during search.
-gc	Specifies that the search use the Active Directory global catalog.
-limit *NumberOfObjects*	Specifies the number of objects that match the given criteria to be returned. If the value of *NumberOfObjects* is 0, all matching objects are returned. If this parameter is not specified, by default, the first 100 results are displayed.
{**-uc** | **-uco** | **-uci**}	Specifies that output or input data is formatted in Unicode using one of the following formats: **-uc** Specifies a Unicode format for input from or output to a pipe (|). **-uco** Specifies a Unicode format for output to a pipe (|) or a file. **-uci** Specifies a Unicode format for input from a pipe (|) or a file.

Examples

To find all computers in the current domain whose name starts with "ms" and whose description starts with "desktop", and display their distinguished names, type:
dsquery computer domainroot -name ms* -desc desktop*

To find all computers in the organizational unit given by OU=Sales,dc=microsoft,DC=Com and display their distinguished names, type:
dsquery computer OU=Sales,DC=Microsoft,DC=Com

Syntax

dsquery group [{***StartNode***| **forestroot** | **domainroot**}] [**-o** {dn | rdn | samid}] [**-scope** {subtree | onelevel | base}] [**-name** *Filter*] [**-desc** *Filter*] [**-samid** *Filter*] [{**-s** *Server*| **-d** *Domain*}] [**-u** *UserName*] [**-p** {*Password*| *}] [**-q**] [**-r**] [**-gc**] [**-limit** *NumberOfObjects*] [{**-uc** | **-uco** | **-uci**}]

Parameters

[{***StartNode***| **forestroot** | domainroot}	Specifies the node where the search will start. You can specify the forest root (**forestroot**), domain root (**domainroot**), or a node's distinguished name (*StartNode)*. If **forestroot** is specified, the search is done using the global catalog. The default value is **domainroot**.
-o {**dn** | **rdn** | **samid**}	Specifies the format in which the list of entries found by the search will be displayed. A **dn** value displays the distinguished name of each entry. An **rdn** value displays the relative distinguished name of each entry. A **samid** value displays the SAM account name of each entry. By default, the **dn** format is used.
-scope {subtree | onelevel | base}	Specifies the scope of the search. A value of **subtree** indicates that the scope is a subtree rooted at start node. A value of **onelevel** indicates the immediate children of the start node only. A value of **base** indicates the single object represented by start node. If **forestroot** is specified as *StartNode*, **subtree** is the only valid scope. By default, the **subtree** search scope is used.
-name *Name*	Searches for groups whose name attributes (value of CN attribute) matches *Name*. For example, "jon*" or "*ith" or "j*th".
-desc *Description*	Searches for groups whose description attribute matches *Description*. For example, "jon*" or "*ith" or "j*th".
-samid *SAMName*	Searches for groups whose SAM account name matches *SAMName*.
{**-s** *Server*| **-d** *Domain*}	Connects to a specified remote server or domain. By default, the computer is connected to the domain controller in the logon domain.
-u *UserName*	Specifies the user name with which the user logs on to a remote server. By default, **-u** uses the account of the currently logged on user. You can use any of the following formats to specify a user name: user name (for example, Linda), domain\user name (for example, widgets\Linda) or user principal name (UPN) (for example, Linda@widgets.microsoft.com)
-p {*Password*|*}	Specifies to use either a password or a * to log on to a remote server. If you type *****, you will be prompted for a password.
-q	Suppresses all output to standard output (quiet mode).
-r	Specifies that the search use recursion or follow referrals during search. By default, the search will **not** follow referrals during search.
-gc	Specifies that the search use the Active Directory global catalog.

-limit *NumberOfObjects*	Specifies the number of objects that match the given criteria to be returned. If the value of *NumberOfObjects* is 0, all matching objects are returned. If this parameter is not specified, by default, the first 100 results are displayed.
{**-uc** | **-uco** | **-uci**}	Specifies that output or input data is formatted in Unicode using one of the following formats: **-uc** Specifies a Unicode format for input from or output to a pipe (|). **-uco** Specifies a Unicode format for output to a pipe (|) or a file. **-uci** Specifies a Unicode format for input from a pipe (|) or a file.

Examples

To find all groups in the current domain whose name starts with "ms" and whose description starts with "admin", and display their distinguished names, type:
dsquery group domainroot -name ms* -desc admin*

To find all groups in the domain given by DC=Microsoft,DC=Com and display their distinguished names, type:
dsquery group DC=Microsoft,DC=Com

Syntax

dsquery site [**-o** {**dn** | **rdn**}] [**-name** *Name*] [**-desc** *Description*] [{**-s** *Server*| **-d** *Domain*}] [**-u** *UserName*] [**-p** {*Password*|*}] **[-q**] [**-r**] [**-gc**] [**-limit** *NumberOfObjects*] [{**-uc** | **-uco** | **-uci**}]

Parameters

-o {**dn** | **rdn**}	Specifies the format in which the list of entries found by the search will be displayed. A **dn** value displays the distinguished name of each entry. An **rdn** value displays the relative distinguished name of each entry.
-name *Name*	Searches for sites whose name attributes (value of CN attribute) matches *Name*. For example, "NA*" or "Europe*".
-desc *Description*	Searches for computers whose description attribute matches *Description*. For example, "corp*" or "*nch".
{**-s** *Server*| **-d** *Domain*}	Connects to a specified remote server or domain. By default, the computer is connected to the domain controller in the logon domain.
-u *UserName*	Specifies the user name with which the user logs on to a remote server. By default, **-u** uses the account of the currently logged on user. You can use any of the following formats to specify a user name: user name (for example, Linda), domain\user name (for example, widgets\Linda) or user principal name (UPN) (for example, Linda@widgets.microsoft.com)
-p {Password | *}	Specifies to use either a password or a * to log on to a remote server. If you type *****, you will be prompted for a password.
-q	Suppresses all output to standard output (quiet mode).
-r	Specifies that the search use recursion or follow referrals during search. By default, the search will **not** follow referrals during search.
-gc	Specifies that the search use the Active Directory global catalog.

-limit *NumberOfObjects*	Specifies the number of objects that match the given criteria to be returned. If the value of *NumberOfObjects* is 0, all matching objects are returned. If this parameter is not specified, by default, the first 100 results are displayed.
{**-uc** | **-uco** | **-uci**}	Specifies that output or input data is formatted in Unicode using one of the following formats:
	-uc Specifies a Unicode format for input from or output to a pipe (|).
	-uco Specifies a Unicode format for output to a pipe (|) or a file.
	-uci Specifies a Unicode format for input from a pipe (|) or a file.

Examples

To find all sites in North America with name starting with "north" and display their distinguished names, type:
dsquery site -name north*

To list the relative distinguished names of all sites defined in the directory, type:
dsquery site -o rdn
dsquery server

Syntax

dsquery server [**-o** {**dn** | **rdn**}] [**-forest**] [**-domain** *DomainName*] [**-site** *SiteName*] [**-name** *Name*] [**-desc** *Description*] [**-hasfsmo** {**schema** | **name** | **infr** | **pdc** | **rid**}] [**-isgc**] [{**-s** *Server*| **-d** *Domain*}] [**-u** *UserName*] [**-p** {*Password*|*}] [**-q**] [**-r**] [**-gc**] [**-limit** *NumberOfObjects*] [{**-uc** | **-uco** | **-uci**}]

Parameters

-o {**dn** | **rdn**}	Specifies the format in which the list of entries found by the search will be displayed. A **dn** value displays the distinguished name of each entry. An **rdn** value displays the relative distinguished name of each entry. By default, the **dn** format is used.
-forest	Searches for all domain controllers (server objects) that are part of the current forest.
-domain *DomainName*	Searches for all domain controllers (server objects) that are part of the domain whose DNS name is given by *DomainName*. Note that this parameter is not necessary if all domain controllers in the current domain are to be displayed, since that is the search criterion when no other criterion is specified.
-site *SiteName*	Searches for all domain controllers (server objects) that are part of site *SiteName*.
-name *Name*	Searches for server objects whose name attributes (value of CN attribute) matches *Name*. For example, "jon*" or "*ith" or "j*th".
-desc *Description*	Searches for server objects whose description attribute matches *Description*. For example, "jon*" or "*ith" or "j*th".
[**-hasfsmo** {**schema** | **name** | **infr** | **pdc** | **rid**}	Searches for the domain controller (server object) that holds the requested operation's master role. A value of **schema** requests the schema master of the forest. A value of **name** requests the domain naming master of the forest. A value of **infr** requests the infrastructure master of the forest. A value of **pdc** requests the primary domain controller (PDC) role owner of the domain given by the **-domain** parameter (or the current domain, if none is specified). A value of **rid** requests the relative ID master (RID master) of the domain given by the **-domain** parameter (or the current domain, if none is specified). For the **infr**, **pdc** and **rid** operations master roles, if no domain is specified with the **-domain** parameter, then the current domain is used.

-isgc	Searches for all domain controllers (server objects) in the scope specified by any of the **-forest**, **-domain**, or **-site** parameters that are global catalog servers. If none of the above scope parameters are specified, the command will return all global catalogs in the current domain.
{**-s** *Server*| **-d** *Domain*}	Connects to a specified remote server or domain. By default, the computer is connected to the domain controller in the logon domain.
-u *UserName*	Specifies the user name with which the user logs on to a remote server. By default, **-u** uses the account of the currently logged on user. You can use any of the following formats to specify a user name: user name (for example, Linda), domain\user name (for example, widgets\Linda) or user principal name (UPN) (for example, Linda@widgets.microsoft.com)
-p {*Password*|*}	Specifies to use either a password or a * to log on to a remote server. If you type *****, you will be prompted for a password.
-q	Suppresses all output to standard output (quiet mode).
-r	Specifies that the search use recursion or follow referrals during search. By default, the search will **not** follow referrals during search.
-gc	Specifies that the search use the Active Directory global catalog.
-limit *NumberOfObjects*	Specifies the number of objects that match the given criteria to be returned. If the value of *NumberOfObjects* is 0, all matching objects are returned. If this parameter is not specified, by default, the first 100 results are displayed.
{**-uc** | **-uco** | **-uci**}	Specifies that output or input data is formatted in Unicode using one of the following formats:

-uc	Specifies a Unicode format for input from or output to a pipe (|).
-uco	Specifies a Unicode format for output to a pipe (|) or a file.
-uci	Specifies a Unicode format for input from a pipe (|) or a file.

Examples

To find all domain controller in the current domain, type:
dsquery server

To find all domain controllers in the forest and display their relative distinguished names, type:
dsquery server -o rdn -forest

To find all domain controllers in the site whose name is United States and display their relative distinguished names, type:
dsquery server -o rdn -site United States

To find the domain controller in the forest that holds the schema operations master role, type:
dsquery server –forest –hasfsmo schema

To find all domain controllers in the domain widgets.microsoft.com that are global catalog servers:
dsquery server –domain widgets.microsoft.com -isgc
dsquery user

Syntax

dsquery user [{***StartNode***| **forestroot** | **domainroot**}] [**-o** {**dn** | **rdn** | **upn** | **samid**}] [**-scope** {**subtree** | **onelevel** | **base**}] [**-name** *Name*] [**-desc** *Description*] [**-upn** *UPN*] [**-samid** *SAMName*] [**-inactive** *NumberOfWeeks*] [**-stalepwd** *NumberOfDays*] [**-disabled**] [{**-s** *Server*| **-d** *Domain*}] [**-u** *UserName*] [**-p** {*Password*| *}] [**-q**] [**-r**] [**-gc**] [**-limit** *NumberOfObjects*] [{**-uc** | **-uco** | **-uci**}]

Parameters

{***StartNode***| **forestroot** | **domainroot**}	Specifies the node where the search will start. You can specify the forest root (**forestroot**), domain root (**domainroot**), or a node's distinguished name (*StartNode)*. If **forestroot** is specified, the search is done using the global catalog. The default value is domainroot.
[**-o** {**dn** | **rdn** | **upn** | **samid**}	Specifies the format in which the list of entries found by the search will be displayed. A **dn** value displays the distinguished name of each entry. An **rdn** value displays the relative distinguished name of each entry. A **upn** value displays the user principal name of each entry. A **samid** value displays the SAM account name of each entry. By default, the **dn** format is used.
-scope {**subtree** | **onelevel** | **base**}	Specifies the scope of the search. A value of **subtree** indicates that the scope is a subtree rooted at start node. A value of **onelevel** indicates the immediate children of start node only. A value of **base** indicates the single object represented by start node. If **forestroot** is specified as the *StartNode*, **subtree** is the only valid scope. By default, the **subtree** search scope is used.
-name *Name*	Searches for users whose name attributes (value of CN attribute) matches *Name*. For example, "jon*" or "*ith" or "j*th".
-desc *Description*	Searches for users whose description attribute matches *Description*. For example, "jon*" or "*ith" or "j*th".
-upn *UPN*	Searches for users whose UPN attribute matches *UPN*.
-samid *SAMName*	Searches for users whose SAM account name matches *SAMName*.
-inactive *NumberOfWeeks*	Searches for all users that have been inactive (stale) for at least the specified number of weeks.
-stalepwd *NumberOfDays*	Searches for all users that have not changed their password for at least the specified number of days.
-disabled	Searches for all users whose accounts are disabled.
{**-s** *Server*| **-d** *Domain*}	Connects to a specified remote server or domain. By default, the computer is connected to the domain controller in the logon domain.
-u *UserName*	Specifies the user name with which the user logs on to a remote server. By default, **-u** uses the account of the currently logged on user. You can use any of the following formats to specify a user name: user name (for example, Linda), domain\user name (for example, widgets\Linda) or user principal name (UPN) (for example, Linda@widgets.microsoft.com)
-p {*Password*| *}	Specifies to use either a password or a * to log on to a remote server. If you type *****, you will be prompted for a password.
-q	Suppresses all output to standard output (quiet mode).
-r	Specifies that the search use recursion or follow referrals during search. By default, the search will **not** follow referrals during search.
-gc	Specifies that the search use the Active Directory global catalog.

-limit *NumberOfObjects*	Specifies the number of objects that match the given criteria to be returned. If the value of *NumberOfObjects* is 0, all matching objects are returned. If this parameter is not specified, by default, the first 100 results are displayed.
{**-uc** | **-uco** | **-uci**}	Specifies that output or input data is formatted in Unicode using one of the following formats:

-uc Specifies a Unicode format for input from or output to a pipe (|).

-uco Specifies a Unicode format for output to a pipe (|) or a file.

-uci Specifies a Unicode format for input from a pipe (|) or a file.

Examples

To display the user principal names of all users in a given organizational unit whose name starts with "Jon" and whose account has been disabled for logon, type:
dsquery user OU=Test,DC=Microsoft,DC=Com -o upn -name jon* -disabled

To display the distinguished names of all users in only the current domain whose names end with "Smith" and who have been inactive for 3 weeks or more, type:
dsquery user domainroot -name *smith -inactive 3

To display the user principal names of all users in the organizational unit given by OU=Sales,DC=Microsoft,DC=Com, type:
dsquery user OU=Sales,DC=Microsoft,DC=Com -o upn

DSRM

The **Dsrm** command is used to delete an object of a specific type or any general object from the directory.

Syntax

dsrm *ObjectDN ...* [**-subtree** [**-exclude**]] [**-noprompt**] [{**-s** *Server* | **-d** *Domain*}] [**-u** *UserName*] [**-p** {*Password* | ***}][**-c**][**-q**][{**-uc** | **-uco** | **-uci**}]

Parameters

ObjectDN ...	Required. Specifies the distinguished names of objects to delete. If no value is entered at the command prompt, the value will be obtained through standard input.
-subtree [**-exclude**]	Specifies that the object and all objects contained in the subtree under that object be deleted. The **-exclude** parameter can only be specified along with the **-subtree** parameter to indicate that the base object given by *ObjectDN* should be excluded from deletion when deleting the subtree under it. By default, only the base object specified is deleted.
-noprompt	Sets the optional silent mode, which does not prompt to confirm deletion of each object. By default, you are prompted to confirm each deletion.
{**-s** *Server* | **-d** *Domain*}	Connects to a specified remote server or domain. By default, the computer is connected to the domain controller in the logon domain.
-u*UserName*	Specifies the user name with which the user logs on to a remote server. By default, **-u** uses the account of the currently logged on user. You can use any of the following formats to specify a user name: user name (for example, Linda), domain\user name (for example, widgets\Linda) or user principal name (UPN) (for example, Linda@widgets.microsoft.com)
-p {*Password* | *****}	Specifies to use either a password or a * to log on to a remote server. If you type *****, you will be prompted for a password.
-c	Reports errors, but continues with the next object in the argument list when multiple target objects are specified (continuous operation mode). Without this option, the command exits on the first error.
-q	Suppresses all output to standard output (quiet mode).
{**-uc** | **-uco** | **-uci**}	Specifies that output or input data is formatted in Unicode using one of the following formats:

-uc	Specifies a Unicode format for input from or output to a pipe (|).
-uco	Specifies a Unicode format for output to a pipe (|) or a file.
-uci	Specifies a Unicode format for input from a pipe (|) or a file.

Examples

To remove an organizational unit called "Marketing" and all the objects under that organizational unit, type:
dsrm -subtree -noprompt -c OU=Marketing,DC=Microsoft,DC=Com

To remove all objects under the organizational unit called "Marketing," but leave the organizational unit intact, type:
dsrm -subtree -exclude -noprompt -c "OU=Marketing,DC=Microsoft,DC=Com"

LDIFDE

The **Ldifde** command creates, modifies and deletes directory objects on computers running Windows Server 2003 or Windows XP Professional operating systems. You can also use **Ldifde** to extend the schema, export Active Directory user and group information to other applications or services and populate Active Directory with data from other directory services.

Syntax

Ldifde [**-i**] [**-f** *FileName*] [**-s** *ServerName*] [**-c** *String1 String2*] [**-v**] [**-j** *Path*] [**-t** *PortNumber*] [**-d** *BaseDN*] [**-r** *LDAPFilter*] [**-p** *Scope*] [**-l** *LDAPAttributeList*] [**-o** *LDAPAttributeList*] [**-g**] [**-m**] [**-n**] [**-k**] [**-a** *UserDistinguishedName Password*] [**-b** *UserName Domain Password*] [**-?**]

Parameters

-i	Specifies import mode. If not specified, the default mode is export.
-f*FileName*	Identifies the import or export file name.
-s*ServerName*	Specifies the domain controller to perform the import or export operation. By default, Ldifde will run on the domain controller on which Ldifde is installed.
-c*String1 String2*	Replaces all occurrences of *String1* with *String2*. This is generally used when importing data from one domain to another and the distinguished name of the export domain (*String1*) needs to be replaced with that of the import domain (*String2*).
-v	Sets verbose mode.
-j*Path*	Sets the log file location. The default is the current path.
-t*PortNumber*	Specifies a LDAP port number. The default LDAP port is 389. The global catalog port is 3268.
-d*BaseDN*	Sets the distinguished name of the search base for data export.
-r*LDAPFilter*	Creates an LDAP search filter for data export. For example, to export all users with a particular surname, you can use the following filter **-r (and(objectClass=***User***)(sn=***Surname***))**
-p*Scope*	Sets the search scope. Search scope options are Base, OneLevel, or SubTree.
-l*LDAPAttributeList*	Sets the list of attributes to return in the results of an export query. If this parameter is omitted, all attributes are returned.
-o*LDAPAttributeList*	Sets the list of attributes to omit from the results of an export query. This is typically used when exporting objects from Active Directory and then importing them into another LDAP-compliant directory. If attributes are not supported by another directory, you can omit the attributes from the result set using this option.
-g	Omits paged searches.
-m	Omits attributes that only apply to Active Directory objects such as the *ObjectGUID*, *objectSID*, *pwdLastSet* and *samAccountType* attributes.
-n	Omits export of binary values.
-k	Ignores errors during the import operation and continues processing. The following is a complete list of ignored errors: object is already a member of the group, object class violation (meaning the specified object class does not exist, if the object being imported has no other attributes), object already exists, constraint violation, attribute or value already exists and/or no such object
-a*UserDistinguishedName Password*	Sets the command to run using the supplied *UserDistinguishedName* and *Password*. By default, the command will run using the credentials of the user currently logged on to the network.
-b*UserName Domain Password*	Sets the command to run using the supplied *UserName Domain Password*. By default, the command will run using the credentials of the user currently logged on to the network.

NOTE: When creating the import file to use with the Ldifde command, use a *changeType* value to define the type of changes the import file will contain. The following *changeType* values are available:

add	Specifies that new content is contained in the import file.
modify	Specifies that existing content has been modified in the import file.
delete	Specifies that content has been deleted in the import file.

The following is an example of an LDIF import file format using the **add** value:
DN:CN=*SampleUser***,DC=***DomainName*
changetype:add
CN:*SampleUser*
description:*DescriptionOfFile*
objectClass:*User*
sAMAccountName:*SampleUser*

Examples

To retrieve only the distinguished name, common name, first name, surname, and telephone number of the returned objects, type:
-l*DistinguishedName***,CN,***GivenName***,SN,***Telephone*

To omit the object GUID, type:
-o*whenCreated***,***whenChanged***,***objectGUID*

NTDSUTIL

The **Ntdsutil** command provides management facilities for Active Directory. **Ntdsutil** can be used to perform database maintenance of Active Directory, manage and control single master operations, and remove metadata left behind by domain controllers that were removed from the network without being properly uninstalled. This tool is intended for use by experienced administrators.

Ntdsutil Subcommands

Authoritative restore	Authoritatively restore the DIT database
Configurable Settings	Manage configurable settings
Domain management	Prepare for new domain creation
Files	Manage NTDS database files
Help	Show help information for this command
LDAP policies	Manage LDAP protocol policies
Metadata cleanup	Clean up objects of decommissioned servers
Popups %s	Enable/Disable popups with "on" or "off"
Quit	Quit the utility
Roles	Manage NTDS role owner tokens
Security account management	Manage Security Account Database, Duplicate SID Cleanup
Semantic database analysis	Semantic Checker
Set DSRM Password	Reset directory service restore mode administrator account password

For more information on using this powerful command, see the Article 816120: "**How To Use Ntdsutil to Manage Active Directory Files from the Command Line in Windows Server 2003**" at the Microsoft Support Web site.

GROUP POLICY COMMANDS

DCGPOFIX

The **Dcgpofix** command is used to restore the default Group Policy objects to their original state (that is, the default state after initial installation).

NOTE:

- This tool can restore default domain and default domain controller policies to their original state after installation. When you run **Dcgpofix**, you will lose any changes made to these Group Policy objects.
- By specifying the **/ignoreschema** parameter, you can enable **Dcgpofix** to work with different versions of Active Directory. However, default policy objects might not be restored to their original state. To ensure compatibility, use the version of **Dcgpofix** that is installed with the current operating system.
- **Dcgpofix** checks the Active Directory schema version number to ensure compatibility between the version of **Dcgpofix** you are using and the Active Directory schema configuration. If the versions are not compatible, **Dcgpofix** will not run.
- The following extension settings are maintained in a default Group Policy object: Remote Installation Services (RIS), security settings and Encrypting File System (EFS).
- The following extension settings are not maintained or restored in a default Group Policy object: Software Installation, Internet Explorer maintenance, scripts, folder redirection and administrative templates.
- The following changes are not maintained or restored in a default Group Policy object: Security settings made by Exchange 2000 Setup, security settings migrated to default Group Policy during an upgrade from Windows NT to Windows 2000, and policy object changes made through Systems Management Server (SMS).

Syntax

dcgpofix [**/ignoreschema**][**/target:** {**domain** | **dc** | **both**}]

Parameters

/ignoreschema	Optional. Ignores the Active Directory schema version number.
/target: {**domain** | **dc** | **both**}	Optional. Specifies the target domain, domain controller or both. If you do not specify **/target**, **dcgpofix** uses **both** by default.

Examples

The following example shows how you can use the **dcgpofix** command to restore the default domain policy object:
dcgpofix /target: domain

GPRESULT

The **Gpresult** command is used to display Group Policy and Resultant Set of Policy (RSoP) settings for a user or a computer.

NOTE: Because you can apply overlapping levels of policies to any computer or user, the Group Policy feature generates a resulting set of policies at logon. **Gpresult** displays the resulting set of policies that were enforced on the computer for the specified user at logon.

Syntax

Gpresult [**/s** *Computer* [**/u** *Domain**User***/p** *Password*]][**/user** *TargetUserName*][**/scope** {**user** | **computer**}][{**/v** | **/z**}]

Parameters

/s *Computer*	Specifies the name or IP address of a remote computer (**do not use backslashes**). The default is the local computer.
/u *Domain**User*	Runs the command with the account permissions of the user identified by *User* or *Domain**User*. This command defaults to the permissions of the user currently logged-on to the computer issuing the command.
/p *Password*	Specifies the password of the user account identified in the **/u** parameter.
/user *TargetUserName*	Specifies the user name of the user whose RSOP data is to be displayed.
/scope {**user** | **computer**}	Displays either **user** or **computer** results. Valid values for the **/scope** parameter are **user** or **computer**. **NOTE**: If you omit the **/scope** parameter, **gpresult** displays both **user** and **computer** settings.
/v	Specifies that the output display verbose policy information.
/z	Specifies that the output display all available information about Group Policy. Because this parameter produces more information than the **/v** parameter, redirect output to a text file when you use this parameter (for example, **gpresult /z >policy.txt**).

Examples

The following examples show how you can use the **gpresult** command:
gpresult /user targetusername /scope computer
gpresult /s srvmain /u maindom\hiropln /p p@ssW23 /user targetusername /scope USER
gpresult /s srvmain /u maindom\hiropln /p p@ssW23 /user targetusername /z >policy.txt
gpresult /s srvmain /u maindom\hiropln /p p@ssW23

GPUPDATE

The **Gpupdate** command is used to refresh local Group Policy settings and Group Policy settings that are stored in Active Directory, including security settings. This command supersedes the now obsolete **/refreshpolicy** option for the **secedit** command.

Syntax

gpupdate [**/target:**{**computer** | **user**}] [**/force**] [**/wait:***Value*] [**/logoff**] [**/boot**]

Parameters

/target:{**computer** | **user**}	Processes **either** the current *Computer* settings **or** the current *User* settings. By default, both the computer **and** the user settings are processed.
/force	Ignores all processing optimizations and reapplies all settings.
/wait:*Value*	Number of seconds that policy processing waits to finish. The default is 600 seconds. 0 equals no wait, and -1 equals wait indefinitely.
/logoff	Logs off after the refresh has completed. This is required for those Group Policy, client-side extensions that do not process on a background refresh cycle, but do process when the user logs on (such as user Group Policy Software Installation and Folder Redirection). This option has no effect if there are no extensions called requiring the user to log off.
/boot	Restarts the computer after the refresh has completed. This is required for those Group Policy, client-side extensions that do not process on a background refresh cycle but, do process when the computer starts up (such as computer Group Policy Software Installation). This option has no effect if there are no extensions called requireing the computer to be restarted.

Examples

The following examples show how you can use the **gpupdate** command:
gpupdate
gpupdate /target:computer
gpupdate /force /wait:100
gpupdate /boot

NETWORKING COMMANDS

GETMAC

The Getmac command is used to return the media access control (MAC) address and list of network protocols associated with each address for all network cards in each computer, either locally or across a network.

Getmac can be useful either when you want to enter the MAC address into a network analyzer, or when you need to know what protocols are currently in use on each network adapter in a computer.

Syntax

getmac[.**exe**][**/s** *Computer* [**/u** *Domain**User* [**/p** *Password*]]][**/fo** {**TABLE** | **LIST** | **CSV**}][**/nh**][**/v**]

Parameters

/s *Computer*	Specifies the name or IP address of a remote computer (**do not use backslashes**). The default is the local computer.
/u *Domain**User*	Runs the command with the account permissions of the user identified by *User* or *Domain**User*. This command defaults to the permissions of the user currently logged-on to the computer issuing this command.
/p *Password*	Specifies the password of the user account identified in the **/u** parameter.
/fo{ **TABLE**| **LIST**| **CSV**}	Specifies the format to use for the query output. Valid values are **TABLE**, **LIST**, and **CSV**. The default format for output is **TABLE**.
/nh	Suppresses column header in output. Valid when the **/fo** parameter is set to **TABLE** or **CSV**.
/v	Specifies that the output display verbose information.

Examples

The following examples show how you can use the **getmac** command:
getmac /fo table /nh /v
getmac /s srvmain
getmac /s srvmain /u maindom\hiropln
getmac /s srvmain /u maindom\hiropln /p p@ssW23
getmac /s srvmain /u maindom\hiropln /p p@ssW23 /fo list /v
getmac /s srvmain /u maindom\hiropln /p p@ssW23 /fo table /nh

NETSTAT

The **Netstat** command displays active TCP connections, ports on which the computer is listening, Ethernet statistics, the IP routing table, IPv4 statistics (for the IP, ICMP, TCP and UDP protocols) and IPv6 statistics (for the IPv6, ICMPv6, TCP over IPv6 and UDP over IPv6 protocols). Used without parameters, **Netstat** displays active TCP connections.

Syntax

netstat[**-a**] [**-e**] [**-n**] [**-o**] [**-p** *Protocol*] [**-r**] [**-s**] [*Interval*]

Parameters

-a	Displays all active TCP connections, and the TCP and UDP ports on which the computer is listening.
-e	Displays Ethernet statistics, such as the number of bytes and packets sent and received. This parameter can be combined with **-s**.
-n	Displays active TCP connections; however, addresses and port numbers are expressed numerically, and no attempt is made to determine names.
-o	Displays active TCP connections and includes the Process ID (PID) for each connection. You can find the application based on the PID on the **Processes** tab in Windows Task Manager. This parameter can be combined with **-a**, **-n** and **-p**.
-p *Protocol*	Shows connections for the protocol identified by *Protocol*. In this case, the *Protocol* can be **tcp**, **udp**, **tcpv6**, or **udpv6**. If this parameter is used with **-s** to display statistics by protocol, the *Protocol* value can be **tcp**, **udp**, **icmp**, **ip**, **tcpv6**, **udpv6**, **icmpv6**, or **ipv6**.
-s	Displays statistics by protocol. By default, statistics are shown for the TCP, UDP, ICMP and IP protocols. If the IPv6 protocol is installed, statistics are shown for the TCP over IPv6, UDP over IPv6, ICMPv6 and IPv6 protocols. The **-p** parameter can be used to specify a set of protocols.
-r	Displays the contents of the IP routing table. This is equivalent to the **route print** command.
Interval	Redisplays the selected information every *Interval* seconds. Press CTRL+C to stop the redisplay. If this parameter is omitted, **netstat** prints the selected information only once.

NOTE: **Netstat** provides statistics for the following:

Proto	The name of the protocol (TCP or UDP).
Local Address	The IP address of the local computer and the port number being used. The name of the local computer that corresponds to the IP address and the name of the port is shown unless the **-n** parameter is specified. If the port is not yet established, the port number is shown as an asterisk (*).
Foreign Address	The IP address and port number of the remote computer to which the socket is connected. The names that correspond to the IP address and the port are shown, unless the **-n** parameter is specified. If the port is not yet established, the port number is shown as an asterisk (*).
(state)	Indicates the state of a TCP connection. The possible states are as follows: • CLOSE_WAIT • CLOSED • ESTABLISHED • FIN_WAIT_1 • FIN_WAIT_2 • LAST_ACK • LISTEN • SYN_RECEIVED • SYN_SEND • TIMED_WAIT For more information about the states of a TCP connection, see RFC 793.

Examples

To display both the Ethernet statistics and the statistics for all protocols, type:
netstat -e -s

To display the statistics for only the TCP and UDP protocols, type:
netstat -s -p tcp udp

To display active TCP connections and the process IDs every 5 seconds, type:
nbtstat -o 5

To display active TCP connections and the process IDs using numerical form, type:
nbtstat -n –o

OPENFILES

The **Openfiles** command queries, displays or disconnects open files or files opened by network users. Also enables or disables the system Maintain Objects List global flag.

Openfiles Subcommands

Disconnect	Disconnects one or more open files.
Query	Displays files opened locally or from shared folders.
Local	Enables / Disables the display of local open files.

NOTE: When using the **/s**, **/u** and **/p** command-line options the **/u** and **/p** command-line options are available only when you use **/s**. You must use **/p** with **/u** to provide the user's password.

Syntax

openfiles /**disconnect** [**/s** *Computer* [**/u** *Domain\User* [**/p** *Password]*]] {[**/id** *OpenFileID*] | [**/a** *UserName*] | [**/o** *OpenMode*]} [**/op** *OpenFileName*]

Parameters

/s *Computer*	Specifies the name or IP address of a remote computer (**do not use backslashes**). The default is the local computer. This parameter applies to all files and folders specified in the command.
/u *Domain\User*	Runs the script with the permissions of the specified user account. The default is system permissions.
/p *Password*	Specifies the password of the user account that is specified in the /u parameter.
/id *OpenFileID*	Disconnects the file opened with the specified numeric *OpenFileID* on the computer identified by the /s parameter. Use openfiles /query to learn the file ID. The wildcard (*) can be used to disconnect all open files on the specified computer.
/a *UserName*	Disconnects all open files by *UserName* value. The wildcard (*) can be used to disconnect all open files on the specified computer.
/o *OpenMode*	Disconnects all open files by *OpenMode* value. *OpenMode* values are Read, Write or Read/Write. The wildcard (*) can be used to disconnect all open files on the specified computer.
/op *OpenFileName*	Disconnects all open file connections created by a specific *OpenFile* name. The wildcard (*) can be used to disconnect all open files on the specified computer.

Examples

The following examples show how you can use the openfiles /disconnect command:

openfiles /disconnect /id 1
openfiles /disconnect /a hiropln
openfiles /disconnect /o read/write
openfiles /disconnect /op "c:\my documents\somedoc.doc"
openfiles /disconnect /session machine /id 5
openfiles /disconnect /s srvmain /u maindom\hiropln /id 5
openfiles /disconnect /s srvmain /u maindom\hiropln /p p@ssW23 /id *

Syntax

openfiles /**query** [**/s** *Computer* [**/u** *Domain\User* [**/p** *Password*]]] [**/fo** {**TABLE** | **LIST** | **CSV**}] [**/nh**] [**/v**]

Parameters

/s *Computer*	Specifies the name or IP address of a remote computer (**do not use backslashes**). The default is the local computer. This parameter applies to all files and folders specified in the command.
/u *Domain\User*	Runs the script with the permissions of the specified user account. The default is system permissions.
/p *Password*	Specifies the password of the user account that is specified in the /u parameter.
/fo format	Specify the output format with one of the following values:
	TABLE — Displays output in a table.
	LIST — Displays output in a list.
	CSV — Displays output in Comma Separated Values format.
/nh	Suppresses column header in the output. Valid only when the /fo parameter is set to TABLE or CSV.
/v	Specifies that detailed information be displayed in the output.

Examples

The following examples show how you can use the openfiles /query command:
openfiles /query
openfiles /query /fo table /nh
openfiles /query /fo list /v
openfiles /query /s srvmain /u maindom\hiropln /p p@ssW23

Syntax

openfiles /local [{on | off}]

Parameters

{on | off}	Enables or disables the system Maintain Objects List global flag, which tracks local file handles. Changes made by this switch will take effect only after restarting the system.
/?	Displays help at the command prompt.

NOTE: Enabling the Maintain Objects List global flag may slow down your system.

Examples

To check the current status of the Maintain Objects List global flag, type:
openfiles /local

To enable the Maintain Objects List global flag, type:
openfiles /local on

To disable the Maintain Objects List global flag, type:
openfiles /local off

PATHPING

The **Pathping** command provides information about network latency and network loss at intermediate hops between a source and destination. **Pathping** sends multiple Echo Request messages to each router between a source and destination over a period of time and then computes results based on the packets returned from each router. Because **pathping** displays the degree of packet loss at any given router or link, you can determine which routers or subnets might be having network problems. **Pathping** performs the equivalent of the **tracert** command by identifying which routers are on the path. It then sends pings, periodically, to all of the routers over a specified time period. **Pathping** then computes statistics based on the number returned from each ping. Used without parameters, **pathping** displays help.

When **pathping** is run, the first results list the path. This is the same path that is shown using the **tracert** command. Next, a busy message is displayed for approximately 90 seconds (the time varies by hop count). During this time, information is gathered from all routers previously listed and from the links between them. At the end of this period, the test results are displayed.

Syntax

pathping [**-n**] [**-h** *MaximumHops*] [**-g** *HostList*] [**-p** *Period*] [**-q** *NumQueries*[**-w** *Timeout*] [**-i** *IPAddress*] [**-4** *IPv4*] [**-6** *IPv6*][*TargetName*]

Parameters

-n	Prevents **pathping** from attempting to resolve the IP addresses of intermediate routers to their names. This might expedite the display of **pathping** results.
-h*MaximumHops*	Specifies the maximum number of hops in the path to search for the target destination. The default is 30 hops.
-g*HostList*	Specifies that the Echo Request messages use the Loose Source Route option in the IP header with the set of intermediate destinations specified in *HostList*. With loose source routing, successive intermediate destinations can be separated by one or multiple routers. The maximum number of addresses or names in the host list is 9. The *HostList* is a series of IP addresses (in dotted decimal notation) separated by spaces.
-p*Period*	Specifies the number of milliseconds to wait between consecutive pings. The default is 250 milliseconds (1/4 second).
-q*NumQueries*	Specifies the number of Echo Request messages sent to each router in the path. The default is 100 queries.
-w *Timeout*	Specifies the number of milliseconds to wait for each reply. The default is 3000 milliseconds (3 seconds).
-i *IPAddress*	Specifies the source address.
-4 *IPv4*	Specifies that pathping uses IPv4 only.
-6 *IPv6*	Specifies that pathping uses IPv6 only.
TargetName	Specifies the destination, which is identified either by IP address or host name.

NOTE:

- Pathping parameters are case-sensitive.
- When using the **-p** parameter, pings are sent individually to each intermediate hop. Because of this, the interval between two pings sent to the same hop is *period* multiplied by the number of hops.
- When using the **-w** parameter, multiple pings can be sent in parallel. Because of this, the amount of time specified in the *Timeout* parameter is not bounded by the amount of time specified in the *Period* parameter for waiting between pings.
- This command is available only if the **Internet Protocol (TCP/IP)** protocol is installed as a component in the properties of a network adapter in Network Connections.

Examples

To trace the route to corp1 and generate statistics for each of the hops, type:
pathping -n corp1

WAITFOR

The **Waitfor** command is used to synchronize multiple computers across a network by using signals. There are two formats for the **Waitfor** command. One is used when sending a signal. The other is used to wait for a signal.

Syntax

To send a signal:
waitfor [**/s***Computer* [**/u**[*Domain*****]*User*[**/p** [*Password*]]]] **/si***SignalName*

To wait for a signal:
waitfor [**/t***TimeoutInSeconds*] *SignalName*

Parameters

/s*Computer*	Specifies the name or IP address of a remote computer (**do not use backslashes**). The default is the local computer. This parameter applies to all files and folders specified in the command.
/u[*Domain*****] *User*	Runs the script with the permissions of the specified user account. The default is system permissions.
/p[*Password*]	Specifies the password of the user account that is specified in the **/u** parameter.
/t*TimeoutInSeconds*	Specifies the number of seconds to wait. The default is indefinite.
/si	Sends *SignalName* instead of waiting.
SignalName	Specifies the signal for which **waitfor** waits or that it sends. *SignalName* is not case-sensitive.

NOTE:

- Only one instance of **waitfor** can wait for a given signal on a given computer.
- Signal names are not case-sensitive.
- Signal names cannot exceed 225 characters and cannot contain characters other than a-z, A-Z, 0-9, and ASCII characters in the range of 128-255.
- If you do not use **/s**, the signal is broadcast to all computers within the same domain as the sending computer. If you use **/s**, the signal is sent only to the specified computer.
- You can run multiple instances of **waitfor** on a single computer, but each must wait for a different signal. You can trigger a signal by using the **/si** command-line option.
- **Waitfor** runs only on Windows XP and servers running a Windows Server 2003 operating system, but it can send signals to any computer running a Windows operating system.
- Computers can only receive signals if they are in the same domain as the computer sending the signal.
- You can use **waitfor** when you test software builds. For example, the compiling computer can send out a signal to several computers running **waitfor** after the compile has completed successfully. On receipt of the signal the batch file that includes **waitfor** can instruct the computers to immediately start installing software or running tests on the compiled build.

Examples

To wait 10 seconds or until the "espresso\build7" signal is triggered, type:
waitfor /t 10 espresso\build7
To wait forever (the default) or until the "espresso\build7" signal is triggered, type:
waitfor espresso\build7

To trigger the "espresso\build7" signal, type:
waitfor /si espresso\build7

SECURITY COMMANDS

CIPHER

The **Cipher** command is used to display or alter the encryption of folders and files on NTFS volumes. Used without parameters, **cipher** displays the encryption state of the current folder and any files it contains.

Syntax

cipher [{**/e** | **/d**}] [**/s:***Folder*] [**/a**] [**/i**] [**/f**] [**/q**] [**/h**] [**/k**] [**/u**[**/n**]] [{*PathName* [...]] | **/r:***PathNameWithoutExtension* | **/w:***PathName* | **/x**[**:***PathName*] *PathNameWithoutExtension*}]

Parameters

/e	Encrypts the specified folders. Folders are marked so that files added to the folder later are encrypted, too.
/d	Decrypts the specified folders. Folders are marked so that files added to the folder later are decrypted, too.
/s:*Folder*	Performs the selected operation in the specified folder and all subfolders.
/a	Performs the operation for files and directories.
/i	Continues performing the specified operation even after errors occur. By default, **cipher** stops when it encounters an error.
/f	Forces the encryption or decryption of all specified objects. By default, **cipher** skips files that have been encrypted or decrypted already.
/q	Reports only the most essential information.
/h	Displays files with hidden or system attributes. By default, these files are not encrypted or decrypted.
/k	Creates a new file encryption key for the user running **cipher**. *****
/u	Updates the user's file encryption key or recovery agent's key to the current ones in all of the encrypted files on local drives (that is, if the keys have been changed). This option only works with **/n**.
/n	Prevents keys from being updated. Use this option to find all of the encrypted files on the local drives. This option only works with **/u**.
PathName	Specifies a pattern, file or folder.
/r:*PathNameWithoutExtension*	Generates a new recovery agent certificate and private key, and then writes them to files with the file name specified in *PathNameWithoutExtension*. *****
/w:*PathName*	Removes data on unused portions of a volume. *PathName* can indicate any directory on the desired volume. *****
/x[**:***PathName*] *PathNameWithoutExtension*	Identifies the certificates and private keys used by EFS for the currently logged on user, and backs them up to a file. If *PathName* is provided, the certificate used to encrypt the specified file is backed up. Otherwise, the user's current EFS certificate and keys will be backed up. The certificates and private keys are written to a file name specified by *PathNameWithoutExtension* and are given the file name extension .pfx. *****

***** If you use this option, **cipher** ignores all the other options.

NOTE:

- **/w** removes data from portions of the volume it can access and have not been allocated to files or directories. It does not lock the drive, so other programs can obtain space on the drive, which **cipher** cannot erase. Because this option writes to a large portion of the hard volume, it might take a long time to complete and should only be used when necessary.
- To prevent an encrypted file from becoming decrypted when it is modified, it is recommended that you encrypt both the file and the folder in which it resides.
- **Cipher** cannot encrypt files that are marked as read-only.
- You can use multiple folder names and wildcard characters.
- You must separate multiple parameters by at least one space.

Examples

To back up the certificate and private key currently used to encrypt and decrypt EFS files to a file named c:\myefsbackup.pfx, type:
cipher /x c:\myefsbackup

To encrypt the MonthlyReports folder and all subfolders, type:
cipher /e /s:monthlyreports

To encrypt only the Marketing.xls file in the May subfolder, type:
cipher /e /a monthlyreports\may\marketing.xls

To determine which files in the May folder are encrypted, type:
cipher monthlyreports\may*

CMDKEY

The Cmdkey command creates, lists and deletes stored user names and passwords or credentials.

Syntax

cmdkey [{**/add:***TargetName* | **/generic:***TargetName*}] [**/smartcard**] [**/user:***UserName* [**/pass**[**:***Password*]] [**/delete**{**:***TargetName* | **/ras**}] [**/list**[**:***TargetName*]]

Parameters

/add	Adds a user name and password to the list.
TargetName	The computer or domain name that this entry will be associated with.
/generic	Adds generic credentials to the list.
/smartcard	Retrieves the credential from a smart card.
/user:*UserName*	Specifies the user or account name to store with this entry. If *UserName* is not supplied, it will be requested.
/pass:*Password*	Specifies the password to store with this entry. If *Password* is not supplied, it will be requested.
/delete {**:***TargetName* | **/ras**}	Deletes a user name and password from the list. If *TargetName* is specified, that entry will be deleted. If **/ras** is specified, the stored remote access entry will be deleted.
/list:*TargetName*	Displays the list of stored user names and credentials. If *TargetName* is not specified, all stored user names and credentials will be listed.

NOTE:

- If more than one smart card is found on the system when the **/smartcard** option is used, **cmdkey** will display information about all available smart cards and then prompt the user to specify which one to use.
- Passwords will not be displayed once they are stored.

Examples

To display a list of all user names and credentials that are stored, type:
cmdkey /list

To add a user name and password for user Mikedan to access computer Server01 with the password Kleo, type:
cmdkey /add:server /user:mikedan /pass:Kleo

To add a user name and password for user Mikedan to access computer Server01 and prompt for the password whenever Server01 is accessed, type:
cmdkey /add:server /user:mikedan

To delete the credential that remote access has stored, type:
cmdkey /delete /ras

SECEDIT

The **Secedit** command configures and analyzes system security by comparing your current configuration to at least one template.

Secedit Subcommands

analyze	Allows you to analyze the security settings on a computer by comparing them against the baseline settings in a database.
configure	Configures local computer security by applying the settings stored in a database.
export	Allows you to export the security settings stored in the database.
import	Allows you to import a security template into a database so that the settings specified in the template can be applied to a system or analyzed against a system.
validate	Validates the syntax of a security template to be imported into a database for analysis or application to a system.
GenerateRollback	Allows you to generate a rollback template with respect to a configuration template. When applying a configuration template to a computer, you have the option of creating a rollback template which, when applied, resets the security settings to the values before the configuration template was applied.

NOTE: **secedit /refreshpolicy** has been replaced with **gpupdate.**

Syntax

secedit /analyze/db*FileName***.sdb**[**/cfg***FileName*] [**/overwrite**] [**/log***FileName*] [**/quiet**]

Parameters

/db*FileName***.sdb**	Specifies the database used to perform the analysis.
/cfg*FileName*	Specifies a security template to import into the database prior to performing the analysis. Security templates are created using the Security Templates snap-in.
/log*FileName*	Specifies a file in which to log the status of the configuration process. If not specified, configuration data is logged in the scesrv.log file which is located in the %windir%\security\logs directory.
/quiet	Specifies that the analysis process should take place without further comments.

Examples

secedit /analyze /db hisecws.sdb

Syntax

secedit/configure/db *FileName*[**/cfg** *FileName*] [**/overwrite**][**/areas***Area1 Area2 ...*] [**/log***FileName*] [**/quiet**]

Parameters

/db*FileName*	Specifies the database used to perform the security configuration.
/cfg*FileName*	Specifies a security template to import into the database prior to configuring the computer. Security templates are created using the Security Templates snap-in.
/overwrite	Specifies that the database should be emptied prior to importing the security template. If this parameter is not specified, the settings in the security template are accumulated into the database. If this parameter is not specified and there are conflicting settings in the database and the template being imported, the template settings win.
/areas*Area1 Area2 ...*	Specifies the security areas to be applied to the system. If this parameter is not specified, all security settings defined in the database are applied to the system. To configure multiple areas, separate each area by a space. The following security areas are supported:

Area Name	Description
SECURITYPOLICY	Includes account policies, audit policies, event log settings, and security options.
GROUP_MGMT	Includes Restricted Group settings
USER_RIGHTS	Includes User Rights Assignment
REGKEYS	Includes Registry Permissions
FILESTORE	Includes File System permissions
SERVICES	Includes System Service settings

/log*FileName*	Specifies a file in which to log the status of the configuration process. If not specified, configuration data is logged in the scesrv.log file which is located in the %windir%\security\logs directory.
/quiet	Specifies that the configuration process should take place without prompting the user.

Examples

secedit /configure /db hisecws.sdb /cfg hisecws.inf /overwrite /log hisecws.log

Syntax

secedit/export[**/DB***FileName*] [**/mergedpolicy**] [**/CFG** *FileName*] [**/areas***Area1 Area2 ...*] [**/log***FileName*] [**/quiet**]

Parameters

/db*FileName*	Specifies the database used to configure security.
/mergedpolicy	Merges and exports domain and local policy security settings.
/CFG*FileName*	Specifies the template the settings will be exported to.
/areas*Area1 Area2 ...*	Specifies the security areas to be exported to a template. If an area is not specified, all areas are exported. Each area should be separated by a space.

Area Name	Description
SECURITYPOLICY	Includes account policies, audit policies, event log settings, and security options.
GROUP_MGMT	Includes Restricted Group settings
USER_RIGHTS	Includes User Rights Assignment
REGKEYS	Includes Registry Permissions
FILESTORE	Includes File System permissions
SERVICES	Includes System Service settings

/log*FileName*	Specifies a file in which to log the status of the export process. If not specified, the default is %windir%\security\logs\scesrv.log.
/quiet	Specifies that the configuration process should take place without prompting the user.

Examples

secedit /export /db hisecws.inf /log hisecws.log

Syntax

secedit/import/db*FileName***.sdb/cfg***FileName*.inf [**/overwrite**] [**/areas***Area1 Area2 ...*] [**/log***FileName*] [**/quiet**]

Parameters

/db*FileName***.sdb**	Specifies the database that the security template settings will be imported into.
/CFG*FileName*	Specifies a security template to import into the database. Security templates are created using the Security Templates snap-in.
/overwrite*FileName*	Specifies that the database should be emptied prior to importing the security template. If this parameter is not specified, the settings in the security template are accumulated into the database. If this parameter is not specified and there are conflicting settings in the database and the template being imported, the template settings win.
/areas*Area1 Area2 ...*	Specifies the security areas to be exported to a template. If an area is not specified, all areas are exported. Each area should be separated by a space.

Area Name	**Description**
SECURITYPOLICY	Includes account policies, audit policies, event log settings, and security options.
GROUP_MGMT	Includes Restricted Group settings
USER_RIGHTS	Includes User Rights Assignment
REGKEYS	Includes Registry Permissions
FILESTORE	Includes File System permissions
SERVICES	Includes System Service settings

/log*FileName*	Specifies a file in which to log the status of the export process. If not specified, the default is %windir%\security\logs\scesrv.log.
/quiet	Specifies that the configuration process should take place without prompting the user.

Examples

secedit /import /db hisecws.sdb /cfg hisecws.inf /overwrite

TSECIMP

The **Tsecimp** command is used to import assignment information from an Extensible Markup Language (XML) file into the TAPI server security file (Tsec.ini). **Tsecimp** can also be used display the list of TAPI providers and the line devices associated with each of them, validate the structure of the XML file without importing the contents and check domain membership.

Syntax

To import a file:
tsecimp-f*FileName* [{**-v** | **-u**}]

To validate XML structure:
tsecimp-d

Parameters

-f*FileName*	Required. Specifies the name of the XML file that contains the assignment information that you want to import.
-v	Validates the structure of the XML file without importing the information into the Tsec.ini file.
-u	Checks whether each user is a member of the domain specified in the XML file. The computer on which you use this parameter must be connected to the network. This parameter might significantly slow performance if you are processing a large amount of user assignment information.
-d	Displays a list of installed telephony providers. For each telephony provider, the associated line devices are listed, as well as the addresses and users associated with each line device.

NOTE: The XML file from which you want to import assignment information must follow the structure described below:

UserList element	The **UserList** is the top element of the XML file.
User element	Each **User** element contains information about a user who is a member of a domain. Each user might also be assigned one or more line devices. Additionally, each **User** element might have an attribute named **NoMerge**. When this attribute is specified, all current line device assignments for the user are removed before new ones are made. You can use this attribute to easily remove unwanted user assignments. By default, this attribute is not set. The **User** element must contain a single **DomainUserName** element, which specifies the domain and user name of the user. The **User** element might contain one **FriendlyName** element, which specifies a friendly name for the user. The **User** element might also contain one **LineList** element. If a **LineList** element is not present, all line devices for this user are removed.
LineList element	The **LineList** element contains information about each line or device that might be assigned to the user. Each **LineList** element can contain more than one **Line** element.
Line element	Each **Line** element specifies a line device. You must identify each line device by adding either an **Address** element or a **PermanentID** element under the **Line** element. For each **Line** element, you can set the **Remove** attribute. If you set this attribute, the user is no longer assigned that line device. If this attribute is not set, the user gains access to that line device. No error is given if the line device is not available to the user.

TROUBLESHOOTING COMMANDS

FREEDISK

The **Freedisk** command checks to see if the specified amount of disk space is available before continuing with an installation process.

Syntax

freedisk [**/s** *Computer* [**/u** [*Domain*\]*User* [**/p** [*Password*]]]] [**/d** *Drive*] [*Value*]

Parameters

/s*Computer*	Specifies the name or IP address of a remote computer (**do not use backslashes**). The default is the local computer. This parameter applies to all files and folders specified in the command.
/u [*Domain*\]*User*	Runs the script with the permissions of the specified user account. The default is system permissions.
/p [*Password*]	Specifies the password of the user account that is identified in **/u**.
/d*Drive*	Specifies the drive for which you want to find out free space availability. You must specify *Drive* for a remote computer.
Value	Checks for a specific amount of free disk space. You can specify *Value* in bytes, KB, MB, GB, TB, PB or NB.

NOTE:

- Using the **/s**, **/u** and **/p** command-line options: the **/u** and **/p** command-line options are available only when you use **/s**. You must use **/p** with **/u** to provide the user's password.
- For unattended installations, you can use **freedisk** in installation batch files to check for the prerequisite amount free space before continuing with the installation.
- When you use **freedisk** in a batch file, it returns a **0** if there is enough space and a **1** if there is not enough space.

Examples

To determine whether there are at least 50 MB of free space available on drive C:, type:
freedisk 50mb

HELPCTR

The **Helpctr** command is used to start the Help and Support Center. Used without parameters, **Helpctr** displays the Help and Support Center home page.

Syntax

%systemroot%\PCHealth\HelpCtr\Binaries\helpctr [**/url** [*URL*]] [**/mode** [*URL*]] [**/hidden**] [**/fromstarthelp**]

Parameters

/url [*URL*]	Specifies the Uniform Resource Locator (URL) that you want to display within Help and Support Center.
/mode [*URL*]	Specifies an Extensible Markup Language (XML) Definition file that complies with the Launch_Description.dtd schema, which controls the context, layout and content of Help and Support Center.
/hidden	Starts Help and Support Center without displaying the user interface. This command can load a topic. You use this command for remotely administered script execution.
/fromstarthelp	Starts a new instance of Help and Support Center.

NOTE:

- When you use **/url** or **/mode**, you can use quotation marks around the *URL* (that is, **"***URL***"**). If a space exists within *URL*, replace it by typing **%20** (that is, **"***URL***%20***Address***"**).
- To run **helpctr** from a command line, you must include the path. By default, the path to helpctr.exe is %systemroot%\PCHealth\HelpCtr\Binaries\.

Examples

To use helpctr to start a remote assistance session using a .msrincident file you have created, type:
%systemroot%\PCHealth\HelpCtr\Binaries\HelpCtr /mode "hcp://system/Remote Assistance/RAClientLayout.xml" /url "hcp://system/Remote%20Assistance/Interaction/Client/rctoolScreen1.htm?IncidentFile=rahelp.msrincident"

TAKEOWN

The **Takeown** command allows an administrator to recover access to a file that previously was denied by making the administrator the owner of the file.

Syntax

takeown [/s *Computer* [/u [*Domain**User* [/p [*Password*]]]] /f *FileName* [**/a**] [**/r**] [**/d** {Y | N}]

Parameters

/s*Computer*	Specifies the name or IP address of a remote computer (**do not use backslashes**). The default is the local computer. This parameter applies to all of files and folders specified in the command.
/u*Domain\User*	Runs the script with the permissions of the specified user account. The default is system permissions.
/p [*Password*]	Specifies the password of the user account that is identified in the **/u** parameter.
/f*FileName*	Specifies the file name or directory name pattern. You can use the wildcard character "*" in specifying the pattern. You can also use *ShareName\FileName*.
/a	Gives ownership to the administrators group instead of the current user.
/r	Performs recursive operation on all files in the specified directory and subdirectories.
/d {Y | N}	Default prompt used when the current user does not have permissions to view folders within a directory. Use Y to take ownership and N to suppress the confirmation prompt.

NOTE:

- This command is typically used in batch files.
- Using the **/s**, **/u**, and **/p** command-line options The **/u** and **/p** command-line options are available only when you use **/s**. You must use **/p** with **/u** to provide the user's password.
- If **/a** is not specified, then file ownership is given to the user who is currently logged on to the computer.
- Mixed patterns using the question mark (?) and the wildcard character (*) is not supported.

Examples

To take ownership of a file using the name pattern Lostfile, type:
takeown /f lostfile

TASKKILL

The **Taskkill** command is used to ends one or more tasks or processes. Processes can be killed by process ID or image name.

Syntax

taskkill [**/s** *Computer* [**/u** *Domain******UserName* [**/p** *Password*]]] {[**/fi** *Filter* [**/fi** *Filter* [...]]] [{**/pid** *ProcessID* | **/im** *ImageName*}] | **/pid** *ProcessID* | **/im** *ImageName*} [**/f**] [**/t**]

Parameters

/s *Computer*
Specifies the name or IP address of a remote computer (**do not use backslashes**). The default is the local computer.

/u *Domain******UserName*
Runs the command with the account permissions of the user identified by *UserName* or *Domain******UserName*. **/u** can be specified only when **/s** is specified. This command defaults to the permissions of the user currently logged-on to the computer issuing this command.

/p *Password*
Specifies the password of the user account that is identified in the **/u** parameter.

/fi *Filter*
Specifies the type(s) of process(es) to include in, or exclude from, termination. You can specify more than one filter. Use the wildcard (*****) to specify all tasks or image names. Valid filter names, operators and values are shown below:

Name	Operators	Value
Status	**eq**, **ne**	**RUNNING** | **NOT RESPONDING** | **UNKNOWN**
Imagename	**eq**, **ne**	Any valid string.
PID	**eg**, **ne**, **gt**, **lt**, **ge**, **le**	Any valid positive integer.
Session	**eg**, **ne**, **gt**, **lt**, **ge**, **le**	Any valid session number.
CPUTime	**eq**, **ne**, **gt**, **lt**, **ge**, **le**	Valid time in the format of *HH***:***MM***:***SS*. The *MM* and *SS* parameters should be between 0 and 59 and *HH* can be any valid unsigned numeric value.
Memusage	**eg**, **ne**, **gt**, **lt**, **ge**, **le**	Any valid integer.
Username	**eq**, **ne**	Any valid user name ([*Domain*****]*UserName*).
Services	**eq**, **ne**	Any valid string.
Windowtitle	**eq**, **ne**	Any valid string.
Modules	**eq**, **ne**	Any valid string.

/pid *ProcessID*
Specifies the process ID of the process to be terminated.

/im *ImageName*
Specifies the image name of the process to be terminated. Use the wildcard (*****) to specify all image names.

/f
Specifies that process(es) be forcefully terminated. This parameter is ignored for remote processes; all remote processes are forcefully terminated.

/t
Terminates the specified process and any child processes which that process started.

NOTE:

- The "WindowTitle" and "Status" filters are not supported when a remote system is specified.
- The wildcard character (*) is accepted only when specified along with the filters.
- Termination for remote processes will always be done forcefully, regardless of whether the **/f** parameter is specified.
- Supplying a computer name to the HOSTNAME filter will cause a shutdown, and all processes will be stopped.
- Use **tasklist** to determine the Process ID (PID) for the process to be terminated.
- **Taskkill** is a replacement for the **kill** tool.

Examples

taskkill /pid 1230 /pid 1241 /pid 1253
taskkill /f /fi "USERNAME eq NT AUTHORITY\SYSTEM" /im notepad.exe
taskkill /s srvmain /f /im notepad.exe
taskkill /s srvmain /u maindom\hiropln /p p@ssW23 /fi "IMAGENAME eq note*" /im *
taskkill /s srvmain /u maindom\hiropln /fi "USERNAME ne NT*" /im *
taskkill /pid 2134 /t /fi "username eq administrator"
taskkill /f /fi "PID ge 1000" /im *

TRACERPT

The **Tracerpt** command processes event trace logs, or real-time data, from instrumented event trace providers, and allows you to generate trace analysis reports and **CSV** (comma-delimited) files for the events generated.

Syntax

tracerpt [*FileName* [*FileName ...*]] [**-o** [*FileName*]][**-report** [*FileName*]][**-rt** *SessionName* [*SessionName ...*]][**-summary** [*FileName*]] [**-config** [*FileName*] [**-f** {XML | TXT | HTML}] [**-y**]

Parameters

FileName [*FileName ...*]	Specifies the name of the file for the event trace session. You can specify multiple files.
-o [*FileName*]	Specifies the name of the .csv (comma-delimited) file. If no files are specified, then the default is Dumpfile.csv, not Summary.txt.
-report [*FileName*]	Specifies the name of the output report file. Default is Workload.txt.
-rt*SessionName*[*SessionName ...*]	Gets data from the real-time data source. To use this option, include the event trace session.
-summary [*FileName*]	Specifies the name of the output summary file. Default is Summary.txt.
-config*FileName*	Specifies the pathname of the settings file that contains command line parameters. Use this to enter your command line options into a file.
-f {XML | TXT | HTML}	Specifies the report format. The default format is TXT.
-y	Use this option to answer yes to all questions without prompting.

NOTE:

- Opening the Dumpfile.csv format in Microsoft Excel allows you to view events in chronological order. The files include header records followed by comma-delimited text. The header fields are listed below:

Field	Description
TID	Thread identifier
Clock time	Event timestamp
Kernel (ms)	Processor time in kernel mode
User (ms)	Processor time in user mode
User data	Variable piece of header data based on the Managed Object Format (MOF) structure.
IID	Instance ID
PIID	Parent Instance ID

- To use the report option, you must include a Windows kernel trace file, and any other event trace file in your command line. You will receive an error message without this in your command line.
- When you use the **-summary** option, the following file is generated:
  Files processed
  Total buffers processed
  Total events processed
  Total events lost
  Start time
  End time
  Elapsed time
- The contents of the setting file used with the **-config** option should have the following format:
  [*CommandOption*]
  Value
  where *CommandOption* is a command line option and *Value* specifies its value. For example:

```
[o]
output.txt
[report]
report.txt
[summary]
summary.txt
```

MAINTENANCE COMMANDS

COMPACT

The **Compact** command displays and alters the compression of files or directories on NTFS partitions. Used without parameters, **Compact** displays the compression state of the current directory.

Syntax

compact [{**/c** | **/u**}] [**/s**[**:***Dir*]] [**/a**] [**/i**] [**/f**] [**/q**] [*FileName*[...]]

Parameters

/c	Compresses the specified directory or file.
/u	Uncompresses the specified directory or file.
/s[**:***Dir*]	Specifies that the requested action (compress or uncompress) be applied to all subdirectories of the specified directory, or of the current directory if none is specified.
/a	Displays hidden or system files.
/i	Ignores errors.
/f	Forces compression, or uncompression, of the specified directory or file. This is used in the case of a file that was partly compressed when the operation was interrupted by a system crash. To force the file to be compressed in its entirety, use the **/c** and **/f** parameters and specify the partially compressed file.
/q	Reports only the most essential information.
FileName	Specifies the file or directory. You can use multiple file names and wildcard characters (* and ?).

Examples

To set the compression state of the current folder and its subfolders and existing files, from the current folder, type:
compact /c /s

To set the compression state of files in the current folder, subfolders in the current folder, and files within all subfolders, without altering the compression state of the current folder, from the current folder, type:
compact /c /s *.*

To compress a volume from the root folder of the volume, type:
compact /c /i /s:

To compress all files that end in .bmp in the \Tmp directory, and all subdirectories of \Tmp, but not modify the compressed attribute of these directories, type:
compact /c /s:\tmp *.bmp

To force complete compression of the file Zebra.bmp, interrupted and partially compressed due to a system crash, type:
compact /c /f zebra.bmp

To remove the compressed attribute from the directory C:\Tmp, but not change the compression state of any files in that directory, type:
compact /u c:\tmp

DEFRAG

Locates and consolidates fragmented boot files, data files and folders on local volumes.

Syntax

defrag *Volume* { [**/a**] } { [**/a**] [**/v**] } { [**/v**] } { [**/f**] }

Parameters

Volume	The drive letter, or a mount point, of the volume to be defragmented.
/a	Analyzes the volume, displays a summary of the analysis report and indicates whether you should defragment the volume.
/v	Displays the complete analysis and defragmentation reports. When used in combination with **/a**, displays only the analysis report. When used alone, displays both the analysis and defragmentation reports.
/f	Forces defragmentation of the volume when free space is low.
/?	Displays help at the command prompt.

NOTE:

- A volume must have at least 15% free space for **defrag** to completely and adequately defragment it. **Defrag** uses this space as a sorting area for file fragments. If a volume has less than 15% free space, **defrag** will only partially defragment it. To increase the free space on a volume, delete or move unneeded files to another disk.
- You cannot defragment volumes that the file system has marked as dirty, indicating possible corruption. You must run **chkdsk** on a dirty volume before you can defragment it. You can determine if a volume is dirty by using the **fsutil dirty query** command. For more information about **chkdsk** and **fsutil dirty**, see Related Topics.
- While **defrag** is analyzing and defragmenting a volume, it displays a blinking cursor. When **defrag** is finished analyzing and defragmenting the volume, it displays the analysis report, the defragmentation report or both reports, and then exits to the command prompt.

Examples

To analyze drive C, type:
defrag C: /a

To analyze drive C and display the analysis report, type:
defrag C: /a /v

To defragment drive C, type:
defrag C:

To defragment drive C and display the defragmentation report, type:
defrag C: /v

DISKPART

The **DiskPart** command enables you to manage objects (disks, partitions or volumes) by using scripts or direct input from a command prompt. Before you can use **DiskPart** commands, you must first list the objects, and then select the desired object to give the command focus. When an object has focus, any **DiskPart** commands that you type will act on that object.

You can only give focus to a partition on the selected disk. When a partition has focus, the related volume (if any) also has focus. When a volume has focus, the related disk and partition also have focus, if the volume maps to a single specific partition. If this is not the case, focus on the disk and partition is lost.

DiskPart Subcommands

Add	Add a mirror to a simple volume.
Active	Marks the current basic partition as active.
Assign	Assign a drive letter, or mount point, to the selected volume.
Automount	Enables and disables automatic mounting of basic volumes.
Break	Break a mirror set.
Clean	Clear configuration information, or all information, off the disk.
Convert	Converts between different disk formats.
Create	Create a volume or partition.
Delete	Delete an object.
Detail	Provide details about an object.
Exit	Exit DiskPart
Extend	Extend a volume.
Gpt	Assigns attributes to the selected GPT partition.
Help	Prints a list of commands.
Import	Imports a disk group.
Inactive	Marks the current basic partition as inactive.
List	Prints out a list of objects.
Online	Online a disk that is currently marked as offline.
Rem	Does nothing. Used to comment scripts.
Remove	Remove a drive letter or mount point assignment.
Repair	Repairs a RAID-5 volume with a failed member.
Rescan	Rescan the computer looking for disks and volumes.
Retain	Place a retained partition under a simple volume.
Select	Move the focus to an object.

Syntax

break disk=*N* [**nokeep**] [**noerr**]

Parameters

N	Specifies the disk that contains the mirrored volume. This disk is given focus and does not retain the drive letter or any mount points. If the specified disk is the current system or boot disk, the command fails.
nokeep	Specifies that only one of the mirrored volumes is retained; the simple volume, *N*, is deleted and converted to free space. Neither the volume nor the free space receives the focus.
noerr	For scripting only. When an error is encountered, DiskPart continues to process commands as if the error did not occur. Without the **noerr** parameter, an error causes DiskPart to exit with an error code.

Syntax

create partition efi [**size=***N*] [**offset**=*N*] [**noerr**]

Parameters

size=*N*	The size of the partition in megabytes (MB). If no size is given, the partition continues until there is no more free space in the current region.
offset=*N*	The byte offset at which the partition is created. If no offset is given, the partition is placed in the first disk extent that is large enough to hold it.
noerr	For scripting only. When an error is encountered, DiskPart continues to process commands as if the error did not occur. Without the **noerr** parameter, an error causes DiskPart to exit with an error code.

DRIVERQUERY

The **Driverquery** command is used to display a list of all installed device drivers and their properties.

Syntax

driverquery [**/s** *Computer*] [**/u** *Domain**User***/p** *Password*] [**/fo** {**TABLE** | **LIST** | **CSV**}] [**/nh**] [{**/v** | **/si**}]

Parameters

/s *Computer*	Specifies the name or IP address of a remote computer (**do not use backslashes**). The default is the local computer.
/u *Domain\User*	Runs the command with the account permissions of the user specified by *User* or *Domain\User*. This command defaults to the permissions of the user currently logged-on to the computer issuing the command.
/p *Password*	Specifies the password of the user account identified in the **/u** parameter.
/fo {**TABLE** | **LIST** | **CSV**}	Specifies the display format for the driver information. Valid values are **TABLE**, **LIST**, and **CSV**. The default format for output is **TABLE**.
/nh	Omits the header row from the displayed driver information. Valid when the **/fo** parameter is set to **TABLE** or **CSV**.
/v	Specifies that detailed driver information be displayed.
/si	Specifies to display to properties of signed drivers.

Examples

driverquery
driverquery /fo csv
driverquery /nh
driverquery /s ipaddress
driverquery /s server1 /u hirpln /v
driverquery /s server1 /u maindom\hirpln /p p@ssw3d /fo list

FSUTIL

Fsutil is a command-line utility that you can use to perform many tasks related to file allocation table (FAT) and NTFS file systems, such as managing reparse points, managing sparse files or dismounting volumes.

Fsutil Subcommands

behavior	Queries, changes, enables or disables the settings for the following items: Generating 8.3 character-length file names; accepting extended characters in 8.3 character-length file names on NTFS volumes; updating the last access timestamp on NTFS volumes; how often quota events are written to the system log; the internal cache levels of NTFS paged pool and NTFS non-paged pool memory; and the amount of disk space reserved for the MFT Zone.
dirty	Queries whether the volume's dirty bit is set, and sets a volume's dirty bit. When a volume's dirty bit is set, **autochk** automatically checks the volume for errors the next time the computer is restarted.
file	Typically used by support professionals. Finds a file by user name (if Disk Quotas are enabled), queries allocated ranges for a file, sets a file's short name, sets a file's valid data length or sets zero data for a file.
fsinfo	Typically used by support professionals. Lists all drives, queries the drive type, queries volume information, queries NTFS-specific volume information or queries file system statistics.

hardlink	Creates a hard link. A hard link is a directory entry for a file. Every file can be considered to have at least one hard link. On NTFS volumes, each file can have multiple hard links, and thus a single file can appear in many directories (or even in the same directory with different names). Because all of the links reference the same file, programs can open any of the links and modify the file. A file is deleted from the file system only after all links to it have been deleted. After you create a hard link, programs can use it like any other file name.
objectid	Typically used by support professionals. Manages object identifiers, which are used by Windows XP and the Windows Server 2003 family of operating systems to track objects such as files and directories.
quota	Manages disk quotas on NTFS volumes in order to provide more precise control of network-based storage. Disk quotas are implemented on a per-volume basis and enable both hard- and soft-storage limits to be implemented on a per-user basis.
reparsepoint	Typically used by support professionals. Queries or deletes reparse points, which are NTFS file system objects that have a definable attribute containing user-controlled data, and are used to extend functionality in the input/output (I/O) subsystem. Reparse points are used for directory junction points and volume mount points. They are also used by file system filter drivers to mark certain files as special to that driver.
sparse	Manages sparse files. A sparse file is a file with one or more regions of unallocated data in it. A program will see these unallocated regions as containing bytes with the value zero, but there is actually no disk space used to represent these zeros. In other words, all meaningful or nonzero data is allocated, whereas all non-meaningful data (large strings of data composed of zeros) is not allocated. When a sparse file is read, allocated data is returned as stored and unallocated data is returned, by default, as zeros, in accordance with the C2 security requirement specification. Sparse file support allows data to be de-allocated from anywhere in the file.
usn	Typically used by support professionals. Manages the update sequence number (USN) change journal, which provides a persistent log of all changes made to files on the volume.
volume	Manages a volume. Dismounts a volume or queries to see how much free space is available on a disk.

IISBACK.VBS: IIS BACKUP MANAGEMENT SCRIPT

The **iisback** command creates and manages backup copies of the Internet Information Services (IIS) configuration (metabase and schema) of a remote or local computer. Administrators can use this script tool to create a backup copy of their IIS configuration, to restore an IIS configuration from a backup copy, and to list and delete backup copies.

iisback Subcommands

Backup	Creates a backup copy of the Internet Information Services (IIS) configuration (metabase and schema) of a remote or local computer.
Restore	Replaces the current Internet Information Services (IIS) configuration (metabase and schema) settings on a local or remote computer with the configuration settings stored in a backup copy.
Delete	Deletes a backup copy of the Internet Information Services (IIS) configuration (metabase and schema) from a remote or local computer.
List	Displays backup copies of the Internet Information Services (IIS) configuration (metabase and schema) stored on a remote or local computer.

INUSE

The **Inuse** command replaces locked operating system files. The specified files are not replaced until you restart the operating system.

Inuse is primarily used to replace locked operating system files. After you run **inuse**, the specified file is not replaced until you restart the operating system. During restart, the operating system moves the file immediately after it runs AUTOCHK, but before it creates any paging files. This tool is useful for troubleshooting purposes, where you might need to replace an individual file on your computer instead of an entire set of files.

Syntax

inuse*ReplacementDestination* [**/y**]

Parameters

Replacement	Specifies the updated file name. Include the complete physical or UNC name.
Destination	Specifies the currently locked file that you want to replace on the local drive. Include the complete physical path name.
/y	Suppresses the confirmation prompt that appears when **inuse** tries to replace the file.

Examples

To replace an existing local file with an updated remote file, type:
inuse \\srvmain\windows\test.dll e:\windows\test.dll

PRNCNFG.VBS

The **Prncnfg.vbs** command configures or displays configuration information about a printer. When used without parameters, **prncnfg.vbs** displays command-line help for the **prncnfg.vbs** command.
Prncnfg Subcommands

To display configuration information about a printer:

Syntax

cscript prncnfg.vbs-g [**-s** *RemoteComputer*] **-p** *PrinterName* [**-u** *UserName***-w** *Password*]

Parameters

-g	Required. Specifies that you want to display configuration information about a printer.
-s*RemoteComputer*	Specifies, by name, the remote computer that manages the printer about which you want to display information. If you do not specify a computer, the local computer is used.
-p*PrinterName*	Required. Specifies, by name, the printer for which you want display information.
-u*UserName***-w***Password*	Specifies an account with permissions to connect, by using Windows Management Instrumentation (WMI) services, to the computer that hosts the printer for which you want display information. All members of the Administrators group for that computer have these permissions, but the permissions can also be granted to other users. If you do not specify an account, you must be logged on under an account with these permissions for the command to work. For more information on WMI, see Related Topics.

Remarks

- This command starts a script that is located in the *systemroot*\system32 directory. You must type this command at a command prompt with that directory as the current directory, or you must type the full path to that directory at the beginning of the **cscript** command.
- If the information that you supply contains spaces, use quotation marks around the text (for example, **"***Computer Name***"**).

Examples

To display configuration information for the printer named ColorPrinter_2 whose print queue is hosted by the remote computer named HRServer, type:
cscript prncnfg.vbs -g -s HRServer -p ColorPrinter_2

To configure a printer:

Syntax

cscript prncnfg.vbs-t [**-s***RemoteComputer*] **-p***PrinterName* [**-u***UserName***-w***Password*] [**-r***PortName*] [**-l***Location*] [**-m***Comment*] [**-h***ShareName*] [**-f***SeparatorText*] [**-y***DataType*] [**-st***StartTime*] [**-ut***EndTime*] [**-o***Priority*] [**-i***DefaultPriority*] [{**+** | **-**}**shared**] [{**+** | **-**}**direct**] [{**+** | **-**}**published**] [{**+** | **-**}**hidden**] [{**+** | **-**}**rawonly**] [{**+** | **-**}**queued**] [{**+** | **-**}**keepprintedjobs**] [{**+** | **-**}**workoffline**] [{**+** | **-**}**enabledevq**] [{**+** | **-**}**docompletefirst**][{**+** | **-**}**enablebidi**]

Parameters

-t	Required. Specifies that you want to configure a printer.
-s*RemoteComputer*	Specifies, by name, the remote computer that manages the printer you want to configure. If you do not specify a computer, the printer is configured on the local computer.
-p*PrinterName*	Required. Specifies, by name, the printer you want to configure.
-u*UserName* **-w***Password*	Specifies an account with permissions to connect, by using Windows Management Instrumentation (WMI) services, to the computer on which you want to configure a printer. All members of the Administrators group for that computer have these permissions, but the permissions can also be granted to other users. If you do not specify an account, you must be logged on under an account with these permissions for the command to work. For more information on WMI, see Related Topics.
-r*PortName*	Specifies the port to which the printer is connected. If this is a parallel or a serial port, then use the ID of the port (for example, LPT1 or COM1). If this is a TCP/IP port, then use the port name that was specified when the port was added. For more information, see Related Topics.
-l*Location*	Specifies the printer location, such as "Copier Room."
-m*Comment*	Specifies the comment string.
-h*ShareName*	Specifies the share name.
-f*SeparatorText*	Specifies a file that contains the text that appears on the separator page.
-y*DataType*	Specifies the data types that the printer can accept. For more information on data types, see Related Topics.
-st*StartTime*	Configures the printer for limited availability. Specifies the time of day after which the printer is available. If you send a document to a printer when it is unavailable, the document is held (spooled) until the printer becomes available. You must specify time as a 24-hour clock. For example, to specify 11 P.M., type **2300**.
-ut*EndTime*	Configures the printer for limited availability. Specifies the time of day after which the printer is no longer available. If you send a document to a printer when it is unavailable, the document is held (spooled) until the printer becomes available. You must specify time as a 24-hour clock. For example, to specify 11 P.M., type **2300**.
-o*Priority*	Specifies a priority that the spooler uses to route print jobs. A print queue with a higher priority receives all its jobs before any queue with a lower priority.
-i*DefaultPriority*	Specifies the default priority assigned to each print job.
{**+** | **-**}**shared**	Specifies whether this printer is shared on the network.
{**+** | **-**}**direct**	Specifies whether the document should be sent directly to the printer without being spooled.
{**+** | **-**}**published**	Specifies whether this printer should be published in Active Directory. If you publish the printer, other users can search for it based on its location and capabilities, such as color printing and stapling.

{**+** | **-**}**hidden**	Reserved function.
{**+** | **-**}**rawonly**	Specifies whether only raw data print jobs can be spooled on this queue.
{**+** | **-**}**queued**	Specifies that the printer should not begin to print until after the last page of the document is spooled. The printing program is unavailable until the document has finished printing. However, using this option ensures that the whole document is available to the printer.
{**+** | **-**}**keepprintedjobs**	Specifies whether the spooler should retain documents after they are printed. Enabling this option allows a user to resubmit a document to the printer from the print queue, instead of from the printing program.
{**+** | **-**}**workoffline**	Specifies whether you should be able to send print jobs to the print queue even if your computer is not connected to the network.
{**+** | **-**}**enabledevq**	Specifies whether print jobs that do not match the printer setup (for example, PostScript files spooled to non-PostScript printers) should be held in the queue rather than being printed.
{**+** | **-**}**docompletefirst**	Specifies whether the spooler should send, to the appropriate queue, print jobs with a lower priority that have completed spooling, before sending to the same queue print jobs with a higher priority that have not completed spooling. If this option is enabled, and no documents have completed spooling, the spooler will send larger documents before smaller ones. You should enable this option if you want to maximize printer efficiency at the cost of job priority. If this option is disabled, the spooler always sends higher priority jobs to their respective queues first.
{**+** | **-**}**enablebidi**	Specifies whether the printer sends status information to the spooler.

Remarks

- This command starts a script that is located in the *systemroot*\system32 directory. You must type this command at a command prompt with that directory as the current directory, or you must type the full path to that directory at the beginning of the **cscript** command.
- If the information that you supply contains spaces, use quotation marks around the text (for example, **"***Computer Name***"**).

Examples

To configure a printer named ColorPrinter_2 so that the spooler in the remote computer named HRServer keeps print jobs after they have been printed, type:
cscript prncnfg.vbs -t -s HRServer -p ColorPrinter_2 +keepprintedjobs

To change the name of a printer:

Syntax

cscript prncnfg.vbs-x [**-s***RemoteComputer*] **-p***PrinterName***-z***NewPrinterName* [**-u***UserName***-w***Password*]

Parameters

-x	Required. Specifies that you want to change the name of a printer.
-s*RemoteComputer*	Specifies, by name, the remote computer that manages the printer you want to rename. If you do not specify a computer, the local computer is used.
-p*PrinterName*	Required. Specifies the current printer name.
-z*NewPrinterName*	Required. Specifies the new printer name.
-u*UserName***-w***Password*	Specifies an account with permissions to connect, by using Windows Management Instrumentation (WMI) services, to the computer that hosts the printer you want to rename. All members of the Administrators group for that computer have these permissions, but the permissions can also be granted to other users. If you do not specify an account, you must be logged on under an account with these permissions for the command to work. For more information on WMI, see Related Topics.

Remarks

- This command starts a script that is located in the *systemroot*\system32 directory. You must type this command at a command prompt with that directory as the current directory, or you must type the full path to that directory at the beginning of the **cscript** command.
- If the information that you supply contains spaces, use quotation marks around the text (for example, **"***Computer Name***"**).

Examples

To change the name of a printer on the remote computer named HRServer from ColorPrinter_2 to ColorPrinter_3, type:

cscript prncnfg.vbs -x -s HRServer -p ColorPrinter_2 -z ColorPrinter_3

Prndrvr.vbs

This adds, deletes and lists printer drivers. Used without parameters, **prndrvr.vbs** displays command-line help for the **prndrvr.vbs** command.

To install a printer driver

Syntax

cscript prndrvr.vbs-a [**-m** *DriverName*] [**-v** {**0** | **1** | **2** | **3**}] [**-e** *Environment*] [**-s** *RemoteComputer*] [**-h** *Path*] [**-i** *FileName***.inf**] [**-u** *UserName* **-w** *Password*]

Parameters

-a	Required. Specifies that you want to install a driver.
-m*DriverName*	Specifies, by name, the driver you want to install. Drivers are often named for the model of printer they support. See the printer documentation for more information.
-v {0 | 1 | 2 | 3}	Specifies the version of the driver you want to install. See the description of the **-e** *Environment* parameter for information on which versions are available for which environment. If you do not specify a version, the version of the driver appropriate for the version of Windows running on the computer on which you are installing the driver is installed. Version **0** supports Windows 95, Windows 98, and Windows Millennium Edition. Version **1** supports Windows NT 3.51. Version **2** supports Windows NT 4.0. Version **3** supports Windows XP, Windows 2000 and the Windows Server 2003 family.
-e*Environment*	Specifies the environment for the driver you want to install. If you do not specify an environment, the environment of the computer on which you are installing the driver is used. The following table lists the driver environments that are available and the versions that are available for each:

Environment	**Available Versions**
Windows NT x86	1, 2, and 3
Windows NT Alpha_AXP	1 and 2
Windows IA64	3
Windows NT R4000	1
Windows NT PowerPC	1
Windows 4.0	0

-s*RemoteComputer*	Specifies the remote computer on which you want to install the driver. If you do not specify a computer, the driver is installed on the local computer.
-h*Path*	Specifies the path to the driver file. If you do not specify a path, the path to the location from which Windows was installed is used.
-i*FileName*.inf	Specifies the file name for the driver you want to install. If you do not specify a file name, ntprint.inf is used.
-u*UserName*-w*Password*	Specifies an account with permissions to connect, by using Windows Management Instrumentation (WMI) services, to the computer on which you want to install the driver. All members of the Administrators group for that computer have these permissions, but the permissions can also be granted to other users. If you do not specify an account, you must be logged on under an account with these permissions for the command to work. For more information on WMI, see Related Topics.

Remarks

- This command starts a script that is located in the *systemroot*\system32 directory. You must type this command at a command prompt with that directory as the current directory, or you must type the full path to that directory at the beginning of the **cscript** command.
- If the information that you supply contains spaces, use quotation marks around the text (for example, **"***Computer Name***"**).

Examples

To add version 3 of the printer driver named "Color Printer Driver 1" to the local computer, which offers a Windows NT x86-based environment, type:

cscript prndrvr.vbs -a -m "Color Printer Driver 1" -v 3 -e "Windows NT x86"

To delete a printer driver

Syntax

cscript prndrvr.vbs-d [**-s** *RemoteComputer*] **-m** *DriverName* **-v** {**0** | **1** | **2** | **3**} **-e** *Environment* [**-u** *UserName* **-w** *Password*]

Parameters

-d	Required. Specifies that you want to delete a driver.
-s*RemoteComputer*	Specifies the remote computer from which you want to delete the driver. If you do not specify a computer, the driver is deleted from the local computer.
-m*DriverName*	Required. Specifies, by name, the driver you want to delete. Drivers are often named for the model of printer they support. See the printer documentation for more information.
-v {**0** | **1** | **2** | **3**}	Required. Indicates the version of the driver to be deleted. See the description of the **-e** *Environment* parameter for information on which versions are available in which environment. Version **0** supports Windows 95, Windows 98, and Windows Millennium Edition. Version **1** supports Windows NT 3.51. Version **2** supports Windows NT 4.0. Version **3** supports Windows XP and Windows 2000.
-e*Environment*	Required. Specifies the environment for the driver you want to delete. The following table lists the driver environments that are available and the versions that are available for each:

Environment	**Available Versions**
Windows NT x86	1, 2, and 3
Windows NT Alpha_AXP	1 and 2
Windows IA64	3
Windows NT R4000	1
Windows NT PowerPC	1
Windows 4.0	0

-u*UserName***-w***Password*	Specifies an account with permissions to connect, by using Windows Management Instrumentation (WMI) services, to the computer from which you want to delete the driver. All members of the Administrators group for that computer have these permissions, but the permissions can also be granted to other users. If you do not specify an account, you must be logged on under an account with these permissions for the command to work. For more information on WMI, see Related Topics.

Remarks

- This command starts a script that is located in the *systemroot*\system32 directory. You must type this command at a command prompt with that directory as the current directory, or you must type the full path to that directory at the beginning of the **cscript** command.
- When you delete a printer driver, you must include both the environment and the version parameters.
- If the information that you supply contains spaces, use quotation marks around the text (for example, **"***Computer Name***"**).

To list the printer drivers on a computer

Syntax

cscript prndrvr.vbs-l [**-s***RemoteComputer*] [**-u***UserName***-w***Password*]

Parameters

-l	Required. Specifies that you want to list all the drivers on a computer.
-s*RemoteComputer*	Indicates the remote computer whose drivers you want to list. If you do not specify a computer, drivers on the local computer are listed.
-u*UserName***-w***Password*	Specifies an account with permissions to connect, by using Windows Management Instrumentation (WMI) services, to the computer whose drivers you want to list. All members of the Administrators group for that computer have these permissions, but the permissions can also be granted to other users. If you do not specify an account, you must be logged on under an account with these permissions for the command to work. For more information on WMI, see Related Topics.

Remarks

- This command starts a script that is located in the *systemroot*\system32 directory. You must type this command at a command prompt with that directory as the current directory, or you must type the full path to that directory at the beginning of the **cscript** command.
- If the information that you supply contains spaces, use quotation marks around the text (for example, **"***Computer Name***"**).

To delete all unused printer drivers from a computer

Syntax

cscript prndrvr.vbs-x [**-s** *RemoteComputer*] [**-u** *UserName* **-w** *Password*]

Parameters

-x	Required. Specifies that you want to delete all unused printer drivers from a computer. This parameter deletes printer drivers that are installed for clients running other versions of Windows. The Fax component might require these drivers when it is used as a fax server for computers running Windows 95, Windows 98, Windows Millennium Edition and Windows NT 4.0 client computers. This parameter also deletes the primary fax driver if it is not in use. If you delete a driver that is being used by the Fax component, you must reinstall the fax component or it will not function correctly.
-s*RemoteComputer*	Specifies the remote computer from which you want to delete drivers. If you do not specify a computer, drivers are deleted from the local computer.
-u*UserName***-w***Password*	Specifies an account with permissions to connect, by using Windows Management Instrumentation (WMI) services, to the computer from which you want to delete drivers. All members of the Administrators group for that computer have these permissions, but the permissions can also be granted to other users. If you do not specify an account, you must be logged on under an account with these permissions for the command to work. For more information on WMI, see Related Topics.

Remarks

- This command starts a script that is located in the *systemroot*\system32 directory. You must type this command at a command prompt with that directory as the current directory, or you must type the full path to that directory at the beginning of the **cscript** command.
- If the information that you supply contains spaces, use quotation marks around the text (for example, **"***Computer Name***"**).

PRNJOBS.VBS

Pauses, resumes, cancels and lists print jobs. Used without parameters, **prnjobs.vbs** displays command-line help for the **prnjobs.vbs** command.

To pause a print job

Syntax

cscript prnjobs-z [**-s***RemoteComputer*]**-p***PrinterName***-j***JobNumber* [**-u***UserName***-w***Password*]

Parameters

-z	Required. Specifies that you want to pause a print job.
-s*RemoteComputer*	Specifies, by name, the remote computer to which the print job you want to pause was sent. If you do not specify a computer, the local computer is used.
-p*PrinterName*	Required. Specifies, by name, the printer that would print the job you want to pause.
-j*JobNumber*	Required. Specifies, by ID number, the print job you want to pause.
-u*UserName***-w** *Password*	Specifies an account with permissions to connect, by using Windows Management Instrumentation (WMI) services, to the computer to which the print job you want to pause was sent. All members of the Administrators group for that computer have these permissions, but the permissions can also be granted to other users. If you do not specify an account, you must be logged on under an account with these permissions for the command to work. For more information on WMI, see Related Topics.

Remarks

- This command starts a script that is located in the *systemroot*\system32 directory. You must type this command at a command prompt with that directory as the current directory, or you must type the full path to that directory at the beginning of the **cscript** command.
- To display a list of print jobs and their ID numbers, use this command with the **-l** parameter.
- If the information that you supply contains spaces, use quotation marks around the text (for example, **"***Computer Name***"**).

Examples

To pause a print job with a job ID of 27 sent to the remote computer named HRServer for printing on the printer named ColorPrinter, type:

cscript prnjobs.vbs -z -s HRServer -p ColorPrinter -j 27

To resume a print job

Syntax

cscript prnjobs-m [**-s***RemoteComputer*]**-p***PrinterName***-j***JobNumber* [**-u***UserName***-w***Password*]

Parameters

-m	Required. Specifies that you want to resume a print job.
-s*RemoteComputer*	Specifies, by name, the remote computer to which the print job you want to resume was sent. If you do not specify a computer, the local computer is used.
-p*PrinterName*	Required. Specifies, by name, the printer that will print the job you want to resume.
-j*JobNumber*	Required. Specifies, by ID number, the print job you want to resume.
-u*UserName***-w***Password*	Specifies an account with permissions to connect, by using Windows Management Instrumentation (WMI) services, to the computer to which the print job you want to resume was sent. All members of the Administrators group for that computer have these permissions, but the permissions can also be granted to other users. If you do not specify an account, you must be logged on under an account with these permissions for the command to work. For more information on WMI, see Related Topics.

Remarks

- This command starts a script that is located in the *systemroot*\system32 directory. You must type this command at a command prompt with that directory as the current directory, or you must type the full path to that directory at the beginning of the **cscript** command.
- To display a list of print jobs and their ID numbers, use this command with the **-l** parameter.
- If the information that you supply contains spaces, use quotation marks around the text (for example, **"***Computer Name***"**).

To cancel a print job

Syntax

cscript prnjobs-x [**-s***RemoteComputer*]**-p***PrinterName***-j***JobNumber* [**-u***UserName***-w***Password*]

Parameters

-x	Required. Specifies that you want to cancel a print job.
-s*RemoteComputer*	Specifies, by name, the remote computer to which the job you want to cancel was sent. If you do not specify a computer, the local computer is used.
-p*PrinterName*	Required. Specifies, by name, the printer that would print the job that you want to cancel.
-j*JobNumber*	Required. Specifies, by ID number, the print job you want to cancel.
-u*UserName***-w***Password*	Specifies an account with permissions to connect, by using Windows Management Instrumentation (WMI) services, to the computer to which the print job you want to cancel was sent. All members of the Administrators group for that computer have these permissions, but the permissions can also be granted to other users. If you do not specify an account, you must be logged on under an account with these permissions for the command to work. For more information on WMI, see Related Topics.

Remarks

- This command starts a script that is located in the *systemroot*\system32 directory. You must type this command at a command prompt with that directory as the current directory, or you must type the full path to that directory at the beginning of the **cscript** command.
- To display a list of print jobs and their ID numbers, use this command with the **-l** parameter.
- If the information that you supply contains spaces, use quotation marks around the text (for example, **"***Computer Name***"**).

To list the print jobs in a print queue

Syntax

cscript prnjobs-l [**-s***RemoteComputer*] [**-p***PrinterName*] [**-u***UserName***-w***Password*]

Parameters

-l	Required. Specifies that you want to list all the print jobs in a print queue.
-s*RemoteComputer*	Specifies, by name, the remote computer that hosts the print queue whose jobs you want to list. If you do not specify a computer, the local computer is used.
-p*PrinterName*	Specifies, by name, the printer whose print queue contains the jobs you want to list. If you do not specify a printer, then all jobs in all print queues are listed.
-u*UserName***-w** *Password*	Specifies an account with permissions to connect, by using Windows Management Instrumentation (WMI) services, to the computer that hosts the print queue whose jobs you want to list. All members of the Administrators group for that computer have these permissions, but the permissions can also be granted to other users. If you do not specify an account, you must be logged on under an account with these permissions for the command to work. For more information on WMI, see Related Topics.

Remarks

- This command starts a script that is located in the *systemroot*\system32 directory. You must type this command at a command prompt with that directory as the current directory, or you must type the full path to that directory at the beginning of the **cscript** command.
- To display a list of print jobs and their ID numbers, use this command with the **-l** parameter.
- If the information that you supply contains spaces, use quotation marks around the text (for example, **"***Computer Name***"**).

Examples

To list all current print jobs in the queue for the local printer named ColorPrinter_2, type:
cscript prnjobs.vbs -l -p ColorPrinter_2

PRNPORT.VBS

Creates, deletes and lists standard TCP/IP printer ports, in addition to displaying and changing port configuration. Used without parameters, **prnport.vbs** displays help for the **prnport.vbs** command.

To create a standard TCP/IP printer port

Syntax

cscript prnport.vbs -a -r *PortName*[-s *RemoteComputer*] -h *IPAddress*[-u *UserName* -w *Password*] [-o {raw -n *PortNumber*| lpr}] [-q *QueueName*] [-m{e | d}] [-I *IndexName*] [-y *CommunityName*] [-2{e | d}]

Parameters

-a	Required. Specifies that you want to create a standard TCP/IP printer port.
-r *PortName*	Required. Specifies the port to which the printer is connected.
-s *RemoteComputer*	Specifies, by name, the remote computer to which you want to add the port. If you do not specify a computer, the port is added to the local computer.
-h *IPAddress*	Required. Specifies the IP address you want to assign to the port.
-u *UserName* -w *Password*	Specifies an account with permissions to connect, by using Windows Management Instrumentation (WMI) services, to the computer on which you want to create a standard TCP/IP printer port. All members of the Administrators group for that computer have these permissions, but the permissions can also be granted to other users. If you do not specify an account, you must be logged on under an account with these permissions for the command to work. For more information about WMI, see Related Topics.
-o{raw -n *PortNumber*| lpr}	Specifies which protocol the port uses: TCP raw or TCP LPR. If you use TCP raw, you must specify the port number for a TCP raw printer port. By default, this is port number 9100. For more information, see Related Topics. Most printers use TCP raw. On UNIX networks, printers often use TCP LPR. For more information about TCP raw, see Related Topics. For more information about TCP LPR, see RFC 1179 on the RFC Editor Web site.
-q *QueueName*	Specifies the queue name for a TCP raw port.
-m{ e | d}	Specifies whether SNMP is enabled. The parameter **e** enables SNMP. The parameter **d** disables SNMP.
-i *IndexName*	Specifies the SNMP index, if SNMP is enabled. For more information, see RFC 1759 at the RFC Editor Web site.
-y *CommunityName*	Specifies the SNMP community name, if SNMP is enabled. For more information, see Related Topics.
-2{ e| d}	Specifies whether double spools (also known as respooling) are enabled for TCP LPR ports. Double spools are necessary because TCP LPR must include an accurate byte count in the control file that is sent to the printer, but the protocol cannot get that count from the local print provider. Therefore, when a file is spooled to a TCP LPR print queue, it is also spooled as a temporary file in the system32 directory. TCP LPR determines the size of the temporary file and sends the size to the server running LPD. The parameter **e** enables double spools. The parameter **d** disables double spools.

Remarks

- If you want to change the configuration for a standard TCP/IP printer port after you create it, you can use the **cscript prnport.vbs** command with the **-t** parameter.
- If the information that you supply contains spaces, use quotation marks around the text (for example, **"***Computer Name***"**).

To delete a standard TCP/IP printer port

Syntax

cscript prnport.vbs -d -r *PortName* [-s *RemoteComputer*] [-u *UserName* -w Password]

Parameters

-d	Required. Specifies that you want to delete a standard TCP/IP printer port.
-r *PortName*	Required. Specifies the standard TCP/IP printer port that you want to delete.
-s *RemoteComputer*	Specifies, by name, the remote computer from which to delete the port. If you do not specify a computer, the port is deleted from the local computer.
-u *UserName* -w *Password*	Specifies an account with permissions to connect, by using Windows Management Instrumentation (WMI) services, to the computer on which you want to delete a standard TCP/IP printer port. All members of the Administrators group for that computer have these permissions, but the permissions can also be granted to other users. If you do not specify an account, you must be logged on under an account with these permissions for the command to work. For more information about WMI, see Related Topics.

Examples

To delete the standard TCP/IP printer port named IP_192.168.12.128 from the remote computer named HRServer, type:
cscript prnport.vbs -d -r IP_192.168.12.128 -s HRServer
To list all of the standard TCP/IP printer ports on a computer

Syntax

cscript prnport.vbs -l [-s *RemoteComputer*][-u *UserName* -w *Password*]

Parameters

-l	Required. Specifies that you want to list all standard TCP/IP printer ports on a computer.
-s *RemoteComputer*	Specifies, by name, the remote computer for which you want to list ports. If you do not specify a computer, the ports on the local computer are listed.
-u *UserName* -w *Password*	Specifies an account with permissions to connect, by using Windows Management Instrumentation (WMI) services, to the computer for which you want to list all standard TCP/IP printer ports. All members of the Administrators group for that computer have these permissions, but the permissions can also be granted to other users. If you do not specify an account, you must be logged on under an account with these permissions for the command to work. For more information about WMI, see Related Topics.

Examples

To list all standard TCP/IP printer ports on the remote computer named HRServer, type:
cscript prnport.vbs -l -s HRServer

To display the configuration of a standard TCP/IP printer port

Syntax

cscript prnport.vbs -g -r *PortName* [-s *RemoteComputer*] [-u *UserName* -w *Password*]

Parameters

-g	Required. Specifies that you want to display the configuration of a standard TCP/IP printer port.
-r *PortName*	Required. Specifies the port whose configuration you want to display.
-s *RemoteComputer*	Specifies, by name, the remote computer that hosts the port whose configuration you want to display. If you do not specify a computer, information is displayed for the port as it is configured on the local computer.
-u *UserName* -w *Password*	Specifies an account with permissions to connect, by using Windows Management Instrumentation (WMI) services, to the computer that hosts the port whose configuration you want to display. All members of the Administrators group for that computer have these permissions, but the permissions can also be granted to other users. If you do not specify an account, you must be logged on under an account with these permissions for the command to work. For more information about WMI, see Related Topics.

Remarks

- This command starts a script that is located in the *systemroot*\system32 directory. You must type this command at a command prompt with that directory as the current directory, or you must type the full path to that directory at the beginning of the **cscript** command.
- If the information that you supply contains spaces, use quotation marks around the text (for example, "*Computer Name*").

To configure a standard TCP/IP printer port

Syntax

cscript prnport.vbs -t -r *PortName*[-s *RemoteComputer*] [-o {raw -n *PortNumber*| lpr}] [-h *IPAddress*] [-q *QueueName*] [-m{e | d}] [-l *IndexName*] [-y *CommunityName*] [-2{e | d}] [-u *UserName* -w *Password*]

Parameters

-t	Required. Specifies that you want to configure a standard TCP/IP printer port.
-r *PortName*	Required. Specifies the port to which the printer is connected.
-s *RemoteComputer*	Specifies, by name, the remote computer on which you want to configure the port. If you do not specify a computer, the port is configured on the local computer.
-o{ raw -n *PortNumber*| lpr}	Specifies which protocol the port uses: TCP raw or TCP LPR. If you use TCP raw, you must specify the port number for a TCP raw printer port. By default, this is port number 9100. For more information, see Related Topics. Most printers use TCP raw. On UNIX networks, printer ports often use TCP LPR. For more information about TCP raw, see Related Topics. For more information about TCP LPR, see RFC 1179 at the RFC Editor Web site.
-h *IPAddress*	Specifies, by IP address, the printer for which you want to configure the port.
-q *QueueName*	Specifies the queue name for a TCP raw port.
-m{ e| d}	Specifies whether SNMP is enabled. The parameter **e** enables SNMP. The parameter **d** disables SNMP.
-i *IndexName*	Specifies the SNMP index, if SNMP is enabled. For more information, see RFC 1759 at the RFC Editor Web site.
-y *CommunityName*	Specifies the SNMP community name, if SNMP is enabled. For more information, see Related Topics.
-2{ e| d}	Specifies whether double spools (also known as respooling) are enabled for TCP LPR ports. Double spools are necessary because TCP LPR must include an accurate byte count in the control file that is sent to the printer, but the protocol cannot get that count from the local print provider. Therefore, when a file is spooled to a TCP LPR print queue, it is also spooled as a temporary file in the system32 directory. TCP LPR determines the size of the temporary file and sends the size to the server running LPD. The parameter **e** enables double spools. The parameter **d** disables double spools.
-u *UserName* -w *Password*	Specifies an account with permissions to connect, by using Windows Management Instrumentation (WMI) services, to the computer on which you want to configure a port. All members of the Administrators group for that computer have these permissions, but the permissions can also be granted to other users. If you do not specify an account, you must be logged on under an account with these permissions for the command to work. For more information about WMI, see Related Topics.

Remarks

- This command starts a script that is located in the *systemroot*\system32 directory. You must type this command at a command prompt with that directory as the current directory, or you must type the full path to that directory at the beginning of the **cscript** command.
- If the information that you supply contains spaces, use quotation marks around the text (for example, "*Computer Name*").

SHUTDOWN

The **Shutdown** command enables you to shut down or restart local or remote computers one at a time.

Syntax

shutdown [**/i** | **/l** | **/s** | **/r** | **/a** | **/p** | **/h** | **/e**] [**/f**] [**/m ***ComputerName*] [**/t** *XXX*] [**/d** [**p:**] *XX***:***YY***/c***"Comment"*]

Parameters

/i	Displays the **Remote Shutdown Dialog** box. The **/i** option must be the first parameter you type, and all those following it will be ignored.
/l	Logs off the current user immediately, with no time-out period. You cannot use **/l** with **/m ***ComputerName* or **/t**.
/s	Shuts down the computer.
/r	Restarts the computer after shutdown.
/a	Cancels a shutdown, effective only during the time-out period. **NOTE**: You may use **a** only with **/m ***ComputerName*.
/p	Turns off the local computer only (not a remote computer), with no time-out period or warning. You can use **/p** only with **/d**. If your computer does not support power off functionality, it will shut down when you use **/p**, but the power to the computer will remain on.
/h	Puts the local computer into hibernation, assuming that hibernation is enabled. You can use **/h** only with **/f**.
/e	Enables you to document the reason for the unexpected shutdown on the target computer.
/f	Forces running applications to close, without warning users in advance. **NOTE**: Using the **/f** option might result in loss of unsaved data.
/m *ComputerName*	Specifies the target computer. Cannot be used with the **/l** option.
/t *XXX*	Sets the time-out period, or delay, before a restart or shutdown to *XXX* seconds, causing a warning to display on the local console. You can specify 0-600 seconds. If you omit **/t**, the time-out period defaults to 30 seconds.
/d [**p:**]*XX***:***YY*	Lists the reason for the system restart, shutdown, or power off using one of the following parameter values: **p:** Indicates that the restart or shutdown is planned. If you do not use the **p:** option, Shutdown Event Tracker assumes that the restart or shutdown is unplanned. *XX* Specifies the major reason number (0-255). *YY* Specifies the minor reason number (0-65535).
/c*"Comment"*	Enables you to comment in detail about the reason for the shutdown. You must first provide a reason using the **/d** option. You must enclose comments in quotation marks. You can use a maximum of 511 characters.

Examples

To force applications to close and restart the local computer after a one-minute delay with the reason Application: Maintenance (Planned) and the comment "Reconfiguring myapp.exe" type:
shutdown /r /t 60 /c "Reconfiguring myapp.exe" /f /d p:4:1

To restart the remote computer \\ServerName with the same parameters, type:
shutdown /r /m \\servername /t 60 /c "Reconfiguring myapp.exe" /f /d p:4:1

TYPEPERF

Writes performance counter data to the command window, or to a supported log file format. To stop **Typeperf**, press CTRL+C.

Syntax

Typeperf [*Path* [*Path ...*]] [**-cf** *FileName*][**-f** {**csv** | **tsv** | **bin**}][**-si** [*MM***:**]*SS*][**-o** *FileName*][**-q** [*Object*]][**-qx** [*Object*]][**-sc** *Samples*][**-config** *FileName*][**-s** *ComputerName*] [**-y**]

Parameters

-c {*Path*[*Path ...*] | **-cf***FileName*}	Specifies the performance counter path to log. To list multiple counter paths, separate each command path by a space.	
-cf*FileName*	Specifies the file name of the file that contains the counter paths that you want to monitor, one per line.	
-f {**csv**| **tsv**| **bin**}	Specifies the output file format. File formats are:	
	csv	comma-delimited (default format)
	tsv	tab-delimited
	bin	binary
-si [*MM***:**]*SS*	Specifies the time between samples, in the [*MM***:**]*SS* format. Default is one second.	
-o*FileName*	Specifies the pathname of the output file. Defaults to Stdout.	
-q [*Object*]	Displays and queries available counters without instances. To display counters for one object, include the object name.	
-qx [*Object*]	Displays and queries all available counters with instances. To display counters for one object, include the object name.	
-sc*Samples*	Specifies the number of samples to collect. Default is to sample until you press CTRL+C.	
-config*FileName*	Specifies the pathname of the settings file that contains command line parameters.	
-s*ComputerName*	Specifies the system to monitor, if no server is specified in the counter path.	
-y	Use this option to answer yes to all questions without prompting.	

NOTE:

- The general format for counter paths is as follows:
  - [*****Computer*]*****Object*[*ParentIInstance#Index*]*****Counter*] where the parent, instance, index and counter components of the format may contain either a valid name or a wildcard character. The computer, parent, instance and index components are not necessary for all counters.
- The following is a list of the possible Process ID formats:
  - \\computer\object(parent/instance#index)\counter
  - \\computer\object(parent/instance)\counter
  - \\computer\object(instance#index)\counter
  - \\computer\object(instance)\counter
  - \\computer\object\counter
  - \object(parent/instance#index)\counter
  - \object(parent/instance)\counter
  - \object(instance#index)\counter
  - \object(instance)\counter
  - \object\counter
- For counter path queries, type:
  Typeperf [{**-q** | **-qx** [*****Computer*****] [*Object*] [**-o** *OutputFile*}]
- Use the following commands for complete queries:
  Typeperf [*****Computer*]*****Object*[*Instance*]*****Counter*]
  Typeperf-cf*InputFile*

Examples

To display processor and memory counters, type:
typeperf "\Memory\Available bytes" "\processor(_total)\% processor time"

To display Explorer process counters, every three seconds, in a CSV-output file format, type:
typeperf "\Process(Explorer)\Thread Count" -si 3 -o typeperf.csv

To display 50 samples of RAS counters on computer Server_name, type:
typeperf "\RAS port(LPT1)\Bytes Transmitted" -sc 50 -s Server_name

To display counter values for 50 samples of the counters listed in the file Input.txt, at sample intervals of 120 seconds, type:
typeperf -cf input.txt -si 120 -sc 50 -f TSV -o domain2.tsv

To query installed counters with instances, type the following command. Be aware that the **-qx** parameter will return a far greater number of performance counters than the **-q** parameter.
typeperf -qx

To query physical disk counters without instances on computer Server5 and write them to a file called Diskctrs.txt, type:
typeperf -q \\Server5\PhysicalDisk -o diskctrs.txt