Command Line Reference Guide

Arcserve® Backup

19.0

arcserve®

Legal Notices

Arcserve Product References

This document references the following Arcserve products:

- Arcserve® Backup
- Arcserve® Unified Data Protection
- Arcserve® Unified Data Protection Agent for Windows
- Arcserve® Unified Data Protection Agent for Linux
- Arcserve® Replication and High Availability

Arcserve Backup Documentation

Arcserve Backup documentation contains specific guides and release notes for all major releases and service packs. Click links below to access documentation.

- Arcserve Backup 19.0 Release Notes
- Arcserve Backup 19.0 Bookshelf

Contact Arcserve Support

The Arcserve Support team offers a rich set of resources for resolving your technical issues and provides easy access to important product information.

Contact Support

With Arcserve Support:

▪ You can get in direct touch with the same library of information that is shared internally by our Arcserve Support experts. This site provides you with access to our knowledge-base (KB) documents. From here you easily search for and find the product-related KB articles that contains the field-tested solutions for many top issues and common problems.

▪ You can use our Live Chat link to instantly launch a real-time conversation between you and the Arcserve Support team. With Live Chat, you can get immediate answers to your concerns and questions, while still maintaining access to the product.

▪ You can participate in the Arcserve Global User Community to ask and answer questions, share tips and tricks, discuss the best practces and participate in conversations with your peers.

▪ You can open a support ticket. By opening a support ticket online, you can expect a callback from one of our experts in the product area you are inquiring about.

▪ You can access other helpful resources appropriate for your Arcserve product.

Contents

Chapter 1: Introduction

A command line interface (CLI) is a method of interacting with a computer by submitting lines of textual commands (a sequence of characters) either from keyboard input or from a script. In its simplest form, the computer displays a prompt, the user enters a command on the keyboard and terminates the command with a keyboard key (usually the Enter key), and the computer then executes the command.

Arcserve Backup command line utilities allow direct control (using the command prompt) over all operations that can be performed by a Arcserve Backup server. The Arcserve Backup command line utilities provide an alternative method of accessing almost all of the operations available from the various Arcserve Backup Managers. The command line interface also offers the added benefit of creating batch files that can be automatically executed by other programs.

To use the command line interface feature, the complete Arcserve Backup system must be installed on the server and the CA ARCserve Home Directory variable must be set.

As an alternative to using the command line, any command you can enter can also be submitted using the Generic Job Manager. Using the Generic Job Manager provides these benefits:

- The job appears in the Activity Log.

- You can submit repeating jobs.

Important! Make sure that you use the correct syntax when using the Command Line Interface (CLI). Avoid using file names or database names that have the same titles as CLI options. The CLI does not support backup of some special files or databases, such as "- filesystem" or "-database" which have the same titles as CLI options. For example, if you want to back up some files titled "-database", the job will fail because -database is also a CLI global option for Arcserve Backup.

This section contains the following topics:

Command Line Options and Arguments

A command line uses options and arguments to provide specific instructions to tell a computer to do something, such as execute (or run) a program.

- An argument, also called a command line argument, is a file name or other data that is provided to a command in order for the command to use it as an input. Arguments are pieces of information that tell a command what to do and where to send the results.

- An option is a type of argument that modifies the behavior of the command. An option, also referred to as a flag or a switch, is a single-letter or full word that modifies the way a command behaves in some predetermined way. An option is preceded by a hyphen or minus sign (-).

You can combine several command line options into a file called an argument file.

Command Line Syntax Characters

Within a command line syntax, certain characters and formatting have special significance and meaning. The command line syntax within this document use the following character format:

Square Brackets [ ]

The square brackets ([ ]) indicate that the enclosed element (parameter, value, or information) is *optional*. You can choose one or more items or no items. Do not type the square brackets themselves in the command line.

Example: [global options], [source arguments], [destination arguments]

Angle Brackets < >

The angle brackets (< >) indicate that the enclosed element (parameter, value, or information) is *mandatory*. You are required to replace the text within the angle brackets with the appropriate information. Do not type the angle brackets themselves in the command line.

Example: -f *<filename>*, -printer *<printer name>*, -repeat <months> <days> <hours> <minutes>, date access <mm/dd/yyyy>

Ellipsis ...

The ellipsis symbol of three periods (...) means "and so on" and indicates that the preceding element (parameter, value, or information) can be repeated several times in a command line.

Example: -jobid <job id1, job id2, job id3,...>, [-exitcode <exit code 1>,<exit code2>,<exit code3> ...]

Pipe |

The pipe symbol (vertical line) means "or" and indicates a choice within an element. If two arguments are separated by the pipe symbol, you can select the element to the left of the separator or the element to the right of the separator. You cannot select both elements in a single use of the command. Within square brackets, the choices are optional. Within angle brackets, at least one choice is required.

Example: -ca_backup [-custom|-rotation|-gfsrotation], -excludeday <Sun-|Mon|Tue|Wed|Thu|Fri|Sat>, -runjob <start|stop>

Italics

Italic text indicates information that you must supply with the appropriate value. It is an option or parameter to be replaced with a value.

> **Example:** -sessionpassword *session password*, -f *<filename>*, -printer *<printer name>*

Note: Command line syntax, including user names, passwords, and file names used in UNIX and Linux platforms are case-sensitive. For example, commandline, CommandLine, and COMMANDLINE are not the same.

Job Scheduler Wizard- Command Page

The Job Scheduler Wizard is a Arcserve Backup utility that lets you quickly and easily schedule and submit any job that can be executed from the command line. The Arcserve Backup command line enables direct control over most operations that can be performed by a Arcserve Backup server. The Job Scheduler Wizard provides an alternative means to enter job schedule commands in the Command Prompt window.

Job Scheduler Wizard Help

- If you enter a command in the "Run this program" field, you can click Help to view the corresponding parameters for the specified command.

- If you do not enter a specific command in the "Run this program" field and click Help, the following list of command line utilities appears. From this list, you can then click on an individual command to view the corresponding parameters.

Command	Description
authsetup	The authentication setup command (authsetup) is used to initialize the Arcserve Backup authentication database on the primary server. You can also use this to set the password for caroot, create equivalences for the current operating system user on all primary and member servers of a Arcserve Backup domain, and to create equivalences for the Arcserve Backup System Account user on all primary and member servers of a Arcserve Backup domain.
bab	The bab command controls the Arcserve Backup services. The bab management utility is used to load and unload back-end services, display current status and configuration, reconfigure back-end services, and show whether or not the services are running.
caadvreports	The advanced report generator command (caadvreports) is a utility that is used to generate various reports that provide an overview of the current data protection status.
ca_auth	The authentication command (ca_auth) is used when you are logged in as equivalent to caroot to create new users, delete existing users, change any user's password, and establish and delete equivalencies for other users.
ca_backup	The backup manager command (ca_backup) is used to submit backup jobs to the Arcserve Backup queue, including setting all associated options, filtering, GFS Rotation and rotation jobs.
cabatch	The batch command (cabatch) is used to submit jobs to a local or remote Arcserve Backup job queue using an external script file, delete jobs from the job queue, and modify the execution times for all of the jobs in the job queue.

ca_dbmgr	The database manager command (ca_dbmgr) is used to maintain the database, including configuring media pools. This command lets you query database information and set database options.
ca_devmgr	The device manager command (ca_devmgr) is used to perform various device management commands in Arcserve Backup. This command lets you control storage devices, and format and erase media in drives or changers.
ca_jobsecmgr	The job security manager command (ca_jobsecmgr) is used to make global username or password changes for all the jobs in the Job Queue.
ca_log	The log command (ca_log) is used to view, purge, clear, and maintain Arcserve Backup logs. With ca_log you can view the Activity log and the Job logs.
ca_merge	The merge manager command (ca_merge) is used to create and submit merge jobs to the Job Queue. You can merge database information from backup media into your Arcserve Backup database.
ca_mmo	The media management administrator command (ca_mmo) is used to control and monitor vaulting operations and reports.
ca_msvmpopulatedb	The Arcserve Hyper-V Configuration Tool utility command (ca_msvmpopulatedb) is a data collection tool that is used to lets populate the Arcserve Backup database with the information about the Virtual Machines (VMs) on your Hyper-V systems.
ca_qmgr	The queue manager command (ca_qmgr) is used to monitor and control jobs submitted to the Arcserve Backup Job Queue. These job management commands are used for obtaining information or manipulating jobs in the job queue.
ca_recoverdb	The database recovery command (ca_recoverdb) is a self-protection feature that is used to recover a Arcserve Backup database if it is lost.
CAreports	The report writer command (CAreports) provides access to the Arcserve Backup Report Writer utility dialog and is used to create customized (Predefined and User-created) reports.
ca_restore	The restore manager command (ca_restore) is used to create and submit restore jobs to the Arcserve Backup Job Queue, and to set all associated options. The options and switches for the ca_restore command allow you to set global options and filters, select your source and destination for the restore job, and submit the restore job to run immediately or at a scheduled time.
ca_scan	The scan manager command (ca_scan) is used to create and submit scan jobs to the Job Queue.
ca_vcbpopulatedb	The VMware VCB utility command (ca_vcbpopulatedb) is a data collection tool that is used to populate the Arcserve Backup data-

	base with information about the VMware-based VMs in your backup environment.
DumpDB	The DumpDB utility is used to import and export session passwords to and from the Arcserve Backup database. The DumpDB utility dumps only session passwords, it will not export other information about a session.
IsSafe	The IsSafe.bat utility is used to check the operating system for any Arcserve Backup processes that are active to determine if it is safe to shutdown the system.
mergecat	The Merge Catalog utility (mergecat.exe) is used to manually merge in any .cat files that remain in the Arcserve Backup\temp directory.
mergeOLF	The MergeOLF utility is used to move licenses from one Arcserve system to another Arcserve system.
pfc	The preflight checklist utility command (pfc) is used to run vital checks on the Arcserve Backup server and Agents to detect conditions that may cause backup jobs to fail.
tapecomp	The tape compare command (tapecomp) is used to compare media to media. This utility can be used only with Arcserve Backup generated media and must be used in the Arcserve Backup home directory.
tapecopy	The tape copy command (tapecopy) is used to quickly copy data from one media to another. These media do not have to be similar.

Chapter 2: authsetup - Authentication Setup Command

The authentication setup command (authsetup) lets you initialize the Arcserve Backup authentication database on the primary server. You can also use this to set the password for caroot, create equivalences for the current operating system user on all primary and member servers of a Arcserve Backup domain, and to create equivalences for the Arcserve Backup System Account user on all primary and member servers of a Arcserve Backup domain.

This section contains the following topics:

authsetup - Syntax

The authsetup command line syntax is formatted as follows:

authsetup

-p <new password>
-s
-d

More information:

authsetup - Authentication Setup Command

Command Line Syntax Characters

authsetup - Usage

The authsetup command contains options that are used to define actions to follow when setting up the Arcserve Backup authentication database.

The authsetup command includes the following options:

-p *<password>*

Specify the password for 'caroot'. This is required. To set an empty password, use authsetup -p "".

-s

This is silent mode for this utility. Use this if you do not want to see message box notifications if some internal operations fail.

-d

Use this to create debug logs for each authsetup usage.

More information:

authsetup - Authentication Setup Command

authsetup - Examples

authsetup - Examples

The following are examples of syntax for the authsetup command:

▪ Use the following command to reset caroot password to a new password "root" and re-create equivalence for logged in User :

authsetup -p "root"

▪ Use the following command to reset caroot password to empty password and re-create equivalence for logged in User :

authsetup -p ""

▪ Use the following command to reset caroot password to a new password "root" and re-create equivalence for logged in User. Enable Silent mode and debugging :

authsetup -p "root" -s -d

More information:

authsetup - Authentication Setup Command

Chapter 3: bab - Arcserve Backup Services Command

The bab command controls the Arcserve Backup services. The bab management utility can be used to load and unload back-end services, display current status and configuration, reconfigure back-end services, and show whether or not the services are running.

The bab command works as a front-end to the Arcserve Service Controller service and requires that Arcserve Service Controller service be running for loading the back-end services.

The full set of Arcserve Backup back-end services includes five services:

- Arcserve Service Controller service

- Arcserve Domain Server service

- Arcserve Database Engine service

- Arcserve Tape Engine service

- Arcserve Job Engine service

Note: When a Arcserve Backup server is configured as cluster-aware, all critical Arcserve base-related services (not agent-related services) will be monitored by the applicable cluster service (MSCS or NEC CLUSTERPRO). If an Arcserve base-related service fails or needs to be shut down, the cluster service will automatically try to restart it or trigger a failover if the restart attempt fails. To run the this task, you must stop Arcserve services. However, in a cluster-aware environment, you must first manually stop the cluster service from continuing to monitor the service and attempting an automatic restart or failover. For procedures to stop HA service monitoring by the Cluster Service, see the Administration Guide.

This section contains the following topics:

bab - Syntax

The bab command line syntax is formatted as follows:

bab [-cahost <hostname>]

-load [procid |"all"]
-unload [-force] [-quiet] [procid |"all"]
-show [-v] [procid |"all"]
-showcfg [-v] [procid |"all"]
-reconfig [procid |"all"]
-status [procid |"all"]
-removehost hostname
-getprimary
-getdomainservers

> **Note:** The [-cahost <hostname>] switch is optional. This switch is not needed if you are using these commands locally; however, a hostname is required if you are performing these commands remotely. The host specified by the -cahost switch can be a member server or primary server. However, Arcserve Backup will always add the job to the job queue of the primary server, and the primary server will then dispatch the job to the proper server (primary/member) according to this switch when the job is processed.

> **Note:** If you installed Arcserve Backup using the "Arcserve Manager (Console)" mode, you must include the -cahost switch to execute this command from your local machine. Because this Console installation mode does not actually install all Arcserve Backup capabilities on your local machine, it is mandatory that -cahost be included when submitting this command remotely to the primary or member server containing Arcserve Backup or else the command will fail.

More information:

bab - Arcserve Backup Services Command

Command Line Syntax Characters

bab - Usage

The bab command contains options that are used to define actions to follow when controlling the Arcserve Backup services.

The bab command includes the following options:

-cahost <hostname>

Identifies the name of the system hosting the operation.

If you want to execute the operation on a remote system, this switch must be included in the command.

If you want to execute this operation on your local system, this switch is not required and should not be included in the command.

Note: If you include -cahost in the command, you must also specify the host-name of the system (local or remote) hosting the operation.

Note: If you installed Arcserve Backup using the "Arcserve Manager (Console)" mode, you must include the -cahost switch to execute this command from your local machine. Because this Console installation mode does not actually install all Arcserve Backup capabilities on your local machine, it is mandatory that -cahost be included when submitting this command remotely to the primary or member server containing Arcserve Backup or else the command will fail.

usage

Displays a list of basic bab commands.

-load

Starts Arcserve Backup daemons.

Loads a specified service or all services. By default, all services are loaded.

-unload [-force] [-quiet]

Stops Arcserve Backup daemons.

Unloads a specified service or the three services (cadbd, camediad, and caqd services) will be unloaded. By default, these three services will be unloaded.

-force

The -force option forces unloading even if a job is queued.

-quiet

The -quiet option suppresses messages.

-show [-v]

Shows the status of Arcserve Backup daemons.

Displays the configuration and current status of a specified service or all services. By default, all services are displayed.

-v

Increases the verbosity of the output for status and configuration options. Use the -v option to show the status of the daemons in verbose output.

When used with the -show command, the -v option displays the service name, location of the binary, state, registration status, and "kill" type. The kill type indicates whether a particular service is "immortal" (must be shut down with the -force switch), or "regular" (can be stopped as needed).

-showcfg [-v]

Shows the current status of a specific Arcserve Backup service or all Arcserve Backup services, as well as how the service is configured.

Displays the status of back-end services and their "kill" type (immortal or regular).

Services that are labeled as "regular", may be stopped as needed. Services labeled as "immortal" can not be stopped unless their termination is forced and all "regular" services have been unloaded.

-v

Increases the verbosity of the output for status and configuration options. Use the -v option to show the status of the daemons in verbose output.

When used with -showcfg, the -v option displays the service name, location of the binary, hostname, RPC program number, RPC program version number, process ID (PID), transport protocol, family, state, registration status, and "kill" type. The kill type indicates whether a particular service is "immortal" (must be shut down with the -force switch), or "regular" (can be stopped as needed).

-reconfig

Brings down a specific Arcserve Backup service or services, re-reads the configuration file, and brings the service up again with new configuration file settings.

This command makes a back-end service, when specified, caserved reread its configuration files and activates any changes it finds.

-status

Displays a brief status of services.

-removehost

Removes the host from your Arcserve Backup environment.

Note: The <hostname> must be a valid host name and exist in the primary server.

-getprimary

Returns the name of the Primary Server in the current domain or the domain where the specified host is located. You can provide the name of any Domain member (as the host server) to get the Primary server name.

By default, if the –cahost is not specified, it will find out the primary server of the local machine. If –cahost is specified, it will find out the primary server of the hostname.

-getdomainservers

Returns a list of all the servers in the current domain or the domain where specified host is located. You can provide the name of any domain member as the host server.

By default, if the –cahost is not specified, it will find out all the member servers in the local machine's domain. If –cahost is specified, it will find out all the member servers in the hostname's domain.

More information:

[bab - Arcserve Backup Services Command](#)

[bab - Examples](#)

bab - Examples

The following are examples of syntax for the bab command:

- Use the following command to display simplest service status:

  bab -status

- Use the following command to display the configuration and current status of the job engine in verbose output:

  bab -show -v caqd

- Use the following command to show the current status of the tape engine and how it is configured:

  bab -showcfg camediad

- Use the following command to start the database engine:

  bab -load cadbd

- Use the following command to stop the domains and authentication services if a job is queued:

  bab -unload cadiscovd -force

- Use the following command to show the name of the Primary Server in the current domain:

  bab -getprimary

More information:

bab - Arcserve Backup Services Command

Chapter 4: ca_auth - Authentication Command

The authentication command (ca_auth) is used when you are logged in as equivalent to caroot to create new users, delete existing users, change any user's password, and establish and delete equivalencies for other users. When you are logged in as equivalent to a user other than caroot, you can use ca_auth to change and validate your password.

Note: If you are logged in as a user who has no equivalence to any Arcserve Backup user, then you must be granted an equivalence before you can use ca_auth.

caroot

Arcserve Backup is designed with a root-level, super user profile, to which complete control of Arcserve Backup is granted. This profile, referred to as the "caroot" user profile, is set up during the first-time installation of Arcserve Backup.

The password for the caroot profile can be set during installation, or it can be set or changed later using ca_auth or AuthSetup.exe, located in the Arcserve Backup home directory. For security reasons, we recommend that you set a password on this account.

Note: The caroot user profile controls access to the Arcserve Backup Manager GUI and backup-related functions, and should not be confused with the security required to log in to your operating system.

caroot Equivalence

Arcserve Backup allows you to create users that are equivalent to caroot. A user that is equivalent to caroot has full access to all Arcserve Backup features, and can work with the command line utilities, such as ca_backup and ca_restore. Any Windows user on any host can be granted equivalence to caroot. To grant a user equivalence to caroot, you must either be logged in as equivalent to caroot or know the caroot password.

Console utilities such as ca_backup, ca_restore, and ca_qmgr work with remote Arcserve Backup servers for submitting and monitoring backup and restore jobs without requiring users to log in to Arcserve Backup every time for each command.

This section contains the following topics:

ca_auth - Syntax

The ca_auth command line syntax is formatted as follows:

ca_auth [-cahost <hostname>]

-user [user arguments]
-equiv [equivalence arguments]
-role [role arguments]
-f <filename>
-help
-examples

> **Note:** The [-cahost <hostname>] switch is optional. This switch is not needed if you are using these commands locally; however, a hostname is required if you are performing these commands remotely. The host specified by the -cahost switch can be a member server or primary server. However, Arcserve Backup will always add the job to the job queue of the primary server, and the primary server will then dispatch the job to the proper server (primary/member) according to this switch when the job is processed.

> **Note:** If you installed Arcserve Backup using the "Arcserve Manager (Console)" mode, you must include the -cahost switch to execute this command from your local machine. Because this Console installation mode does not actually install all Arcserve Backup capabilities on your local machine, it is mandatory that -cahost be included when submitting this command remotely to the primary or member server containing Arcserve Backup or else the command will fail.

More information:

ca_auth - Authentication Command

Command Line Syntax Characters

ca_auth - Usage

The ca_auth command allows you to set the following options and arguments:

- miscellaneous options

- user arguments

- role arguments

- equivalence arguments

More information:

ca_auth - Authentication Command

ca_auth - Miscellaneous Options

ca_auth - User Arguments

ca_auth - Role Arguments

ca_auth - Examples

ca_auth - Miscellaneous Options

The ca_auth command contains miscellaneous options that are used to display all associated options and define basic policies and parameters for Arcserve Backup to use during an authentication process.

The ca_auth command includes the following miscellaneous options:

-cahost <hostname>

Identifies the name of the system hosting the operation.

If you want to execute the operation on a remote system, this switch must be included in the command.

If you want to execute this operation on your local system, this switch is not required and should not be included in the command.

Note: If you include -cahost in the command, you must also specify the hostname of the system (local or remote) hosting the operation.

Note: If you installed Arcserve Backup using the "Arcserve Manager (Console)" mode, you must include the -cahost switch to execute this command from your local machine. Because this Console installation mode does not actually install all Arcserve Backup capabilities on your local machine, it is mandatory that -cahost be included when submitting this command remotely to the primary or member server containing Arcserve Backup or else the command will fail.

-usage

Displays a list of basic ca_auth commands.

-help

Opens the ca_auth Help topic.

-examples

Opens a Help topic with ca_auth usage examples.

More information:

ca_auth - Authentication Command

ca_auth - Examples

ca_auth - User Arguments

Before you can use Arcserve Backup, you must have a Arcserve Backup account. Arcserve Backup is designed with a root-level, super user profile, to which complete control of Arcserve Backup is granted. This profile, referred to as the "caroot" user profile, is set up during the first-time installation of Arcserve Backup.

The *caroot* user has Administrator privileges, and is created by the program at installation. The password for the *caroot* profile can be set during installation, or it can be set or changed later using ca_auth or AuthSetup.exe, located in the Arcserve Backup home directory. For security reasons, we recommend that you set a password on this account.

Note: The ca_auth.exe command only supports only Arcserve Backup native users, such as caroot, and does not support Windows Users, such as "domain\user" or "hostname\Administrator".

Note: The caroot user profile controls access to the Arcserve Backup GUI and backup-related functions, and should not be confused with the security required to log in to your operating system.

The ca_auth command includes the following user arguments:

ca_auth [-cahost host] -user

add username [passwd] [-assignrole [rolelist]]
delete username
chgpasswd username [passwd]
chgrole username [rolelist]
validate username [password]
group username
getall

add username *[passwd] [-assignrole [rolelist]]*

Adds a *username* with the specified password as a Arcserve Backup user.

Note: The *username* cannot contain the "\" character.

-assignrole [rolelist]

When you add a new user by ca_auth, you must also assign a role to the new user to create a User Profile. A User Profile is the combination of linking the user with the assigned role(s) and the associated permissions for the assigned role(s).

The current available role list is as follows:

1) Backup Operator

2) Restore Operator

3) Device Operator

4) Tape Operator

5) Security Administrator

6) Report Operator

7) Monitor Operator

8) Arcserve Administrator

9) Ownership Checking Exemption Privilege

When you include the -assignrole switch, you will also be prompted as follows:

Please assign roles for this user:

Each role has a corresponding number assigned to it. To assign a role to a new user, you must enter the role number after the -assignrole switch. To add multiple roles, you must insert a comma to separate each role.

For example:

- To assign a Security Administrator role to a new user, enter the following command:

    ca_auth [-cahost host] -user add username [passwd] -assignrole 5

- To assign multiple roles to a new user, enter the following command:

    ca_auth [-cahost host] -user add username [passwd] -assignrole 1,2,3,4,5

Note: For more information about User Profiles and role definitions, see the *Administration Guide*.

delete username

Deletes *username* from the authentication database.

chgpasswd username *[passwd]*

Changes the password for the specified *username.*

chgrole username [rolelist]

Changes the assigned role(s) for an existing Arcserve Backup user.

validate *username [passwd]*

Checks if the specified username and password combination exists, is valid, and can be used to log in to the Arcserve Backup domain.

group *username*

Provides the name of the user group to which the specified user belongs.

getall

Lists all users known to Arcserve Backup Authentication Service.

More information:

ca_auth - Authentication Command

ca_auth - Examples

ca_auth - Role Arguments

Each user should be assigned at least one role to create a User Profile. For each role there is a corresponding list of permissions. A User Profile is the combination of linking the user with the assigned role(s) and the associated permissions for the assigned role(s).

- Permission is the right to execute a specified operation in Arcserve Backup, for example, the permissions for format media, submit a backup job or a restore job, monitor job status, create reports, etc.

- Role is the combination of permissions.

- A user can be assigned with one or more roles.

- From a Role perspective, a role can be assigned to none or any number of users.

- From a Permission perspective, a permission can be included in one or multiple roles.

Note: For more information about User Profiles, see the *Administration Guide*.

To display the list of current available roles, along with the corresponding role description and role id, you must enter the following command:

ca_auth -role getall

-role

Displays the role arguments. This provides you with an easy way to find out the role id which could be used while adding a new user or changing the role of an existing user.

getall

Lists all roles known to Arcserve Backup Authentication Service.

The current available role list is as follows:

1) Backup Operator

2) Restore Operator

3) Device Operator

4) Tape Operator

5) Security Administrator

6) Report Operator

7) Monitor Operator

8) Arcserve Administrator

9) Ownership Checking Exemption Privilege

More information:

ca_auth - Authentication Command

ca_auth - Examples

ca_auth - Equivalence Arguments

Equivalence allows you to create an equivalent user to *caroot*, if you know the password for *caroot*. Once you've designated a user on a given host as equivalent to *caroot*, you can access the entire authentication database as this user and have full access to all Arcserve Backup features.

To be able to use the Arcserve Backup command line utilities, you need to create the caroot equivalency for your system account. The caroot equivalency establishes the mapping of a user's login name with the Arcserve Backup user database. This allows the user to use the Arcserve Backup command line utilities. Any Windows user on any host can be granted equivalence to caroot. To grant a user equivalence to caroot, you must either be logged in as equivalent to caroot or know the caroot password.

Console utilities such as ca_backup, ca_restore, and ca_qmgr work with remote Arcserve Backup servers for submitting and monitoring backup and restore jobs without requiring users to log in to Arcserve Backup every time for each command.

The ca_auth command includes the following equivalency arguments:

ca_auth [-cahost host] -equiv

add ntuser hostName ARCserveBackupUser [caroot_username] [caroot_password]
getequiv [ntuser hostName]
delete ntuser hostName [caroot_username] [caroot_password]
whoami

add ntuser hostName ARCserveUser *[caroot_username] [caroot_ password]*

Creates an equivalence of the specified *user* on *host* to caroot.

getequiv *[ntuser hostName]*

Displays all equivalences for the specified *user* on *host* who runs this command.

delete ntuser hostName *[caroot_username password]*

Delete equivalence for UNIX *user* on *host*. Unless the current user is equivalent to *caroot*, credentials (i.e., caroot username and password) for the Administrator's account are required.

whoami

Displays the user name you are logged in as on the local machine.

Note: A user with read rights cannot grant somebody else read rights to an object they do not own.

More information:

ca_auth - Authentication Command

ca_auth - Examples

ca_auth - Examples

The following are examples of syntax for the ca_auth command:

- Use the following command to change the password for the caroot user:

  ca_auth -user chgpasswd caroot [passwd]

- Use the following command to add a user:

  ca_auth -user add username [passwd]

- Use the following command to delete a user:

  ca_auth -user delete username

- Use the following command to validate a user and the associated password:

  ca_auth -user validate username [password]

- Use the following command to add a user (administrator) and a password (caroot):

  ca_auth -user add administrator caroot

  Note: You are prompted to enter the password for administrator in non-echo mode.

- Use the following command to list all Arcserve Backup users:

  ca_auth -user getall

- Use the following command to add a Windows user (administrator) that has a caroot equivalency to Arcserve Backup Domain Server DOMAIN. The user name is caroot and the password is ccb:

  ca_auth -equiv add administrator DOMAIN caroot ccb

- Use the following command to show the current Arcserve Backup user:

  ca_auth -equiv whoami

ca_auth Equivalence Examples

- Use the following command to set up equivalency:

  ca_auth -equiv add ntuser hostName ARCserveUser [caroot username] [caroot password]

  For example, to add an equivalency for the Administrator on machine dev02-vir2:

  ca_auth -equiv add Administrator dev02-vir2 'caroot' 'caroot password'

- Use the following command to display the equivalence for the user you are logged in as:

  ca_auth -equiv getequiv

- Use the following command to display the equivalence for a user on a particular host machine:

  ca_auth -equiv getequiv [ntuser hostName]

- Use the following command to delete the equivalency for a user:

  ca_auth -equiv delete ntuser hostName [caroot username] [caroot password]

- Use the following command to see the user name you are logged in as on the local machine:

  ca_auth -equiv whoami

- To use command line interface on one machine to manage another, you must add equivalency.

  To add equivalency, perform the following steps:

  1. Open the command line interface from <Machine A>

  2. Enter the following command:

     ca_auth -cahost <hostnameB> -equiv add <domainnameA\NT user (administrator)> <hostnameA> caroot caroot <passwordofcaroot>

More information:

ca_auth - Authentication Command

Chapter 5: ca_backup - Backup Manager Command

The backup manager command (ca_backup), is the command line interface to the Backup Manager. All of the features available from the Backup Manager GUI are also available from the command line. Use this command to submit backup jobs to the Arcserve Backup queue, including setting all associated options, filtering, GFS Rotation and rotation jobs.

Important! Make sure that you use the correct syntax when using the Command Line Interface (CLI). Avoid using file names or database names that have the same titles as CLI options. The CLI does not support backup of some special files or data-bases, such as "- filesystem" or "-database" which have the same titles as CLI options. For example, if you want to back up some files titled "-database", the job will fail because -database is also a CLI global option for Arcserve Backup.

This section contains the following topics:

ca_backup - Syntax

The ca_backup command line syntax is formatted as follows:

ca_backup [-cahost <hostname>]
[global options]
[global filters]
-source [source arguments]
[destination arguments]
[schedule arguments]
[run job arguments]

> **Note:** The [-cahost <hostname>] switch is optional. This switch is not needed if you are using these commands locally; however, a hostname is required if you are performing these commands remotely. The host specified by the -cahost switch can be a member server or primary server. However, Arcserve Backup will always add the job to the job queue of the primary server, and the primary server will then dispatch the job to the proper server (primary/member) according to this switch when the job is processed.

> **Note:** If you installed Arcserve Backup using the "Arcserve Manager (Console)" mode, you must include the -cahost switch to execute this command from your local machine. Because this Console installation mode does not actually install all Arcserve Backup capabilities on your local machine, it is mandatory that -cahost be included when submitting this command remotely to the primary or member server containing Arcserve Backup or else the command will fail.

More information:

ca_backup - Backup Manager Command

Command Line Syntax Characters

ca_backup - Usage

The ca_backup command allows you to set the following options and arguments:

- miscellaneous options

- backup options

- filter arguments

- source arguments

- destination arguments

- schedule arguments

- run job arguments

- disk staging options

- return codes

To build a backup operation, you must set one category of options at a time, in the order specified in the ca_backup syntax.

More information:

ca_backup - Backup Manager Command

ca_backup - Miscellaneous Options

ca_backup - Global Filter Options

ca_backup - Source Arguments

ca_backup - Destination Arguments

ca_backup - Schedule Arguments

ca_backup - Disk Staging Options

ca_backup - Return Codes

ca_backup - Miscellaneous Options

The ca_backup command contains miscellaneous options that are used to display all associated options and define basic policies and parameters for Arcserve Backup to use during a backup process.

The ca_backup command includes the following miscellaneous options:

ca_backup

[-cahost <hostname>] -list
[-f <filename>]
[-clearconn]
[-waitForJobStatus [<polling interval(secs)>]]
[-help]
[-examples]
[-usage]
[allusage]

-cahost *<hostname>*

Identifies the name of the system hosting the operation.

If you want to execute the operation on a remote system, this switch must be included in the command.

If you want to execute this operation on your local system, this switch is not required and should not be included in the command.

Note: The [-cahost <hostname>] switch is optional. This switch is not needed if you are using these commands locally; however, a hostname is required if you are performing these commands remotely. The host specified by the -cahost switch can be a member server or primary server. However, Arcserve Backup will always add the job to the job queue of the primary server, and the primary server will then dispatch the job to the proper server (primary/member) according to this switch when the job is processed.

Note: If you installed Arcserve Backup using the "Arcserve Manager (Console)" mode, you must include the -cahost switch to execute this command from your local machine. Because this Console installation mode does not actually install all Arcserve Backup capabilities on your local machine, it is mandatory that -cahost be included when submitting this command remotely to the primary or member server containing Arcserve Backup or else the command will fail.

-list

Displays a list of all group names and corresponding media that is available for the backup job.

-f *<filename>*

Used to specify a file name that contains the switches and parameters for the command.

This switch overcomes the shell limitation of 1024 character input from command line. You can also use this switch to hide passwords by saving them in a file.

-waitForJobStatus [*<polling interval (secs)>*]

When specified, the ca_backup command will wait until the job is completed, and exit with a return code that indicates the success or fail outcome of the job.

The <polling interval> value defines how often (in seconds) the ca_backup utility checks the job status with the Queue services. The default polling interval is 60 seconds.
Note: This is useful for Unicenter NSM Scheduling (formerly known as TNG).

-help

Opens the ca_backup Help topic.

-examples

Opens a Help topic with ca_backup usage examples.

-usage

Displays a list of basic ca_backup commands.

allusage

Displays a list of all ca_backup commands and their switches.

Global Job Options

The ca_backup global options allow you to specify various options that are applied to the entire job.

The ca_backup command provides the following global options:

- backup media options
- verification options
- file retry/sharing options
- operation options
- pre/post options
- log options
- media exporting options
- advanced options
- VSS options

ca_backup Backup Media Options

The ca_backup command includes the following global backup media options:

ca_backup

[-firsttapeopt <owritesameblank|owritesameblankany>]
[-firsttapetimeout <minutes<1-9999>>]
[-spantapeopt <owritesameblank|owritesameblankany>]
[-spantapetimeout <minutes<1-9999>>]
[-sessionpassword <session password>[-savepassword [-remindafter n]]]
[-encryption <encryption key> [-atagent|-atserverduringbackup|-atserver-duringmigration][-savepassword [-remindafter n]]]
[-compression [-atagent|-atserver]]
[-mediabyname]

-firsttapeopt <owritesameblank| owritesameblankany>

Specify media options for the first media used in the backup job. By default, set to Overwrite Same media (append to media). Blank media and Any media are not the same. Any indicates a formatted media with a different media name than that provided in the job.

The media selection search order is from left to right. If the owritesameblankany option is specified, Arcserve Backup will first search for a media with the same name as the job. If one is found and is usable, the media is formatted using the same name, and used for the backup. If not, Arcserve Backup will search for a Blank media to use. If no Blank media is available, Arcserve Backup will then search for Any usable media to format and use for the backup.

Note: If the -rotation schedule argument is included, the specified rotation rules will override these options.

-firsttapetimeout *<minutes<1-9999>>*

Specify the time, in minutes, to wait for a usable media to be made available for a backup job. By default, this value is 5 minutes. If a usable media is not made available within this time period, the job times out and fails.

-spantapeopt <owritesameblank| owritesameblankany>

Specify media options for any span media used in the backup job. These options apply to jobs that require more than one media to determine the over-write rules for the additional media. You need to specify which media Arcserve Backup can use when the job spans media.

The media selection search order is from left to right. By default, set to Over-write Same or Blank. During spanning of tape, if the default is specified,

Arcserve Backup first searches for a media with the same name and a higher sequence than the original tape. If a tape is found and is usable, the media is formatted and used as the next tape. If not, Arcserve Backup searches for a Blank media to use.

Note: If the -rotation schedule argument is included, the specified rotation rules will override these options.

-spantapetimeout *<minutes<1-9999>>*

Specify the time, in minutes, to wait for a usable span media to be made available for a backup job. By default, this value is infinite, and the job continues to wait and prompt until a usable media is loaded or the user cancels the job.

-sessionpassword *<session password>*[-savepassword [-remindafter n]]

Applies a password to each session backed up to media. To restore data from one of these sessions, the password must be provided.

-savepassword

Specifies to save the session password into the Arcserve Backup database for this backup job. If you do not include this switch, the session password will not be saved into the Arcserve Backup database.

-remindafter n

Specifies the number of days the session password is saved. After the specified number of days has elapsed, a reminder message prompting you to change your password will be logged in the Activity Log. The available range is 0 to 9999 days.

Note: For more information about importing and exporting session password from or to the Arcserve Backup database, see the [DumpDB Utility](#).

-encryption *<encryption key>* [-atagent|-atserverduringbackup|-atserverduringmigration] [-savepassword [-remindafter n]]

Encrypts files before the backup. To restore encrypted files, the encryption password must be provided.

To restore a session that was backed up using this argument, you must use the ca_restore -tapesessionpw argument to execute the restore job.

Note: For a deduplication device, you cannot include the [-atagent|-atserverduringbackup|-atserverduringmigration] switch.

- If you select -atagent, the encryption will be performed at the agent side. This is the default option.

- If you select -atserverduringbackup, the encryption will be performed at the server side during the backup process.

- If you select -atserverduringmigration, the encryption will be performed at the server side during the migration process.

  -savepassword

  Specifies to save the encryption password into the Arcserve Backup database for this backup job. By default, this option is selected.

  -remindafter n

  Specifies the number of days a encryption password is saved. After the specified number of days has elapsed, a reminder message prompting you to change your password will be logged in the Activity Log. The available range is 0 to 9999 days.

  Note: For more information about importing and exporting session password from or to the Arcserve Backup database, see the [DumpDB Utility](#).

-compression [-atagent|-atserver]

  Compresses files before the backup.

  Note: For a deduplication device, you cannot include the [-atagent|-atserver] switch.

- If you select -atagent, the compression will be performed at the agent side. This is the default option.

- If you select -atserver, the compression will be performed at the server side.

-mediabyname

  Arcserve Backup writes to any media that has the specified name, regardless of the media's ID or sequence number. This option is useful if you are running a repeating overwrite job with a specific media and you want to ensure that the same media is used for the job each time.

- When you include this option, Arcserve Backup looks for a media that has the specified name and uses it, regardless of the media's other identifying features.

- When you do not include this option, the second time the backup job is run, Arcserve Backup cannot always locate the original tape because some of its identifying features will have changed.

  Note: If two or more media in the tape library have the same name, Arcserve Backup will use the first media in the device group that matches the specified

name. Therefore, you should not use this option to perform a single occurrence overwrite.

More information:

ca_backup - Examples

ca_backup Verification Options

The ca_backup command includes the following global miscellaneous options:

ca_backup [-scan | -compare]

-scan

Scans the backup media and checks the header of each file to verify the integrity of the backup. If the header is readable, the data is assumed to be reliable.

-compare

Reads blocks of data from the backup media and compares the data, byte for byte, against the source files on the source machine, to verify the integrity of the backup.

Note: The Compare Media to Disk option is not supported with agents for databases and applications.

More information:

ca_backup - Examples

ca_backup File Retry/Sharing Options

The ca_backup command includes the following global file retry and sharing options:

ca_backup
[-retry <off|now[later]|later[now]>]
[-retrycount <count<1-9999>>]
[-retryinterval <seconds<1-9999>>]
[-accessmethod <denynoneifdenywritefails | lockifdenywritefails | denywrite | denyn-one>]

-retry <off|now[later]||later[now]>

   Specifies retrying to back up open files missed during the initial backup.

-retrycount *<count<1-9999>>*

   Specifies the number of retry attempts.

-retryinterval *<seconds<1-9999>>*

   Specifies the interval (in seconds) between retry attempts.

-accessmethod <denynoneifdenywritefails | lockifdenywritefails | denywrite | denynone>

   These are file sharing options:

   denynoneifdenywritefails

   Arcserve Backup'attempts to place the file in deny write mode. If this is not possible because file is already open, it will be placed into deny none mode. This is the default setting.

   lockifdenywritefails

   Arcserve Backup attempts to place the file in deny write mode. If this is not possible because the file is already open, the file will be locked completely so that no user can open it or write to it. This option ensures that the most recent version of the file is backed up.

   denywrite

   Prevents another process from writing to the file while Arcserve Backup has it open. If another process opens the file before Arcserve Backup opens it, Arcserve Backup will not back up the file, unless you selected one of the open File Retry options.

   denynone

   Allows other processes to read or write to the file, regardless of whether Arcserve Backup opens it first or opens it after another process already has it

open. Although the backed up file may not be the most recent version, this option ensures that the file is up-to-date.

More information:

ca_backup - Examples

ca_backup Operation Options

The ca_backup command includes the following global operation options:

ca_backup

[-backupasdb]
[-backupcatalog]
[-backupjobqueue]
[-noestimation]
[-createcrc]
[-deletefiles]
[-preserveaccesstime]
[-eject|-noeject]
[-partialdbupdate|-nodbupdate]
[-disableResetArchiveBitForDedupe]

-backupasdb

Appends the Arcserve Backup database at the end of the backup data.

-backupcatalog

Appends the catalog files at the end of the backup data.

-backupjobqueue

Appends the job scripts at the end of the backup data.

-noestimation

Disables file estimation. By default, before any file is backed up to media, Arc-serve Backup performs an estimate of how long the job will take. Select this option if you want Arcserve Backup to skip this function, saving time at the beginning of the backup.

-createcrc

Calculates and stores the CRC value on backup media. Select this option if you want Arcserve Backup to automatically calculate the CRC values and save them to the backup media during the backup job. The CRC values can then be used by the scan operation immediately following the backup job (if the -scan global verification option is included), or as part of a separate scan job.

-deletefiles

Deletes the files from the hard disk after the file backup is completed. Select this option if you want to delete source files from the source machine after they have been backed up to media. This option deletes only the files from the specified unprotected folder. It does not delete the empty folder itself.

You can use this option to perform disk grooming. For example, if you set up a backup job with a filter to back up files that haven't been accessed for a certain period of time, you could then include this option to delete those files from the source disk.

Notes:

- On Windows computers, protected system files and files that are excluded from the backup by other filters are not deleted. For a remote backup job or a 64-bit operating system local backup job or a Windows Server 2008 local backup, the Windows Client Agent backs up the files. After the backup, this option deletes only the files from the specified unprotected folder. It does not delete the empty folder itself. Boot files, however, are not protected and can be deleted.

- On Linux/UNIX and Mac computers, all files that are backed up are deleted, except for those in protected directories, such as /bin, /etc, and /lib. To designate additional directories as protected, add them to the groom.cntl file on the client agent machine.

-preserveaccesstime

Preserves file access time (for windows file system only). This option directs Arcserve Backup to preserve the last access time of files when a backup is performed.

The Access Time of a file is automatically updated by the operating system whenever a file is accessed (read or write). However, after a full backup is performed, the Access Times of all the backed up files are also updated. Therefore, if you want to track whether or not a file has actually been accessed (and not just backed up), you need to preserve the original access time.

- If this option is not included, the last file access time of any files that are backed up is updated to the new value that is present when the backup is completed. This is the default setting.

- If this option is included, Arcserve Backup preserves the last file access time of any files that are backed as the original value that was present before the backup was performed.

-eject

Ejects the media from the drive after the job finishes. This helps prevent any other job from overwriting information on this media. If you select this, it overrides the setting you selected during library configuration.

-noeject

Does not eject the media from the drive after the job finishes. If you select this, it overrides the setting you selected during library configuration.

-partialdbupdate

Records only Job and Session information into the Arcserve Backup database. Select this option to log only job and session information in the database. This is the recommended method.

Note: On Windows, if you select this, no detail information will be merged into the database. If you enabled the catalog database and select this, catalog files are stored in the CATALOG.DB folder. If you did not enable the catalog database, catalog files are deleted afterwards.

-nodbupdate

Disables database recording. Does not log any information about this job in the database. Select this option if you are backing up the Arcserve Backup database or if you have limited disk space.

You must submit a Merge Media operation before you can use any of the database views to restore this data.

-disableResetArchiveBitForDedupe

Disables the resetting of the archive bit for all files specified in the command. If you omit this switch, archive bits are reset by default.

Important! Use this switch with caution. The archive bit marks a particular file as changed. When you perform deduplication jobs with Optimization, only the files marked as "changed" since the last backup are actually deduplicated. After the backup job completes, the Archive Bits on those files should be reset. If the Archive Bit is not reset, files are automatically considered "changed" and Optimization includes them in subsequent backup jobs, even if no changes actually took place.

You should disable archive bit resetting in situations where files to be backed up by custom deduplication with optimization jobs are also backed up by some other backup job, such as a GFS job. Clearing the archive bit after the first job could affect the GFS job.

More information:

ca_backup - Examples

ca_backup Pre/Post Options

The ca_backup command includes the following global pre/post options:

ca_backup

[-preexec <command>]
[-exitcode <exit code(>=0)> [-skip_delay|-skip_job] [-skip_post]
[-preexectimeout <minutes(0-32767)>]
[-postexec <command>]
[-skippostfail]
[-skippostincmp]
[-skippostcmp]
[-prepostuser <user name>]
[-prepostpassword <user password>]

-preexec *<command>*

Runs the specified command before the job starts.

The entire path of the command should be included.

Note: To use this option, you must also specify the -prepostpassword option. If you do not specify the -prepostpassword option, the job will fail.

-exitcode *<exit code(>=0)>***[-skip_delay|-skip_job] [-skip_post]**

Specifies the exit code of the pre-execute command. Used with the skip_delay, skip_job, and skip_post switches.

-skip_delay

Runs the backup job immediately, if the specified exit code is received.

-skip_job

Skips the backup job completely, if the specified exit code is received.

-skip_post

Skips the post-execute command, if the specified exit code is received.

-skippostfail

Specifies to not run the post command if the job fails.

-skippostincmp

Specifies to not run the post command if the job is incomplete.

-skippostcmp

Specifies to not run the post command if the job is complete.

-preexectimeout *<minutes(0-32767)>*

Specifies the time to wait (in minutes) before the backup job starts, to allow time for the pre-execute command to finish. The range of time to specify is from 0 to 32767 minutes.

Default: 0 minutes

-postexec *<command>*

Runs the specified command after the job finishes.

The entire path of the command should be included.

> **Note:** To use this option, you must also specify the -prepostpassword option. If you do not specify the -prepostpassword option, the job will fail.

-prepostuser *<username>*

Specifie the name of the user who is submitting this backup job.

-prepostpassword *<user password>*

Specifies the password of the user submitting the backup job.

More information:

ca_backup - Examples

ca_backup Log Options

The ca_backup command includes the following global log options:

ca_backup

[-logfile <allactivity | summary [consolidate] | disabled | errorsonly>]

-logfile <allactivity | summary [consolidate] | disabled | errorsonly>

Records activities during the running of the backup job in the Job Log. You must specify one of the subordinate options to control the information being recorded.

allactivity

Logs all activities that occur while the job is running.

summary

Logs only summary information such as source, destination, session number, totals, and errors.

consolidate

Consolidates a child job log to the master job. This option can only be used when the summary option is used.

disabled

Log is disabled and does not record any information about the job.

errorsonly

Logs only errors that occur while the job is running.

Default: Summary without consolidate.

More information:

ca_backup - Examples

ca_backup Media Exporting Options

The ca_backup command includes the following global media exporting options:

ca_backup

[-export <all|duplicate>]

-export

Allows you to export media at the end of a backup job. It allows you to move it out of the library or to an off-site location for safe storage. If the job does verification, the export is performed at the end of the verification process. If you do not include this option, no media exporting will take place at the end of a backup job.

all

Arcserve Backup exports all of the tapes for the related backup. If the job spanned to multiple tapes, all of the tapes used in this job will be exported. In case of RAID tape sets, all the tapes in the tape sets for this job will be exported. Arcserve Backup retries a few times to check if the mail slot is empty to move the next tape to the mail slot. If there are not enough mail slots to export all the tapes, the tapes that could not be exported will be moved back to the original home slot. If the operator does not remove the tape from the mail slots then Arcserve Backup will write this information in the activity log.

duplicate

This option is for RAID 1 support. Arcserve Backup exports the duplicate media for the related backup. If the job spanned to multiple media, all the duplicate media used in this job will be exported.

More information:

ca_backup - Examples

ca_backup Advanced Options

The ca_backup command includes the following advanced global options:

ca_backup

[-skipdirandvol | -traversedirandvol]
[-bkmountpt]
[-preserve_hardlink]
[-dr_partialnodeinfo]
[-dr_includefiltered]
[-sql_norotation]
[-sql_nopartialupdate]

-skipdirandvol

Specifies to skip the directory junctions and volume mount points. Including this option causes the backup job to not back up the directory or volume being referred to by the directory junction or volume mount point, respectively. Therefore, at the time of restore, you cannot restore a file or directory that is contained in the referred to directory or volume.

-traversedirandvol

Specifies to traverse the directory junctions and volume mount points. Including this option causes the backup job to traverse the specified directory or volume and take a backup of it. At the time of restore of this session, you can restore files and directories contained in the referred to volume or directory. When this option is not included, the backup job does not back up the volume or the directory being referred to by the volume mount point or the directory junction respectively. Therefore, at the time of restore, you cannot restore a file or directory contained in the referred to volume or directory.

-bkmountpt

Backup mount points as part of the volume that they are mounted on. Including this option causes the volumes referred to by the Volume Mount Points to be backed up as part of the same session as the Volume Mount Points. When this option is not included, the volumes referred to by the Volume Mount Points are backed up as separate sessions.

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This option is only supported on Windows

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-preserve_hardlink

Causes the hard link to be backed up, but not the file being referred to. When this option is not included, the file referred to by the hard link is backed up.

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-dr_partialnodeinfo

Generates disaster recovery information for partially selected nodes. Disaster recovery information is normally generated when performing a full machine backup. However, there are special cases where you may need to keep the disaster recovery information updated but cannot perform full machine backups too often (like in a SAN shared disk environment). By including this option, you can generate or update a machine's disaster recovery information without having to back up everything on the machine.

-dr_includefiltered

Includes filtered sessions when generating restore session information. When generating disaster recovery information, the Arcserve Backup server keeps track of only the latest non-filtered backup sessions pertaining to the machine. By default, if you back up a machine using filters, the filtered backup sessions will not be used by disaster recovery when recovering the system. By including this option, you can alter the default behavior and have disaster recovery use the filtered backup sessions when recovering the system.

This option is not included by default. When you include this option, it works at the job level. If the job contains multiple machine backups, this option will apply to all machines.

Important! Including this option is very risky, especially for system volumes. Missing system files may lead to incomplete recovery.

-sql_norotation

Does not apply differential or incremental backup methods to Microsoft SQL Server databases. Include this option if you do not want Arcserve Backup to apply differential or incremental backup methods to Microsoft SQL Server database backups.

-sql_nopartialupdate

Does not automatically upgrade a Microsoft SQL Server partial backup to a full database backup if a full backup of the database is not found.

More information:

ca_backup - Examples

ca_backup VSS Options

The ca_backup command includes the following Volume Shadow Copy Service (VSS) options to allow you to specify how open files will be handled during file system backups.

ca_backup

[-vss_usevss [revertoff]]
[-vss_exclinclsoff]
[-vss_exclexclsoff]
[-vss_onfail]

-vss_usevss

Directs Arcserve Backup to use VSS to handle the backup of open files.

If this switch is not included, VSS support will not be used and the Arcserve Backup Agent for Open Files (if available) will be used to handle open files. If the Arcserve Backup Agent for Open Files is not available and the -vss switch is not included, a traditional backup is performed. However, the backup will be incomplete if there are any open files that cannot be backed up.

revertoff

Directs Arcserve Backup to execute a traditional backup if an attempt to create a VSS backup fails. If the Arcserve Backup Agent for Open Files is available, it will be used to handle open files if this switch is included and the VSS backup fails.

If this switch is not included and the VSS backup fails, the backup job will also fail.

The suffix "off" indicates that this option is on by default, but if the user includes it, the option will then be set to off.

-vss_exclinclsoff

Specifies that files included by a writer will be excluded from file system backups. This prevents files that belong to a Component from being backed up by a traditional file system backup.

Including this switch provides the following advantages:

- Avoids backing up files that have already been backed up by VSS.

- By excluding files from traditional backups, fewer files are processed, and traditional backups take less time to complete.

- Helps achieve successful backups by eliminating certain problems associated with files that must be processed as a group.

The suffix "off" indicates that this option is on by default, but if the user includes it, the option will then be set to off.

-vss_exclexclsoff

Specifies that files excluded by a writer will be excluded from file system backups. This prevents files that have been excluded from being backed up by a Component from being backed up by a traditional file system backup.

The suffix "off" indicates that this option is on by default, but if the user includes it, the option will then be set to off.

-vss_onfail

Specifies that if a component file fails to backup the writer, the backup will terminate. This cancels the backup of a Writer if the backup of any of the Components fail. The backup of a Component will fail if one or more of its files cannot be successfully backed up.

Including this switch ensures that any backup is consistent and that all of the files associated with a Writer are backed up before the backup is considered successful, regardless of how many Components are associated with the Writer.

More information:

ca_backup - Examples

ca_backup - Global Filter Options

Using filters you can include or exclude specific files and directories from your backup jobs. Use the filters to help focus on the files you want. Filters can be applied globally (to the entire job), at the node level (to a specific node), or at the volume level (to a specific filesystem). The position of the -filter switch in the ca_ backup command determines the filter level applied.

Important! Incorrect use of filters can result in data being omitted during the backup. Use care when specifying or applying filters!

The ca_backup command includes the following filter options:

ca_backup [-filter

[<include|exclude> <file|dir> <pattern>]]

[<include|exclude> [<attribute> [hidden] [readonly] [system] [archive]]]

[<include|exclude> [<date> <modify|create|access> <onorbefore|onorafter <mm/dd/yy [yy]>]]

[<include|exclude> [<date> <modify|create|access> <between <mm/dd/yy[yy]> <mm/dd/yy[yy]>]]

[<include|exclude> [<date> <modify|create|access> <within <count> days|-months|years>]]

[<include|exclude> [<size> <equalto|greaterthan|lessthan> <size val> <Bytes|KBytes|MBytes|GBytes>]]

[<include|exclude> [<size between <<low size val> <Bytes|KBytes|MBytes|GBytes>> <<high size val> <Bytes|KBytes|MBytes|GBytes>>]

include

> Results will contain only those files that satisfy the filter specifications. For example, if you select to back up your entire local hard drive, and then set up a filter to include files in the \SYSTEM directory. The result would be that Arcserve Backup would only back up files from your \SYSTEM directory. No other files would be backed up.

exclude

> Exclusions always take precedence over inclusions. For example, if you add a filter to include files that have an .exe extension, and add another filter to exclude your \SYSTEM directory, then all the .exe files in the \SYSTEM directory would be excluded.

file|dir *<pattern>*

Specifies to include or exclude files or directories based on the specified pattern.

Note: If you select the include directory pattern filter and do not specify an absolute path, empty directories for all the directories that do not match the user provided criteria will be backed up. To avoid creating these empty directories during restore, disable the global restore option Create Empty Directories when creating your restore job.

attribute [hidden] [readonly] [system] [archive]

Specify to include or exclude files with the specified file attribute.

date <modify|create|access> <onorbefore|-onorafter *mm/dd/yy[yy]>>*

Specifies to include or exclude files that were modified, changed, or accessed on or before the specified date, or on or after the specified date.

date <modify|create|access> <between *mm/dd/yy[yy]> <mm/dd/yy[yy]>>*

Specifies to include or exclude files that were modified, changed, or accessed between the specified dates.

date <modify|create|access> <within *count> days|months|years>*

Specifies to include or exclude files that were last modified, changed, or accessed within the specified number of days, months, or years.

size <equalto|greaterthan|lessthan> *size val> <Bytes|KBytes|MBytes|GBytes>*

Specifies to include or exclude files whose size is equal, greater or less than the specified size.

size between <<*low size val> <Bytes|KBytes|MBytes|GBytes>> <<high size val>* <Bytes|KBytes|MBytes|GBytes>>

Specify to include or exclude files whose size is within the specified size range.

Note: For the Global Filter options, the following conditions exist:

- For UNIX servers, Arcserve Backup will automatically interpret the "create" command as specifying the File Change date.

- Modified Time is different than Change Time. Modified Time means the content of a file has changed. Change Time means some properties or attributes of the file has changed (permission changes, owner information, etc), but not the content.

- Not all file systems record change or access dates, therefore some of these Global filters may not be available for your job.

- Arcserve Backup accepts the wildcard characters asterisk '*' and question mark '?' for include and exclude filtering. The asterisk wildcard specifies to match any

number of characters. The question mark wildcard specifies to match any one character.

For example:

- To include/exclude all files with extension 'tmp':

  -filter include/exclude file *.tmp

- To include/exclude all directories matching the pattern a01???:

  -filter include/exclude dir a01???

More information:

ca_backup - Examples

ca_backup - Source Arguments

The ca_backup source arguments allow you to specify the path or location that you want to back up.

The ca_backup command provides the following source arguments:

ca_backup -source [<hostname>[<hostIP>]] [node options] -filesystem <filesystem> [<relative directory>] [-inputfile <filename>] [volume options]

ca_backup -source [<hostname>[<hostIP>]] [node options] [-fsfile <filename>]

host type: unix|nt|nwagent|ntagent|w95agent|mac

Windows Usage:

ca_backup -source [<hostname>[<hostIP>]<hosttype>] [node options] -filesystem <filesystem> | <folder path> [-filelist <file list>] [volume options]

UNIX Usage:

ca_backup -source [<hostname>[<hostIP>]<hosttype>] [node options] -filesystem <filesystem> [<realtive directory>] [-filelist <file list>] [volume options]

Raw Device specific backup (UNIX only):

ca_backup -source [<hostname>[hostIP]] [node options] -raw <raw device> [volume options]

VSS specific backup:

ca_backup -source [-vss <vsswriter path> [-vsswriter [-transport [retainshadowcopy]][-excludefincludedinthis] [-erroronceffail]] [-method <full|incr|diff|copy|log>]

Database backup (UNIX only):

ca_backup -source [<hostname>[<hostIP>]] [node options] -database <dbase type> <dbase name|SQL server> [<tablespaces>] [dbase options]

-source [*<hostname>*[*<hostIP>*]]

Specifies the source machines to back up. The default machine, if *hostname* is not provided, is the local machine. This switch can appear multiple times in a ca_backup command, and must appear for each source to be backed up. By default, if used without additional switches, the entire source machine is backed up.

Note: -source accepts only the host name for the machine, and the host name should be resolvable in your network.

-filesystem *<filesystem name> <relative directory> <folder path>*

Specifies the file system or folder to back up and, optionally, the directory or directories under the file system. This switch can appear multiple times in a ca_backup command and must appear for each filesystem to be backed up.

Note: On Windows NT, if you are backing up a folder or a file with a space in the name, you must enclose the name in quotes.

-filelist *<file list>*

Specifies the individual files to back up. Use with the -filesystem switch.

-inputfile *<filename>*

Use to pass on the file name containing the list of files to be backed up. You can use this switch as an alternative to -filelist <file list>. You can also use this with the -source and -filesystem options.

-fsfile *<filename>*

Specifies the input from an external text file that lists the file systems for back up. You can specify the level of granularity of the backup by defining the following information:

◆ The file systems you want to back up

◆ The relative directories of the file systems you want to back up

◆ The -filelist option and file names to specify the files to use within the targeted file system

◆ The -inputfile option and file name to add files from another external file.

To do this, use the following syntax:

[filesystem name] [relative_dir][-filelist <file1><file2>][-inputfile <filename>]

-raw *<raw device>*

Specifies a raw device to back up.

Note: This argument applies to UNIX and Linux platforms only.

-username *<user name>*

Specifies the user name of the source machine to back up. This is the user used to log into the source machine.

-password *<password>*

Specifies the password for the user to be used to log into the source machine.

Note: Starting with release r16, the backup job will automatically retrieve the user credentials directly from the ASDB. As a result, you will not need to specify this password parameter.

The ca_backup command line utility also supports the following options to assist in further identifying and locating the backup source:

▪ node options

▪ volume options

▪ database options

More information:

ca_backup - Backup Manager Command

ca_backup - Node Options

ca_backup - Volume Options

ca_backup - Database Options

ca_backup - Examples

ca_backup - Node Options

When you select a host (node) object to be backed up, you can set node-level options and filters to be applied and display node-level information.

The ca_backup command includes the following node options:

ca_backup

[-username <username>]
[-password <password>]
[-noestimation]
[-filter <node filters>]

(for UNIX and Linux only)
[-traversesymlink]
[-traversenfs]
[-resetaccesstime <on|off>]
[-acrossfs]

-username *<user name>*

Specifies the user name of the source machine to back up. This is the user used to log into the source machine.

Note: Regardless of the backup source, you must specify a -username if you use ca_backup. When the backup job is launched, the username and password provided in the command line can be overwritten by the credential information retrieved from the Arcserve Backup database. If credential information in the database is expired, the job fails. To prevent the job from failing, log in to the GUI as caroot and then provide the new username and password for the source node.

-password *<password>*

Specifies the password for the user to be used to log into the source machine.

Note: Regardless of the backup source, you must specify a -password if you use ca_backup. When the backup job is launched, the username and password provided in the command line can be overwritten by the credential information retrieved from the Arcserve Backup database. If credential information in the database is expired, the job fails. To prevent the job from failing, log in to the GUI as caroot and then provide the new username and password for the source node.

-noestimation

Disables file estimation prior to backup.

-filter *<node filters>*

Applies filters at the node level (to a specific node). The position of the -filter switch in the ca_backup command determines the filter level applied.

-traversesymlink

Traverses the symbolic links during the backup, and back up the actual file the link points to, not simply the link itself.

Note: This option applies to UNIX and Linux only.

-traversenfs

Traverses the mounted NFS file systems during the backup. By default, mounted file systems are skipped during the backup.

Note: This option applies to UNIX and Linux only.

-resetaccesstime <on|off>

Specifies whether to reset the file access time, changed when Arcserve Backup accesses a file to perform a backup.

Note: This option applies to UNIX and Linux only.

-acrossfs

Traverses across the file system during backup.

Note: This option applies to UNIX and Linux only.

More information:

ca_backup - Backup Manager Command

ca_backup - Source Arguments

ca_backup - Volume Options

ca_backup - Database Options

ca_backup - Examples

ca_backup - Volume Options

When you select a volume object to be backed up, you can set volume level options and filters to be applied and display volume-related information.

The ca_backup command includes the following volume options:

ca_backup

[-volscan | -volcompare]
[-volgroomdisable]
[-volsessionpw <session password>]
[-volencryption <encryption key>]
[-volcompression]
[-filter <volume filters>]

(for UNIX only)
[-priority <priority level>]

-volscan

> Verifies the integrity of the file-system (volume) backup. Scans the backup media and checks the header of each file. If the header is readable, the data is assumed to be reliable.

-volcompare

> Verifies the integrity of the file-system (volume) backup. Reads blocks of data from the backup media and compares the data byte for byte against the source files on the source machine.

-volsessionpw *<session password>*

> Applies a session password to the session on tape containing the filesystem (volume) backed up.

> To restore a session that was backed up using this option, you must use the ca_restore -tapesessionpw option to execute the restore job.

-volencryption *<encryption key>*

> Encrypts files before the backup. To restore the encrypted files in this session, the password must be provided.

-volcompression

> Compresses files before the backup, for this file system (volume) only.

-filter *<volume filters>*

> Applies filters at the volume level (to a specific filesystem). The position of the -filter switch in the ca_backup command determines the filter level applied.

-priority *<priority level>*

Assigns a backup priority to the Nodes/Volumes in a job. Priority level ranges from 1 (highest priority) to 255 (lowest priority).

Note: This option applies to UNIX and Linux only.

More information:

ca_backup - Backup Manager Command

ca_backup - Source Arguments

ca_backup - Node Options

ca_backup - Database Options

ca_backup - Examples

ca_backup - Database Options

When you select a database object to be backed up, you can set certain database-specific options to be applied and display database-related information.

Note: For all database agents, Arcserve Backup does not support backing up multiple database/application instances from a single command. You must use multiple commands to back up each instance.

The ca_backup command includes the following database options:

ca_backup

[-dbusername <database username>]
[-dbpassword <database password>]
-database <database type> [database name]

-dbusername *<database username>*

Specifies the database user name to use to log into the database to be backed up.

-dbpassword *<database password>*

Specifies the password for the database user to use to log into the database to be backed up.

-database *<database type> [database name]*

Specifies the database type and name to be backed up.

Supported, valid database types are:

- SQL Server (SQL)

- Exchange DOC Level (EXCHANGEDOC)

- Exchange DB Level (EXCHANGEDB)

- Sybase (SYBASE)

- Informix (INFORMIX)

- Oracle (ORACLE)

- Oracle RMAN (ORACLERMAN)

- Lotus (LOTUS)

Examples:

-database SQL
-database EXCHANGEDOC
-database EXCHANGEDB
-database SYBASE
-database INFORMIX

-database ORACLE
-database ORACLERMAN
-database LOTUS

More information:

ca_backup - Oracle Database Options

ca_backup - Oracle RMAN Database Options

ca_backup - Exchange DOC Level Database Options

ca_backup - Exchange DB Level Database Options

ca_backup - SQLServer Agent Options

ca_backup - Sybase Agent Database Options

ca_backup - Informix Agent Database Options

ca_backup - VSS Agent Database Options

ca_backup - Lotus Agent Database Options

ca_backup - Examples

ca_backup - Oracle Database Options

The ca_backup command includes the following Oracle database options:

[-oracle_sid <Oracle SID>]
[-oracle_offline] (for UNIX Oracle agent only)
[-oracle_purgelog] (for UNIX Oracle agent only)
[-oracle_timefinder] (for UNIX Oracle agent only)

Note: The ca_backup database options are described in a separate topic titled "Database Options" and can be viewed from the actual CLI by entering the following command: ca_backup allusage.

Note: When using the Arcserve Backup CLI (command line interface) to back up or restore an Oracle object with a DBCS (double-byte character set) or a MBCS (multi-byte character set) in the name, you must ensure the Arcserve Backup server and the agent box have the same language setting.

-oracle_sid *<Oracle SID>*

Specifies the Oracle SID (system identifier) of the Oracle database to back up.

-oracle_offline

Specifies to back up the Oracle database in off-line mode (only supports full database backups).

-oracle_purgelog

Specifies to purge the log after it has been backed up.

-oracle_timefinder

Specifies that you want to use the Symmetrix Timefinder technology option for database backups. This option creates a temporary mirror image of the database, which the agent then backs up.

Examples:

The following are examples of syntax for the ca_backup ORACLE database command:

▪ Use the following command to back up a single tablespace tbs1:

ca_backup -source [<hostname>[<hostIP>][<hosttype>]] -database ORACLE <instance name> "tbs1" [dbase options]

▪ Use the following command to back up multiple tablespaces tbs1, tbs2, and tbs3:

ca_backup -source [<hostname>[<hostIP>][<hosttype>]] -database ORACLE <instance name> "tbs1" "tbs2" "tbs3" [dbase options]

▪ Use the following command to back up a single file of a tablespace:

ca_backup -source [<hostname> [<hostIP>][<hosttype>]]unix -database ORACLE <instance name> -table SYSAUX "|u01|app|oracle|product|10.1.0|db_1|oradata|d-borcl|sysaux01.dbf" -dbusername system -dbpassword manager -username root -password caworld

▪ Use the following command to back up a control file:

ca_backup -source [<hostname>[<hostIP>][<hosttype>]] -database ORACLE <instance name> "CONTROL FILE" [dbase options]

▪ Use the following command to back up an archive log:

ca_backup -source [<hostname>[<hostIP>][<hosttype>]] -database ORACLE <instance name> "ARCHIVE LOG" [dbase options]

▪ Use the following command to back up a control file and an archive log:

ca_backup -source [<hostname>[<hostIP>][<hosttype>]] -database ORACLE <instance name> "CONTROL FILE" "ARCHIVE LOG" -dbusername system -dbpassword system -username root -password caworld

▪ Use the following command to back up full database. Assume the database has 5 tablespaces (tbs1, tbs2, tbs3, tbs4, and tbs5) to back up the full database and you want to back up all tablespaces, the archive log, and the control file:

ca_backup -source [<hostname>[<hostIP>][<hosttype>]] -database ORACLE <instance name> "tbs1" "tbs2" "tbs3" "tbs4" "tbs5" "CONTROL FILE" "ARCHIVE LOG" [dbase options]

More information:

ca_backup - Database Options

ca_backup - Examples

ca_backup - Oracle RMAN Database Options

The ca_backup command includes the following Oracle RMAN database options:

-use_rmancat

[-rman_catdbname <rman_catdbname>]
[-rman_catuser <rman_catuser>]
[-rman_catpassword <rman_catpassword>]
-bkincremental
[-rman_incrementallevel <bkincremental> [-cumulative]
[-bkrecoveryarea]
[-oracle_offline]
[-oracle_purgelog]
[-rman_numberofchannels <rman_numberofchannels>]
[-rman_archlogsel
al_all | al_pattern -rman_alpattern <rman_alpattern> |
al_time [-rman_alfromtime <rman_alfromtime>] [rman_aluntiltime <rman_aluntiltime>]
|
al_scn [-rman_alfromscn <rman_alfromscn>] [-rman_aluntilscn <rman_aluntilscn>] |
al_logseq [-rman_alfromlogseq <rman_alfromlogseq>] [rman_aluntillogseq <rman_
aluntillogseq>]
[-rman_althread <rm_althread>]]
[-rman_bakpieceprefix <rman_bakpieceprefix>]
[-rman_bakpiecesuffix <rman_bakpiecesuffix>]
[-rman_bakpiecesize <rman_bakpiecesize>]
[-rman_baksetsize <rman_baksetsize>]
[-rman_blocksize <rman_blocksize>]
[-rman_readrate <rman_readrate>]
[-rman_maxopenfile <rman_maxopenfile>]
[-rman_numcopies <rman_numcopies>]
[-rman_numfilesperbakset <rman_numfilesperbakset>]
[-rman_baktag <rman_baktag>]
[-rman_script <rman_script>]

Note: The ca_backup database options are described in a separate topic titled "Database Options" and can be viewed from the actual CLI by entering the following command: ca_backup allusage.

Note: When using the Arcserve Backup CLI (command line interface) to back up or restore an Oracle object with a DBCS (double-byte character set) or a MBCS (multibyte character set) in the name, you must ensure the Arcserve Backup server and the agent box have the same language setting.

-use_rmancat

Use a catalog (recommended). Indicates if an RMAN catalog is to be used for the operation or not. It is always recommended to use one because RMAN will

use the database control file if no catalog is to be used. The loss of this control file will prevent RMAN from restoring the database.

Default: Checked

-rman_catdbname <rman_catdbname>

This switch is used to include the catalog database name when you attempt to run a Oracle RMAN ca_backup job with a Recovery Catalog Database.

Default: Empty

-rman_catuser *<rman_catuser>*

Name of the Oracle user who owns the RMAN catalog.

-rman_catpassword *<rman_catpassword>*

Password for the user that owns the RMAN catalog.

-bkincremental

This is the alternative value of the Full Backup option. It tells RMAN to send only the blocks of data that have not been backed up since the last backup made, depending on the Incremental Level and Cumulative options described below. It is represented by a radio button in the Backup Manager and is not selected by default. Of course, Incremental Backup cannot be selected with Full Backup. It cannot be used if the Oracle object to be backed up is the control file or the archived logs.

-rman_incrementallevel *<bkincremental>*

Use this option to specify the level of incremental backup to be performed. RMAN will only back up the data blocks that have changed since the last incremental backup of the specified level or less. The valid values for this field vary between 0 and 4, for Oracle 8, 8i and 9i. With Oracle 10g, the levels are limited to 0 and 1 only. The user can enter data in this field only if the Incremental Backup option was selected.

Default: 0 (full backup)

-cumulative

This option indicates that RMAN will send data blocks that have been used since the last incremental backup made at level n-1 or lower. This is represented by a check box in the Backup Manager.

Default: Unchecked

-bkrecoveryarea

This switch is used to include the Oracle Recovery Area in the list of objects to be backed up. Applies only to Oracle 10g or later.

Default: Unchecked

-oracle_offline

Oracle database backup specific. Back up the Oracle database in off-line mode (no tablespace backup).

-oracle_purgelog

Oracle database backup specific. Purge the log after it has been backed up.

-rman_numberofchannels *<rman_numberofchannels>*

Use this option to specify how many channels to be allocated by RMAN to perform the backup operation. RMAN will submit jobs in parallel, one for each channel.

Default: 1 channel

-rman_archlogsel

The "Archived Logs Selection" section of this panel allows the user to select which archived logs will be backed up, assuming that the "archived logs" object has been included in the Source panel of the Backup Manager GUI. The selection is represented by radio button options. All indicates that all archived logs will be backed up.

Default: All

-rman_alpattern *<rman_alpattern>*

String pattern used to select the archived logs based on their name.

-rman_alfromtime *<rman_alfromtime>*

Use this option to indicate that the archived logs to be backed up will be selected based on the time they were created. This field determines the lower time boundary for the archived logs selection. Only the archived logs created after this time will be backed up.

-rman_aluntiltime *<rman_aluntiltime>*

Use this option to indicate that the archived logs to be backed up will be selected based on the time they were created. This field determines the upper time boundary for the archived logs selection. Only the archived logs created before this time will be backed up.

-rman_alfromscn *<rman_alfromscn>*

Use this option to indicate that the range of the archived logs to be backed up is not determined by the time, rather by the SCN (System Change Number). This field indicates the lowest SCN boundary for the archived logs selection. It can be left empty, assuming that the Until SCN field is not.

-rman_aluntilscn *<rman_aluntilscn>*

Use this option to indicate that the range of the archived logs to be backed up is not determined by the time, rather by the SCN (System Change Number). This field is used to determine the upper SCN boundary to the archived logs selection. It is optional, as long as the user has entered a value for the From SCN field.

-rman_alfromlogseq *<rman_alfromlogseq>*

Use this option to specify that archived logs selection is to be based on the archived log sequence number. This field corresponds to the lowest log sequence number used to determine which archived logs will be backed up. This field can be left empty only if a value is provided for the Until Log Sequence option (-rman_aluntillogseq).

-rman_aluntillogseq *<rman_aluntillogseq>*

Use this option to indicate that the archived logs selection is to be based on the archived log sequence number. This field is used to enter the upper archived log sequence number boundary for the archived logs selection. Providing a value for this field is optional, as long as the user enters a value in the From Log Sequence field.

-rman_althread *<rman_althread>*

Use this option to specify the thread number used to identify the Oracle server that generated the archived logs. This parameter is only used with the Time Based, SCN Based or Log Sequence Based options described below. It will be ignored if the All or Pattern Based option is used.

Default: 1

Note: This value is only useful for OPS (Oracle Parallel Server, for Oracle 8 and 8i) or RAC (Real Application Clusters, for Oracle 9i and 10g), otherwise the thread number is always one.

-rman_bakpieceprefix *<rman_bakpieceprefix>*

Left part (or prefix) of the Backup Piece Format entry.

-rman_bakpiecesuffix *<rman_bakpiecesuffix>*

Right part (or suffix) of the Backup Piece Format entry.

-rman_bakpiecesize *<rman_bakpiecesize>*

Use this option to limit the size of a backup piece generated by RMAN. When this option is set, if the data blocks to be backed up do not fit into a single backup piece, then RMAN will generate as many backup pieces as required to contain all the data. By default, the field should be empty. This means that

RMAN will typically put the data from one backup command (for one channel) into a single backup piece.

Default: Empty

-rman_baksetsize *<rman_baksetsize>*

Use this option to limit how much data should go into a backup set. This command determines the maximum size in KBytes that a backup set can have.

Default: Empty

-rman_blocksize *<rman_blocksize>*

Use this option to specify a value that determines the size of the data blocks that RMAN will send to the Oracle agent when performing a backup. This field should be left empty by default. If the user enters a value for it, then the same block size must also be entered by the user when he wants to restore from this backup. Otherwise, RMAN will produce an error message indicating that there is a mismatch between the backup block size and the restore one. In that case, the value used during the backup will be put in the error message. If no value is provided, then RMAN uses 64 KB for Oracle 8 or 8i and 256 KB for Oracle 9i.

This parameter does not exist anymore with Oracle 10g.

Default: Empty

-rman_readrate *<rman_readrate>*

This is a performance tuning option. You can use this option to slow down the rate at which RMAN reads data from the hard disk to avoid contention. By default, it is empty, however if you want to set this option, the value represents the maximum number of buffers per second that RMAN can use to read data from the disk. The size of a buffer corresponds to the value DB_BLOCKSIZE * DB_FILE_DIRECT_IO_COUNT which are parameters defined in the Oracle database configuration.

Default: Empty

-rman_maxopenfile *<rman_maxopenfile>*

Use this option to limit the total number of files that RMAN will open at the same time. This command lets you decrease the potential for a "too many open files" error. Leaving the field empty will make RMAN use the default value.

Default: 8 files (for Oracle 10g)

Default: 32 files (for Oracle 8, 8i and 9i)

-rman_numcopies *<rman_numcopies>*

Use this option to specify how many copies of the backup pieces will be generated by RMAN. The valid values for this parameter are 1 to 4.

Oracle 8.0 does not support this parameter.

Default: 1 copy

-rman_numfilesperbakset *<rman_numfilesperbakset>*

Use this option to limit the number of files (backup pieces) that RMAN should put per backup set. If not specified, then RMAN will use the lesser values of these two: 64 or the number of input files divided by the number of channels.

Default: Empty

-rman_baktag *<rman_baktag>*

Use this option to enter a backup identifier called a 'tag'. This tag can then be used to identify which version of the Oracle objects should be used by RMAN during a restore operation.

-rman_script *<rman_script>*

Use this option to enter the path of an RMAN script. Providing a value for this field will cause the Oracle agent to ignore all other options that might have been entered by the user in the GUI. The script will be passed as is to RMAN and the Oracle agent will perform the backup operation normally.

More information:

ca_backup - Database Options

ca_backup - Examples

ca_backup - Exchange DOC Level Database Options

The ca_backup command includes the following Exchange DOC Level database options:

Note: This database option can only be used for Exchange 2003 or earlier and is not supported for Exchange 2007 or Exchange 2010.

ca_backup

[-exsis_glosch | [-exsis_full | -exsis_diff | -exsis_incr | -exsis_timebased [onor-after|onorbefore date <mm/dd/yy> | days <daysprior>] [expurge]]]

[-exsisfilter mailbox <Pattern List>]

[-exsisfilter folder <Pattern List> [-defaultfolder <[Calendar][Contacts][DeletedItems] [Drafts][Inbox][Journal][Notes][OutBox][SentItems][Tasks]>]]

[-exsisfilter attachment <Pattern List> [-attsizeexclude <size>]]

Note: The ca_backup database options are described in a separate topic titled "Database Options" and can be viewed from the actual CLI by entering the following command: ca_backup allusage.

-exsis_glosch

Specifies to use the globally scheduled backup method.

-exsis_full

Specifies to perform a full backup (back up the entire mail box).

-exsis_diff

Specifies to perform a differential backup (back up only the changes from the last full backup).

-exsis_incr

Specifies to perform an incremental backup (back up only the changes from the last backup).

-exsis_timebased

Specifies to perform a time-based backup.

You can select subordinate options to schedule the time-based backup.

[onorafter|onorbefore date <mm/dd/yyyy>]

Specifies to perform the time-based backup based on a specified date. This option backs up all documents newer than or older than a specified point in time.

[days <daysprior>]

Specifies to perform the time-based backup based on a specified number of days prior to when the job runs. This option backs up all documents based on the number of days prior to when the job runs and is a moving window that stays relative to the time at which the job runs.

expurge

Specifies to purge documents after the backup. Automatically deletes documents after they are backed up. This is useful for pruning an Exchange Server. For example, you can use this option to back up and delete documents older than three years, thus reducing the size of your Exchange Server.

Important! This option should be used with caution because it could delete all documents that were backed up.

-exsisfilter mailbox <Pattern List>

Specifies that the filter applied is based on the name of the mailbox that you want to exclude or the criteria (pattern list) that you want the agent to use to exclude certain mailboxes.

-exsisfilter folder <Pattern List>

Specifies that the filter applied is based on the name of the folder that you want to exclude or the criteria (pattern list) that you want the agent to use to exclude certain folders.

-defaultfolder

Specifies to exclude the default folder from the applied filter. If you want to exclude the default folder, you must specify at least one folder type that you want to exclude, but may specify more than one.

The default folder options include:

- Calendar
- Contacts
- DeletedItems
- Drafts
- Inbox
- Journal
- Notes
- OutBox
- SentItems
- Tasks

-exsisfilter attachment <Pattern List>

Specifies that the filter applied is based on the name of the attachment that you want to exclude or the criteria (pattern list) that you want the agent to use to exclude certain attachments.

-attsizeexclude <size>

Specifies to exclude attachments with a size larger than the specified size.

More information:

ca_backup - Database Options

ca_backup - Examples

Exchange DB Level Database Options

The ca_backup command includes the following Exchange DB Level database options:

Note: This database option can only be used for Exchange 2003 or earlier and is not supported for Exchange 2007 or Exchange 2010.

ca_backup [-exdb_glosch |[-exdb_full | -exdb_copy | -exdb_incr | -exdb_diff]

Note: The ca_backup database options are described in a separate topic titled "Database Options" and can be viewed from the actual CLI by entering the following command: ca_backup allusage.

-exdb_glosch

    Specifies to use the globally scheduled backup method.

-exdb_full

    Specifies to perform a full backup (back up the entire mail box).

-exdb_copy

    Specifies to perform a full backup, except do not purge the log files.

-exdb_incr

    Specifies to perform an incremental backup (back up only the changes from the last backup)

-exdb_diff

    Specifies to perform a differential backup (back up only the changes from the last full backup).

More information:

ca_backup - Database Options

ca_backup - Examples

ca_backup - SQL Server Database Options

The ca_backup command includes the following SQL Server specific options:

ca_backup -source [<hostname>]
[node options]
<-database SQL <instance name>>
[[<dbase name>] [dbase options]]
[-sql_np]
[dbaccess options]

Note: The ca_backup database options are described in a separate topic titled "Database Options" and can be viewed from the actual CLI by entering the following command: ca_backup allusage.

-sql_np

Specifies "Named Pipes" as the remote protocol. Named pipes allow two unrelated processes to communicate with each other. Named Pipes are the same named pipes mechanism used by the operating system and other programs as a means of inter-process communication and exchanging information within a single machine or across a network.

dbase options

Provides the specific database options available for the type of SQL Server agent detected.

dbaccess options

Provides the specific database access options available for the type of SQL Server agent detected.

More information:

ca_backup - SQLServer Agent Options

ca_backup - Database Options

ca_backup - SQLServer Agent Options

The ca_backup command includes the following SQLServer Agent options:

ca_backup

[-sql_full | -sql_diff | -sql_log <trunc|no_trunc|no_recovery>]
[-sql_log_afterdata <trunc|no_trunc|no_recovery>][-sql_partial]
[-sql_filegroup <filegroupname> [-sql_file <filename1>]...[-sql_file<filenamen>]]...
[-sql_dbcc [sql_before [continue]] [sql_after] [physical_only] [no_indexes]]
[-sql_checksum]

Note: The ca_backup database options are described in a separate topic titled "Database Options" and can be viewed from the actual CLI by entering the following command: ca_backup allusage.

-sql_full

Specifies to perform a Full SQLServer backup.

-sql_diff

Specifies to perform a Differential SQLServer backup.

-sql_log

Specifies to perform a Transaction Log backup.

trunc

Specifies to truncate the Transaction Logs when you back them up. This option removes all inactive entries from the Transaction Log. If the Transaction Log is not truncated, it may eventually grow very large.

no_trunc

Specifies not to truncate the Transaction Logs when you back them up. This option does not remove the inactive entries from the Transaction Log.

no_recovery

Specifies to back up log tail and leave the database in a loading state.

The log tail is the oldest end of the log.

-sql_log_afterdata

Specifies to back up the transaction log after the database.

-sql_partial

Specifies to perform a partial backup.

-sql_filegroup <filegroupname>

Specifies the filegroups in the session to be backed up.

-sql_file <filename>

Specifies the files in the session to be backed up.

-sql_dbcc

Specifies to perform a database consistency check (DBCC).

sql_before [continue]

Specifies to perform a DBCC before the backup of the database.

You can also specify to continue with the backup even if the DBCC fails.

sql_after

Specifies to perform a DBCC after the backup of the database.

physical_only

Specifies to check only the physical consistency of the database to verify the structural integrity of all the objects in the database.

no_indexes

Specifies to check the database for consistency without checking indexes for user-defined tables.

-sql_checksum

Specifies to include checksums generated by SQL Server in the backup.

Examples:

The following are examples of syntax for the ca_backup SQL Server database command:

▪ Use the following command to perform a full database backup:

-database SQL <instance name> <dbase name> -sql_full

▪ Use the following command to perform a differential database backup:

-database SQL <instance name> <dbase name> -sql_diff

▪ Use the following command to perform a file or file group database backup:

-database SQL <instance name> <dbase name> -sql_filegroup [-sql_file <file-name>...]

▪ Use the following command to perform a database log backup:

-database SQL <instance name> <dbase name> -sql_log[trunc|no_trunc|no_ recovery]

More information:

ca_backup - Database Options

ca_backup - Examples

ca_backup - Sybase Agent Database Options

The ca_backup command includes the following Sybase database options:

ca_backup [-sybase_database|-sybase_transactionlog trunc|-sybase_transactionlog no_trunc]

Note: The ca_backup database options are described in a separate topic titled "Database Options" and can be viewed from the actual CLI by entering the following command: ca_backup allusage.

-sybase_database

Specifies to back up the Sybase database data.

-sybase_transactionlog trunc

Specifies to truncate the transaction log during backup.

To decrease the size of a transaction log, you can specify to truncate the transaction log when you back it up. When the agent backs up a transaction log without truncating it, the agent backs up the log from the last successfully executed log backup to the current end of the log. The backup includes both the active and inactive portions of the log file. If you specify to truncate the log during backup, the agent removes the inactive portion of the log and truncates the log to the beginning of its active portion, the part that contains the oldest open transaction.

This is the default option.

-sybase_transactionlog no_trunc

Specifies not to truncate the transaction log during backup.

Examples:

The following are examples of syntax for the ca_backup SYBASE database command:

- Use the following command to back up database data:

  -database SYBASE <instance> <database> -sybase_database

- Use the following command to truncate the transaction log during backup:

  -database SYBASE <instance> <database> -sybase_transactionlog trunc

- Use the following command to not truncate the transaction log during backup:

  -database SYBASE <instance> <database> -sybase_transactionlog no_trunc

More information:

ca_backup - Database Options

ca_backup - Examples

ca_backup - Informix Agent Database Options

The ca_backup command includes the following Informix database options:

ca_backup

[-ifmx_level <level (0-2)>]
[-ifmx_currentLog | -ifmx_salvageLogs]

Note: The ca_backup database options are described in a separate topic titled "Database Options" and can be viewed from the actual CLI by entering the following command: ca_backup allusage.

-ifmx_level <level (0-2)>

   Specifies the level of the backup to be performed.

   ◆ Level 0 - Full backup

   ◆ Level 1 - Back up changes made since the last level 0 backup

   ◆ Level 2 - Back up changes made since the last level 1 backup

   By default, the agent performs a level 0 backup.

-ifmx_currentLog

   Specifies to back up the current active logical log, as well as other, full logical logs that were not backed up.

-ifmx_salvageLogs

   Specifies to back up all logical logs that reside on the disk.

Examples:

The following are examples of syntax for the ca_backup Informix database command:

   ▪ Use the following command to back up dbspace:

      -database INFORMIX <instance name> <dbspace name> -ifmx_level <0-2>

   ▪ Use the following command to back up logical logs (including the current log):

      -database INFORMIX <instance name> #LOGFILE# -ifmx_currentLog

   ▪ Use the following command to back up salvage logs:

      -database INFORMIX <instance name> #LOGFILE# -ifmx_salvageLogs

More information:

ca_backup - Database Options

ca_backup - Examples

ca_backup - VSS Agent Database Options

The ca_backup command includes the following VSS (Volume Shadow Copy Service) agent database options:

ca_backup -vss <vss_path>

[-vss_writer
[-transport [retainshadowcopy]]
[-excludefincludedinthis]
[-excludefexcludedbythis]
[-erroronceffail]
[-method <FULL|INCR|DIFF|COPY|LOG>]]

-vss <vss_path>

> Specifies that the backup options set at the Writer level affect only the selected Writer and overrides any global options set for VSS backups.You must supply the path location for the file system to be backed up.

-vss_writer

> Specifies to use Writer options. Directs the VSS backup process to use the options provided by the selected writer and to enable the other Writer backup options.

-transport [retainshadowcopy]

> Specifies to use a transportable snap-shot. Creates a transportable VSS backup copy of entire volumes. This shadow copy is a mirror of an entire LUN; however, the data can be restored for specific volumes of the LUN. Transportable shadow copies allow greater flexibility for the backup and restore of your critical applications and files by enabling the shadow copy to be imported onto other servers within the same system. You can then use the transported shadow copy volumes for additional tape backups, or for other uses such as data mining and software development testing.

> By default, the shadow copy is deleted after the backup finishes. To retain the shadow copy after the backup, you must also include the "retainshadowcopy" subordinate option.

> **Note:** When this option is included, the only available backup method is Full Backup.

> **retainshadowcopy**

>> Specifies to retain a shadow copy after backup. Include this option to specify Arcserve Backup should not delete the shadow copy volume after the backup. Because the shadow copy volume is transportable, retaining it after

the backup enables the volume to be imported onto another system for other uses.

-excludefincludedinthis

Specifies that files included in this Writer will be excluded from any File System backups. This option prevents files that belong to a Writer component from being backed up by a traditional file system backup. This option offers the following advantages:

◆ Avoids backing up files that have already been backed up by VSS.

◆ Ensures that fewer files are processed and that traditional backups take less time to complete by excluding files from traditional backups.

◆ Helps achieve successful backups by eliminating problems associated with files processed as a group (for example, files associated with a database application). In a traditional backup, there is no mechanism to ensure that the files are processed together.

Note: This option is not available if the Use Transportable snap-shot option is included.

-excludefexcludedbythis

Specifies that files that are specifically excluded by this Writer will be excluded from any File System backups. Include this option to exclude files associated with an application that should never be backed up (the Windows page file, for example) from any file system backups. Each Writer is aware of whether its associated application maintains any such files. This option enables Arcserve Backup to use this information when performing traditional backups.

Note: This option is not available if the Use Transportable snap-shot option is included.

-erroronceffail

Specifies that if one or more files of a component of this Writer fail to backup successfully, the entire Writer backup will be terminated. Include this option to cancel the backup of the selected Writer if the backup of any of its components fails. Component backups fail if one or more of the files that are part of the Component cannot be backed up successfully.

Include this option to ensure that all of the files associated with a Writer are backed up before the backup is considered successful, regardless of how many Components are associated with the Writer.

Note: This option is not available if the Use Transportable snap-shot option is included.

-method <FULL|INCR|DIFF|COPY|LOG>

Specifies the backup method to use for the backup of the selected Writer.

FULL

Specifies to perform a Full backup of all the files associated with the selected Writer, regardless of when the data last changed. When the -transport snapshot option is included, this is the only backup method available.

INCR

Specifies to perform an Incremental backup of only those files that have changed since the last full or incremental backup was performed. After each backup, the backed up files are marked so that they are not backed up during the next incremental backup job unless they have changed. It takes less time to process backup jobs using this method.

DIFF

Specifies to perform a Differential backup of only those files that have changed since the last full backup was performed. Because differential backup jobs do not mark files as having been backed up, the files that were backed up in the last differential job are backed up again. It takes longer to process backup jobs using this method.

COPY

Specifies to back up all the files included by the Writer, but does not mark the files as having been backed up. Select this option to make a full backup of your data without disrupting any existing incremental or differential backups.

LOG

Specifies to back up only the log files associated with the selected Writer.

More information:

ca_backup - Database Options

ca_backup - Examples

ca_backup - Lotus Agent Database Options

The ca_backup command includes the following Lotus agent database options:

ca_backup -source [<hostname> [<hostIP>]] [node options]

-database LOTUS <LotusInstance_HostName> [<Lotus_DBFileName>]
[-lotusfilter <include|exclude> <file|dir <pattern>>]
[dbase options]

Note: The ca_backup database options are described in a separate topic titled "Database Options" and can be viewed from the actual CLI by entering the following command: ca_backup allusage.

LotusInstance_HostName

Specifies the host name where the Lotus Domino is installed.

Lotus_DBFileName

Specifies the Lotus database file name to be backed up.

-lotusfilter <include|exclude> <file|dir <pattern>>

Specifies the filters to be applied to the backup job. Through the use of these filters, you can include or exclude specific files and directories from your backup jobs.

More information:

ca_backup - Database Options

ca_backup - Examples

ca_backup - Destination Arguments

A backup destination is the location where the selected backup files are backed up to. After you have selected the objects you want to back up, you must select the destination and destination options for the backup job.

The ca_backup command includes the following destination arguments:

ca_backup

[-group <groupname>]
[-tape <tape name>]
[-mediapool <pool name>]
[-multiplextape [<num of steams (1-32)>]-muxChunkSize <size in MB (1-16)>]
[-multistream [<max streams (1-32)>]
[-dddpurgedata [<full|diff|incr> <weeks> <days> <hours> <minutes>]]

-group *<groupname>*

Specifies media group to use for the backup job.

-tape *<tape name>*

Specifies name of media to use for the backup job.

-mediapool *<pool name>*

Specifies media pool to use for the backup job.

Note: If the target group is deduplication group or if the staging group is deduplication group, you cannot include the –mediapool switch.

-multiplextape [<num of steams (1-32)>]

Specifies to submit the backup job with the multiplexing option applied.

Multiplexing is a process in which data from multiple sources is written to the same media simultaneously. When a job that has multiple sources is submitted with the multiplexing option enabled, it is broken into child jobs with one child job for each source. These child jobs write data to the same media simultaneously.

When using multiplexing, you can select the maximum number of streams that can write a tape at the same time. The default number of streams is 4 and the supported range is between 1 and 32.

-muxChunkSize <size in mB (1-16)>

Specifies to set multiplexing chunk size. The chunk size value determines the amount of contiguous data written for one session before data from another session is multiplexed. The higher the value, the faster the restore on some drives, but at the cost of memory size during backup.

The default value is 1 MB and the supported range is between 1 and 16MB.

-multistream [<max streams(1-32)>]

Specifies to submit the backup job with the multistreaming option applied.

Multistreaming allows you to use all the available tape devices on the system by splitting a single backup job into multiple jobs using all the tape devices. As a result, it will increase the overall backup throughput compared with the sequential method.

When using multistreaming, you can select the maximum number of streams that can write to a tape at the same time. The default number of streams is 4 and the supported range is between 1 and 32.

-dddpurgedata [<full|diff|incr> <weeks> <days> <hours> <minutes>]

Specifies to add deduplication device purge policies for the specified backup method (Full, Differential, or Incremental) to a deduplication device used in a non-staging job.

<weeks> <days> <hours> <minutes>

Specifies how long (in number of weeks, days, hours, and minutes) to wait before purging the device.

More information:

ca_backup - Backup Manager Command

ca_backup - Examples

ca_backup - Schedule Arguments

The ca_backup command provides a means to specify the scheduling methods for your backup job. The method you choose determines when your backups are run, the type of backup to be done on particular days, and the rotation of the backup media. The three schedule methods from which you can choose are Custom schedule, Rotation schedule, and GFS Rotation schedule.

For the following ca_backup schedule arguments, "incr" indicates an Incremental Backup and "diff" indicates a Differential Backup.

Note: If a job that is submitted from the ca_backup command runs an hour later than the scheduled time, it may be due to change in Daylight Savings Time (DST) start date. To avoid this you need to update your operating system by installing the Microsoft daylight saving time patch. For more information, see the Microsoft Daylight Saving Time Help and Support Center.

The ca_backup command includes the following schedule arguments:

Custom Schedule

The ca_backup command includes the following filter options:

```
ca_backup [-custom
-repeat <months> <days> <hours> <minutes>]
-excludeday <Sun|Mon|Tue|Wed|Thu|Fri|Sat>*]
-method <incr|diff|full-clear|full-keep>]
-retrymissed_at <hh:mm:ss>|-retrymissed_after <minutes> [-retrymissed_maxtimes
<count>]]
-worm]
```

-custom

Specify the schedule type of the backup job as a custom schedule. By default, this is the schedule type used for backup jobs.

-repeat *<months> <days> <hours> <minutes>*

Use with -custom. Specify a repeating interval for a backup job. By default, there is no repeating interval and a job only runs once. Specify a repeating interval so your job runs every X minutes/hours/days/months. The syntax of the command requires a value for each field of months, days, hours, and minutes.

Example: To schedule a repeating job every 1 day and 2 hours enter: ca_ backup - custom -repeat 0 1 2 0.

-excludeday *<Sun|Mon|Tue|Wed| Thu|Fri|Sat>*

Use with -custom to exclude specific days from a repeating backup job.

-method <incr|diff|full-clear|full-keep>

Specifies the method for the custom scheduled backup job.

incr

Specifies to perform an incremental backup.

Backs up only those files whose archive bit have been set since the last full or incremental backup was performed. After each backup, archive bits are reset so that they are not backed up during the next incremental backup job.

diff

Specifies to perform a differential backup.

Backs up only those files whose archive bits have been set since the last full backup was performed. Because differential backup jobs do not clear a file's archive bit, the files that were backed up in the last differential job are backed up again. Using this backup method, the backup jobs require more time to process than incremental backup jobs. However, this strategy requires less effort to restore servers and workstations because you will probably require fewer media to restore your machines.

full-clear

Specifies to perform a full backup each time the job is repeated and clear the archive bit.

full-keep

Specifies to perform a full backup each time the job is repeated and keep the archive bit.

-retention *<days>*

Specifies the media retention period, in days, for the created media pool.

-retrymissed_at *<hh:mm:ss>*

Backs up or copies any missed targets at the specified time. If the file is still unavailable, Arcserve Backup writes information to the Activity Log, and the job is labeled "Incomplete."

-retrymissed_after *<minutes>*

Backs up or copies any missed targets at the specified number of minutes after all the other source files have been backed up. If the file is still unavailable, Arcserve Backup writes information to the Activity Log, and the job is labeled "Incomplete."

-retrymissed_maxtimes *<count>*

Specifies the number of times you want to try to back up or copy the file.

-worm

Specifies to use the WORM (Write Once Read Many) option to apply media data protection for all custom schedule rules. With this option enabled, Arcserve Backup appends the backup sessions to the existing data on the media, because you cannot overwrite or erase WORM media..

Important! Arcserve Backup does not support the use of WORM media for multiplexing backup jobs. As a result, if you include the -multiplextape switch as a destination option, the -worm schedule option will be disabled.

Notes:

▪ When a backup job spans tapes and the media is WORM media, Arcserve Backup needs WORM media to complete the job.

  – If a blank WORM media is not available, and a blank DLT WORM-capable media is available, Arcserve Backup automatically converts blank DLT media to DLT WORM media and then completes the backup job.

  – If WORM media is not available for a WORM job to continue, Arcserve Backup does not convert non-blank media to WORM media.

▪ When you are running a backup job that specifies Use WORM Media and there is no WORM media available, Arcserve Backup may convert blank WORM-capable media to WORM media for the job.

Rotation Schedule

The ca_backup command includes the following Rotation schedule options:

ca_backup [-rotation
-mediapool <mediapool name>]
-jobunit <full|diff|incr|off> <append|overwrite> <media name>[ds]]
-saveset <no. of tapes>]
-retention <days>]
-retrymissed_at <hh:mm:ss>|-retrymissed_after <minutes> [-retrymissed_maxtimes <count>]]
-exception <full|diff|incr|off> <append|overwrite> <mm/dd/yy[yy]>]
-method <incr|diff|full>]
-worm]

-rotation

Specifies the schedule type of a backup job as a rotation schedule.

-mediapool *<mediapool name>*

Specifies the media pool to use for the backup job. This switch must be used in conjunction with - rotation or -custom.

◆ If you use this with -rotation, the media pool name you enter is newly created and associated with this rotation job.

◆ If you use this with -custom, the media pool name you enter must already exist.

Note: If the target group is deduplication group or if the staging group is deduplication group, you cannot include the –mediapool switch.

-jobunit *<full|diff|incr|off> <append|overwrite> <media name>* [ds]

Each job unit represents a day in the rotation scheme, from Sunday to Saturday. You can customize each day, although there are certain restrictions, such as not combining differential and incremental backups in the same rotation schedule. The first -jobunit switch is for Sunday, the next for Monday, and so on. The user must account for each day of the week, so seven (7) -jobunit switches are required. By default, any days not represented by a -jobunit switch are set to Off day, and no backup takes place on that day. The user has the option of not specifying the -jobunit switch, to set the rotation schedule to the default 5-day incremental with a full backup on Friday. This is the same schedule seen from the front-end backup manager.

ds

Enables staging in daily backup of a rotation or GFS rotation job.

For a rotation job initiated from the ca_backup -diskstage command, every job unit within the rotation job must include "ds" as a parameter to enable the disk staging feature. If you do not include the "ds" parameter, data for the backup sessions will not be sent to the staging device.

For example, to schedule a full disk staging backup job to be executed every Monday for "my_jobs" use the following command:

-jobunit off -jobunit full overwrite my_job **ds** -jobunit off -jobunit off -jobunit off -jobunit off -jobunit off

Note: Each job unit represents a day in the rotation scheme, from Sunday to Saturday.

-saveset *<number of tapes>*

Use with -rotation. Specifies the minimum number of media to keep in the created media pool's save set.

-retention *<days>*

Specifies the media retention period, in days, for the created media pool.

-retrymissed_at *<hh:mm:ss>*

Backs up or copies any missed targets at the specified time. If the file is still unavailable, Arcserve Backup writes information to the Activity Log, and the job is labeled "Incomplete."

-retrymissed_after *<minutes>*

Backs up or copies any missed targets at the specified number of minutes after all the other source files have been backed up. If the file is still unavailable, Arcserve Backup writes information to the Activity Log, and the job is labeled "Incomplete."

-retrymissed_maxtimes *<count>*

Specifies the number of times you want to try to back up or copy the file.

Available range of count options are from 1 to 12 attempts.

-exception *<full|diff|incr|off> <append|overwrite> <mm/dd/yy[yy]>*

Specifies an exception condition from the regular rotation schedule. This feature is useful in the case of a holiday or other event, when a different behavior for the backup job is needed on that date.

-method <incr|diff|full>

Specifies the method for the scheduled backup job.

incr

Specifies to perform a scheduled incremental backup.

diff

Specifies to perform a scheduled differential backup.

full

Specifies to perform a scheduled full backup.

-worm

Specifies to use the WORM (Write Once Read Many) option to apply media data protection for all rotation schedule rules. With this option enabled, Arcserve Backup appends the backup sessions to the existing data on the media, because you cannot overwrite or erase WORM media.

Important! Arcserve Backup does not support the use of WORM media for multiplexing backup jobs. As a result, if you include the -multiplextape switch as a destination option, the -worm schedule option will be disabled.

Notes:

▪ When a backup job spans tapes and the media is WORM media, Arcserve Backup needs WORM media to complete the job.

– If a blank WORM media is not available, and a blank DLT WORM-capable media is available, Arcserve Backup automatically converts blank DLT media to DLT WORM media and then completes the backup job.

– If WORM media is not available for a WORM job to continue, Arcserve Backup does not convert non-blank media to WORM media.

▪ When you are running a backup job that specifies Use WORM Media and there is no WORM media available, Arcserve Backup may convert blank WORM-capable media to WORM media for the job.

GFS Rotation Schedule

The ca_backup command includes the following GFS Rotation schedule options:

ca_backup [-gfsrotation

-mpoolprefix <mediapool prefix>]
-jobunit <full|diff|incr|off>[ds]]
-preservedaily <no. of tapes>]
-preserveweekly <no. of tapes>]
-preservemonthly <no. of tapes>]
-retrymissed_at <hh:mm:ss>|-retrymissed_after <minutes> [-retrymissed_maxtimes <count>]]
-exception <full|diff|incr|off> <mm/dd/yy[yy]>]
-method <incr|diff|full>]
-worm [daily] [weekly] [monthly]]

-gfsrotation

Specifies the schedule type of the backup job as a GFS (Grandfather, Father, Son) rotation schedule.

-mpoolprefix *<mediapool prefix>*

Use with -gfsrotation as a prefix for naming three mediapools (Daily, Weekly, and Monthly) to be created and associated with this GFS rotation job.

Example: If the prefix is "GFSJOB1", the 3 pools created are: GFSJOB1_DLY, GFSJOB1_WLY, GFSJOB1_MLY.

Note: If the target group is deduplication group or if the staging group is deduplication group, you cannot include the -mpoolprefix switch.

-jobunit *<full|diff|incr|off>*

Same as the description for Rotation schedule, except that, for GFS Rotation, the arguments are limited to specifying the type of backup to occur on the selected day.

-preservedaily *<no. of tapes>*

Use with -gfsrotation to specify the minimum number of media to preserve in the daily media pool save set.

-preserveweekly *<no. of tapes>*

Use with -gfsrotation to specify the minimum number of media to preserve in the weekly media pool save set.

-preservemonthly *<no. of tapes>*

Use with -gfsrotation to specify the minimum number of media to preserve in the monthly media pool save set.

-retrymissed_at *<hh:mm:ss>*

Backs up or copies any missed targets at the specified time. If the file is still unavailable, Arcserve Backup writes information to the Activity Log, and the job is labeled "Incomplete."

-retrymissed_after *<minutes>*

Backs up or copies any missed targets at the specified number of minutes after all the other source files have been backed up. If the file is still unavailable, Arcserve Backup writes information to the Activity Log, and the job is labeled "Incomplete."

-retrymissed_maxtimes *<count>*

Specifies the number of times you want to try to back up or copy the file.

Available range of count options are from 1 to 12 attempts.

-exception *<full|diff|incr|off> <mm/dd/yy[yy]>*

Same as the description for Rotation schedule, except that, for GFS Rotation, the arguments are limited to specifying the type of backup to occur on the exception date.

-method <incr|diff|full>

Specifies the method for the scheduled GFS rotation backup job.

incr

   Specifies to perform a scheduled incremental backup.

diff

   Specifies to perform a scheduled differential backup.

full

Specifies to perform a scheduled full backup.

-worm [daily] [weekly] [monthly]

Specifies to use the WORM (Write Once Read Many) option to apply media data protection for all GFS Rotation schedule rules. With this option enabled, Arcserve Backup appends the backup sessions to the existing data on the media, because you cannot overwrite or erase WORM media. With this option

enabled, you can also specify to apply the WORM media option for daily, weekly, and monthly GFS rotation jobs.

Important! Arcserve Backup does not support the use of WORM media for multiplexing backup jobs. As a result, if you include the -multiplextape switch as a destination option, the -worm schedule option will be disabled.

Notes:

▪ When a backup job spans tapes and the media is WORM media, Arcserve Backup needs WORM media to complete the job.

   – If a blank WORM media is not available, and a blank DLT WORM-capable media is available, Arcserve Backup automatically converts blank DLT media to DLT WORM media and then completes the backup job.

   – If WORM media is not available for a WORM job to continue, Arcserve Backup does not convert non-blank media to WORM media.

▪ When you are running a backup job that specifies Use WORM Media and there is no WORM media available, Arcserve Backup may convert blank WORM-capable media to WORM media for the job.

More information:

ca_backup - Backup Manager Command

ca_backup - Examples

ca_backup - Run Job Arguments

The ca_backup command provides run job arguments to allow you to specify the run job methods for your backup job. The ca_backup run job options allow you to submit the job to be run immediately, or to submit the job on Hold, or to schedule the job for a later date and time. The method you choose determines when your backup jobs are run.

Important! To ensure that all jobs start at the scheduled time, you must synchronize the system time of the Member Servers with the system time of the corresponding Primary Server. Use the Windows Time Service to synchronize the time on all Arcserve servers in your domain.The ca_backup command includes the following run job arguments:

```
ca_backup
[-at <hh:mm>]
[-on <mm/dd/yy[yy]>]
[-hold | -runjobnow]
[-description <description string>]
```

-at *<hh:mm>*

Specify the exection time of the backup job.

Note: All scheduled times for Arcserve Backup jobs are based upon the time zone where the Arcserve Backup server is located. If your agent machine is located in a different time zone than the Arcserve Backup server, you will need to calculate the equivalent local time that you want the job to be run.

-on *<mm/dd/yy[yy]>*

Specify the execution date of the backup job.

-hold

Submit the backup job on hold.

-runjobnow

Submit and execute the backup job immediately.

-description *<description string>*

Add comments to the job.

Note: You must use double quotes "" to enclose the string and handle blank spaces.

ca_backup Staging Options

The ca_backup staging command allows two methods to backup to a staging area and then migrate (or copy) this data to a final destination (usually a tape).

- The -diskstage command utilizes a disk as the staging area and is commonly referred to as Backup to Disk to Tape or B2D2T.

- The -tapestage command utilizes a tape library or a virtual tape library as the staging area and is commonly referred to as Backup to Tape to Tape or B2T2T.

Each staging command contains specific options to control the behavior of Arcserve Backup during the backup process.

More information:

ca_backup - Disk Staging Options

ca_backup - Tape Staging Options

ca_backup - Disk Staging Options

The ca_backup -diskstage command allows you to back up data to a disk (staging area), and then based on selected policy options, migrate (copy) the data to the final destination (which could be a tape or disk) or automatically purge the data from the staging area after a specified duration time. When necessary, disk staging also allows you to restore data directly from the staging area.

Note: Arcserve Backup will not execute a staging backup job if any of the following error conditions exist:

- If the GROUP NAME is "*", null, or is a valid group name but not a staging group, Arcserve Backup will prompt you to provide a valid disk staging GROUP NAME.

- You are not properly licensed and attempt to input more than the maximum two streams.

- Copy policies and -DONOTCOPY are specified.

- Multistreaming or Multiplexing is specified for a disk staging job. Arcserve Backup supports multiple streaming only for disk staging backup jobs.

- The final destination device group is a disk staging device group.

The ca_backup -diskstage command has the following format:

ca_backup -diskstage
[Miscellaneous Options]
[Full Backup Policy]
[Incremental/Differential Backup Policy]

More information:

ca_backup - Backup Manager Command

ca_backup - Disk Staging Miscellaneous Options

ca_backup - Disk Staging Full Backup Options

ca_backup - Disk Staging Incremental/Differential Backup Options

ca_backup - Examples

ca_backup - Disk Staging Miscellaneous Options

The ca_backup -diskstage command contains miscellaneous options that are used to define basic policies and parameters for Arcserve Backup to use during a disk staging backup job.

The ca_backup -diskstage command includes the following miscellaneous options:

ca_backup -diskstage <groupname>

```
[-maxstreams <Max # Streams(1-32)>]
[-chunksize <size in MB(1-16)>]
[-purgefailedsessions]
[-purgecancelledsessions]
[-makeupjobtotape]
[-createDMJMakeupJobOnHold]
[-leaveCatalogsOnDisk]
[-consolidate
[-consolidate_mediaprefix <media prefix>]
[-consolidate_mediapoolprefix <mediapool prefix>]
[-consolidate_copymethod <append|overwrite>]]
```

-diskstage *<groupname>*

Specifies that the backup job will use staging functionality and the name of the disk staging device group.

-maxStreams *<Max # Streams(1-32)>*

Specifies how many streams Arcserve Backup will use as it runs the backup job to the staging device.

The default number of streams is 4 and the supported range is between 1 and 32.

-chunksize *<size in MB(1-16)>*

During a staging backup, directs Arcserve Backup to divide the data into smaller chunks (or sub jobs) to be written to the disk. You must specify the maximum size or amount of data (in MB) contained in each chunk.

The default chunk size is 1MB and the supported range is between 1 and 16MB.

-purgefailedsessions

If a session fails during the backup to disk (staging) process, directs Arcserve Backup to mark this session for deletion (purged from disk) immediately. This helps to reclaim disk space as soon as possible.

-purgecancelledsessions

If a session is cancelled during the backup to disk (staging) process, directs Arcserve Backup to mark this session for deletion (purged from disk) immediately. This helps to reclaim disk space as soon as possible.

-makeupjobtotape

During the backup to disk (staging) process, if an error occurs because the disk is full, directs a makeup job to be created, which when run will directly back up to the final destination media (tape). This increases the chances of a successful backup even though the disk is full.

-createdmjmakeupjobonhold

During a data migration job (DMJ), if a media or a tape drive error occurs, a makeup job would automatically be created on Hold. As a result, you do not have to create a tapecopy job. After fixing the drive or media error, you would then just need to change the status of the makeup job from Hold to Ready to execute the migration process (disk to tape).

-leaveCatalogsOnDisk

Directs Arcserve Backup to leave the catalog files on the disk. Use this option to store the catalog files on the staging device in the CATALOG.DB directory.

-migrationpassword <password>

Sets the migration password and directs Arcserve Backup to encrypt the data during the migration (copy) process. To enable secure migration, you must specify a password.

Note: If the data was encrypted during the backup process for the job, Arcserve Backup will not attempt to encrypt the data again during the migration process for the job.

-consolidate

Enables consolidation of data from different backup jobs to one tape during the migration (copy) process. This allows you to optimize the use of space on the tape as the data is copied.

You can specify subordinate parameter switches to control the data consolidation. For data to be consolidated, you must select at least one of these parameters, but you can specify more than one to further control the data consolidation. However, if you do include multiple parameters, then all of the specified parameters must be satisfied for the jobs to be consolidated. If you do not include any subordinate parameters, the data will not be consolidated at all.

In addition, if you want to consolidate data across multiple jobs to the same tape, the backup jobs should be run on the same machine.

Note: This option cannot be used if the -DO NOT COPY is included.

[-consolidate_mediaprefix <media prefix>]

Consolidates data based on the specified prefix of the media that you want to use for migration. This allows you to specify a group of media (based on prefix) that Arcserve Backup can choose from to consolidate during the migration process. If any of the media prefixes are different than the specified media prefix, the data from those jobs will not be consolidated.

[-consolidate_mediapoolprefix <mediapool prefix>]

Consolidates data based on the specified media pool that you want to use for migration. This allows you to specify a group of media (based on media pool prefix) that Arcserve Backup can choose from to consolidate during the migration process. If any of the media pool prefix are different than the specified media pool prefix, the data from those jobs will not be consolidated.

[-consolidate_copymethod <append|overwrite>]

Specifies whether Arcserve Backup will append the consolidated data to the destination tape or overwrite the destination tape.

If you specify append, the consolidated data will be added to the existing tape that was formatted on the first day of the backup cycle.

If you specify overwrite, a new tape would be formatted daily and the consolidated data would then be added to that tape. This method is recommended when you are backing up large data on a daily basis.

The advantage of specifying the overwrite method is that a new tape would be used each day and you could ship the previous tape offsite.

If you do not specify a method for consolidation, the append method will be selected by default.

More information:

ca_backup - Disk Staging Options

ca_backup - Disk Staging Full Backup Options

ca_backup - Disk Staging Incremental/Differential Backup Options

ca_backup - Examples

ca_backup - Disk Staging Full Backup Options

The ca_backup -diskstage command contains policies that are used to define the options and parameters for Arcserve Backup to use during a full backup disk staging job.

The ca_backup -diskstage command includes the following full backup policies:

ca_backup -diskstage [-fullbackup
[-DONOTCOPY]
[-enablesnaplock]
[-copyDataToDestination
[afterjobstarts <weeks> <days> <hours> <minutes>] |
[afterjobends <weeks> <days> <hours> <minutes>] |
[aftersessionends <weeks> <days> <hours> <minutes>] |
[at <hh:mm:ss> [afterjobends]]]]
[-purgeData
[afterjobstarts <weeks> <days> <hours> <minutes>] |
[afterjobends <weeks> <days> <hours> <minutes>] |
[at <hh:mm:ss>]]]

-fullbackup

>   Specifies that the staging backup job consists of full backups.

-DONOTCOPY

>   Directs disk staging to back up data to a staging device, but do not copy the media to a final destination after the retention period elapses.

-enablesnaplock

>   Directs Arcserve Backup to use SnapLock protection on the backup job.

-copyDataToDestination

>   **[afterjobstarts *<weeks> <days> <hours> <minutes>*] |**
>
>   **[afterjobends *<weeks> <days> <hours> <minutes>*] |**
>
>   **[aftersessionends *<weeks> <days> <hours> <minutes>*] |**
>
>   **[at *<hh:mm:ss>* afterjobends]]**
>
>>   Specifies when the copy to final destination operation should begin.
>>
>>   For -afterjobstarts, -afterjobends, and -aftersessionends, you need to input the desired retention period.

-purgeData

>   **[afterjobstarts *<weeks> <days> <hours> <minutes>*] |**
>
>   **[afterjobends *<weeks> <days> <hours> <minutes>*] |**

[at *<hh:mm:ss>*]]

Specifies when the purge data from disk process should begin.

For -afterjobstarts and -afterjobends, you need to input the desired length of time that must elapse before the purge process begins.

More information:

ca_backup - Disk Staging Options

ca_backup - Disk Staging Miscellaneous Options

ca_backup - Disk Staging Incremental/Differential Backup Options

ca_backup - Examples

ca_backup - Disk Staging Incremental/Differential Backup Options

The ca_backup -diskstage command contains policies that are used to define the options and parameters for Arcserve Backup to use during an incremental or differential backup disk staging job.

The ca_backup -diskstage command includes the following incremental/differential backup policies:

ca_backup -diskstage [-incdiffbackup
[-DONOTCOPY]
[-enablesnaplock]
[-copyDataToDestination
[afterjobstarts <weeks> <days> <hours> <minutes>] |
[afterjobends <weeks> <days> <hours> <minutes>] |
[aftersessionends <weeks> <days> <hours> <minutes>] |
[at <hh:mm:ss> [afterjobends]]]]
[-purgeData
[afterjobstarts <weeks> <days> <hours> <minutes>] |
[afterjobends <weeks> <days> <hours> <minutes>] |
[at <hh:mm:ss>]]]

-incdiffbackup

> Specifies that the staging backup job consists of either incremental or differential backups.

-DONOTCOPY

> Directs disk staging to back up data to a staging device, but do not copy the media to a final destination after the retention period elapses.

-enablesnaplock

> Directs Arcserve Backup to use SnapLock protection on the backup job.

-copyDataToDestination

> **[afterjobstarts *<weeks> <days> <hours> <minutes>*] |**
>
> **[afterjobends *<weeks> <days> <hours> <minutes>*] |**
>
> **[aftersessionends *<weeks> <days> <hours> <minutes>*] |**
>
> **[at *<hh:mm:ss>* afterjobends]]**
>
> > Specifies when the copy to final destination operation should begin.
> >
> > For -afterjobstarts, -afterjobends, and -aftersessionends, you need to input the desired retention period.

-purgeData

[afterjobstarts *<weeks> <days> <hours> <minutes>*] |

[afterjobends *<weeks> <days> <hours> <minutes>*] |

[at *<hh:mm:ss>*]]

Specifies when the purge data from disk process should begin.

For -afterjobstarts and -afterjobends, you need to input the desired length of time that must elapse before the purge process begins.

More information:

ca_backup - Disk Staging Options

ca_backup - Disk Staging Miscellaneous Options

ca_backup - Disk Staging Full Backup Options

ca_backup - Examples

ca_backup - Tape Staging Options

The ca_backup -tapestage command allows you to back up data to a staging area (tape library or a virtual tape library), and then based on selected policy options, migrate (copy) the data to the final destination (a different tape library). The backup to tape to tape (B2T2T) allows you to submit policy-based jobs that let you copy data to a different tape after a specified length of time has elapsed after the backup operation is complete.

The ca_backup -tapestage command has the following format:

ca_backup -tapestage <-tapestage_group <groupname>>

[-tapestage_media <medianame>]
[-tapestage_mediapool <poolname>]
[-tapestage_enablemus -tapestage_maxstreams <maximum # of streams(1-32)>]
[-tapestage_enablemux -tapestage_chunksize <size in MB(1-16)>]
[-fullbackup [Full Backup Policy]|-incdiffbackup [IncDiff Backup Policy]] [Miscellaneous Options]

-tapestage <-tapestage_group <groupname>>

Specifies that the backup job will use tape staging functionality and the name of the tape staging group.

-tapestage_media <medianame>

Specifies the media name to be used for the backup stage for the job.

-tapestage_mediapool <poolname>

Specifies the media pool to be used for the backup stage for the job.

-tapestage_enablemus

Specifies to enable multistreaming and allow simultaneous backup operations to a file system device in a staging group. When multistreaming is enabled, a single backup job is split into multiple jobs using all the tape devices.

-tapestage_maxstreams <maximum # of streams(1-32)>

Specifies the maximum number of simultaneous data streams that this job would be allowed to use while writing to the FSD in the staging group. The available maximum number is 1 to 32 streams.

For example, if the maximum number of streams is specified at 4, this means that at any point of time this staging job will have no more than 4 child jobs writing to the FSD simultaneously.

-tapestage_enablemux

Specifies to enable multiplexing and allow data from multiple sources to be written to the same media simultaneously. When a job that has multiple sources is submitted with the multiplexing option enabled, it is broken into child jobs, with one for each source. These child jobs write data to the same media simultaneously.

-tapestage_chunksize <size in MB(1-16)>

Specifies the maximum amount data (in MB) to be written to the staging device per write operation. The chunk size value determines the amount of contiguous data written for one session before data from another session is multiplexed.

The higher the value, the faster the restore on some drives, but at the cost of memory size during backup. The available chunk size range is 1 to 16 MB. For most drives, the default value of 1 MB is recommended.

-fullbackup [Full Backup Policy] | -incdiffbackup [IncDiff Backup Policy]

Specifies either a Full Backup or an Incremental/Differential Backup to set policies for the backup job. You can then specify the corresponding backup policies.

More information:

ca_backup - Backup Manager Command

ca_backup - Tape Staging Full Backup Policies

ca_backup - Tape Staging Incremental/Differential Backup Policies

ca_backup - Tape Staging Miscellaneous Options

ca_backup - Tape Staging Full Backup Policies

The ca_backup -tapestage command contains backup policies that are used to control how Arcserve Backup processes data for full backup jobs.

The ca_backup -tapestage command includes the following full backup policies:

ca_backup -tapestage <-tapestage_group <groupname>>

[-donotmigrate]|
[-afterjobends <-weeks|-days|-hours|-minutes <count> ...>[-migmonthdataonly]]

-donotmigrate

Specifies that you do not want to copy the backup data from the staging location to final destination media.

-afterjobends <-weeks|-days|-hours|-minutes <count> ...>

Specifies the number of Weeks, Days, Hours, and Minutes that must elapse after the backup process ends before the migration process starts.

-migmonthdataonly

Specifies to migrate only the monthly GFS backup data. When you include this switch, Arcserve Backup migrates monthly full backups to the final destination media. Arcserve Backup does not migrate the weekly full backups and the first full backup in the GFS rotation.

Note: If you specify a GFS rotation, Arcserve Backup considers the last weekly full backup in a GFS rotation job a monthly backup.

More information:

ca_backup - Tape Staging Options

ca_backup - Tape Staging Incremental/Differential Backup Policies

ca_backup - Tape Staging Miscellaneous Options

Tape Staging Incremental/Differential Backup Policies

The ca_backup -tapestage command contains backup policies that are used to control how Arcserve Backup processes data for incremental/differential backup jobs.

The ca_backup -tapestage command includes the following incremental/differential backup policies:

ca_backup -tapestage <-tapestage_group <groupname>>

[-donotmigrate]|
[-afterjobends <-weeks|-days|-hours|-minutes <count> ...>]

-donotmigrate

Specifies that you do not want to copy the backup data from the staging location to final destination media.

-afterjobends <-weeks|-days|-hours|-minutes <count> ...>

Specifies the number of Weeks, Days, Hours, and Minutes that must elapse after the backup process ends before the migration process starts.

More information:

ca_backup - Tape Staging Options

ca_backup - Tape Staging Full Backup Policies

ca_backup - Tape Staging Miscellaneous Options

ca_backup - Tape Staging Miscellaneous Options

The ca_backup -tapestage command contains miscellaneous options that are used to define basic policies and parameters for Arcserve Backup to use during a tape staging backup job.

The ca_backup -tapestage command includes the following miscellaneous options:

ca_backup -tapestage <-tapestage_group <groupname>>

[-createdmjmakeupjobonhold]
[-rescheduleiffail <on <minutes>|off>]
[-consolidate
[-consolidate_mediaprefix <prefix>]
[-consolidate_mediapool <poolname>]
[-consolidate_mediagroup <groupname>]
[-consolidate_copymethod <append|overwrite>]

-createdmjmakeupjobonhold

> Specifies to create a makeup job on hold if a data migration job fails. Include this option to direct Arcserve Backup to create makeup jobs on HOLD if the data migration (copy to tape) job fails.

> A data migration job can fail if a media or tape drive error occurs during the copy to tape operation. Include this option to create a makeup job with a HOLD status that you can change to a READY status after correcting the tape drive or media errors. If an error condition exists, this option minimizes the needs to create tapecopy jobs.

-rescheduleiffail <on <minutes>| off>

> Specifies to schedule a makeup job for a data migration job if it cannot proceed because the source group or tape is not available. Include this option to direct Arcserve Backup to schedule a makeup job when the source group or tape is not available.

> The source may not be available do to a variety of reasons. For example, the backup phase for the job is not complete, or a hardware problem exists in the tape library or virtual tape library.

> You can specify how many minutes must elapse before the makeup will be rescheduled.

> By default, this option is set to on.

-consolidate

> Specifies to consolidate the backup data during the migration process.

If you want to consolidate data across multiple jobs to the same tape, the backup jobs should be run on the same machine.

-consolidate_mediaprefix <prefix>

Specifies the media prefix for all jobs that you want to consolidate.

-consolidate_mediapool <poolname>

Specifies the name of the media pool that you want to consolidate.

-consolidate_mediagroup <groupname>

Specifies the name of the media group that you want to consolidate.

-consolidate_copymethod <append|overwrite>

Specifies a copy method (Append or Overwrite) that you want to use for the consolidation operation. The method that you specify must be the same for all jobs that you want to consolidate.

Note: When you specify the Append option for weekday schedules, Arcserve Backup appends daily backup data to the tape that was formatted on the first day of the GFS backup cycle. When you specify the Overwrite option for weekday schedules, Arcserve Backup formats a new tape daily and then consolidates the data from different jobs to that tape.

More information:

ca_backup - Tape Staging Options

ca_backup - Tape Staging Incremental/Differential Backup Policies

ca_backup - Return Codes

The following codes are returned by the ca_backup command:

If the -waitForJobStatus option is not specified:

Return Codes:

- **0** – Command executed successfully.

  (For commands which will not submit a job, like allusage, -usage, or -list)

- **N** (positive integer) – Command submitted the job successfully.

  (For commands which will submit a job. The actual return value will be the job number)

- **-1** – An error occurred while executing a command.

If the -waitForJobStatus option is specified:

Return Codes:

- **0** – Job completed successfully

- **1** – Job failed

- **2** – Job is incomplete

- **3** – Job was cancelled

- **4** – Job status is unknown

Note: If you combine –waitforjobstatus with switches like allusage, -usage, or -list, the –waitforjobstatus switch will be ignored, and the rule for return codes without -waitforjobstatus take effect.

More information:

ca_backup - Backup Manager Command

ca_backup - Examples

Example: ca_backup

The following are examples of syntax for the ca_backup command:

ca_backup -source machine1 -filesystem C:\DIR1 -filesystem D:\DIR2 -username Administrator -password abc
ca_backup -source machine1 -filesystem C:\DIR1 -filelist File1.TXT -filelist File2.TXT -filelist FILE3.TXT -Group GROUP1 -tape TAPE1 -username Administrator -password abc

- Use the following syntax to submit a backup job to a remote Arcserve Backup server:

  ca_backup -cahost machine1 -source machine1 -filesystem D:\DIR1 -username Administrator -password abc

- Use the following syntax to submit a backup job through the Arcserve Backup Client Agent for Windows to back up data from a remote client machine:

  ca_backup -source machine1 -filesystem C:\Folder1 -Filesystem D:\Folder2 -filelist file.TXT -username Administrator -password abc

  ca_backup -source machine1 -filesystem "C:\Program Files\Back me up dir"(path with spaces need to enclose "") -tape TAPE1 -runjobnow -username Administrator -password abc

Example: ca_backup -filter

The following are examples of syntax when using ca_backup -filter:

ca_backup [-filter include|exclude file|dir <pattern>] -username Administrator -password abc
ca_backup -source machine1 -filesystem c:\DIR -filter include file "*.doc" -username Administrator -password abc
ca_backup [-filter include|exclude date modify|create|access onorbefore|onorafter <mm/dd/yyyy>] -username Administrator -password abc
ca_backup -source machine1 -filesystem c:\DELL -filter exclude dir khan -username Administrator -password abc
ca_backup -source machine1 -filesystem c:\DELL -filter exclude file ltrhd.doc -username Administrator -password abc

Example: ca_backup -on -at

The following is an example of syntax when using ca_backup -on -at:

ca_backup -source machine1 -filesystem c:\DIR -filter include file "*.doc" -at 12:50 -on 08/08/2002 -username Administrator -password abc

Example: ca_backup Session Password Keys

The following are examples of syntax when using ca_backup -sessionpassword:

ca_backup -source machine1 -filesystem c:\DIR -username Administrator -password abc

ca_restore -tape TAPE1 -session 2 -dest C:\DIR -sessionpassword xyz -username Administrator -password abc

Example: ca_backup Rotation Job

The following are examples of syntax when using the ca_backup rotation job option:

- The following example shows the ca_backup command syntax for submitting rotation job to "testingpool" mediapool, specifies exception condition on 12/12/2010, on this day the specific rotation scheme is full and append backup:

  ca_backup -source machine1 -filesystem c:\DIR1 -mediapool testingpool -exception full append 12/12/2010 -username Administrator -password abc

- The following example shows the ca_backup command syntax for submitting gfs rotation job with job description of "GFSpoolJob", 3 pools will be created for this gfs rotation job, they are GFSpool_DLY/ GFSpool_WLY/ GFSpool_MLY. The rotation scheme is full on Sunday, incremental from Monday to Saturday:

  ca_backup -source machine1 -filesystem D:\DIR2 -username Administrator -password abc -gfsrotation -mpoolprefix GFSpool -jobunit full -jobunit incr -jobunit incr -jobunit incr -jobunit incr -jobunit incr -jobunit incr -description GFSpoolJob

- The following example shows the ca_backup command syntax for submitting gfs rotation job with job description of "pool", 3 pools will be created for this gfs rotation job, they are machine1_DLY/ machine1_WLY/ machine1_MLY. The rotation scheme is full from Sunday to Wednesday and on Saturday, incremental on Thursday and Friday:

  ca_backup -source machine1 -filesystem c:\dell -gfsrotation -mpoolprefix machine1 -jobunit full -jobunit full -jobunit full -jobunit full -jobunit incr -jobunit incr -jobunit full -description pool -username Administrator -password abc

- The following example shows the ca_backup command syntax for submitting rotation job to "khan" mediapool, the rotation scheme is:

  Note: In the following example, the asterisk symbol * indicates you can use any tape.

    – Sunday: no backup on this day

    – Monday: incremental backup and append media

    – Tuesday: incremental backup and append media

    – Wednesday: incremental backup and append media

    – Thursday: incremental backup and append media

    – Friday: full backup and overwrite media

- Saturday: no backup on this day

  ca_backup -source machine1 -filesystem C:\ca_lic -rotation -mediapool khan -jobunit off -jobunit incr append * -jobunit incr append * -jobunit incr append * -jobunit incr append * -jobunit full overwrite * -jobunit off -user-name Administrator -password abc

▪ The following example shows the ca_backup command syntax for submitting rotation job to "hello" mediapool, the rotation scheme is:

- Sunday: no backup on this day

- Monday: full backup and overwrite media

- Tuesday: incremental backup and append media

- Wednesday: incremental backup and append media

- Thursday: incremental backup and append media

- Friday: full backup and overwrite media

- Saturday: no backup on this day

  ca_backup -source machine1 -filesystem c:\temp -rotation -mediapool hello -jobunit off overwrite -jobunit full overwrite -jobunit incr append -jobunit incr append -jobunit incr append -jobunit full overwrite -jobunit off -username Administrator -password abc

▪ The following example shows the ca_backup command syntax for submitting rotation job to "khan" mediapool, the rotation scheme uses regular rotation schedule.

  ca_backup -source machine1 -filesystem C:\ca_lic -rotation -mediapool khan -username Administrator -password abc

Example: ca_backup to a Deduplication Device

The following example shows the ca_backup command syntax for a deduplication device that sets the purge policy for a full backup after 4 weeks, 3 days, 2 hours and 1 minute of the job completion time:

ca_backup -cahost hostname -source -filesystem c:\temp -group Dedupegroup -dddpurgedata full 4 3 2 1 -username administrator -password caworld

More information:

ca_backup - Backup Manager Command

Chapter 6: ca_dbmgr - Database Manager Command

The database manager command (ca_dbmgr) is the command line interface to the Database Manager and the Media Pool Manager. It allows you to maintain the database, including configuring media pools. Using this command you can query database information and set database options. This powerful utility allows other programs to interact easily with backup events. All of the features available from the Database Manager and Media Pool Manager are available from the command line.

This section contains the following topics:

ca_dbmgr - Syntax

The ca_dbmgr command line syntax is formatted as follows:

ca_dbmgr [-cahost <hostname>]
-show [display options]
-tape delete <tapeID[:seqNo]>
-mediapool [media pool management options]
[database management options]
-prune on|off|set <count> day(s) <hh:mm>
-maintenance
-migrationstatus <job description> [migration status options]
-help
-examples

> **Note:** The [-cahost <hostname>] switch is optional. This switch is not needed if you are using these commands locally; however, a hostname is required if you are performing these commands remotely. The host specified by the -cahost switch can be a member server or primary server. However, Arcserve Backup will always add the job to the job queue of the primary server, and the primary server will then dispatch the job to the proper server (primary/member) according to this switch when the job is processed.

> **Note:** If you installed Arcserve Backup using the "Arcserve Manager (Console)" mode, you must include the -cahost switch to execute this command from your local machine. Because this Console installation mode does not actually install all Arcserve Backup capabilities on your local machine, it is mandatory that -cahost be included when submitting this command remotely to the primary or member server containing Arcserve Backup or else the command will fail.

Note: To properly display all Unicode characters in the output of a command, you must first set the environmental variable "ARCSERVE_UNICODE_DISPLAY_CMDL" to a value of 1 prior to running the command as follows:

C:\Documents and Settings\cb>set ARCSERVE_UNICODE_DISPLAY_CMDL=1

To view these Unicode characters correctly, you will also we need to redirect the output of ca_log after setting the environmental variable as follows:

C:\>ca_log -view activity.log >UNICODE_log.txt

More information:

ca_dbmgr - Database Manager Command

Command Line Syntax Characters

ca_dbmgr - Usage

The ca_dbmgr commands allow you to set the following options and arguments:

- miscellaneous options

- display options

- media pool management options

- database management options

- maintenance options

- migration status options

More information:

ca_dbmgr - Database Manager Command

ca_dbmgr - Miscellaneous Options

ca_dbmgr - Display Options

ca_dbmgr - Media Pool Management Options

ca_dbmgr - Database Management Options

ca_dbmgr - Maintenance Options

ca_dbmgr - Migration Status Options

ca_dbmgr - Miscellaneous Options

The ca_dbmgr command contains miscellaneous options that are used to display all associated options and define basic policies and parameters for Arcserve Backup to use during database management process.

The ca_dbmgr command includes the following miscellaneous options:

-cahost *<hostname>*

Identifies the name of the system hosting the operation.

If you want to execute the operation on a remote system, this switch must be included in the command.

If you want to execute this operation on your local system, this switch is not required and should not be included in the command.

Note: If you include -cahost in the command, you must also specify the host-name of the system (local or remote) hosting the operation.

Note: If you installed Arcserve Backup using the "Arcserve Manager (Console)" mode, you must include the -cahost switch to execute this command from your local machine. Because this Console installation mode does not actually install all Arcserve Backup capabilities on your local machine, it is mandatory that -cahost be included when submitting this command remotely to the primary or member server containing Arcserve Backup or else the command will fail.

-usage

Displays a list of basic ca_dbmgr commands.

-help

Opens the ca_dbmgr Help topic.

-examples

Opens a Help topic with ca_dbmgr usage examples.

More information:

ca_dbmgr - Database Manager Command

ca_dbmgr - Examples

ca_dbmgr - Display Options

The ca_dbmgr display options allow you to view information about the jobs processed by Arcserve Backup, the media used, data backed up, session information, disk usage, and client information.

The ca_dbmgr command includes the following display options:

ca_dbmgr [-cahost <host>] -show
prune
summary
jobs | jobsessions <jobID>
[-completed]
[-cancelled]
[-failed]
[-incomplete]
[-last <no_of> days | weeks | months]
tapes | tapesessions <tapeID [:seqNo]>
pools | poolmedia <poolName>
scratchmedia | savemedia

Note: To properly display all Unicode characters in the output of a command, you must first set the environmental variable "ARCSERVE_UNICODE_DISPLAY_CMDL" to a value of 1 prior to running the command as follows:

C:\Documents and Settings\cb>set ARCSERVE_UNICODE_DISPLAY_CMDL=1

To view these Unicode characters correctly, you will also we need to redirect the output of ca_log after setting the environmental variable as follows:

C:\>ca_log -view activity.log >UNICODE_log.txt

prune

Displays pruning status and settings.

summary

Displays database size and limits, and status of pruning and purging, space information and database information.

jobs -completed | -cancelled | -failed | -incomplete

Displays status and other information for a specified job

jobs | jobsessions *<jobID>*

[-completed]

[-cancelled]

[-failed]

[-incomplete]

[-last *<no_of>*days| weeks| months]

Display information for all jobs of a particular type or all sessions contained in the specified job ID.

For example, enter [-completed] to view all completed jobs. You can also enter a time limit, for example: [-last *2* weeks].

If you enter the command without any parameters, information on all jobs in the database will be displayed.

tapes | tapesessions *<tapeID[:seqNo>*

Displays information about the specified tape or tapesessions.

pools | poolmedia *<poolName>*

Displays information about the specified pools or poolmedia.

scratchmedia

Displays information about all medias current in the scratch set of a media pool. The information includes the tape name, serial number, tape ID, sequence number, format date, expiration date, and the media pool it belongs to.

savemedia

Displays information about all medias current in the save set of a media pool. The information includes the tape name, serial number, tape ID, sequence number, format date, expiration date, and the media pool it belongs to.

More information:

ca_dbmgr - Database Manager Command

ca_dbmgr - Examples

ca_dbmgr - Media Pool Management Options

The ca_dbmgr media pool management options allow you to manage, create, and maintain logical groupings of media (media pools) for easy identification of backups.

The ca_dbmgr command includes the following media pool management options:

ca_dbmgr [-cahost <host>] -mediapool
add <poolName> <saveTapes>
[-b <baseSerial>]
[-i <serialIncr>]
[- m <maxSerial>]
[-retention <retentionDays>]
modify <poolName>
[-save <saveTapes>]
[-retention <retentionDays>]
delete [-f] <poolName> [tapeID[:seqNo]]
move <tapeID[:seqNo]> <fromPoolName> <toPoolName> SCRATCH | SAVE

add *<poolName> <saveTapes>*

[-b *<baseSerial>*]

[-i *<serialIncr>*]

[-m *<maxSerial>*]

[-retention *<retentionDays>*]

Creates a new media pool. You must specify the name of the media pool and the minimum number of media to keep in the Save Set.

Optionally, you can specify serial number information and the retention period.

modify *<poolName>*

[-save *<saveTapes>*]

[-retention *<retentionDays>*]

Allows you to change the minimum number of media to keep in the Save Set and the retention time for the specified media pool.

delete [-f] *<poolName>* [tapeID [:seqNo]]

Deletes the specified tape from the specified media pool.

If you enter the name of a media pool without specifying a tape, the entire media pool is deleted.

Use the -f switch to perform the deletion in non-interactive mode.

move*<tapeID [:seqNo]> <fromPoolName> <toPoolName>* SCRATCH|SAVE

Moves tapes from media pool to media pool. You can also move tapes from the Scratch Set to the Save Set, or back. You can use the default value for either the *fromPoolName* value or the *toPoolName* value to specify a non-pool setting.

For example, to move a tape that is unassigned a pool value, use the default value setting for the *fromPoolName* value. This command also has the same function as Move Media in the Media Pool Manager user interface.

More information:

ca_dbmgr - Database Manager Command

ca_dbmgr - Examples

ca_dbmgr - Database Management Options

The ca_dbmgr database management options allow you to query database information and set database options.

The ca_dbmgr command includes the following database management options:

ca_dbmgr [-cahost <host>]
-tape delete <tapeID[:seqNo]
-prune on | off | set <count> days | months | year(s) <hh:mm>

-tape delete *<tapeID[:seqNo]*

Deletes a specified tape from the database.

-prune on | off | set *<count>* day(s) *<hh:mm>*

Sets database pruning on or off.

Specifies the elapsed number of days and the starting time for the pruning period. During the pruning process, all detail records older than the specified number of days will be removed from the database at the specified time every day.

For example, to specify that the pruning operation should remove all records older than seven days, and that the pruning should start at 5 PM every day, enter the following command:

ca_dbmgr -prune set 7 days 17:00

Note: Pruning removes detail records older than the specified number of days, but retains job and session records.

More information:

ca_dbmgr - Database Manager Command

ca_dbmgr - Examples

ca_dbmgr - Maintenance Options

The ca_dbmgr maintenance options allow you to tune and maintain the database in an efficient state and a manageable size. By periodically performing these maintenance tasks you can improve the overall performance of the Arcserve Backup database.

The results of the maintenance tasks will be saved to a special maintenance log called SQLMaint.log, which is located in the Arcserve Backup LOG directory.

The ca_dbmgr command includes the following maintenance options:

ca_dbmgr [-cahost <host>]
-maintenance
[UpdateStatistics]
[ReBuildIndex]
[CheckIntegrity]
[ReduceDBSize]

UpdateStatistics

Updates the statistics on all the tables and indexes in your database.

SQL Server collects statistics about the distribution of data in tables and indexes and uses these statistics to determine which indexes to use during a query process. If the statistics are outdated, SQL Server might not be able to properly evaluate which indexes to use when executing a query and as a result, might choose to perform a time-consuming scan of a complete table instead of just scanning an index. Having up-to-date statistics is important to ensure effective use of indexes.

Recommended: daily

ReBuildIndex

Rebuilds all indexes in your database to ensure that the data is not fragmented.

When you perform any data modification operations (insert, update, delete) table fragmentation can occur. When this data modification affects the index, index fragmentation can also occur and information in the index can get scattered in the database. Fragmented data can cause SQL Server to perform unnecessary data reads during a query process and result in slow and inefficient performance. The greater the fragmentation, the less effective the index will be. Periodically rebuilding the index will remove fragmentation, reclaim disk space, and improve overall performance during a database query.

Recommended: weekly

CheckIntegrity

Checks the integrity of all objects in the Arcserve Backup database.

Databases can be corrupted by unusual events such as hardware failures, sudden loss of power, operating system failure, or improper operator action. It is important to periodically check the allocation, structural, and logical integrity of all objects in the Arcserve Backup database. Performing a database integrity check on a regular basis will detect and report any changes in the database that occurred since the last integrity check. Depending upon the size of your database, this can be a time-consuming task.

Recommended: weekly

ReduceDBSize

Reduces the size of the data and log files in the Arcserve Backup database and releases them back to the operating system.

Over time, your log files and data files can grow rapidly to a very large size and reduce the effectiveness of your database. When you control database size, performance will often improve and more users can access the database.

When you run ReduceDBSize you will need to enter the name of the database you want to shrink, along with the percentage of free space to leave in each file of the database. For example, if you've used 60 MB of a 100-MB database file, you can specify a shrink percentage of 25 percent. SQL Server will then shrink the file to a size of 80 MB, and you'll have 20 MB of free space.

Recommended: as needed

More information:

ca_dbmgr - Database Manager Command

ca_dbmgr - Examples

ca_dbmgr - Migration Status Options

The ca_dbmgr migration status options allow you to check a specified job to determine if the migration process has been successfully completed or not.

The ca_dbmgr command includes the following migration status options:

ca_dbmgr [-cahost <host>]
-migrationstatus <job description>
[-lastjobbeforestarttime <mm/dd/yyyy hh:mm:ss>] |
[-lastjobbeforeendtime <mm/dd/yyyy hh:mm:ss>]

-migrationstatus *<job description>*

Allows you to check the migration status for the specified job. This command will return status properly only if you assign unique job descriptions while submitting jobs.

The available return codes for this check are as follows:

- **1** - migration failed
- **2** - migration completed
- **3** - migration in progress
- **4** - migration not required
- **5** - failed to get migration status

-lastjobbeforestarttime *<mm/dd/yyyy hh:mm:ss>*

Allows you to check the migration status for the last job started on the specified date and time. This is helpful for jobs that have been started multiple times on the same day.

-lastjobbeforeendtime *<mm/dd/yyyy hh:mm:ss>*

Allows you to check the migration status for the last job that ended on the specified date and time. This is helpful for jobs that have been run and finished multiple times on the same day.

More information:

ca_dbmgr - Database Manager Command

ca_dbmgr - Examples

ca_dbmgr - Examples

The following are examples of syntax for the ca_dbmgr command:

▪ Use the following command to display the Arcserve Backup database pruning configuration settings (DB Pruning time, # of days after which sessions are removed):

ca_dbmgr -cahost machine1 -show prune

▪ Use the following command to display the Arcserve Backup database summary (Total Space occupied, Free Space , DB Size , DB Job/Tape/Media record count, etc..)

ca_dbmgr -cahost machine1 -show summary

▪ Use the following command to display details of a specified job ID:

ca_dbmgr -cahost machine1 -show jobs 8

▪ Use the following command to display details of all jobs in the last 8 days with status as 'complete':

ca_dbmgr -cahost machine1 -show jobs -completed -last 8 days

▪ Use the following command to display details of all the sessions for a specified ID:

ca_dbmgr -cahost machine1 -show jobsessions 8

▪ Use the following command to display details of all the tapes recorded in the database:

ca_dbmgr -cahost machine1 -show tapes

▪ Use the following command to display details of all the sessions on a specified tape

ca_dbmgr -cahost machine1 -show tapesessions AB3C

▪ Use the following command to display details of all the media pools:

ca_dbmgr -cahost machine1 -show pools

▪ Use the following command to display details of a specified media pool:

ca_dbmgr -cahost machine1 -show poolmedia POOL1

Example: ca_dbmgr Media Pool Management Options

▪ Use the following command to add a new media pool with specified para-meters:

ca_dbmgr -cahost machine1 -mediapool add POOL1 0 -b 1200000 -i 1000 -m 1299999 -retention 100

- Use the following command to modify a media pool with specified settings of the number of media in the save set and the retention time period (99 days):

  ca_dbmgr -cahost machine1 -mediapool modify POOL1 -save 0 -retention 99

- Use the following command to remove the specified media (AB3C) from media pool TMPPOOL:

  ca_dbmgr -cahost machine1 -mediapool delete -f TMPOOL AB3C

- Use the following command to move the specified media (AB3C) from media pool "POOL1" to the save set of media pool "POOL2":

  ca_dbmgr -cahost machine1 -mediapool move AB3C POOL1 POOL2 SAVE

Example: ca_dbmgr Database Management Options

- Use the following command to delete the media record with ID AB3C:1:

  ca_dbmgr -cahost machine1 -tape delete AB3C:1

- Use the following command to modify the database pruning settings to a job execution time of 23:59 and prune all records exceeding 20 days:

  ca_dbmgr -cahost machine1 -prune set 20 days 23:59

Example: ca_dbmgr Database Maintenance Options

Use the following command to rebuild the index:

ca_dbmgr -cahost machine1 -maintenance RebuildIndex

More information:

ca_dbmgr - Database Manager Command

Chapter 7: ca_devmgr - Device Manager Command

The device manager command (ca_devmgr) lets you perform various device management commands in Arcserve Backup without interfacing with the Device Manager. You can use this tool to obtain information or to manipulate the tape or library devices. This command allows you to control storage devices, and to format and erase media in drives or changers. All of the features available from the Device Manager are available from the command line.

To use ca_devmgr, Arcserve Backup must be running, and you need authorization by an authentication service. If you are not authorized, then run the ca_auth utility to authorize yourself.

This section contains the following topics:

ca_devmgr - Syntax

The ca_devmgr command line syntax is formatted as follows:

ca_devmgr [-cahost <hostname>]
[miscellaneous options]
[general command options]
[tape drive command options]
[tape library command options]
[FSD command options]

> **Note:** The [-cahost <hostname>] switch is optional. This switch is not needed if you are using these commands locally; however, a hostname is required if you are performing these commands remotely. The host specified by the -cahost switch can be a member server or primary server. However, Arcserve Backup will always add the job to the job queue of the primary server, and the primary server will then dispatch the job to the proper server (primary/member) according to this switch when the job is processed.

> **Note:** If you installed Arcserve Backup using the "Arcserve Manager (Console)" mode, you must include the -cahost switch to execute this command from your local machine. Because this Console installation mode does not actually install all Arcserve Backup capabilities on your local machine, it is mandatory that -cahost be included when submitting this command remotely to the primary or member server containing Arcserve Backup or else the command will fail.

More information:

ca_devmgr - Device Manager Command

Command Line Syntax Characters

ca_devmgr - Usage

The ca_devmgr command includes the following options:

- miscellaneous options

- general options

- tape drive options

- tape library options

- FSD options

More information:

ca_devmgr - Device Manager Command

ca_devmgr - Miscellaneous Commands

ca_devmgr - General Commands

ca_devmgr - FSD Commands

ca_devmgr - Miscellaneous Commands

The ca_devmgr command contains miscellaneous commands that are used to display all associated commands and define basic policies and parameters for Arcserve Backup to use during a device management process. Miscellaneous commands do not interact with a tape drive or a tape library, but do interact with Arcserve Backup.

The ca_devmgr command includes the following miscellaneous commands:

-cahost *<hostname>*

Identifies the name of the system hosting the operation.

If you want to execute the operation on a remote system, this switch must be included in the command.

If you want to execute this operation on your local system, this switch is not required and should not be included in the command.

Note: If you include -cahost in the command, you must also specify the hostname of the system (local or remote) hosting the operation.

Note: If you installed Arcserve Backup using the "Arcserve Manager (Console)" mode, you must include the -cahost switch to execute this command from your local machine. Because this Console installation mode does not actually install all Arcserve Backup capabilities on your local machine, it is mandatory that -cahost be included when submitting this command remotely to the primary or member server containing Arcserve Backup or else the command will fail.

-usage

Displays a list of basic ca_devmgr commands.

allusage

Displays a list of all ca_devmgr commands and their switches.

-help

Opens the ca_devmgr Help topic.

-examples

Opens a Help topic with ca_devmgr usage examples.

More information:

ca_devmgr - Device Manager Command

ca_devmgr - Examples

ca_devmgr - General Commands

Common commands can be used whether you have a tape drive or a tape library attached to the system.

ca_devmgr [-cahost <host>]

-v <-adapterinfo...>|<-deviceinfo...>|<-groupinfo...>|<-mediainfo...>

-adapterinfo
-groupinfo [-alldomain]
-deviceinfo <adapter #> <scsi ID> <lun>|<groupname>|<-all>|<-alldomain>
-mediainfo <adapter #> <scsi ID> <lun>
-setdebug <none|summary|detail|detail+>

-v

> Used only with the adapterinfo, deviceinfo, groupinfo, and mediainfo commands. The major difference in using the -v switch is to print additional information about these four commands. The -v switch is more of a verbose cosmmand.

- adapterinfo

> Cycles through all the SCSI adapters attached to the system and prints out the adapter name, adapter number, SCSI ID, vendor ID, product ID, and firmware of any tape drive or tape library connected to the system.

-groupinfo

> Prints the adapter number, SCSI ID, vendor ID, product ID, firmware, and status (tape libraries only) information on all groups configured in Arcserve Backup.

-deviceinfo *<adapter #> <scsi ID> <lun>*

> Prints the type of device, SCSI ID, vendor ID, product ID, firmware, status, and device sharing (tape libraries only) information for any tape drive or tape library.
>
> The adapter number, SCSI ID, and lun are required.

-mediainfo *<adapter #> <scsi ID> <lun>*

> Prints the tape name, tape ID, sequence number, serial number, and expiration date for any tape device. For tape libraries, the same information is displayed, including slot number, and if the tape is loaded and write protected. For tape libraries, each slot is displayed.
>
> The adapter number, SCSI ID, and lun are required.

-setdebug *<none|summary|detail|detail+>*

Controls the level of debugging information that appears in the TAPE.LOG file which is generated and stored in the Arcserve Backup\Log folder.

none

No information is logged.

summary

Logs critical messages and reduces the size of the tape log by excluding unnecessary information.

This is the default setting.

detail

Logs all commands sent to the attached backup devices by Arcserve Backup, but does not include Read/Write commands and Test Unit Ready commands. Tape Engine specific information, which may be used by Customer Support to troubleshoot backup and restore issues, is also logged.

detail+

Logs all commands sent to the attached backup devices by Arcserve Backup, including Read/Write commands and Test Unit Ready commands. Tape Engine specific information, which may be used by Customer Support to troubleshoot backup and restore issues, is also logged.

More information:

ca_devmgr - Device Manager Command

ca_devmgr - Examples

Tape Drive Commands

The following tape drive commands can be used only for a tape drive.

ca_devmgr [-cahost <host>]

-format [<adapter #> <scsi ID> <lun> <tape name>] [<mm/dd/yyyy> <serial no.>]
[MEDIAPOOL <mediapool name>]
-erase [<adapter #> <scsi ID> <lun>] [q|qz|qw|l]
-online [<adapter #> <scsi ID> <lun>]
-offline [<adapter #> <scsi ID> <lun>]
-compression [<adapter #> <scsi ID> <lun>] <on|off>
-eject [<adapter #> <scsi ID> <lun>]
-eject_ex <changer_Adapter> <changer_scsiID> <changer_Lun> <drive_Adapter>
<drive_scsiID> <drive_Lun>
-retension [<adapter #> <scsi ID> <lun>]

**-format [*<adapter #> <scsi ID> <lun> <tape name>*] [*<mm/dd/yyyy> <serial no.>*]
[MEDIAPOOL <mediapool name>]**

Formats a tape in a tape drive.

When used with the **-force** option, formats the specified media, regardless of whether it is in a Save Set or Scratch Set.

The adapter number, SCSI ID, lun, and the new name of the tape are required. The date and serial number are optional.

-erase [*<adapter #> <scsi ID> <lun>*] [q|qz|qw|l]

Erases a tape in a tape drive.

When used with the **-force** option, erases all data on specified media, regardless of whether it is in a Save Set or Scratch Set.

The adapter number, SCSI ID, and lun options are required.

Options include:

- **q** - quick erase (destroy media label). This is the default option.

- **qz** - quick erase plus (destroy media label and serial number).

- **qw** - quick erase and convert it to WORM, if media and tape drive support WORM technology. If hardware does not support WORM technology, the erase operation will fail.

- **l** - long erase (destroy all data on the media).

Important! Long erase removes the entire media from the beginning of the tape to the end of the tape, and may take a long time to complete.

-online [*<adapter #> <scsi ID> <lun>*]

Sets the specified device (FSD or tape device) to an online status. When set to online, the device can be shared among multiple servers.

You must verify that you do not have more than one server set to write backup data to the same device at the same time. If multiple servers access the device at the same time, the backup could fail and data could get lost.

Example: If you have a FSD/tape device whose adapter #, scsi ID, and lun is 0, 0, and 1 and you want to set it to an online status, enter the following command:

ca_devmgr -online 0 0 1

-offline [*<adapter #> <scsi ID> <lun>*]

Sets the specified device (FSD or tape device) to an offline status. When set to offline, no other backup job can be submitted to the device.

If a backup job to the device is already in progress, you will not be allowed to change the device status to offline until the job is completed. For an FSD, this prevents multiple servers from inadvertently accessing the device at the same time. If a backup job attempts to access the device when set to offline, the job will fail.

Example: If you have a FSD/tape device whose adapter #, scsi ID, and lun is 0, 0, and 1 and you want to set it to an offline status, enter the following command:

ca_devmgr -offline 0 0 1

-compression [*<adapter #> <scsi ID> <lun>*] <on|off>

Enables or disables compression on a tape drive.

For this command to work, the tape device must support compression and there must be a blank tape in the drive.

The adapter number, SCSI ID, lun and the on or off flags are required.

-eject [*<adapter #> <scsi ID> <lun>*]

Ejects a tape from the tape drive.

To use this command, the tape drive must support the eject command. The adapter number, SCSI ID, and lun options are required.

-eject_ex <changer_Adapter> <changer_scsiID> <changer_Lun> <drive_Adapter> <drive_scsiID> <drive_Lun>

Ejects a tape from the specified drive and moves it to a slot of the specified changer.

-retension [*<adapter #> <scsi ID> <lun>*]

Retensions a tape in a tape drive.

The adapter number, SCSI ID, and lun are required.

More information:

ca_devmgr - Device Manager Command

ca_devmgr - Examples

ca_devmgr - Tape Library Commands

The following tape library commands can be used only for a tape library.

ca_devmgr [-cahost <host>]

-cherase <adapter #> <changer scsi ID> <changer lun> [<slot #> [q|qz|qw|l] ...]
or
-cherase <adapter #> <changer scsi ID> <changer lun> SLOT_RANGE <slot range>
[q|qz|qw|l]

-chformat <changer adapter#> <changer scsi ID> <changer lun>
SLOT <slot#> <tape name> [<mm/dd/yy[yy]>|def [<serial no.>]] MEDIAPOOL
[<mediapool name>] SLOT <slot#> <tape name> [<mm/dd/yy[yy]>|def [<serial no.>]]
MEDIAPOOL [<mediapool name>] ...]

-load <changer adapter #> <changer scsi ID> <changer lun> <drive adapter #> <drive
scsi ID> <drive lun> <slot #>

-unload <changer adapter #> <changer scsi ID> <changer lun> <drive adapter #>
<drive scsi ID> <drive lun>

-mount <changer adapter #> <changer scsi ID> <changer lun> <beg. slot> <end slot>
[q|l]

-dismount <changer adapter #> <changer scsi ID> <changer lun> <beg. slot> <end
slot>

-ieinfo <changer adapter #> <changer scsi ID> <changer lun>

-import <changer adapter #> <changer scsi ID> <changer lun> <slot #> [<slot #> ...]

-export <changer adapter #> <changer scsi ID> <changer lun> <slot #> [<slot #> ...]

-clean <changer adapter #> <changer scsi ID> <changer lun> <drive adapter #> <drive
scsi ID> <drive lun>

-importall <changer adapter #> <changer scsi ID> <changer lun>

-lockcas <DeviceNo> <Mode>

-lockcas_ex <AdapterNo> <scsiID> <Lun> <Mode>

-cherase *<adapter #> <changer scsi ID> <changer lun>* [*<slot #>* [q|qz|qw|l] ...]

**-cherase *<adapter #> <changer scsi ID> <changer lun>* SLOT_RANGE *<slot range>*
[q|qz|qw|l]**

Erases a single tape or multiple tapes in a tape library.

When used with the **-force** option, erases all data on specified media, regard-
less of whether it is in a Save Set or Scratch Set.

The adapter number, changer SCSI ID, changer lun, and slot are required.

Options include:

- **q** - quick erase (destroy media label). This is the default option.

- **qz** - quick erase plus (destroy media label and serial number)

- **qw** - quick erase and convert it to WORM, if media and tape drive support WORM technology. If hardware does not support WORM technology, the erase operation will fail.

- **l** - long erase (destroy all data on the media).

    Alternatively, enter ca_devmgr -cherase [*groupname*] *slot #* [q|qz|qw|l] [*,slot #* [q|qz|qw|l] ,...] to erase the tape using just the group name and the slot number.

    Note: The "," in the examples is not a switch. It is there only to show you how to specify multiple slots to be erased.

-chformat *<changer adapter#> <changer scsi ID> <changer lun>* SLOT *<slot#>* *<tape name> [<mm/dd/yy[yy]>*|def [*<serial no.>*]] MEDIAPOOL [*<mediapool name>*] SLOT *<slot#><tape name> [<mm/dd/yy[yy]>*|def [*<serial no.>*]] MEDIAPOOL [*<mediapool name>*] ...]

Formats a single tape or multiple tapes in a tape library.

When used with the **-force** option, formats the specified media, regardless of whether it is in a Save Set or Scratch Set.

The changer adapter number, changer SCSI ID, changer SCSI LUN, and group name are required, as are the word SLOT, the slot number where the tape to be formatted is located, and the tape name. The mm/dd/yyyy (the expiration date) is optional.

The def switch (default expiration date) cannot be used with the expiration date. (The "|" between the expiration date and the default expiration date indicates you must choose one or the other.) The serial number is optional. The 3 "." at the end means that you can specify more slot numbers.

Alternatively, you can enter ca_devmgr -chformat [SLOT *<slot#> <tape name>* [*<mm/dd/yy[yy]>*|def [*<serial no.>*]].

The changer format can use the the slot number and the tape name. The expiration date and the serial number are optional, the rest is required. The word SLOT must be used before each slot number you specify.

-load *<changer adapter #> <changer scsi ID> <changer lun> <drive adapter #> <drive scsi ID> <drive lun> <slot #>*

Loads a tape from a specified slot into a tape drive.

The changer adapter number, changer SCSI ID, changer lun, drive adapter number, drive SCSI ID, drive lun, and slot number are required.

-unload *<changer adapter #> <changer scsi ID> <changer lun> <drive adapter #> <drive scsi ID> <drive lun>*

Unloads a tape from a tape drive and returns it in the specified slot.

The changer adapter number, changer SCSI ID, changer lun, and the slot number are required.

-mount *<changer adapter #> <changer scsi ID> <changer lun> <beg. slot> <end slot>* **[q|l]**

Performs an inventory of your entire tape library.

If your tape library does not have a bar code reader, Arcserve Backup puts all the tapes into the tape drive and reads them. If your tape library does have a bar code reader, you can specify whether to obtain the information from the database or have Arcserve Backup read in all the tapes. The changer adapter number, changer SCSI ID, changer lun, beginning slot, and end slot are required.

The beginning and end slots can be any slot number, as long as the slots conform to the group you are mounting. The end slot cannot be smaller than the beginning slot. The q (quick mount) or l (long mount) options are optional. Quick mount is the default for tape libraries with bar code readers.

If your tape library has a bar code reader, it obtains the information from the Arcserve Backup database. Long mount forces Arcserve Backup to put each tape into the tape drive and read the information on it. If your tape library has no bar code reader, the q switch is disabled, and each tape must be read in by the tape drive.

-dismount *<changer adapter #> <changer scsi ID> <changer lun> <beg. slot> <end slot>*

Dismounts the slots in the specified group within the range provided in the options, and renames all slots to "Dismounted Slot".

Unless Arcserve Backup is restarted or a mount command is issued to the dismounted group, no other command can be issued to the dismounted slots. The changer adapter number, changer SCSI ID, changer lun, beginning slot, and end slot are required.

-ieinfo *<changer adapter #> <changer scsi ID> <changer lun>*

Displays information on the import/export slot of the library, including whether or not it is full and, if full, the barcode number of the tape in the slot.

The changer adapter number, changer SCSI ID, and the changer lun are all required.

-import *<changer adapter #> <changer scsi ID> <changer lun> <slot #> [<slot #>
...]*

Takes a tape from the import/export slot of the tape library and places it into
its destination slot.

If your tape library has a bar code reader enabled, the information is taken
from the database, and the tape is not read in by the drive.

If your tape library does not have a bar code reader, it places the tape into the
drive to be read.

The changer adapter number, changer SCSI ID, changer lun, and slot number
are required. The only optional switch is the extra *slot # ....* for tape libraries
with more than one import/export slot. You can import multiple tapes at the
same time. If your tape library has only one import/export slot, you can only
import one tape at a time.

-export *<changer adapter #> <changer scsi ID> <changer lun> <slot #> [<slot #>
...]*

Takes a tape from a slot in the tape library and puts it in the import/export slot.

The changer adapter number, changer SCSI ID, changer lun, and the slot num-
ber are required. The *slot #...* is to export multiple tapes. This can only be done
if your tape library has more than one import/export slot.

-clean *<changer adapter #> <changer scsi ID> <changer lun> <drive adapter #>
<drive scsi ID> <drive lun>*

Takes a cleaning tape (if one is installed in the tape library), puts it into the spe-
cified drive, and cleans the tape drive.

The changer adapter number, changer SCSI ID, changer lun, tape drive adapter
number, tape drive SCSI ID, and tape drive lun are required.

-importall *<changer adapter #> <changer scsi ID> <changer lun>*

Manually imports each tape found in the library's mail slots into the first avail-
able storage slots in the library. Using this argument ca_devmgr does not
inventory the media based on bar codes.

Use this argument when you want to import tapes from the mail slot, but do
not need the tapes to go to specific storage slots.

When there is not enough library slots for all the tapes in the mail slots, a mes-
sage "Not enough empty slots to import all the tapes!" displays after all the
empty library slots are filled.

The changer adapter number, changer SCSI ID, and changer lun are required.

-lockcas *<DeviceNo> <Mode>*

The DeviceNo is the number for the changer device, Mode=0, device is unlocked, Mode=1, device locked.

-lockcas_ex *<AdapterNo> <scsiID> <Lun> <Mode>*

The AdapterNo is the board number where the changer device is attached to, and for the other parameters which are self-explanatory.

More information:

ca_devmgr - Device Manager Command

ca_devmgr - Examples

ca_devmgr - FSD Commands

The following File System Device (FSD) commands can be used only for an FSD.

ca_devmgr [-cahost <host>]

-format [<adapter #> <scsi ID> <lun> <tape name>] [<mm/dd/yyyy> <serial no.>]

-erase [<adapter #> <scsi ID> <lun>] [q|qz|qw|l]

-online [<adapter #> <scsi ID> <lun>]

-offline [<adapter #> <scsi ID> <lun>]

-purge <adapter #> <scsi ID> <lun> -sessions <session no.> [<session no.>]
or

-purge <adapter #> <scsi ID> <lun> -sessions <session range>

<session range> can be either <start session no.>-<end session no.> or "all" which means all sessions

-query <adapter #> <scsi ID> <lun> <-all|-copied|-uncopied|-purgable|-snaplocked|-failed> -sessions <session no.>[<-session no.>]
or
-query <adapter #> <scsi ID> <lun> <-all|-copied|-uncopied|-purgable|-snaplocked|-failed> -sessions all

-regenerate [<adapter #> <scsi ID> <lun> <tape name>] [<tape ID> <mm/dd/yy[yy]>]

-createfsd <FSD Description> <FSD Name> <FSD Path>[<Domain Name> <User> <Password>]

-removefsd <FSD Path>

-setstaging <Group Name> [[-mstreams <Max Stream>] [-mthreshold <Max Threshold-/Purge to Threshold <"xx/xx%"|"xx/xx">>] [-snaplock <Enable Snaplock <0|1>>] [-pausemig <Pause Migration <0|1>>] [-chunksize <Chunk Size>]]

-cleanstaging <Group Name>

-getstaging <Group Name>

-queryfsd <FSD Path> [-group]

-creatededupefsd <FSD Description><FSD Name><Data Path><Index Path> [<Domain Name> <User><Password>][-GrpName <Group Name>]

-removededupefsd <Group Name>

-configdedupefsd <Group Name> [-FSDDsp<FSD Description>][-FSDName <FSD Name>] [-DataPath <Data Path>] [-IndexPath <IndexPath>]

-setdedupegrpproperties <Group Name> [[-mstreams <Max Stream>][-mthreshold <Max Threshold <"xx%"|"xx">>[-pausemig <Pause Migration <0|1>>][-optimization <Allow Optimization <0|1>]]

-getdedupegrpproperties <Group Name>

-startreclaim

-format [*<adapter #> <scsi ID> <lun> <tape name>*] [*<mm/dd/yyyy> <serial no.>*]

Formats a tape in a tape drive.

When used with the **-force** option, formats the specified media, regardless of whether it is in a Save Set or Scratch Set.

The adapter number, SCSI ID, lun, and the new name of the tape are required. The date and serial number are optional.

-erase [*<adapter #> <scsi ID> <lun>*] [q|qz|qw|l]

Erases a tape in a tape drive.

When used with the **-force** option, erases all data on specified media, regardless of whether it is in a Save Set or Scratch Set.

The adapter number, SCSI ID, and lun options are required.

Options include:

- **q** - quick erase (destroy media label). This is the default option.

- **qz** - quick erase plus (destroy media label and serial number).

- **qw** - quick erase and convert it to WORM, if media and tape drive support WORM technology. If hardware does not support WORM technology, the erase operation will fail.

- **l** - long erase (destroy all data on the media).

Important! Long erase removes the entire media from the beginning of the tape to end of the tape, and may take a long time to complete.

-online [*<adapter #> <scsi ID> <lun>*]

Sets the specified device (FSD or tape device) to an online status. When set to online, the device can be shared among multiple servers.

You must verify that you do not have more than one server set to write backup data to the same device at the same time. If multiple servers access the device at the same time, the backup could fail and data could get lost.

Example: If you have a FSD/tape device whose adapter #, scsi ID, and lun is 0, 0, and 1 and you want to set it to an online status, enter the following command:

ca_devmgr -online 0 0 1

-offline [*<adapter #> <scsi ID> <lun>*]

Sets the specified device (FSD or tape device) to an offline status. When set to offline, no other backup job can be submitted to the device.

If a backup job to the device is already in progress, you will not be allowed to change the device status to offline until the job is completed. For an FSD, this prevents multiple servers from inadvertently accessing the device at the same time. If a backup job attempts to access the device when set to offline, the job will fail.

Example: If you have a FSD/tape device whose adapter #, scsi ID, and lun is 0, 0, and 1 and you want to set it to an offline status, enter the following command:

ca_devmgr -offline 0 0 1

-purge *<adapter #> <scsi ID> <lun>* **-sessions** *<session no.> [<session no.>]*

-purge *<adapter #> <scsi ID> <lun>* **-sessions** *<session range>*

Purges the specified session or group of sessions. Use this command to delete the data from the FSD.

- If one of the sessions is SnapLock protected, a warning will be logged for that session and the purge process will continue for the rest of the specified sessions.

- If a session was supposed to be migrated and has not been migrated yet, a warning will be logged, the session will not be purged, and the purge process will continue for the rest of the specified sessions.

  You can specify the **-force** option to purge sessions, regardless of whether it has been migrated or not.

- If a session is active, a warning will be logged, the session will not be purged and purge process will continue for the rest of the specified sessions.

  You can specify to purge a single session or multiple sessions in one of three methods; by session numbers (single or group), by range, or by all.

  -sessions *<session no.> [<session no.>]*

  -sessions *<session range>*

    Note: <session range> can be either <start session no.>-<end session no.> or "all" which means all sessions

    Specifies the session number (or group of session numbers), the range of session numbers, or all session numbers to be purged.

    – To specify a single session to be purged, you must use the following syntax format

      -sessions 1

    – To specify a group of sessions to be purged, you must provide a list of space-separated session numbers using the following syntax format:

      -sessions 1 2 5 7 8

– To specify a range of sessions to be purged, you must provide the start session number and end session numbers connected by a dash using the following syntax format:

-sessions 3-5

– To specify all sessions to be purged, you must use the following syntax format:

-sessions all

-query <adapter #> <scsi ID> <lun> <-all|-copied|-uncopied|-purgable|-snaplocked|-failed> -sessions

Queries the specified sessions. Use this command to query the server about the currently active user sessions. You can request information about all of the active sessions or just those sessions that match the type you specify.

The -query command provides you with a description of the following information:

- All copied and uncopied sessions
- All sessions with SnapLock security
- Retention period for each session
- All sessions that can be purged

The adapter number, SCSI ID, and lun are required.

-copied

Displays a list of all copied sessions.

-uncopied

Displays a list of all sessions that were not copied.

-purgable

Displays a list of all sessions that can be purged.

-snaplocked

Displays a list of all sessions with SnapLock protection enabled and the retention period for each session.

-failed

Displays a list of all sessions that failed.

-sessions <list of space separated sessions | all>

Specifies the session number, the group of session numbers, or all session numbers that you want to query.

– To specify a single session to be queried, you must use the following syntax format

-sessions 1

– To specify a group of sessions to be queried, you must provide a list of space-separated session numbers using the following syntax format

-sessions 1 2 3

– To specify all sessions to be queried, you must use the following syntax format:

-sessions all

-regenerate [*<adapter #> <scsi ID> <lun> <tape name>*] [*<tape ID> <mm/dd/yy [yy]>*]

Used with file system devices if you accidentally delete the tape header. It lets you regenerate or rebuild a tape header with a specified tape name (<tape name>) for a file system device. After you generate a new tape header, you can then merge all of the sessions on the file system device into the Arcserve Backup database, which enables the capability for point-and-select restores.

If you know the original tape name (<tapename>) and its tape ID (<tapeID>), you can reuse them so that the session records in the Arcserve Backup database can reconnect to the volume without having to merge the session records again. (You can check the original tape record in the Arcserve Backup database for the tape name and tape ID).

You can use the <mm/dd/yyyy> parameter to specify a different tape expiration date from the default date.

-createfsd

Specifies to create an FSD dynamically during run time, without stopping the tape engine. Arcserve Backup will check if the device to create is already in the device list system, and if not will add it to the device list.

Note: For ca_devmgr, the -createfsd command will fail if the Arcserve Backup Configure Groups GUI is open.

FSD Description

Specifies the description for the FSD being created.

FSD Name

Specifies the identity name for the FSD being created.

FSD Path

Specifies the physical path for the FSD being created.

Domain Name

Specifies the domain to access the remote FSD being created.

User

Specifies the user name to access the remote FSD being created.

Password

Specifies the user password to access the remote FSD being created.

-removefsd <FSD Path>

Specifies to remove an FSD dynamically from Arcserve Backup during run time, without stopping the tape engine.

-setstaging <Group Name>

Specifies to configure the FSD group as a staging group.

-mstreams <Max Stream>

Specifies the maximum number of simultaneous data streams to be sent to the FSD in a staging group.

The available options are 1 or 2 streams, and the default value is 1 stream.

-mthreshold <Max Threshold/Purge to Threshold <"xx/xx%"|"xx/xx">>

Specifies the maximum capacity threshold and purge to threshold of the FSD.

When the amount of used space on the FSD is greater than the specified maximum threshold, the data (from the oldest migrated sessions) will begin to be purged from the FSD. The "purge to" threshold is the minimum threshold and allows you to specify the amount of used space on an FSD when Arcserve Backup stops purging.

The maximum and purge to thresholds can be represented as either an absolute value (in MB) or as a percentage of the capacity of the volume.

By default, the maximum threshold value is 80%.

By default, the purge to threshold value is 60%.

The following example sets the maximum threshold value at 80% and the purge to threshold value at 60%:

ca_devmgr -setstaging group0 -mthreshold "80/60%"

If you only specify one threshold value, it will automatically represent the maximum threshold and the purge to threshold will be disabled. (The purge to threshold cannot be set independent of the maximum threshold.)

The following example sets the maximum threshold value at 80% and disables the purge to threshold:

ca_devmgr -setstaging group0 -mthreshold "80%"

Notes:

- The specified maximum threshold must always be greater than the purge to threshold.

- If the threshold value is set as a percent, the maximum threshold must be less than 100% and the purge to threshold must be greater than 0%. (If the purge to value is 0%, the auto purge will be disabled).

- If the threshold value is set as an absolute value, the maximum threshold must be greater than 1 MB. The purge to value must be greater than 0. (If the value is 0, the auto purge will be disabled).

-snaplock <Enable Snaplock <0|1>>

Specifies to enable or disable SnapLock protection. When you back up data with SnapLock protection enabled, you cannot purge or over-write the backed up data until the specified retention time elapses. This ensures that the data on the FSD can not be deleted by any user.

0 = Disabled

1 = Enabled

By default SnapLock is disabled.

-pausemig <Pause Migration <0|1>>

Specifies to pause the migration of data from the FSD to the final destination media. This option allows you to continue backing up to the FSD, but pauses the migration from the FSD to the final destination media in case the final destination media is scheduled for maintenance or has hardware problems.

0 = Disabled

1 = Enabled

By default, the pause data migration option is disabled.

-chunksize <Chunk Size>

Specifies the maximum amount of data (in KB) to be written to the staging device per write operation.

By default, the staging chunk size is 512KB.

-cleanstaging <Group Name>

Specifies to clean (or remove) the FSD staging group attributes from the local/remote server.

-getstaging <Group Name>

Specifies to get (or obtain) the staging group attributes from the local/remote server.

-queryfsd <FSD Path> [-group]

Specifies to query the FSD adapter number, scsi id, and lun by default; or query FSD group by switch "-group", this is mainly used for the automation script.

-creatededupefsd <FSD Description><FSD Name><Data Path><Index Path> [<Domain Name> <User><Password>] [-GrpName <Group Name>]

Directs Arcserve Backup to create a new deduplication device. You must provide the FSD Description, FSD Name, Data Path and Index Path. The Group Name is optional; you may specify a valid group name, if desired. If not, the new device is added to a default deduplication group.

FSD Description

Specifies a description for the deduplication device being created.

FSD Name

Specifies the identity name for the deduplication device being created.

Data Path

Specifies the physical path where deduplicated data is stored.

Index Path

Specifies the physical path where the index and reference file data is stored. This path should be on a different volume than the Data Path. If you mistakenly provide the same path as the Data Path, you will not be prompted to specify another path.

Domain Name

Specifies the domain to access the remote deduplication device being created.

User

Specifies the user name to access the remote deduplication being created.

Password

Specifies the user password to access the remote deduplication being created.

-GrpName

Creates a new deduplication device group.

Group Name

Specifies the name of the new deduplication device group created by -GrpName. This is optional. If you do not specify a Group Name, Arcserve Backup assigns the deduplication device to new default group.

-removededupefsd <Group Name>

Directs Arcserve Backup to remove the deduplication device identified by Group Name.

<Group Name>

Specifies the name of the group containing the deduplication device to be removed.

-configdedupefsd <Group Name> [-FSDDsp<FSD Description>][-FSDName <FSD Name>] [-DataPath <Data Path>] [-IndexPath <IndexPath>]

Directs Arcserve Backup to modify an existing deduplication device. You may specify new values for FSD Description, FSD Name, Data Path and Index Path.

-FSDDsp <FSD Description>

Specifies a new description for the deduplication device identified in Group Name.

-FSDname <FSD Name>

Specifies a new identity name for the deduplication device identified in Group Name.

-DataPath <Data Path>

Specifies a new data path that the deduplication device identified in Group Name uses to store deduplicated data.

-IndexPath <Index Path>

Specifies a new index path that the deduplication device identified in Group name uses to store the index and reference files associated with the deduplication process.

Note: The data path and index path only can be changed when the media of the deduplication device is a blank media

-setdedupegrpproperties <Group Name> [[-mstreams <Max Stream>][-mthreshold <Max Threshold <"xx%"|"xx">>[-pausemig <Pause Migration <0|1>>] [-optimization <Allow Optimization <0|1>>]]

Instructs Arcserve Backup to set deduplication group properties for the device identified in <Group Name>.

-mstreams <Max Stream>

Specifies the maximum number of simultaneous data streams sent to the deduplication device.

The default value is 1.

-mthreshold <Max Threshold <"xx%"|"xx">>

Specifies the maximum capacity threshold of the deduplication device. The threshold value can be specified as a percentage of the device's capacity or as an absolute value (in MB only).

The default value is 80%.

-pausemig <Pause Migration <0|1>>

Specifies to pause migration of data from the deduplication device to the final destination media.

0 = Disabled

1 = Enabled

By default, the pause data migration option is disabled.

-optimization <Allow Optimization <0|1>>

Enables or disables optimization in deduplication processes. When you deduplicate data with optimization enabled, only file header data is examined for changes instead of the entire file.

0 = Disabled

1 = Enabled

By default, optimization is disabled.

-getdedupegrpproperties <Group Name>

Directs Arcserve Backup to obtain the properties set for the group specified in <Group Name>.

-startreclaim

Purge the sessions that reside on data deduplication devices that satisfy the purge policies. This argument lets you reclaim disk space on the device immediately.

More information:

ca_devmgr - Device Manager Command

ca_devmgr - Examples

ca_devmgr - Cloud Commands

The following commands apply to cloud devices:

ca_devmgr [-cahost <host>]
-format [<adapter #> <scsi ID> <lun> <tape name>] [<mm/dd/yyyy> <serial no.>]
[MEDIAPOOL <mediapool name>]
-erase [<adapter #> <scsi ID> <lun>] [q|qz|qw|l]
-online [<adapter #> <scsi ID> <lun>]
-offline [<adapter #> <scsi ID> <lun>]
-compression [<adapter #> <scsi ID> <lun>] <on|off>
-listcloudconnectionname
-listcloudfolder <cloud connection name>
-createclouddevice <device name> <device description> <cloud connection name>
<cloud folder> [<password>]
-removeclouddevice <cloud connection name> <cloud folder>
-setcloudgrpproperties <Group Name> -mstreams <Max Stream>
-getcloudgrpproperties <groupname>
-testthroughput <cloud connection name>[<Total Data Size(MB)> <Chunk Size(KB)>
<Thread Number>]
-purge <adapter #> <scsi ID> <lun> -sessions <session no.> [<session no.>]
OR
-purge <adapter #> <scsi ID> <lun> -sessions <session range>
<session range> can either be <start session no.>-<end session no.> or "all" which
means all sessions

-adapterinfo

> Cycles through all the adapters attached to the system and prints out the adapter name, adapter number, SCSI ID, vendor ID, product ID, and firmware of any tape device and cloud device connected to the system.

-format [*<adapter #> <scsi ID> <lun> <tape name>*] [*<mm/dd/yyyy> <serial no.>*] [MEDIAPOOL <mediapool name>]

> Formats cloud devices.

> Since cloud-based devices cannot be assigned to a media pool, serial numbers and media pool options are disabled.

> The adapter number, SCSI ID, lun, and the new name of the cloud-based device is required. The date and serial number are optional.

-erase *[<adapter #> <scsi ID> <lun>]* [q|qz|qw|l]

> Erases cloud-based devices.

> The adapter number, SCSI ID, and lun options are required.

> Options include:

- **q** - quick erase (destroy label). This is the default option.

- **qz** - quick erase plus (destroy label and serial number).

-online [*<adapter #> <scsi ID> <lun>*]

Sets the specified device (FSD, tape, or cloud-based device) to an online status. When set to online, the device can be used for a migration job.

Example: If you have an FSD, tape, or cloud-based device whose adapter #, scsi ID, and lun is 0, 0, and 1 and you want to set it to an online status, enter the following command:

ca_devmgr -online 0 0 1

-offline [*<adapter #> <scsi ID> <lun>*]

Sets the specified device (FSD, tape, or cloud-based device) to an offline status. When set to offline, no other migration job can be submitted to the device.

If a migration job to the device is already in progress, you will not be allowed to change the device status to offline until the job is completed. For cloud-based devices, this behavior prevents multiple servers from accessing the device simultaneously. If a migration job attempts to access the device when set to offline, the job will fail.

Example: If you have an FSD, tape, or cloud-based device whose adapter #, scsi ID, and lun is 0, 0, and 1 and you want to set it to an offline status, enter the following command:

ca_devmgr -offline 0 0 1

-compression [*<adapter #> <scsi ID> <lun>*] <on|off>

Enables or disables compression on a cloud-based device.

The adapter number, SCSI ID, lun and the on or off flags are required.

-purge *<adapter #> <scsi ID> <lun>* -sessions *<session no.>* [*<session no.>*]

-purge *<adapter #> <scsi ID> <lun>* -sessions *<session range>*

Purges the specified session or group of sessions. Use this command to delete the data from the cloud-based device.

- If a session is active, a warning will be logged, the session will not be purged and purge process will continue for the rest of the specified sessions.

    You can specify to purge a single session or multiple sessions in one of three methods; by session numbers (single or group), by range, or by all.

    -sessions *<session no.>* [*<session no.>*]

    -sessions *<session range>*

Note: <session range> can either be <start session no.>-<end session no.> or "all" which means all sessions

Specifies the session number (or group of session numbers), the range of session numbers, or all session numbers to be purged.

- To specify a single session to be purged, use the following syntax:

  -sessions 1

- To specify a group of sessions to be purged, specify a list of space-separated session numbers. For example:

  -sessions 1 2 5 7 8

- To specify a range of sessions to be purged, you must provide the start session number and end session numbers connected by a hyphen. For example:

  -sessions 3-5

- To specify all sessions to be purged, use the following syntax:

  -sessions all

-listcloudconnectionname

By default, this command lets you export basic information about all existing cloud connections in a list form to the console. You can also redirect the output to a .txt or .csv file.

-listcloudfolder

Lets you export basic information about all cloud-based devices that exist under the cloud account associated with the specified cloud connection.

This option has the following arguments:

-listcloudfolder <cloud connection name>

-createclouddevice

Lets you create one cloud-based device to point to a new or existing cloud folder. If the cloud folder is set with password protection, you must enter the correct password for verification otherwise you cannot create one cloud-based device to link to the cloud folder.

This option has the following arguments:

–createclouddevice <Device Name> <Device Description> <Cloud Connection Name> <Cloud Folder> [<Password> <Password Confirmation>]

-removeclouddevice

Lets you remove cloud-based devices from Arcserve Backup.

This option has the following arguments:

–removeclouddevice <Cloud Connection Name > <Cloud Folder>

-setcloudgrpproperties

Lets you set cloud group properties for the device identified in <Group Name> and specifies the maximum number of simultaneous data streams sent to the cloud-based device.

The default value is 4.

This option has the following arguments:

–setcloudgrpproperties <Group Name> -maxstream <Max Streams>

-getcloudgrpproperties

Directs Arcserve Backup to obtain the properties set for the group specified in <Group Name>.

This option has the following arguments:

–getcloudgrpproperties <Group Name>

-testthroughput

Lets you test throughput for specific Cloud Connections with default arguments and get similar results as migration jobs for cloud connections.

The default value for testing is 16 mb for Total Data Size, 1024 kb for Chunk Size, and 4 for ThreadNumber.

This option has the following arguments:

-testthroughput <cloud connection name>

More information:

ca_devmgr - Device Manager Command

ca_devmgr - Examples

ca_devmgr - Examples

The following are examples of syntax for the ca_devmgr command:

▪ Use the following command to view adapter information with SCSI IDs and adapter numbers:

ca_devmgr -adapterinfo

▪ Use the following command to view tape information (name and serial number) for the specified adapter and SCSI number:

ca_devmgr -mediainfo 3 4

▪ Use the following command to specify an FSD group as a staging group and configured as follows:

    – maximum number of streams set to 2

    – threshold values set at 80% (maximum) and 60% (minimum)

    – chunk size set at 512MB

    ca_devmgr -setstaging group0 -mstreams 2 -mthreshold "80/60%" -chunksize 512

▪ Use the following command to create a new deduplication device called DDD1 and assign it to a group called DDDGrp1:

ca_devmgr -creatededupefsd DedupeDeviceSalesData DDD1 c:\data d:\index -GrpName DDDGrp1

▪ Use the following command to change the data and index paths for an existing deduplication device called DDD0 assigned to a group called DDGrp0:

ca_devmgr -configdedupefsd DDGrp0 -FSDName DDD0 -DataPath c:\dataFiles -Index d:\refFiles\

▪ Use the following command to set the deduplication group properties for a group called DDDGrp9 as follows:

    – Maximum data streams set to 2

    – Maximum Threshold set to 90%

    – Pause migration enabled

    – Optimization enabled

    ca_devmgr -setdedupegrpproperties DDDGrp9 -mstreams 2 -mthreshold "90%" -pausemig 1 -optimization 1

More information:

ca_devmgr - Device Manager Command

Chapter 8: ca_jobsecmgr - Job Security Manager Command

If a username or password changes, you must modify every job in the Job Queue to reflect the change. The job security manager command (ca_jobsecmgr) allows you to make a global username or password change for all the jobs in the Job Queue. You can make these changes for a specific Arcserve Backup server or for all Arcserve Backup servers in the current Arcserve Backup domain.

Note: To run ca_jobsecmgr, you must have equivalency to a Arcserve Backup user. In most cases, you can use the user defined password for the Arcserve Backup system account. To assign equivalencies, use ca_auth.

This section contains the following topics:

ca_jobsecmgr - Syntax

The ca_devmgr command line syntax is formatted as follows:

ca_jobsecmgr

[server arguments]
<current security>
<new security>

More information:

ca_jobsecmgr - Job Security Manager Command

Command Line Syntax Characters

ca_jobsecmgr - Usage

The ca_jobsecmgr command includes the following options and arguments:

- server arguments

- current security

- new security

More information:

ca_jobsecmgr - Job Security Manager Command

ca_jobsecmgr - Server Arguments

ca_jobsecmgr - Current Security Options

ca_jobsecmgr - New Security Options

ca_jobsecmgr - Server Arguments

The ca_jobsecmgr command provides a means to specify whether you want your changes (username and password) to be applied to a specific Arcserve Backup server or to all Arcserve Backup servers in the current Arcserve Backup domain.

The ca_jobsecmgr command includes the following server arguments:

Note: You can only use one of the following arguments in a given ca_jobsecmgr command.

-s

Use this to change the username or password on a specific Arcserve Backup server.

-d

Use this to change the username or password on all servers in the Arcserve Backup domain.

More information:

ca_jobsecmgr - Job Security Manager Command

ca_jobsecmgr - Examples

ca_jobsecmgr - Current Security Options

After specifying one of the server arguments, you must provide the current security credentials for the jobs.

The ca_jobsecmgr command includes the following current security options:

ca_jobsecmgr

-u

-p

-u

Use this to specify the current source node username used for the jobs in the Job Queue.

To specify a domain user, use the following format:

Domain\Username

-p

Use this to specify the current password that was used by the source node user for the jobs in the Job Queue.

More information:

ca_jobsecmgr - Job Security Manager Command

ca_jobsecmgr - Examples

ca_jobsecmgr - New Security Options

After specifying the current username and password, you can then provide new security credentials that you want to apply for the jobs. You can use the new security options to specify a new password and, optionally, a new username.

The ca_jobsecmgr command includes the following new security options:

ca_jobsecmgr

-np
-nu

-np

Use this to specify a new password to be used by the source node user for the jobs in the Job Queue.

-nu

Optional. Use this to specify a new source node username to be used for the jobs in the Job Queue.

To specify a domain user, use the following format:

Domain\user

More information:

ca_jobsecmgr - Job Security Manager Command

ca_jobsecmgr - Examples

ca_jobsecmgr - Examples

The following are examples of syntax for the ca_jobsecmgr command:

- Use the following command to change the username and password on a specific Arcserve Backup server:

  ca_jobsecmgr -s mahcine1 -u administrator -p xyz -nu administrator2 -np xyz2

- Use the following command to change the username and password on all servers in the Arcserve Backup domain:

  ca_jobsecmgr -d -u administrator -p xyz -nu administrator2 -np xyz2

More information:

ca_jobsecmgr - Job Security Manager Command

Chapter 9: ca_log - Log Command

The log command (ca_log) is a utility that allows you to view, purge, clear, and maintain Arcserve Backup logs. With ca_log you can view the Activity log and the Job logs, both of which are also available from the Job Status Manager.

This section contains the following topics:

ca_log - Syntax

The ca_log command line syntax is formatted as follows:

ca_log [-cahost <hostname>] [-entiredomain]

-browse
-view <_logname> [view options]
-purge <_logname> [purge options][-yes]
-clear <_logname>[-yes]
-help
-examples

> **Note:** If you installed Arcserve Backup using the "Arcserve Manager (Console)" mode, you must include the -cahost switch to execute this command from your local machine. Because this Console installation mode does not actually install all Arcserve Backup capabilities on your local machine, it is mandatory that -cahost be included when submitting this command remotely to the primary or member server containing Arcserve Backup or else the command will fail.

More information:

ca_log - Log Command

Command Line Syntax Characters

ca_log - Usage

The ca_log commands include the following options:

- miscellaneous options
- log name manipulation options
- view options
- purge options

More information:

ca_log - Log Command

ca_log - Miscellaneous Options

ca_log - Log Name Manipulation Options

ca_log - View Options

ca_log - Purge Options

ca_log - Miscellaneous Options

The ca_log command contains miscellaneous options that are used to display all associated options and define basic policies and parameters for Arcserve Backup to use during a log generation process.

The ca_log command includes the following miscellaneous options:

-cahost *<hostname>*

Identifies the name of the system hosting the operation.

The switch is a filter. If you want to execute the operation on a specified machine in a domain, this switch must be included in the command. Without this switch, all operations are for the entire domain.

Note: If you installed Arcserve Backup using the "Arcserve Manager (Console)" mode, you must include the -cahost switch to execute this command from your local machine. Because this Console installation mode does not actually install all Arcserve Backup capabilities on your local machine, it is mandatory that -cahost be included when submitting this command remotely to the primary or member server containing Arcserve Backup or else the command will fail.

-entiredomain

Limits the searching range to include only logs in the domain, rather than default to the local host for search limits. If -entiredomain is not specified, the ca_log commands will expand the search to all logs for the specified host.

-usage

Displays a list of basic ca_log commands.

-help

Opens the ca_log Help topic.

-examples

Opens a Help topic with ca_log usage examples.

More information:

ca_log - Log Command

ca_log - Examples

ca_log - Log Name Manipulation Options

There are several options you can use for manipulating and viewing log files.

The ca_log command includes the following log name manipulation options:

ca_log [-cahost <hostname>] [-entiredomain]
-clear <_logname>[-yes]
-browse

-clear *<_logname>* [-yes]

Deletes all logs with the specified log name from the database.

Note: All the information in the database will be lost with this option.

-browse

Lists all the log files on the specified host that can be displayed.

Lists all the log names on the entire domain. If this switch is included with -cahost, it will list all the log names of the specified host.

More information:

ca_log - Log Command

ca_log - Examples

ca_log - View Options

There are several options you can use for viewing logs.

The ca_log command includes the following log viewing options:

ca_log [-cahost <hostname>][-entiredomain]

-view <_logname>[<view options>]

-jobID <ID>
-groupbyjob
-before <mm/dd/yyyy>
-after <mm/dd/yyyy>
-monitor
-sev

Note: To properly display all Unicode characters in the output of a command, you must first set the environmental variable "ARCSERVE_UNICODE_DISPLAY_CMDL" to a value of 1 prior to running the command as follows:

C:\Documents and Settings\cb>set ARCSERVE_UNICODE_DISPLAY_CMDL=1

To view these Unicode characters correctly, you will also we need to redirect the output of ca_log after setting the environmental variable as follows:

C:\>ca_log -view activity.log >UNICODE_log.txt

logname

Displays the logs specified by the log name according to one or several view options.

-jobID *<ID>*

Displays the specified logs by job ID or job list ID for the activity log.

For example:

- ca_log –view activity.log -jobID 5

- ca_log –view activity.log -jobID 1,2,3 (split by comma)

-groupbyjob

Available only when the filename to be viewed is an activity log. Specifies that the ca_log -view command will display logs grouped by job ID first, and then logs for jobs without a job ID. The job logs will also group master jobs and its child jobs logs together before other logs.

Without this switch included, the activity log will be displayed in time order.

With this switch included, the activity log will be displayed and grouped by job.

For example, the output would be as follows:

- Logs of job1 in activity log

- Logs of job2 in activity log ...

- Logs of jobn in activity log

- Logs in activity log without job id.

-before *<mm/dd/yyyy>*

Displays all entries with the specified log name before date mm/dd/yyyy.

Note: You can use the -before and -after options together to display logs across a period of time.

-after *<mm/dd/yyyy>*

Displays all entries with the specified log name after date mm/dd/yyyy.

Note: You can use the -before and -after options together to display logs across a period of time.

-monitor

Displays logs with the specified log name and keeps it open indefinitely. The log name is updated in real time as additional entries to the log are recorded.

Keeps the ca_log command from terminating after displaying the last specified log, and continues to read and display additional logs from the log file as they become available.

-sev

Displays the severity level of each entry with the specified log name. The severity levels are displayed after the date column. The severity levels are:

I - Information

W - Warning

E - Error

Note: The -sev option can be used in conjunction with the -jobID, before, and -after options.

More information:

ca_log - Log Command

ca_log - Examples

ca_log - Purge Options

The ca_log purge options are used to delete the oldest part of logs based upon age criteria. The -purge is a single-time, on-demand command that is initiated at the time the command is issued.

The ca_log command includes the following log file purge options:

ca_log [-cahost <hostname>][-entiredomain]

-purge <_logname>

-olderthan num <day[s] | week[s] | months[s] | year{s}>

logname

> Purges the logs with the specified log name according to the age criteria specified in the -olderthan purge option.

-olderthan num *<day[s] | week[s] | months[s] | year[s]>*

> Purges logs older than the specified number of days, weeks, months or years. Based on age criteria, the information with the specified log name will be purged from the database.

> **Note:** The number of days specified should be between 1 and 365.

> You need to add the word "day", "week", "month", or "year" as applicable when specifying the purge time period. For example:

> ```
> ca_log -purge <log name> -olderthan 3 day
> ca_log -purge <log name> -olderthan 3 week
> ca_log -purge <log name> -olderthan 3 month
> ca_log -purge <log name> -olderthan 3 year
> ```

More information:

ca_log - Log Command

ca_log - Examples

ca_log - Examples

The following are examples of syntax for the ca_log command:

- Use the following command to view the Activity Logs for the entire domain:

  ca_log -entiredomain -view Activity.log

- Use the following command to view the Activity Log from the specified host:

  ca_log -cahost hostname -view Activity.log

- Use the following command to view the Activity Logs for the member server:

  ca_log -cahost <member server> -view Activity.log

- Use the following command to view the Activity Logs for the entire domain, grouped first by the logs of master jobs and their corresponding child jobs, then by other activity logs:

  ca_log -entiredomain -view Activity.log -groupbyjob

- Use the following command to view the Activity Log for a specified job. If the job is a master job, the output logs will contain not only the master job logs, but also the corresponding child jobs logs.

  ca_log -view jobXXX.log

- Use the following command to clear the Activity Log from the entire domain:

  ca_log -entiredomain -clear Activity.log

- Use the following command to clear the Activity Log from the specified host:

  ca_log -cahost hostname -clear Activity.log

- Use the following command to purge the Activity Log on a specified host of all entries more than four days old:

  ca_log -cahost hostname -purge Activity.log -olderthan 4 days

- Use the following command to purge logs for Job 8 of all entries more than a day old:

  ca_log -purge Job8.log -olderthan 1 day

More information:

ca_log - Log Command

Chapter 10: ca_merge - Merge Manager Command

The merge manager command (ca_merge) is the command line interface to the Arcserve Backup Merge Manager. Use this command to create and submit merge jobs to the Job Queue. You can merge database information from backup media into your Arcserve Backup database. Many of the features available from the Merge Manager are available from the command line.

This section contains the following topics:

ca_merge - Syntax

The ca_merge command line syntax is formatted as follows:

ca_merge
[-cahost <hostname>]
<source args>
<run job args>
<options>

> **Note:** The [-cahost <hostname>] switch is optional. This switch is not needed if you are using these commands locally; however, a hostname is required if you are performing these commands remotely. The host specified by the -cahost switch can be a member server or primary server. However, Arcserve Backup will always add the job to the job queue of the primary server, and the primary server will then dispatch the job to the proper server (primary/member) according to this switch when the job is processed.

> **Note:** If you installed Arcserve Backup using the "Arcserve Manager (Console)" mode, you must include the -cahost switch to execute this command from your local machine. Because this Console installation mode does not actually install all Arcserve Backup capabilities on your local machine, it is mandatory that -cahost be included when submitting this command remotely to the primary or member server containing Arcserve Backup or else the command will fail.

More information:

ca_merge - Merge Manager Command

Command Line Syntax Characters

ca_merge - Usage

The ca_merge commands allow you to set the following options and arguments:

- miscellaneous options
- source arguments
- run job arguments
- merge options
- job status return codes

More information:

ca_merge - Merge Manager Command

ca_merge - Miscellaneous Options

ca_merge - Source Arguments

ca_merge - Run Job Arguments

ca_merge - Merge Options

ca_merge - Examples

ca_merge - Miscellaneous Options

The ca_merge command contains miscellaneous options that are used to display all associated options and define basic policies and parameters for Arcserve Backup to use during a merge process.

The ca_merge command includes the following miscellaneous options:

-cahost *<hostname>*

Identifies the name of the system hosting the operation.

If you want to execute the operation on a remote system, this switch must be included in the command.

If you want to execute this operation on your local system, this switch is not required and should not be included in the command.

Note: If you include -cahost in the command, you must also specify the host-name of the system (local or remote) hosting the operation.

Note: If you installed Arcserve Backup using the "Arcserve Manager (Console)" mode, you must include the -cahost switch to execute this command from your local machine. Because this Console installation mode does not actually install all Arcserve Backup capabilities on your local machine, it is mandatory that -cahost be included when submitting this command remotely to the primary or member server containing Arcserve Backup or else the command will fail.

-f *<filename>*

Used to specify a file name that contains the switches and parameters for the command.

This switch overcomes the shell limitation of 1024 character input from command line. You can also use this switch to hide passwords by saving them in a file.

usage

Displays a list of basic ca_merge commands.

-help

Opens the ca_merge Help topic.

-examples

Opens a Help topic with ca_merge usage examples.

More information:

ca_merge - Merge Manager Command

ca_merge - Return Codes

ca_merge - Examples

ca_merge - Source Arguments

The ca_merge command source arguments allow you to specify the data to be merged. You can use these arguments to identify the group, tape, and sessions to be used in your merge operation.

The ca_merge command includes the following source arguments:

ca_merge
[-group <group name> -tape <tape name> [<tape ID>]]
[-tape <tape name> [<tape ID>]]
WINDOWS Usage:
[-currenttapeseq][-allsessions|-session [<session #>|<session range>]]
UNIX Usage:
[-currenttapeseq][-allsessions|-session <session range>]

-group *<group name>* -tape *<tape name>* [*<tape ID>*]

Specify the tape group name to use for the merge job.

If you include -group, then you must also include -tape information.

-tape *<tape name>* [*<tape ID>*]

Specify the tape to use for the merge job. The tape ID is optional and is used if there are multiple tapes with the same name.

-currenttapeseq

Specify to use the current tape sequence for the merge job.

-allsessions

Specify to merge all the sessions of the tape for the merge job.

Note: If you select to merge all sessions and the tape set spans to multiple sequences, the sequence number 1 tape has to be present for this operation to complete successfully.

-session [*<session #>* |*<session range>*]

Specify to merge a single session or multiple sessions of the tape. Specify a session range to merge multiple sessions.

Example:

To merge session 27 of a tape named "MYTAPE" use the following command:

    ca_merge -tape MYTAPE -session 27

To merge sessions 9 through 24 of a tape named "MYTAPE" use the following command:

ca_merge -tape MYTAPE -session 9-24

More information:

ca_merge - Merge Manager Command

ca_merge - Return Codes

ca_merge - Examples

ca_merge - Run Job Arguments

The ca_merge command provides run job arguments to allow you to specify the run job methods for your merge job. The ca_merge run job options allow you to submit the job to be run immediately, or to submit the job on Hold, or to schedule the job for a later date and time. The method you choose determines when your merge jobs are run.

Important! To ensure that all jobs start at the scheduled time, you must synchronize the system time of the Member Servers with the system time of the corresponding Primary Server. Use the Windows Time Service to synchronize the time on all Arcserve servers in your domain.

The ca_merge command includes the following run job arguments:

ca_merge
[-at <hh:mm>]
[-on <mm/dd/yy[yy]>]
[-hold | -runjobnow]
[-description <description string>]

-at *<hh:mm>*

Specify the execution time of the merge job.

Note: All scheduled times for Arcserve Backup jobs are based upon the time zone where the Arcserve Backup server is located. If your agent machine is located in a different time zone than the Arcserve Backup server, you will need to calculate the equivalent local time that you want the job to be run.

-on *<mm/dd/yy[yy]>*

Specify the execution date of the merge job.

-hold

Submit the merge job on hold.

Cannot be used with -runjobnow.

-runjobnow

Submit and execute the merge job immediately.

Cannot be used with -hold.

-description *<description string>*

Add comments to the merge job.

Note: You must use double quotes " " to enclose the string and handle blank spaces.

More information:

ca_merge - Merge Manager Command

ca_merge - Return Codes

ca_merge - Examples

ca_merge - Merge Options

The ca_merge command allows you to specify various merge options that are applied to the job.

The ca_merge command includes the following merge options:

ca_merge
[Database Options] (for UNIX host)
[Decryption Password List Options]
[Logging Options] (for UNIX use only)
[Pre/Post Options]
[Exit Code Options]
[Media Options]
[Miscellaneous Merge Options]
[Job Status Options]

Database Options

Note: This option is for UNIX use only.

The ca_merge command includes the following database options:

ca_merge

[-partialdbupdate]

-partialdbupdate

Record only Job and Session information into the Arcserve Backup database.

Decryption Password List Options

The ca_merge command includes the following decryption password list options:

ca_merge

[decryptionpwdlist <password 1> [<password 2>] [<password 3>] ... [password 8>]

[decryptionpwdlist *<password 1>* [*<password 2>*] [*<password 3>*] ... [*<password 8>*]

Provides a list of decryption passwords to be used if the sessions are encrypted. If a merge job contains multiple sessions with different passwords, Arcserve Backup will not stop for each session and ask for a password. Instead, the specified decryption passwords will be packaged as a combined list and the list will automatically be checked as each encrypted session is merged.

If the required password is supplied as part of the decryption password list, the job will continue without any further user input. If the required session password is not supplied as part of the decryption password list, you will be prompted to provide one prior to allowing that encrypted session to continue.

A maximum of eight passwords can be included in the decryption password list, with each password separated by a space. Each password can have a maximum of 23 characters and cannot contain any spaces or commas.

Logging Options

Note: This option is for UNIX use only.

The ca_merge command includes the following logging options:

ca_merge

[-logfile <filename> [summary | allactivity]]
[-snmp] [-tng] [-email <email address>] [-printer <printer name>]

-logfile *<filename>* [summary | allactivity]

Records activities during the running of the merge job to the specified file-name. You can specify to record all activity or just a summary of the activity.

-snmp

Enables SNMP (Simple Network Management Protocol) alert.

-tng

Enables Unicenter Network and Systems Management (NSM) alert (formerly known as TNG).

-email *<email address>*

Sends a copy of the Activity log to the specified email address.

-printer*<printer name>*

Sends a copy of the Activity log to the specified printer.

The printer must be set up in the configuration file ARCServe_HOME/-config/caloggerd.cfg

Pre/Post Options

The ca_merge command includes the following pre/post options:

ca_merge

[-preexec <command>]
[-preexectimeout <minutes>]
[-postexec <command>]
[-prepostuser <user name>]
[-prepostpassword <user password>]

-preexec *<command>*

Runs the specified command before the job starts.

The entire path of the command should be included.

Note: To use this option you must also specify the -prepostuser option.

-preexectimeout *<minutes>*

The time to wait, in minutes, before the merge job starts, to allow time for the pre-execute command to finish.

-postexec *<command>*

Runs the specified command after the job finishes.

The entire path of the command should be included.

Note: To use this option you must also specify the -prepostuser option.

-prepostuser *<user name>*

The user name of the user submitting this merge job.

-prepostpassword *<user password>*

The password of the user submitting this merge job.

Exit Code Options

The ca_merge command includes the following exit code options:

ca_merge

[-exitcode <exit code1>]
[-skip_delay|-skip_job]
[-skip_post]

-exitcode *<exit code1>*

Specifies the exit code of the pre-execute command.

Used with the -skip_delay, -skip_job, and -skip_post switches.

Note: The skip delay, skip job, and skip post options will only be activated if Arcserve Backup detects that the returned exit codes meet the selected condition (Equal To, Greater Than, Less Than, or Not Equal to).

-skip_delay

Runs the merge job immediately if the specified exit code is received.

-skip_job

Skips the merge job completely if the specified exit code is received.

-skip_post

Skips the post-execute command if the specified exit code is received.

Media Options

The ca_merge command includes the following media options:

ca_merge

[-firsttapetimeout <minutes>]
[-spantapetimeout <minutes>]

-firsttapetimeout *<minutes>*

Specifies the time (in minutes) to wait for a usable media to be made available for the merge job. If a usable media is not made available within this specified time period, the job will time out and fail.

Default: 5 minutes

-spantapetimeout *<minutes>*

Specifies the time (in minutes) to wait for a usable span media to be made available for the merge job. If a usable media is not loaded within this specified time period, the job will time out and fail.

If the infinite value is specified, the job continues to wait and prompt until a usable media is loaded or the user cancels the job.

Default: Infinite

Miscellaneous Merge Options

The ca_merge command includes the following miscellaneous merge options:

ca_merge

[-list]

(for UNIX use only)
[-savescript <script name>]

-list

Used to display a list of tapes available for the merge job.

-savescript *<script name>*

Instead of submitting this job to the job queue, the merge job is saved as a script that can be loaded into the job queue later.

Note: This option is for UNIX use only.

Job Status Options

The ca_merge command includes the following job status options:

ca_merge

[-waitForJobStatus [*<polling interval (secs)>*]]

-waitForJobStatus [*<polling interval (secs)>*]

The ca_merge command will wait until the job is completed, and then exit with a return code that indicates the success or fail outcome of the job.

The <polling interval> value defines how often (in seconds) the ca_merge utility checks the job status with the Queue services. The default polling interval is 60 seconds.

More information:

ca_merge - Merge Manager Command

ca_merge - Return Codes

ca_merge - Examples

ca_merge - Return Codes

The following codes are returned by the ca_merge command:

Return Codes:

- **0** – Command executed successfully.

- **-1** – An error occurred while executing a command.

More information:

ca_merge - Merge Manager Command

ca_merge - Examples

The following are examples of syntax for the ca_merge command:

Specify the machine on which the source being merged is located

- Use the following command to specify that the source machine for the merge is by default the localhost:

  ca_merge -tape TAPE01

- Use the following command to specify that the source machine for the merge is hostA:

  ca_merge -cahost hostA -tape TAPE01

Confine the range of the source

- Use the following command to merge all sessions of tapes belonging to a group of localhost:

  ca_merge -group <group name> -tape <tape name> [<tape ID>]

- Use the following command to merge all sessions of tape TAPE01 on hostA:

  ca_merge -cahost hostA -tape TAPE01

- Use the following command to merge all sessions of tape TAPE01 with tapeid B5E3 on hostA:

  ca_merge -tape TAPE01 B53E

- Use the following commands to merge a specified session range:

  ca_merge -cahost hostA -tape TAPE01 -allsessions

  ca_merge -cahost hostA -tape TAPE01 -session 6

  ca_merge -tape TAPE02 -session 2-8

Confine the time at which the merge job will run

- Use the following command to specify the time of the current day that the merge will be performed:

  ca_merge -cahost hostB -tape TAPE03 -session 6-9 at 11:20

- Use the following command to specify the time and date that the merge will be performed:

  ca_merge -cahost hostB -tape TAPE03 -session 6-9 -at 11:20 -on 03/25/2007

- Use the following command to submit the merge job on hold:

  ca_merge -cahost hostB -tape TAPE03 -session 6-9 -hold

- Use the following command to specify run job now

  ca_merge -cahost hostB -tape TAPE03 -session 6-9 -runjobnow

Wait for Job Status

▪ Use the following command to query the job status at a specified polling interval (secs) until the job is finished.

ca_merge –cahost hostB –tape TAPE03 –session 6-9 –runjobnow –waitforjobstatus 60

More information:

ca_merge - Merge Manager Command

Chapter 11: ca_mmo - Media Management Administrator Command

The media management administrator command (ca_mmo) is the command line interface to the Arcserve Backup Media Management Administrator (MMO Admin) from the command prompt. This command is used to control and monitor vaulting operations and reports. Many of the features available from the Media Management Administrator are available from the command line.

Note: To enable this feature, the Arcserve Backup Enterprise Module must be installed.

This section contains the following topics:

ca_mmo - Syntax

The ca_mmo command line syntax is formatted as follows:

ca_mmo

[vault cycle options]
-start [-alert] [-export] [-jid] [-vaultname <Vault Name>]
-startAll [-alert] [-exportAll] [-jid] [-vaultname <Vault Name>]

[vault status reset options]
-reset

[mmo database options]
-init

[vaulted media options]
-checkin -tapename <Tape name>
-tapeid <Tape id #>
-seqnum <Tape seq #>
-type <Check in type>
-checkin -serialnum <Tape serial #>
-type <Check in type>
Check in types: temp | manual | manualretire

[vault assignment options]
-assign -tapename <Tape name>
-tape id <Tape id #>
-seqnum <Tape seq #>
-vaultname <Vault Name>
-assign -serialnum <Tape serial #>
-vaultname <Vault Name>

[print report options]
-printreport <Print type>
Print types: VaultSelection | Shipping | ShippingContent | Receiving | Receiv-
ingContent | InventoryByMedia | InventoryByVault

[vault export options]
-export
-exportall

More information:

ca_mmo - Media Management Administrator Command

Command Line Syntax Characters

ca_mmo - Options

The ca_mmo command provides options to establish vaulting policy and manage your media resources. Using the Media Management Administrator (MM Admin), you can organize tape movement to off-site storage locations, define retention policies to ensure that your tapes are protected from being prematurely over-written, secure access to tape-resident files, and maintain a comprehensive inventory of tape library resources.

The ca_mmo command includes the following options:

-start [-alert] [-export] [-jid] [-vaultname <Vault Name>]

Starts a vault cycle for local tapes located on primary or standalone servers and then exports these local tapes from the specified vault.

If you use only the -start command and the output has vaulted tapes that need to be sent to an offsite vault, you must export these tapes out of the changer manually. If you do not want to export tapes manually, use the -export command.

When you use the -export command, MM Admin automatically exports all of the local vaulted tapes to the mailslots of the changer so that you do not have to export them manually. If there are more vaulted tapes to export than mailslots, MM Admin waits for the Administrator to empty the mailslots so it can continue exporting the remaining tapes.

If you want to receive a notification when mailslots need to be emptied, use the -alert option. After the notification occurs, MM Admin waits a maximum of 24 hours for the mailslots to be emptied.

-startAll [-alert] [-exportAll] [-jid] [-vaultname <Vault Name>]

Starts a vault cycle for all tapes in the domain located on the primary and member servers or standalone server and then exports all tapes in the domain from the specified vault.

Use the -exportAll switch with -startAll if you want to start a vault cycle in a SAN and export all of the local tapes and tapes in the SAN.

-export

Exports all tapes locally.

This option is usually used independently if it is not used with the -start or -startAll options. This is useful if you do not want to export every time you run a vault cycle.

-exportAll

Exports all of the local tapes and all of the tapes in the SAN or on the primary or member servers.

This option is usually used independently if it is not used with the -start or -startAll options. This is useful if you do not want to export every time you run a vault cycle.

-jid

Specifies the Job ID.

-reset

Resets the vault status.

-init

Initializes the MM Admin database.

-checkin -tapename *<Tape name>* -tapeid *<Tape id #>* -seqnum *<Tape seq #>* -type *<Check in type>*

Checks media back into Tape Service using the tape name, ID, and sequence number.

Check in type can be temporary <temp>, manually <manual>, or permanently (manual and retire) <manualretire>.

-checkin -serialnum *<Tape serial #>* -type *<Check in type>*

Checks media back into Tape Service using its serial number.

Check in type can be temporary <temp>, manually <manual>, or permanently (manual and retire) <manualretire>.

-assign -tapename *<Tape name>* -tapeid *<Tape id #>* -seqnum *<Tape seq #>* -vaultname *<Vault Name>*

Assigns media into a vault using the tape name, ID, and sequence number.

When selecting a Vault Criteria Descriptor (VCD), if you selected the Assign by User option as the controlling data set, you must use either this command or the - assign -serialnum command to assign a specific tape.

-assign -serialnum *<Tape serial #>* - vaultname *<Vault Name>*

Assigns media into a vault using its serial number.

When selecting a Vault Criteria Descriptor (VCD), if you selected the Assign by User option as the controlling data set, you must use either this command or the -assign -tapename command to assign a specific tape.

-printreport *<Print type>*

Prints a report.

Depending on which type of report you want to print, enter VaultSelection, Shipping, ShippingContent, Receiving, ReceivingContent, InventoryByMedia, InventoryByVault for <Print type>.

-usage

Displays a list of basic ca_mmo commands.

More information:

ca_mmo - Media Management Administrator Command

ca_mmo - Examples

ca_mmo - Examples

The following are examples of syntax for the ca_mmo command:

- Use the following syntax to export all tapes locally:

  ca_mmo -export

- Use the following syntax to export all of the local tapes and all of the tapes from the SAN:

  ca_mmo -exportAll

- Use the following syntax to start the vault cycle and then export all of the local tapes in the specified vault:

  ca_mmo -start | -startall [-alert] [-export] [-jid] [-vaultname <Vault Name>]

- Use the following syntax to start the vault cycle in the SAN and then export all of the local tapes and tapes from the SAN in the specified vault:

  ca_mmo -startAll -exportAll [-vaultname <Vault Name>]

More information:

ca_mmo - Media Management Administrator Command

Chapter 12: ca_qmgr - Queue Manager Command

The queue manager command (ca_qmgr) is the command line interface with the Job Status Manager and allows you to monitor and control jobs submitted to the Arcserve Backup Job Queue. These job management commands are used for obtaining information or manipulating jobs in the job queue. All of the features available from the Job Status and Activity Log Manager are available from the command line.

This section contains the following topics:

ca_qmgr - Syntax

The ca_qmgr command line syntax is formatted as follows:

ca_qmgr [-cahost <hostname>] [-entiredomain]
-list [<job #> [jobid][jobtype][jobstatus][exechost][execdate][exectime][lastresult]
[owner][description]]
-listscripts
-load <job script> [<script owner>]
-addscript <job script>
-removescript <job script> [<script owner>]
-changestatus <job #> <ready|hold>
-changedate <job #> <mm/dd/yy[yy]>
-changetime <job #> <hh:mm>
-stop <job #>
-view <job #>
-delete <job #>
-waitForJobStatus <job #> [<polling interval <secs>>]
-move <-s_server <source primary server>> <-d_server <dest primary server>> [-m_
server <member server>] [-jobnum <<job #>>] [-hold]
-changeSessionPasswd <job number> [<old password> <new password>]
-usage
-help
-examples

> **Note:** The [-cahost <hostname>] switch is optional. This switch is not needed if
> you are using these commands locally; however, a hostname is required if you
> are performing these commands remotely. The host specified by the -cahost
> switch can be a member server or primary server. However, Arcserve Backup
> will always add the job to the job queue of the primary server, and the primary
> server will then dispatch the job to the proper server (primary/member) accord-
> ing to this switch when the job is processed.

> **Note:** If you installed Arcserve Backup using the "Arcserve Manager (Console)"
> mode, you must include the -cahost switch to execute this command from your
> local machine. Because this Console installation mode does not actually install
> all Arcserve Backup capabilities on your local machine, it is mandatory that -
> cahost be included when submitting this command remotely to the primary or
> member server containing Arcserve Backup or else the command will fail.

More information:

ca_qmgr - Queue Manager Command

Command Line Syntax Characters

ca_qmgr - Usage

The ca_qmgr commands allow you to set the following options and commands:

- miscellaneous options
- job queue commands
- job script commands
- job specific commands

More information:

ca_qmgr - Queue Manager Command

ca_qmgr - Miscellaneous Options

ca_qmgr - Job Queue Commands

ca_qmgr - Job Specific Commands

ca_qmgr - Job Script Commands

ca_qmgr - Miscellaneous Options

The ca_qmgr command contains miscellaneous options that are used to display all associated options and define basic policies and parameters for Arcserve Backup to use for jobs submitted to the job queue.

The ca_qmgr command includes the following miscellaneous options:

-cahost *<hostname>*

Identifies the name of the system hosting the operation.

If you want to execute the operation on a remote system, this switch must be included in the command.

If you want to execute this operation on your local system, this switch is not required and should not be included in the command.

Note: The [-cahost <hostname>] switch is optional. This switch is not needed if you are using these commands locally; however, a hostname is required if you are performing these commands remotely. The host specified by the -cahost switch can be a member server or primary server. However, Arcserve Backup will always add the job to the job queue of the primary server, and the primary server will then dispatch the job to the proper server (primary/member) according to this switch when the job is processed.

Note: If you installed Arcserve Backup using the "Arcserve Manager (Console)" mode, you must include the -cahost switch to execute this command from your local machine. Because this Console installation mode does not actually install all Arcserve Backup capabilities on your local machine, it is mandatory that -cahost be included when submitting this command remotely to the primary or member server containing Arcserve Backup or else the command will fail.

-entiredomain

Limits the searching range to include only jobs in the domain, rather than default to the local host for search limits. If -entiredomain is not specified, the ca_qmgr commands will expand the search to all jobs in the job queue for the specified host.

-usage

Displays a list of basic ca_qmgr commands.

-help

Opens the ca_qmgr Help topic.

-examples

Opens a Help topic with ca_qmgr usage examples.

More information:

ca_qmgr - Job Queue Commands

The ca_qmgr command contains job queue commands that allow you to view and control the Job Queue.

The ca_qmgr command includes the following job queue commands:

ca_qmgr [-cahost <hostname> [-entiredomain] -list
[<job #>
[jobid]
[jobtype]
[jobstatus]
[exechost]
[execdate]
[exectime]
[lastresult]
[owner]
[description]]

-list

Shows current job queue and the member server of where the job is scheduled to run.

job #

Lists all jobs in the job queue for the specified job number. If the job number is not specified, the -list command will list all jobs on the specified host. You can also add subordinate options to specify various job-related information to be displayed for the specified job.

jobid

Includes the job id for the specified jobs.

jobtype

Includes the job type for the specified jobs.

jobstatus

Includes the job status for the specified jobs.

exechost

Includes the execute host for the specified jobs.

execdate

Includes the execute date for the specified jobs.

exectime

Includes the execute time for the specified jobs.

lastresult

Includes the last result for the specified jobs.

owner

Includes the owner for the specified jobs.

description

Includes the description for the specified jobs.

More information:

ca_qmgr - Queue Manager Command

ca_qmgr - Examples

ca_qmgr - Job Specific Commands

The ca_qmgr command contains job specific commands that allow you to monitor and control individual jobs.

The ca_qmgr command includes the following job specific commands:

ca_qmgr [-cahost <hostname>] [-entiredomain]
-changestatus <job #> <ready|hold>
-changedate <job #> <mm/dd/yy[yy]>
-changetime <job #> <hh:mm>
-stop <job #>
-view <job #>
-delete <job #>
-waitForJobStatus <job #> [<polling interval <secs>>]
-move <-s_server <source primary server>> <-d_server <dest primary server>> [-m_ server <member server>] [-jobnum <job #>] [-hold]
-changeSessionPasswd <job #> [<old password> <new password>]changestatus *<job #> <ready|hold>*

Changes the job status to ready, or puts a job on hold.

Example:

ca_qmgr -changestatus 12 hold

-changedate *<job # mm/dd/yy[yy]>*

Changes the date a job will run.

Example:

ca_qmgr -changedate 12 04/01/2006

-changetime *<job # hh:mm>*

Changes the time a job will run.

Example:

ca_qmgr -changetime 12 12:08

Note: All scheduled times for Arcserve Backup jobs are based upon the time zone where the Arcserve Backup server is located. If your agent machine is located in a different time zone than the Arcserve Backup server, you will need to calculate the equivalent local time that you want the job to be run.

-changeSessionPasswd <job #> [<old password> <new password>]

Changes the session password for the specified backup job with the status of ready, hold, or done. You can execute this command using either of two formats:

- You can include this switch and specify the old and new session passwords all in one line:

  ca_qmgr -changeSessionPasswd 5 AAA BBB

- You include this switch but do not include an old or new password and you will be prompted for each password.

  ca_qmgr -changeSessionPasswd 5

  Please enter old password:
  Please enter new password:
  Please reconfirm new password:

  job #

    Specifies the job number of the backup job that you want to change the session password.

  old password

    Specifies the old session password that will be replaced for the backup job. This parameter is optional; however, if it is included you must also include the new password.

  new password

    Specifies the new session password that will be applied to the backup job. This parameter is optional; however, it cannot remain empty if you include the old password.

Notes:

- If the backup job has no previous session password, you cannot add a new session password.

- If the old password provided and the original session password for the specified job do not match, this command will fail.

- If you include the old session password, but do not include a new session password, this command will fail (the new session password cannot be empty).

- The maximum length of the session password is 23 characters.

-stop *<job #>*

  Stops a currently running job. If it is a repeating job, the next job in the sequence is queued. If it is a run-once job, the job is stopped and deleted. If it is a job on hold, no action is taken.

  Example:

ca_qmgr -stop 12

Important! No confirmation is asked prior to stopping the job. The job is stopped without asking if you are sure.

-view *<job #>*

Views details of job number (Job Summary)

Example:

ca_qmgr -view 12

-delete *<job #>*

Deletes an inactive job. Deleting an inactive job completely removes it from the job queue.

Example:

ca_qmgr -delete 12

Note: To delete an active job, you must first stop the job before you can delete it.

-waitForJobStatus *<job #>* [*<polling interval <secs>>*]

The ca_qmgr command will wait until the job is completed, and then returns to prompt. The optional polling interval indicates the time to poll for the job status internally.

The <polling interval> value defines how often (in seconds) the ca_qmgr utility checks the job status with the Queue services. The default polling interval is 60 seconds.

Note: If the job number does not exist in the job queue, the command will hang. Make sure the job number is included in the job queue.

-move *<-s_server <source primary server>> <-d_server <dest primary server>> [-m_server <member server>] [-jobnum <job #>] [-hold]*

Moves the job from one server to another. If you include this command, you must specify a source server and a destination server. In addition, you can also include subordinate options to further define the job to be moved. If you do not include any subordinate options, all jobs on the source primary servers will be moved to the destination primary server by default.

-s_server <source primary server>

Specifies the source primary server where the job will be moved from. You must include the name of the source primary server.

-d_server <dest primary server>

Specifies the destination primary server where the job will be moved to. You must include the name of the destination primary server.

-m_server <member server>

Specifies the host where the moving job will be executed from. If you include this option, you must specify the member server.

-jobnum <job #>

Specifies the job number that will be moved. If you include this option, you must specify a job number on the source primary server.

-hold

If the option is included, specifies that the jobs being moved on the source primary server will be modified to a Hold status after they have been successfully moved, instead of the default action of Deleted.

More information:

ca_qmgr - Queue Manager Command

ca_qmgr - Examples

ca_qmgr - Job Script Commands

The ca_qmgr command contains job script commands that allow you to control and use the job scripts.

The ca_qmgr command includes the following job script commands:

ca_qmgr [-cahost <hostname>] [-entiredomain]
-listscripts
-load <job script> [<script owner>]
-addscript <job script>
-removescript <job script> [<script owner>]

-listscripts

Shows available job scripts (in ARCServe_HOME/jobscripts).

A job script is a saved job file that has a .asx extension. Any job can be saved as a job script from the Arcserve Backup Manager GUI.

Example:

ca_qmgr -listscripts

-load *<job script> [<script owner>]*

Loads and runs a previously saved job script.

To load a script, the script must be present in the Arcserve Backup home directory.

Example:

ca_qmgr -load myscript caroot

Note: X.asx can only be loaded on the Primary Server. If you run ca_qmgr -load X.asx on a Member Server, you will receive an error.

-addscript *<job script>*

Imports and registers a job script.

Specify a path along with the job script file name. The job script file is copied to the Arcserve Backup home directory from the given path.

Example:

ca_qmgr -addscript C:\myscript.asx

-removescript *<job script> [<script owner>]*

Removes and de-registers a job script.

The job script file is deleted from the Arcserve Backup home directory.

Example:

ca_qmgr -removescript myscript caroot

More information:

ca_qmgr - Queue Manager Command

ca_qmgr - Examples

ca_qmgr - Examples

The following are examples of syntax for the ca-qmgr command:

▪ Use the following syntax to display the current job queue:

ca_qmgr -list

▪ Use the following syntax to display all jobs on the domain:

ca_qmgr -list -entiredomain

▪ Use the following syntax to stop a currently running job (in this example, Job 5):

ca_qmgr -stop 5

▪ Use the following syntax to delete a job (in this example, Job 5):

ca_qmgr -delete 5

▪ Use the following syntax to display available job scripts:

ca_qmgr -listscripts

▪ Use the following syntax to import and register a job script from a given path:

ca_qmgr -addscript C:\bkpjob1.asx

▪ Use the following syntax to load a run a saved job script:

ca_qmgr -load bkpjob1

More information:

ca_qmgr - Queue Manager Command

Chapter 13: ca_recoverdb - Database Recovery Command

Each time you run a backup job, Arcserve Backup records information in its databases about the machines, directories, and files that have been backed up, and the media that was used. This allows you to locate files whenever you need to restore them. The database recovery command (ca_recoverdb) is a self-protection feature that allows you to recover a Arcserve Backup database if it is lost and was backed up by the Arcserve Backup domain that is using the database.

Note: The ca_recoverdb utility invokes the ca_restore commands to implement the database recovery function. The ca_recoverdb utility will automatically determine if the Arcserve Backup database is a SQL Server database or SQL Server 2005 Express Edition instance and provide the appropriate parameters for the ca_restore command.

Note: When a Arcserve Backup server is configured as cluster-aware, all critical Arcserve base-related services (not agent-related services) will be monitored by the applicable cluster service (MSCS or NEC CLUSTERPRO). If an Arcserve base-related service fails or needs to be shut down, the cluster service will automatically try to restart it or trigger a failover if the restart attempt fails. To run the this task, you must stop Arcserve services. However, in a cluster-aware environment, you must first manually stop the cluster service from continuing to monitor the service and attempting an automatic restart or failover. For procedures to stop HA service monitoring by the Cluster Service, see the Administration Guide.

Note: The ca_recoverdb utility is only used to recover an Arcserve Database (ASDB) on the same machine or Arcserve domain on which that ASDB backup was taken. If you want to backup an ASDB on one machine and then recover it on another machine (the two machines are not in the same Arcserve domain), this command can not be used. In this situation, you have two solutions:

Solution 1:

Take a DR backup from machine A and then recover it on machine B.

This solution needs DR option installed.

Solution 2:

1. Install Arcserve Backup on both machine A and machine B.

2. Perform an ASDB backup on machine A.

3. Move the tape to machine B, and submit a merge job to merge the information of the tape into the Arcserve Backup on machine B.

4. On machine B, open Restore Manager (Restore by Tree option) and locate the "Arcserve Backup Database".

5. Right click the "Arcserve Backup Database" and on the popup menu, choose "Agent Options".

6. From the Agents Restore Options dialog, select the following options:

   – Force restore over existing files or database

   – Use current Arcserve Database as original location

   – Preserve current Arcserve Domain Memberships

7. Submit the restore job.

This section contains the following topics:

ca_recoverdb - Syntax

The ca_recoverdb command line syntax is formatted as follows:

ca_recoverdb [-cahost <hostname>]

[-i [n]]
-username <username> [-password <password>]
[-dbusername <database username> [-dbpassword <database password>]] [-ses-
sionpassword [session password] -session password [session password]...]
[-waitForjobstatus <polling interval>]

More information:

ca_recoverdb - Database Recovery Command

Command Line Syntax Characters

ca_recoverdb - Options

The ca_recoverdb provides various options for recovering a lost Arcserve Backup database.

The ca_recoverdb command includes the following options:

cahost <hostname>

Redirects default host from the backup log to the host specified by cahost.

For example:

HostA - The default host that existed in backup log, which will be used in ca_restore.

HostB - The host that you specify.

In these examples, if you do not specify the cahost switch, then the ca_restore command invoked by the ca_recoverdb utility will look as follows:

    ca_restore -cahost HostA

If you do specify the cahost switch with the parameter HostB, then the ca_restore command invoked by the ca_recoverdb utility will look as follows:

    ca_restore -cahost HostB

-i [n]

Specifies to use the interactive mode. If you include this switch, it allows you to specify a point in time from which to perform the Arcserve Backup database recovery by selecting which backup to use as a baseline. When the interactive mode is invoked, the ca_recoverdb displays the list of Arcserve Backup sequences for which it has log files. Each of the log files start with a Full database backup, and contains all of the other backups which are dependent on that Full backup to be restored (the Full backup is root of the "dependency chain" for those sessions).

The parameter *n* is used to specify the number of latest backup log sets (dependency chains) that you want to select from. The range of values for *n* is 1 to 99, and the default value is 10.

When you select a Full backup sequence, you will then be prompted to select which session to use as the restore point. After you select a session, the ca_recoverdb utility will determine the dependency chain for that sequence, and use ca_restore to submit a restore job for each session.

If you do not include the -i switch, the ca_recoverdb utility automatically uses the most recent backup as the specified selection, and builds the dependency

chain for that session. This is helpful if you just want to recover to the latest point in time backup. However, if the most recent backup is lost or damaged, you can use the interactive mode to restore from an older session, and then merge tapes to re-integrate the latest information.

-username <username> [-password <password>]

Specifies the authenticating information for the database agent that will perform the actual recovery job. If you do not include the password option, it will default to no password required.

-dbusername <database username> [-dbpassword <database password>]

Specifies the authenticating information for the database. If you do not include the database username and corresponding database password, it will default to "dbusername" and "dbpassword" for authenticating purposes.

[-sessionpassword [session password] -sessionpassword [session password] ...]

Specifies the authenticating information for the sessions being set authenticating password.

[-waitForJobStatus <polling interval>]

Specifies the time interval (in seconds) that ca_recoverdb will wait until the job is completed and then exit with a return code that indicates the success or fail outcome of the job.

The <polling interval> value defines how often (in seconds) that the ca_recoverdb utility checks the job status with the Queue services. The default polling interval is 60 seconds.

More information:

ca_recoverdb - Database Recovery Command

ca_recoverdb - Examples

The following are examples of syntax for the ca-recoverdb command:

- Use the following syntax to recover an ASDB if the ASDB is hosted on a primary server:

  ca_recoverdb.exe -username Administrator -password win_pwd

- Use the following syntax to recover an ASDB if an ASDB session is encrypted or password protected:

  ca_ recoverdb.exe -username Administrator -password win_pwd -sessionpassword ses_pwd

- Use the following syntax to recover an ASDB if an external ASDB server and SQL Authentication is used:

  ca_recoverydb.exe -cahost machinename -username Administrator -password win_pwd -dbusername db_username -dbpassword db_password

More information:

ca_recoverdb - Database Recovery Command

Chapter 14: ca_restore - Restore Manager Command

The restore manager command (ca_restore), the command line interface to the Restore Manager, allows you to create and submit restore jobs to the Arcserve Backup Job Queue, and to set all associated options. All of the features available from the Restore Manager are available from the command line. The options and switches for the ca_restore command allow you to set global options and filters, select your source and destination for the restore job, and submit the restore job to run immediately or at a scheduled time.

This section contains the following topics:

ca_restore - Syntax

The ca_restore command line syntax is formatted as follows:

ca_restore [-cahost <hostname>]
[global options]
[global filters]
-source [source arguments]
-dest [destination arguments]
[run job arguments]
[info arguments]

> **Note:** The [-cahost <hostname>] switch is optional. This switch is not needed if you are using these commands locally; however, a hostname is required if you are performing these commands remotely. The host specified by the -cahost switch can be a member server or primary server. However, Arcserve Backup will always add the job to the job queue of the primary server, and the primary server will then dispatch the job to the proper server (primary/member) according to this switch when the job is processed.

> **Note:** If you installed Arcserve Backup using the "Arcserve Manager (Console)" mode, you must include the -cahost switch to execute this command from your local machine. Because this Console installation mode does not actually install all Arcserve Backup capabilities on your local machine, it is mandatory that -cahost be included when submitting this command remotely to the primary or member server containing Arcserve Backup or else the command will fail.

More information:

ca_restore - Restore Manager Command

Command Line Syntax Characters

ca_restore - Usage

The ca_restore commands allow you to set the following options and arguments:

- miscellaneous options
- restore options
- filter arguments
- source arguments
- destination arguments
- run job arguments
- info arguments
- return codes

To build a restore operation, you must set one category of options at a time, in the order specified in the ca_restore syntax.

More information:

ca_restore - Restore Manager Command

ca_restore - Miscellaneous Options

ca_restore - Global Filter Options

ca_restore - Source Arguments

ca_restore - Destination Arguments

ca_restore - Info Arguments

ca_restore - Return Codes

ca_restore - Miscellaneous Options

The ca_restore command contains miscellaneous options that are used to display all associated options and define basic policies and parameters for Arcserve Backup to use during a restore process.

The ca_restore command includes the following miscellaneous options:

ca_restore

[-cahost <hostname>] [info args]
[-f <filename>]
[-sessionpassword <session password/encryption key>]
[-waitForJobStatus [<polling interval (secs)>]]
[-help]
[-examples]
[-usage]
[allusage]

-cahost *<hostname>*

Identifies the name of the system hosting the operation.

If you want to execute the operation on a remote system, this switch must be included in the command.

If you want to execute this operation on your local system, this switch is not required and should not be included in the command.

Note: The [-cahost <hostname>] switch is optional. This switch is not needed if you are using these commands locally; however, a hostname is required if you are performing these commands remotely. The host specified by the -cahost switch can be a member server or primary server. However, Arcserve Backup will always add the job to the job queue of the primary server, and the primary server will then dispatch the job to the proper server (primary/member) according to this switch when the job is processed.

Note: If you installed Arcserve Backup using the "Arcserve Manager (Console)" mode, you must include the -cahost switch to execute this command from your local machine. Because this Console installation mode does not actually install all Arcserve Backup capabilities on your local machine, it is mandatory that -cahost be included when submitting this command remotely to the primary or member server containing Arcserve Backup or else the command will fail.

-f *<filename>*

Used to specify a file name that contains the switches and parameters for the command.

This switch overcomes the shell limitation of 1024 character input from command line. You can also use this switch to hide passwords by saving them in a file.

-sessionpassword *<session password/encryption key>*

Specifies that a session/encryption password will be required in order to restore this data from media. To restore data from one of these sessions, the password must have been provided during backup.

-waitForJobStatus [*<polling interval (secs)>*]

When specified, the ca_restore command will wait until the job is completed, and exit with a return code that indicates the success or fail outcome of the job.

The <polling interval> value defines how often (in seconds) that the ca_restore utility checks the job status with the Queue services. The default polling interval is 60 seconds.

-help

Opens the ca_restore Help topic.

-examples

Opens a Help topic with ca_restore usage examples.

-usage

Displays a list of basic ca_restore commands.

allusage

Displays a list of all ca_restore commands and their switches.

More information:

ca_restore - Restore Manager Command

ca_restore - Examples

ca_restore - Global Job Options

The ca_restore global options allow you to specify various options that are applied to the entire job.

The ca_restore command provides the following global options:

- media options
- destination options
- operation options
- pre/post options
- log options

More information:

ca_restore - Restore Manager Command

ca_restore Restore Media Options

ca_restore Destination Options

ca_restore Operation Options

ca_restore Pre/Post Options

ca_restore Log Options

ca_restore - Examples

ca_restore Restore Media Options

The ca_restore command includes the following global media options:

ca_restore

[-firsttapetimeout <minutes<1-9999>>]
[-spantapetimeout <minutes<1-9999>>]
[-optimizerestoreoff]

-firsttapetimeout *<minutes>*

Specify the time (in minutes) to wait for a usable media to be made available for the restore job. If a usable media is not made available within this specified time period, the job will time out and fail.

Default: 5 minutes

-spantapetimeout *<minutes>*

Specify the time (in minutes) to wait for a usable span media to be made available for the restore job. If a usable media is not loaded within this specified time period, the job will time out and fail.

If the infinite value is specified, the job continues to wait and prompt until a usable media is loaded or the user cancels the job.

Default: Infinite

-optimizerestoreoff

Disables the optimize restore option.

If, during a restore operation, Arcserve Backup discovers duplicate backup sessions, where one session resides on tape media and another session resides on a file system device, Arcserve Backup will by default restore the data from the session that resides on the file system device.

Under most circumstances, restoring data from a file system device is faster than restoring from tape media. However, you may want to disable the optimize restore option if you are using tape media or a library with high-speed reading capabilities, or if there is a known problem with your file system device. If you want to disable the optimize restore option, you would need to include this switch in the ca_restore command.

More information:

ca_restore - Examples

ca_restore Destination Options

The ca_restore command includes the following global destination options:

ca_restore

[-nobase|-base|-entirepath]
[-onconflict <overwrite|rename|skip|overwriteold>]
[-createversion|-replaceversion|-restoreversion]

-nobase

Specifies not to create the base directory on the destination path, but instead create all subdirectories below the source base directory during restore. This is the default option.

-base

Creates the destination path from the base directory during restore.

-entirepath

Creates the entire source path on the destination. No files from any parent directories are restored. Only the directory path to the base directory is created on the destination.

-onconflict <overwrite|rename|skip|overwriteold|confirm>

Specifies the method that Arcserve Backup will use when there are files on the destination disk that have the same name as files being copied from the source.

overwrite

Specifies to overwrite and restore all source files to the destination regardless of conflicting file names. The files from the source will overwrite the existing files on the destination.

This is the default option.

rename

Specifies to rename and copy the source file to the destination with the same file name but a different extension. The format of the renamed extension will vary depending upon the file system that is present on the target partition.

skip

Specifies to skip and not restore a source file if a file with the same name already exists on the destination.

overwriteold

Specifies to overwrite with newer files and only restore source files whose modification date is later than the modification date of the file with the same

name on the destination. Source files whose modification date is earlier are not copied to the destination.

-createversion

Specifies to create a new file version. Arcserve Backup will restore all files as new versions of the original. The files in the target directory will not be affected.

-replaceversion

Specifies to replace (overwrite) a file version if a file in the target directory has the same name and version number as a file in the restore data.

-restoreversion

Specifies to restore (not overwrite) a file version if a file in the target directory has the same name and version number as a file in the restore data, Arcserve Backup will not restore the file. All other files will be restored with their original names and version numbers.

More information:

ca_restore - Examples

ca_restore Operation Options

The ca_restore command includes the following global operation options:

ca_restore

[-createemptydiroff]
[-restoreregistry]
[-preservefileattroff]
[-nodbupdate [-stopdb [-restartdb]] | -partialdbupdate]
[-preserveuserspaceoff]
[-preservedirspaceoff]

-createemptydiroff

Turns off (disables) the Restore and Preserve Directory Attributes and Security Information option.

Specifies to not create an empty directory, but instead restore the existing directory attributes (such as Read Only, Archive and Hidden) and security data to the machine.

If the client agent is a Windows client agent, Arcserve Backup will restore and preserve the directory attributes and security information. If the client agent is a UNIX client agent, Arcserve Backup will create empty directories.

-restoreregistry

Turns on (enables) the Restore Registry Files and Event Logs option.

Specifies to restore the registry files and event logs to the restore target machine if the sessions selected for restore have the registry files and event log files.

-preservefileattroff

Turns off (disables) the Restore and Preserve File Attributes and Security Information option.

Specifies to restore the existing file attributes (such as Read Only, Archive and Hidden) and security data to the machine.

-nodbupdate [-stopdb [-restartdb]]

Turns off (disables) the Database Recording option.

Specifies not to keep a record of this job in the Arcserve Backup database.

-stopdb

Stops the database engine before a restore.

-restartdb

Restarts the database engine after a restore.

-partialdbupdate

Turns on (enables) the Record Job Information Only option.

Specifies to keep a record of this job in the Arcserve Backup database.

More information:

ca_restore - Examples

ca_restore Pre/Post Options

The ca_restore command includes the following global pre/post options:

ca_restore

[-preexec <command>]
[-exitcode <exit code(>=0)>[-skip_delay|-skip_job][-skip_post]]
[-preexectimeout <minutes(0-32767)>]
[-postexec <command>]
[-skippostfail]
[-skippostincmp]
[-skippostcmp]
[-prepostuser <user name>]
[-prepostpassword <user password>]

-preexec *<command>*

Runs the specified command before the job starts. The entire path of the command should be included.

> **Note:** To use this option, you must also specify the -prepostpassword option. If you do not specify the -prepostpassword option, the job will fail.

-exitcode <exit code(>=0)> [-skip_delay|-skip_job] [-skip_post]

Specifies the exit code of the pre-execute command. Used with the -skip_delay, -skip_job, and -skip_post switches.

-skip_delay

Runs the restore job immediately if the specified exit code is received.

-skip_job

Skips the restore job completely if the specified exit code is received.

-skip_post

Skips the post-execute command if the specified exit code is received.

-skippostfail

Specifies to not run the post command if the job fails.

-skippostincmp

Specifies to not run the post command if the job is incomplete.

-skippostcmp

Specifies to not run the post command if the job is complete.

-preexectimeout *<minutes(0-32767)>*

Specifies the time to wait (in minutes), before the restore job starts, to allow time for the pre-execute command to finish. The range of time to specify is from 0 to 32767 minutes.

Default: 0 minutes

-postexec *<command>*

Runs the specified command after the job finishes. The entire path of the command should be included.

Note: To use this option, you must also specify the -prepostpassword option. If you do not specify the -prepostpassword option, the job will fail.

-prepostuser *<username>*

Specifies the name of the user who is submitting this restore job.

-prepostpassword *<user password>*

Specifies the password of the user who is submitting this restore job.

More information:

ca_restore - Examples

ca_restore Log Options

The ca_restore command includes the following global log options:

ca_restore

[-logfile <allactivity|summary|disabled|errorsonly>]

-logfile <allactivity | summary | disabled | errorsonly>

Records activities during the running of the restore job in the Job Log. You must specify one of the subordinate options to control the information being recorded.

allactivity

Logs all activities that occur while the job is running.

summary

Logs only summary information such as source, destination, session number, totals, and errors.

disabled

Log is disabled and does not record any information about the job.

errorsonly

Logs only errors that occur while the job is running.

Default: Summary without consolidate.

More information:

ca_restore - Examples

ca_restore - Global Filter Options

Using filters you can include or exclude specific files and directories from your restore jobs. Use the filters to help focus on the files you want. Filters can be applied globally (to the entire job), at the node level (to a specific node), or at the volume level. The position of the -filter switch in the ca_restore command determines the filter level applied.

Important! Incorrect use of filters could result in data being omitted during the restore. Use care when specifying or applying filters!

Note: Arcserve Backup accepts the wildcard characters asterisk '*' and question mark '?' for include and exclude filtering. The asterisk wildcard specifies to match any number of characters and the question mark wildcard specifies to match any one character.

The ca_restore command includes the following filter options:

ca_restore [-filter

[<include|exclude> <file|dir> <pattern>]

[<include|exclude> [<attribute> [hidden] [readonly] [system] [archive]]]

[<include|exclude> [<date> <modify|create|access> <onorbefore|onorafter> <mm/dd/yy[yy]>]]

[<include|exclude> [<date> <modify|create|access> <between <mm/dd/yy[yy]> <mm/dd/yy[yy]>]]

[<include|exclude> [<date> <modify|create|access> <within <count> <days|months|years>]]

[<include|exclude> [<size> <equalto|greaterthan|lessthan> <size val> <Bytes|KBytes|MBytes|GBytes>]]

[<include|exclude> [<size between <<low size val> <Bytes|KBytes|MBytes|GBytes>> <<high size val> <Bytes|KBytes|MBytes|GBytes>]

include

Results will contain only those files that satisfy the filter specifications. For example, if you select to restore your entire local hard drive, and then set up a filter to include files in the \SYSTEM directory, the result would be that Arcserve Backup would only restore files from your \SYSTEM directory. No other files would be restored.

exclude

Exclusions always take precedence over inclusions. For example, if you add a filter to include files that have an .exe extension, and add another filter to

exclude your \SYSTEM directory, then all the .exe files in the \SYSTEM directory would be excluded.

file | dir *<pattern>*

Specifies to include or exclude files or directories based on the specified pattern.

Note: If you select the include directory pattern filter and do not specify an absolute path, the empty directories for all the directories that do not match the user provided criteria will be restored. To avoid creating these empty directories during restore, disable the global restore option Create Empty Directories when creating your restore job.

attribute

Specifies to include or exclude files with the specified file attribute.

Hidden

Files that are not shown in a directory listing. For example, IO.SYS is a hidden file.

Read Only

Files that cannot be modified.

System

Files that are unique to the machine you are using.

Archive

Files whose archive bit is set.

date <modify|create|access> <onorbefore|onorafter> *<mm/dd/yy[yy]>*

Specifies to include or exclude files that were modified, changed, or accessed on or before the specified date, or on or after the specified date.

date <modify|create|access> <between *<mm/dd/yy[yy]> <mm/dd/yy[yy]>***>**

Specifies to include or exclude files that were modified, changed, or accessed between the specified dates.

date <modify|create|access> <within *<count>* **<days|months|years>>**

Specifies to include or exclude files that were last modified, changed, or accessed within the specified number of days, months, or years.

size <equalto|greaterthan|lessthan> *<size val>* **<Bytes|KBytes|MBytes|GBytes>**

Specifies to include or exclude files whose size is equal, greater or less than the specified size.

size between <<*low size val*> <Bytes|KBytes|MBytes|GBytes>> <<*high size val*> <Bytes|KBytes|MBytes|GBytes>>

Specifies to include or exclude files whose size is within the specified size range.

Note: For the Global Filter options, the following conditions exist:

- For UNIX servers, Arcserve Backup will automatically interpret the "create" command as specifying the File Change date.

- Modified Time is different than Change Time. Modified Time means the content of a file has changed. Change Time means some properties or attributes of the file has changed (permission changes, owner information, etc), but not the content.

- Not all file systems record change or access dates, therefore some of these Global filters may not be available for your job.

More information:

ca_restore - Restore Manager Command

ca_restore - Examples

ca_restore - Source Arguments

The ca_restore command line utility provides various methods to view the source information. Which method you choose depends on what you know about the files you want to restore and the media you will need to use.

- **Restore by Tree view:**

  -source [-group] [-filter]

- **Restore by Session view:**

  -source -tape -session [-group] [-tapesession] [-filter]

- **Restore by Media view (no database):**

  -tape -session [-group] [-tapesessionpw] [-filter]

The ca_restore command line utility supports the following source arguments:

ca_restore

-source [<hostname> [<hostIP>]]<filelist>
-tape <tapename> [<tapeID>]
-session <session no>
-group <groupname>
-tapesessionpw <password/encryption key>

-source *[<hostname> [<hostIP>]]<filelist>*

Specifies the files/directories to restore.

If the -source switch is used alone, without -tape and -session, the restore is treated as a Restore by Tree view, and Arcserve Backup determines the version of the file to restore.

For example, if a file has been backed up several times, each time to a different session or even a different tape, and the user wants to restore it, but does not specify a tape or session, Arcserve Backup finds the most recent backup, and restores this file.

Examples:

To restore the most recent backup of </myfiles> use the following:

    ca_restore -source /myfiles

To restore /myfiles that was backed up to session 24 on tape MYTAPE use the following:

    ca_restore -source /myfiles -tape MYTAPE -session 24

-tape *<tapename>* [*<tapeID>*]

Specifies the tape to use for the restore job. The tape ID is optional, and is used if there are multiple tapes with the same name.

If the -tape switch is used with the -source switch, the restore is treated as a Restore by Session view, and the Arcserve Backup database is used in the restore. Arcserve Backup checks if it has a record of the file and tape specified for the restore. If not, the restore job is not submitted, even if all of the information provided is actually correct. This tape and session must be merged into the Arcserve Backup database before this restore job can be submitted.

If the -tape switch is not used with the -source switch, the restore is treated as a Restore by Media view, and the Arcserve Backup database is not used. If the tape name or session number provided are invalid, the restore job fails at runtime.

The - tape switch must be used with the -session switch.

-session *<session no>*

Specifies the tape session number to use for the restore job.

This switch must be used with the -tape switch.

-group *<group name>*

Specifies the tape group to use for the restore job.

-tapesessionpw *<session password/encryption key>*

Specifies the session password or encryption key needed to restore data from tape. Required only if a session password or encryption key was applied during the backup job.

More information:

ca_restore - Restore Manager Command

ca_restore - Examples

ca_restore - Destination Arguments

The ca_restore command line utility supports the following destination arguments:

ca_restore -dest

[<hostname> <hosttype>] <path> [-username <username> -password <password>]

[<hostname>]<-orglocation>

[<hostname> <hosttype>] [-username <username> -password <password>] -database <dbase type> [dbase name] [dbase options]

Note: The ca_restore database options are described in a separate topic titled "Database Options" and can be viewed from the actual CLI by entering the following command: ca_restore allusage.

-dest [*<hostname> <hosttype>*] *<path>* [-username *<username>* -password *<password>*]

Specifies the destination machine and directory path to restore files to. The hostname is optional, and if not provided, the hostname defaults to the local machine.

If the hostname is provided, the hosttype is mandatory. Available hosttypes are: unix, nt, nwagent, ntagent, w95agent, and mac.

You must provide a user name and password to connect to the target agent, and you can restore to a remote location only if a Arcserve Backup Agent is running on the remote machine.

Examples:

To restore session two files from tape MYTAPE to "/restoreDir" on the local machine, use the following:

    ca_restore -tape MYTAPE -session 2 -dest "/restoreDir"

To restore session 2 files from tape MYTAPE to "/restoreDir" on remote machine RMACHINE, use the following:

    ca_restore -tape MYTAPE -session 2 -dest RMACHINE "/restoreDir"

-username *<user name>*

Specifies the user name of the destination machine to restore to. This is the user used to log into the desired machine.

Note: You must specify a -username if you use the ca_restore -source option or if you use ca_restore on a 64-bit machine.

-password *<password>*

Specifies the password for the user to use when logging into the destination machine.

Note: You must specify a -username if you use the ca_restore -source option or if you use ca_restore on a 64-bit machine.

-orglocation

Specifies that you want to restore your files to their original location of the backup (machine and path).

More information:

ca_restore - Restore Manager Command

ca_restore - Database Options

ca_restore - Examples

ca_restore - Database Options

When you select a database object to be restored, you can set certain database-specific options to be applied and display database-related information.

The ca_restore command includes the following database options:

ca_restore

[-dbusername <database username>]
[-dbpassword <database password>]
-database <database type> [database name]

[Oracle Database Options]
[Oracle RMAN Database Options]
[Exchange DOC Level Database Options]
[SQLServer Database Options]
[Sybase Agent Database Options]
[INFORMIX Agent Database Options]
[VSS Agent Database Options]
[LOTUS Agent Database Options]

-dbusername *<database username>*

Specify the database user name to use to log into the database to be restored.

-dbpassword *<database password>*

Specify the password for the database user to use to log into the database to be restored.

-database *<dbase type> [dbase name]*

Specifies the database type and name to restore to.

Supported, valid database types are:

▪ SQL Server (SQL)

▪ Exchange DOC Level (EXCHANGEDOC)

▪ Exchange DB Level (EXCHANGEDB)

▪ Sybase (SYBASE)

▪ Informix (INFORMIX)

▪ Oracle (ORACLE)

▪ Oracle RMAN (ORACLERMAN)

▪ Lotus (LOTUS)

Examples:

-database SQL

-database EXCHANGEDOC

-database EXCHANGEDB

-database SYBASE

-database INFORMIX

-database ORACLE

-database ORACLERMAN

-database LOTUS

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ORACLE-RMAN

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More information:

ca_restore - Oracle Database Options

ca_restore - Oracle RMAN Database Options

ca_restore - Exchange DOC Level Database Options

ca_restore - Exchange DB Level Database Options

ca_restore - SQL Server Database Options

ca_restore - Sybase Agent Database Options

ca_restore - Informix Agent Database Options

ca_restore - VSS Agent Database Options

ca_restore - Lotus Agent Database Options

ca_restore - Examples

ca_restore - Oracle Database Options

The ca_restore command includes the following Oracle database options:

ca_restore

[-oracle_controlfile] (for UNIX Oracle agent only)
[-oracle_overwritelog] (for UNIX Oracle agent only)
[-oracle_multistream] (for UNIX Oracle agent only)
[-oracle_recover] (for UNIX Oracle agent only)

Note: The ca_restore database options are described in a separate topic titled "Database Options" and can be viewed from the actual CLI by entering the following command: ca_restore allusage.

Note: When using the Arcserve Backup CLI (command line interface) to back up or restore an Oracle object with a DBCS (double-byte character set) or a MBCS (multi-byte character set) in the name, you must ensure the Arcserve Backup server and the agent box have the same language setting.

-oracle_controlfile

Specifies that the control file should be restored. (for UNIX Oracle agent only)

-oracle_overwritelog

Specifies to overwrite existing logs during the restore. (for UNIX Oracle agent only)

-oracle_multistream

Specifies to restore Oracle using multiple streams. (for UNIX Oracle agent only)

-oracle_recover

Specifies to take a restored copy of the datafile and apply to it any changes that were recorded in the database redo logs. To recover a whole database is to perform recovery on each of its datafiles. (for UNIX Oracle agent only)

Examples:

The following are examples of syntax for the ca_restore ORACLE database command:

- Use the following command to restore a single tablespace (SYSAUX):

  ca_restore -source [<hostname> [<hostIP>]] "dbora7@instance\DIRECT_ ONLINE\2007_07_16-06:31 [40]\SYSAUX" -dest [<hostname>] <-orglocation> -database ORACLE [dbase name] [dbase options]

  ca_restore -source [<hostname> [<hostIP>]] "dbora7@instance\OFFLINE\2007_ 07_17-08:20 [44]\SYSAUX" -dest [<hostname>] <-orglocation> -database ORACLE [dbase name] [dbase options]

- Use the following command to restore multiple tablespaces (SYSAUX and USERS):

  ca_restore -source [<hostname> [<hostIP>]] " dbora7@instance\DIRECT_ ONLINE\2007_07_16-06:31 [40]\SYSAUX" " dbora7@instance\DIRECT_ ONLINE\2007_07_16-06:31 [40]\USERS" -dest [<hostname>] <-orglocation> -database ORACLE [dbase name] [dbase options]

- Use the following command to restore a control file:

  ca_restore -source [<hostname> [<hostIP>]] " dbora7@instance\DIRECT_ ONLINE\2007_07_16-06:30 [37]\CONTROL FILE" -dest [<hostname>] <-orgloca-tion> -database ORACLE [dbase name] [dbase options]

- Use the following command to restore an archive log:

  ca_restore -source [<hostname>[<hostIP>]] " dbora7@instance\DIRECT_ ONLINE\2007_07_16-06:30 [37]\ARCHIVE LOG" -dest [<hostname>] <-orgloca-tion> -database ORACLE [dbase name] [dbase options]

- Use the following command to restore a full database. Assume the database has 5 tablespaces (tbs1, tbs2, tbs3, tbs4, and tbs5) to restore the full database, and you want to restore all tablespaces, the archive log, and the control file:

  ca_restore -source [<hostname>[<hostIP>]] " dbora7@instance\DIRECT_ ONLINE\2007_07_16-06:30 [37]\tbs1" " dbora7@instance\DIRECT_ ONLINE\2007_07_16-06:30 [37]\tbs2" " dbora7@instance\DIRECT_ ONLINE\2007_07_16-06:30 [37]\tbs3" " dbora7@instance\DIRECT_ ONLINE\2007_07_16-06:30 [37]\tbs4" " dbora7@instance\DIRECT_ ONLINE\2007_07_16-06:30 [37]\tbs5" " dbora7@instance\DIRECT_ ONLINE\2007_07_16-06:30 [37]\ARCHIVE LOG" " dbora7@instance\DIRECT_ ONLINE\2007_07_16-06:30 [37]\CONTROL FILE" -dest [<hostname>] <-orgloca-tion> -database <dbase type> [dbase name] [dbase options]

More information:

ca_restore - Database Options

ca_restore - Examples

ca_restore - Oracle RMAN Database Options

The ca_restore command includes the following Oracle RMAN database options:

ca_restore -use_rmancat
[-rman_catdbname <rman_catdbname>]
[-rman_catuser <RMan Catalog User>]
[-rman_catpassword <RMan Catalog Password>]
ca_restore [-put_online]
ca_restore [-oracle_controlfile]
ca_restore [-listbakset]
ca_restore [-rman_archlogsel

al_all |
al_pattern [-rman_alpattern <Archive Log Pattern>] |
al_time [-rman_alfromtime <Archive Log From Time>] [-rman_aluntiltime <Archive Log Until Time>] |
al_scn [-rman_alfromscn <Archive Log From SCN>] [-rman_aluntilscn <Archive Log Until SCN>] |
al_logseq [-rman_alfromlogseq <Archive Log From Sequence>] [-rman_aluntillogseq <Archive Log Until Sequence>] [-rman_althread <Archive Log Number of Threads>] |
al_none]
ca_restore [-rman_script <RMan Script>]
ca_restore [-rman_numberofchannels <Number of Channels>]
ca_restore [-rman_blocksize <Block Size (Bytes)>]
ca_restore [-rman_baksetnum <Validate Backup Set Number>]
ca_restore [-rman_restoremethod
rm_lastbackup |
rm_time [-rman_restoretime <Restore From Backup Made On (Date/Time)>] |
rm_tag -rman_baktag <RMan Backup Tag>]
ca_restore [-rman_recoverytype
rec_norec |
rec_untilendoflogs |
rec_untilscn [-rman_recoveruntilscn <Until SCN>] |
rec_untillogseq [-rman_recoveruntilseq <Until Log Sequence>] [-rman_recthread <Recovery Thread Number>] |
rec_untiltime [-rman_recoveruntiltime <Until Time>]]

Note: The ca_restore database options are described in a separate topic titled "Database Options" and can be viewed from the actual CLI by entering the following command: ca_restore allusage.

Note: When using the Arcserve Backup CLI (command line interface) to back up or restore an Oracle object with a DBCS (double-byte character set) or a MBCS (multi-byte character set) in the name, you must ensure the Arcserve Backup server and the agent box have the same language setting.

Note: If the Oracle instance name and the database name are different, the -database options should be "-database ORACLERMAN [instance name@database name]" instead of "-database ORACLERMAN [database name]".

-use_rmancat

Specifies to use a catalog (recommended). Indicates if an RMAN catalog is to be used for the operation or not. It is always recommended to use one because RMAN will use the database control file if no catalog is to be used. The loss of this control file will prevent RMAN from restoring the database.

-rman_catdbname <rman_catdbname>

This switch is used to include the catalog database name when you attempt to run a Oracle RMAN ca_restore job with a Recovery Catalog Database.

Default: Empty

-rman_catuser *<rman_catuser>*

Specifies the name of the Oracle user who owns the RMAN catalog.

-rman_catpassword *<rman_catpassword>*

Specifies the password for that user that owns the RMAN catalog.

-put_online

Specifies to RMAN that the Oracle objects restored should be put online after the recovery is performed.

-oracle_controlfile

Specifies that the control file should be restored.

-listbakset

Specifies to list all backup sets that include the objects selected in the source node.

-rman_archlogsel

The "Archived Logs Selection" section of this panel allows the user to select which archived logs will be restored, assuming that the "archived logs" object has been included in the Source panel of the Restore Manager GUI. The selection is represented by radio button options. All indicates that all archived logs will be backed up.

Default: All

-rman_alpattern *<rman_alpattern>*

String pattern used to select the archived logs based on their name.

-rman_alfromtime *<rman_alfromtime>*

Use this option to indicate that the archived logs to be restored will be selected based on the time they were created. This field determines the lower time boundary for the archived logs selection. Only the archived logs created after this time will be restored.

-rman_aluntiltime *<rman_aluntiltime>*

Use this option to indicate that the archived logs to be restored will be selected based on the time they were created. This field determines the upper time boundary for the archived logs selection. Only the archived logs created before this time will be restored.

-rman_alfromscn *<rman_alfromscn>*

Use this option to indicate that the range of the archived logs to be restored is not determined by the time, rather by the SCN (System Change Number). This field indicates the lowest SCN boundary for the archived logs selection. It can be left empty, assuming that the Until SCN field is not.

-rman_aluntilscn *<rman_aluntilscn>*

Use this option to indicate that the range of the archived logs to be restored is not determined by the time, rather by the SCN (System Change Number). This field is used to determine the upper SCN boundary to the archived logs selection. It is optional, as long as the user has entered a value for the From SCN field.

-rman_alfromlogseq *<rman_alfromlogseq>*

Use this option to specify that archived logs selection is to be based on the archived log sequence number. This field corresponds to the lowest log sequence number used to determine which archived logs will be restored. This field can be left empty only if a value is provided for the Until Log Sequence one.

-rman_aluntillogseq *<rman_aluntillogseq>*

Use this option to indicate that the archived logs selection is to be based on the archived log sequence number. This field is used to enter the upper archived log sequence number boundary for the archived logs selection. Providing a value for this field is optional, as long as the user enters a value in the From Log Sequence field.

-rman_althread *<rman_althread>*

Use this option to specify the thread number used to identify the Oracle server that generated the archived logs. This parameter is only used with the Time Based, SCN Based or Log Sequence Based options described below. It will be ignored if the All or Pattern Based option is used.

Default: 1

Note: This value is only useful for OPS (Oracle Parallel Server, for Oracle 8 and 8i) or RAC (Real Application Clusters, for Oracle 9i and 10g), otherwise the thread number is always one.

-rman_script *<rman_script>*

Use this option to enter the path of an RMAN script. Providing a value for this field will cause the Oracle agent to ignore all other options that might have been entered by the user in the GUI. The script will be passed as is to RMAN and the Oracle agent will perform the restore operation normally.

-rman_numberofchannels *<rman_numberofchannels>*

Use this option to specify how many channels to be allocated by RMAN to perform the restore operation. RMAN will submit jobs in parallel, one for each channel.

Default: 1 channel

-rman_blocksize *<rman_blocksize>*

Use this option to specify a value that determines the size of the data blocks that RMAN will send to the Oracle agent when performing a restore. This field should be left empty by default. If the user enters a value for it during backup, then the same block size must also be entered by the user when he wants to restore. Otherwise, RMAN will produce an error message indicating that there is a mismatch between the backup block size and the restore one. In that case, the value used during the backup will be put in the error message. If no value is provided, then RMAN uses 64 KB for Oracle 8 or 8i and 256 KB for Oracle 9i.

This parameter does not exist anymore with Oracle 10g.

Default: Empty

-rman_baksetnum

Specifies to make sure that the copy of the data on the tape is valid and could be restored, if necessary. RMAN will not actually restore the data from this command.

The backup set number required can be obtained by connecting to RMAN in its environment and issuing the 'list backupset' command. The backup set number can also be obtained from the results of executing the -listbakset option in ca_restore command and view the available backup set information.

-rman_restoremethod

Specifies to perform a data restore based on the method to be performed.

rm_lastbackup

Specifies that RMAN should attempt to restore the data from the latest backup.

rm_time [-rman_restoretime <Restore From Backup Made On (Date/Time)>]

Specifies which sets RMAN will use to get the data from, based on the specified date and time.

rm_tag -rman_baktag <RMan Backup Tag>

Specifies that RMAN should attempt to restore the data according to the specified Tag. If you specified a backup Tag during the actual backup, you can then restore the data using Tag name.

-rman_recoverytype

Specifies to perform a data recovery based on the type of recovery to be performed.

rec_norec

The switch indicates that no recovery should be performed by RMAN after the data has been restored.

rec_untilendoflogs

Specifies to RMAN to recover the data as close as possible to the present time, until the end of the current logs.

rec_untilscn [-rman_recoveruntilscn <Until SCN>]

Specifies to RMAN to perform the recovery until the specified System Change Number (SCN) value.

rec_untillogseq [-rman_recoveruntilseq <Until Log Sequence>]

Specifies to perform the recovery on the entire database up to the point in time represented by the specified archived log sequence. This is the archived log that indicates where the recovery process will stop.

[-rman_recthread <Recovery Thread Number>] |

Specifies to perform the recovery of the entire database up to the point in time represented by the specifies recovery thread number. This value is used in an OPS or RAC environment to identify the Oracle server that generated the archived logs.

rec_untiltime [-rman_recoveruntiltime <Until Time>]

Specifies to perform the recovery of the entire database up to the specified point in time.

More information:

ca_restore - Database Options

ca_restore - Examples

ca_restore - Exchange DOC Level Database Options

The ca_restore command includes the following Exchange DOC Level database options:

Note: This database option can only be used for Exchange 2003 or earlier and is not supported for Exchange 2007 or Exchange 2010.

ca_restore -source <hostname> < absolute path of the exchaneg doc file> -username <username> -password <password>
-database EXCHANGEDOC <dbase name> [Exchange DOC options]

Exchange dbase options:

[-exsis_createmailbox
[-exsis_createuser <password>]
[-exsis_overwrite|-exsis_overwritemodified |-exsis_copyrestore|-exsis_copyr-estoremodified]]

Note: The ca_restore database options are described in a separate topic titled "Database Options" and can be viewed from the actual CLI by entering the following command: ca_restore allusage.

-exsis_createmailbox

Specifies to create a mailbox if it does not exist.

-exsis_createuser <password>

Specifies to create a user if it does not exist. If this switch is included, you must also include the default password for this user.

-exsis_overwrite

Specifies to overwrite the file being restored.

-exsis_overwritemodified

Specifies to overwrite the file being restored only when it has been modified.

-exsis_copyrestore

Specifies to restore the file as a copy (do not overwrite).

-exsis_copyrestoremodified

Specifies to restore as a copy only when the file has been modified.

More information:

ca_restore - Database Options

ca_restore - Examples

ca_restore - Exchange DB Level Database Options

The ca_restore command includes the following Exchange DB Level database options:

Note: This database option can only be used for Exchange 2003 or earlier and is not supported for Exchange 2007 or Exchange 2010.

ca_restore -source <hostname> <storage group name > -dest [<hostname>] [-user-name <username> -password <password>]
-database EXCHANGEDB <dbase name> [Exchange DB options]

Exchange DB options:

[-exdb_dismountdb]
[-exdb_allow_db_overwritten -exdb_rest_orig_sg|-exdb_rest_recovery_sg [-exdb_ rest_create_sg]]
[-exdb_lastset]
[-exdb_apply_logs]
[-exdb_mount_db]
[-exdb_wait_for_db_commit]
[-exdb_temp_location]

Note: The ca_restore database options are described in a separate topic titled "Database Options" and can be viewed from the actual CLI by entering the following command: ca_restore allusage.

-exdb_dismountdb

Specifies to automatically dismount the database before the restore.

-exdb_allow_db_overwritten

Specifies to allow the database to be overwritten by the restore.

-exdb_rest_orig_sg

Specifies to restore the database to the original storage group.

-exdb_rest_recovery_sg

Specifies to restore the database to a recovery storage group if it exists.

-exdb_rest_create_sg

Specifies to create a recovery storage group if does not exist.

-exdb_lastset

Specifies to commit the database after the restore is completed. If you are restoring a set, use this switch only when you are restoring the last backup in the set. If this switch is not included, the database is left in an intermediate

state and is not yet usable but is ready for subsequent differential or incremental restores.

-exdb_apply_logs

Specifies to commit after restore and apply logs.

-exdb_mount_db

Specifies to commit after restore and mount the database after restore.

-exdb_wait_for_db_commit

Specifies to commit after restore and wait for the database to commit.

-exdb_temp_location

Specifies a temporary location for the log and patch files.

More information:

ca_restore - Database Options

ca_restore - Examples

ca_restore - SQL Server Database Options

The ca_restore command includes the following SQL Server database options:

ca_restore -source -tape -session [-group] [-tapesessionpw]
-dest [<hostname>] [-username <username> -password <password>]
-database SQL <Instance name> [SQLServer agent options]

SQLServer agent options:

[[-sql_filegroup <filegroupname>[[-partial_restore] | [[-sql_file <filename>]...[-sql_file <filename>]]]] | [-autorepair_online] | [-autorepair_offline]][-force_replace_exist]
[-sql_stopat [-time <timestamp>|-at_mark <markname> [-after <timestamp>]|-before _ mark <markname> [-after <timestamp>]]]
[-sql_db_op | -sql_db_noop | -sql_db_readonly [<undo_filename>]]
[-sql_dbcc <-sql_after|-sql_before> [-physical_only] [-no_indexes]]
[-sql_restrict_access]
[-sql_keep_replication]
[-sql_move_rule [[db]|[fg <filegroup name>][[-drive <drive name>]|[-path <path>]]...]]
[-sql_move_rule [file <filegroup name> <file name> [[[-drive <drive name>]|[-path <path name>]|[-name <file name>]...|[-location <target location>]]]]
[-sql_move_rule [sql_transactionlog [[-drive <drive name>]|[-path <path name>]]...]]
[-sql_move_rule [sql_transactionlog <log file name> [[[-drive <drive name>]|[-path <path name>]|[-name <file name>]...|[-location <target location>]]]]
[-sql_auto_off]
[-sql_forcenp]
[-sql_continue_after_checksum_failed]

Note: The ca_restore database options are described in a separate topic titled "Database Options" and can be viewed from the actual CLI by entering the following command: ca_restore allusage.

-sql_filegroup *<filegroupname>*

   Specifies the filegroups in the session to be restored.

-sql_file *<filename>*

   Specifies the files in the session to be restored.

-partial_restore

   Specifies to perform a Partial Restore.

-autorepair_online

   Specifies to automatically repair damaged pages in the data files and leaves the database in an online state.

   Note: Applies to SQL2005 only.

-autorepair_offline

Specifies to automatically repair damaged pages in data files and leaves the database in an offline state.

Note: Applies to SQL2005 only.

-force_replace_exist

Specifies to perform a Force Restore over existing files.

-sql_stopat

Specifies to restore the database to the state it was in at a specified event (time or mark).

-time *<timestamp>*

Specifies to recover the database to the specified date and time. Microsoft SQL Server restores the record in each transaction log backup containing the start and finish time of the backup and then searches this record for the time you have specified.

This is the default option.

-at_mark *<markname>*

Specifies to stop the recovery at the specified mark. This option will recover the database to the specified log mark, including the transaction that contains the mark. If you do not include the -after option, the recovery will stop at the first mark with the specified name. If you include the -after option, the recovery will stop at the first mark with the specified name exactly at or after the date and time.

Mark names apply to log marks, which are specific to transaction logs and do not apply to files/file group restores.

-before _mark *<markname>*

Specifies to stop the recovery before log mark. This option will recover the database to the specified mark, but does not include the transaction that contains the mark. If you do not include the -after option, the recovery will stop at the first mark with the specified name. If you do include the -after option, the recovery will stop at the first mark with the specified name exactly at or after the date and time.

Mark names apply to log marks, which are specific to transaction logs and do not apply to files/file group restores.

-after *<timestamp>*

Specifies to stop the recovery after the specified date and time mark. The recovery stops at the specified mark only when the timestamp for the log mark is later than the specified time.

Use this option with the -at_mark or -before_mark options.

-sql_db_op

Specifies to leave the database operational and no additional transaction logs can be restored. This option instructs the restore operation to roll back any uncommitted transactions. After the recovery process, the database is ready for use and additional restores can be performed.

-sql_db_noop

Specifies to leave the database nonoperational, but able to restore additional transaction logs: This option instructs the restore operation not to roll back any uncommitted transactions. You must choose either this option or the leave database read-only option to apply another differential backup or Transaction log.

-sql_db_readonly [*<undo_filename>*]

Specifies to leave the database in a read-only mode and able to restore additional transaction logs.

Undo Filenames are for restores that leave the database in a read-only state.

-sql_dbcc

Specifies to perform a database consistency check (DBCC).

sql_after

Specifies to perform a DBCC after the restore of the database.

sql_before

Specifies to perform a DBCC before the restore of the database.

-physical_only

Specifies to check only the physical consistency of the database to verify the structural integrity of all the objects in the database.

-no_indexes

Specifies to check the database for consistency without checking indexes for user-defined tables.

-sql_restrict_access

Specifies to restrict user access to a newly restored database to members of the db_owner, dbcreator, or sysadmin roles.

-sql_keep_replication

Specifies to preserve the replication settings when restoring a published database to a server other than the one on which it was created.

-sql_move_rule

Specifies to move the database.

sql_move_rule [db]

Specifies that the move rules will be applied to the entire database.

-sql_move_rule [fg <filegroupname>]

Specifies that the move rules will be applied to the files in the specified filegroup.

-sql_move_rule [file <filegroupname> <filename>]

Specifies that the move rules will be applied to the specified file.

-sql_transactionlog [<log_filename>]

Specifies that the move rules will be applied to the transactionlog filegroup. If the <log_filename> is specified, the move rules will be applied to the specified log file.

-drive <drive_name>

Specifies the target drive for the moved files.

-path <path_name>

Specifies the target path for moved files, such as:

sqlserver\restoreddata.

-name <file_name>

Specifies the target file name for specified moved file.

-location <target location>

Specifies the target location for the specified moved file. The value of the <target location> parameter should include the drive name, path name, and file name, such as:

c:\sqlserver\restoreddata\log.ldf.

-sql_auto_off

Specifies to turn off the automatic session dependency selection and allow manual selection of the restore options.

The automatic selection option automatically selects:

- Other sessions that must be restored with the restore job to be successful.

- Appropriate options for the restore job.

The automatic selection option is the default option for every restore job

-sql_forcenp

Specifies to use named pipes protocol.

Note: Applies to SQL2000 and prior versions only.

-sql_continue_after_checksum_failed

Specifies to continue with the restore job after a checksum failure.

Note: Applies to SQL2005 only.

More information:

ca_restore - Database Options

ca_restore - Examples

ca_restore - Sybase Agent Database Options

The ca_restore command includes the following Sybase agent database options:

ca_restore [-database SYBASE -dbusername <dbusername> -dbpassword <dbpassword>]

The Sybase agent does not have any specific database options for restore.

More information:

ca_restore - Database Options

ca_restore - Examples

ca_restore - Informix Agent Database Options

The ca_restore command includes the following Informix agent database options:

ca_restore [-database INFORMIX <instance> [-ifmx_method <both|physical|logical>]]

ca_restore [-database INFORMIX <instance> [-ifmx_lastlog <number (0-16959)> | -ifmx_time <time [MM/dd/yyyy,HH:mm:ss | yyyy-MM-dd,HH:mm:ss]>]]

Note: The ca_restore database options are described in a separate topic titled "Database Options" and can be viewed from the actual CLI by entering the following command: ca_restore allusage.

-ifmx_method <both|physical|logical>

> Specifies the restore method.
>
> **both**
>
> > Specifies to use both the Physical and Logical restore methods and restore all dbspaces, blobspaces, and logical logs.
>
> **physical**
>
> > Specifies to use only the Physical restore method and restore all dbspaces and blobspaces.
>
> **logical**
>
> > Specifies to use only the Logical restore method and restore logs only.

-ifmx_lastlog *<number (0-16959)>*

> Specifies the number of the last log to be restored. If any logs exist after this one, they will not be restored.

-ifmx_time *<time [MM/dd/yyyy,HH:mm:ss | yyyy-MM-dd,HH:mm:ss]>*

> Specifies the point in time at which to stop the restore.

More information:

ca_restore - Database Options

ca_restore - Examples

ca_restore - VSS Agent Database Options

The ca_restore command includes the following VSS agent database options:

ca_restore -source <vss_path>

-dest [-vss [-vss_auth]]

-vss

Specifies to restore your data from a VSS backup.

-vss_auth

For a VSS restore, this option forces the restored copy to become the "authoritative" version. This means that, even if the restored replica set is older than the current replicas, the older data will be replicated to all of its replication partners. Authoritative restore is typically used to restore a system to a previously known state or if an administrator has accidentally deleted objects and that change has been replicated to all of the domain controllers. If the administrator is able to recreate these objects easily, then this should be chosen over an Authoritative Restore. An Authoritative Restore will not overwrite new objects that have been created after the backup was taken.

This option is only applicable if the VSS Writer supports Authoritative Restore, like the DFS (Distributed File System) Replication Service writer. If the writer does not support Authoritative Restore, this option will take no effect.

By default, Arcserve Backup uses the non-authoritative method.

More information:

ca_restore - Database Options

ca_restore - Examples

ca_restore - Lotus Agent Database Options

The ca_restore command includes the following Lotus agent database options:

ca_restore [-database LOTUS <instance> [-lotus_recovery [-lotus_pointintime <mm/dd/yyyy> <hh:mm:ss>]] -dbusername <dbusername> -dbpassword <dbpassword>]

Note: The ca_restore database options are described in a separate topic titled "Database Options" and can be viewed from the actual CLI by entering the following command: ca_restore allusage.

-lotus_recovery

Recovers the database to the current date and time (latest recovery).

-lotus_pointintime *<mm/dd/yyyy> <hh:mm:ss>*

Recovers the database up to the specified point in time (date and time). Recovery is the process of applying database changes that occurred after the database was backed up. The recovery returns the database to a more recent state. Point-in-time recovery gives you further flexibility by allowing you to bring the state of the database to a particular point in time.

More information:

ca_restore - Database Options

ca_restore - Examples

ca_restore - Run Job Arguments

The ca_restore command provides run job arguments to allow you to specify the run job methods for your restore job. The ca_restore run job options allow you to submit the job to be run immediately, or to submit the job on Hold, or to schedule the job for a later date and time. The method you choose determines when your restore jobs are run.

Important! To ensure that all jobs start at the scheduled time, you must synchronize the system time of the Member Servers with the system time of the corresponding Primary Server. Use the Windows Time Service to synchronize the time on all Arcserve servers in your domain.The ca_restore command line utility supports the following run job arguments:

ca_restore

[-at <hh:mm>]
[-on <mm/dd/yy[yy]>]
[-hold|-runjobnow]
[-description <description string>]

-at *<hh:mm>*

   Specifies the execution time of the restore job.

   Note: All scheduled times for Arcserve Backup jobs are based upon the time zone where the Arcserve Backup server is located. If your agent machine is located in a different time zone than the Arcserve Backup server, you will need to calculate the equivalent local time that you want the job to be run.

-on *<mm/dd/yy[yy]>*

   Specifies the execution date of the restore job.

-hold

   Submits the restore job on hold.

   Cannot be used with -runjobnow.

-runjobnow

   Submits and execute the restore job immediately.

   Cannot be used with -hold.

-description *<description string>*

   Adds comments to the job. You must use double quotes " " to enclose the string and handle blank spaces.

More information:

ca_restore - Database Options

ca_restore - Examples

ca_restore - Info Arguments

The ca_restore command line utility supports the following info arguments:

ca_restore

[-listgroups]
[-listtapes]
[-listsessions <tapename> [<tapeID>]]
[-version [<hostname>] <path>]
[-findfile <filename> <ignorecase|casesensitive> <<hostname>|any> <search path>
<inclsubdir|noinclsubdir> <<mm/dd/yy[yy]>|today> <within #> <days|months|years>]

-listgroups

Specifies to display a list of groups available for the restore job.

-listtapes

Specifies to display a list of tapes available for the restore job.

-listsessions *<tapename> [<tapeID>]*

Specifies to display a list of tape sessions that have been backed up to the spe-
cified tape and are available for restore.

-version *[<hostname>] <path>*

Specifies to display a list of versions (recovery points) of the specified file/-
directory that has been backed up. The host name is optional and defaults to
the local machine if not provided.

**-findfile *<filename> <ignorecase|casesensitive> <<hostname>|any> <search
path> <inclsubdir|noinclsubdir> <<mm/dd/yy[yy]>|today> <<within #><days|-
months|years>>***

Determines whether a file has been backed up by searching the Recover Man-
agement Backup database.

You must specify the file name, and indicate whether the name is case-sens-
itive or not, the host name (or any if any host name applies), the path to search
for the file (use "/" to search at the top-most level), and whether or not to
include sub directories during the search.

You must also specify the time period for the file you are searching for. This
time period is based upon a start time point and an end time point. The end
time point is the date the file was created (not the date of the backup), and is
represented by <<mm/dd/yy[yy]>|today>. The start time point is the number
days, months, or years back from the end point to search from and is rep-
resented by <<within #> <days/months/years>>.

For example:

- To find all the backed up files that were created between 03/11/2007 and 03/15/2007.

  The format is 03/15/2007 within 4 days.

- To find all the backed up files that were created between 03/11/2007 and 04/11/2007.

  The format is 04/11/2007 within 31 days, or 04/11/2007 within 1months.

- To find all the backed up files that were created between 03/11/2006 and 03/11/2007.

  The format is 03/11/2007 within 365 days, or 03/11/2007 within 12 months, or 03/11/2007 within 1 years.

More information:

ca_restore - Database Options

ca_restore - Examples

ca_restore - Return Codes

The following codes are returned by the ca_restore command:

If the -waitForJobStatus option is not specified:

Return Codes:

- **0** – Command executed successfully.

  (For commands which will not submit a job, like allusage, -usage, or -list)

- **N** (positive integer) – Command submitted the job successfully.

  (For commands which will submit a job. The actual return value will be the job number)

- **-1** – An error occurred while executing a command.

If the -waitForJobStatus option is specified:

Return Codes:

- **0** – Job completed successfully

- **1** – Job failed

- **2** – Job is incomplete

- **3** – Job was cancelled

- **4** – Job status is unknown

Note: If you combine –waitforjobstatus with switches like allusage, -usage, or -list, the –waitforjobstatus switch will be ignored, and the rule for return codes without -waitforjobstatus take effect.

More information:

ca_restore - Restore Manager Command

ca_restore - Examples

The following are examples of syntax for the ca_restore command:

- Use the following syntax to restore a folder to the original location with Restore By Tree:

  ca_restore -source machine1 c:\DIR1 -dest machine1 c:\DIR1 -username Administrator -password abc

- Use the following syntax to restore a folder to an alternate location:

  ca_restore -source machine1 c:\DIR1 -dest machine1 c:\ALTDIR -username Administrator -password abc

- Use the following syntax to restore a folder to the original location with Restore By Session:

  ca_restore -tape TAPE1 -session 3 -dest machine1 c:\DIR1 -username Administrator -password abc

- Use the following syntax to restore a folder to an alternate location:

  ca_restore -tape TAPE1 -session 3 -dest machine1 c:\DIR1 -username Administrator -password abc
  ca_restore -tape TAPE1 -session 7 -dest machine1 c:\temp2 -username Administrator -password abc
  ca_restore -source machine2 c:\ca_lic\Lic98.dll -dest machine1 D:\temp -username Administrator -password abc
  ca_restore -source c:\ca_lic -dest machine1 ntagent c:\DIR1 -username Administrator -password abc

- Use the following syntax to display all tapes in the database:

  ca_restore -listtapes

- Use the following syntax to display all sessions on TAPE1:

  ca_restore -listsessions TAPE1

- Use the following syntax to search Arcserve Backup to check whether specific files have been backed up:

  ca_restore -findfile lic98.dll ignorecase bluejays c:\ca_lic inclsubdir within 1 months
  ca_restore -findfile * ignorecase any c:\ noinclsubdir within 1 days
  ca_restore -findfile * ignorecase any c:\ inclsubdir within 1 months
  ca_restore -findfile lic98.dll ignorecase any c:\ inclsubdir within 1 months
  ca_restore -findfile lic98.dll ignorecase any c:\ca_lic inclsubdir today 1 day
  ca_restore -findfile lic98.dll ignorecase any c:\ca_lic inclsubdir today 1 months

More information:

ca_restore - Restore Manager Command

Chapter 15: ca_scan - Scan Manager Command

The scan manager command (ca_scan) is the command line interface to the Scan Manager, and allows you to create and submit scan jobs to the Job Queue. Many of the features available from the Scan Manager are available from the command line. The ca_scan command also reports information about one or more backup sessions on media.

This section contains the following topics:

ca_scan - Syntax

The ca_scan command line syntax is formatted as follows:

ca_scan

[-cahost <hostname>] <source arguments> <run job arguments> <options>

> **Note:** If you installed Arcserve Backup using the "Arcserve Manager (Console)" mode, you must include the -cahost switch to execute this command from your local machine. Because this Console installation mode does not actually install all Arcserve Backup capabilities on your local machine, it is mandatory that -cahost be included when submitting this command remotely to the primary or member server containing Arcserve Backup or else the command will fail.

More information:

ca_scan - Scan Manager Command

Command Line Syntax Characters

ca_scan - Usage

The ca_scan commands allow you to set the following options and arguments:

▪ miscellaneous options

▪ source arguments

▪ run job arguments

▪ scan options

More information:

ca_scan - Scan Manager Command

ca_scan - Miscellaneous Options

ca_scan - Source Arguments

ca_scan - Run Job Arguments

ca_scan - Scan Options

ca_scan - Miscellaneous Options

The ca_scan command contains miscellaneous options that are used to display all associated options and define basic policies and parameters for Arcserve Backup to use during a scan process.

The ca_scan command includes the following miscellaneous options:

-cahost *<hostname>*

Identifies the name of the system hosting the operation.

If you want to execute the operation on a remote system, this switch must be included in the command.

If you want to execute this operation on your local system, this switch is not required and should not be included in the command.

Note: The [-cahost <hostname>] switch is optional. This switch is not needed if you are using these commands locally; however, a hostname is required if you are performing these commands remotely. The host specified by the -cahost switch can be a member server or primary server. However, Arcserve Backup will always add the job to the job queue of the primary server, and the primary server will then dispatch the job to the proper server (primary/member) according to this switch when the job is processed.

Note: If you installed Arcserve Backup using the "Arcserve Manager (Console)" mode, you must include the -cahost switch to execute this command from your local machine. Because this Console installation mode does not actually install all Arcserve Backup capabilities on your local machine, it is mandatory that -cahost be included when submitting this command remotely to the primary or member server containing Arcserve Backup or else the command will fail.

-f *<filename>*

Used to specify a file name that contains the switches and parameters for the command.

This switch overcomes the shell limitation of 1024 character input from command line. You can also use this switch to hide passwords by saving them in a file.

usage

Displays a list of basic ca_scan commands.

allusage

Displays a list of all ca_scan commands and their switches.

More information:

ca_scan - Scan Manager Command

ca_scan Command Examples

ca_scan - Source Arguments

The ca_scan command source arguments allow you to specify the data to be scanned. You can use these arguments to identify the group, tape, and sessions to be used in your scan operation. You can use the wildcard character ***** to scan media in all groups.

The ca_scan command includes the following source arguments:

ca_scan
[-group <group name>]
[-tape <tape name> [<tape ID>]]
[-currenttapeseq]
Windows Usage:
[-allsessions | -session <session # | session range>]
UNIX Usage:
[-allsessions | -session <session range>]

-group *<group name>*

Specifies the tape group name to use for the scan job.

If you do not know the name of the group, you can use the wildcard character '*' as in the following example: Group *.

However, when you use the wildcard character, ca_scan will only scan media that corresponds to the first available tape group in the list of groups to be scanned, for example, "Group0."

-tape *<tape name>* [*<tape ID>*]

Specifies the tape to use for the scan job. The tape ID is optional and is used if there are multiple tapes with the same name.

-currenttapeseq

Specifies use of the current tape sequence for the scan job.

-allsessions

Specifies to scan all the sessions of the tape for the scan job.

-session *<session # | session range>*

Specifies to scan a single session or multiple sessions of the tape.

To scan multiple sessions, specify a session range.

Examples:

To scan session 27 of a tape named "MYTAPE" use the following command:

ca_scan -tape MYTAPE -session 27

To scan session 9 through 24 of a tape named "MYTAPE" use the following command:

ca_scan -tape MYTAPE -session 9-24

More information:

ca_scan - Scan Manager Command

ca_scan Command Examples

ca_scan - Run Job Arguments

The ca_scan command provides run job arguments to allow you to specify the run job methods for your scan job. The ca_scan run job options allow you to submit the job to be run immediately, or to submit the job on Hold, or to schedule the job for a later date and time. The method you choose determines when your scan jobs are run.

Important! To ensure that all jobs start at the scheduled time, you must synchronize the system time of the Member Servers with the system time of the corresponding Primary Server. Use the Windows Time Service to synchronize the time on all Arcserve servers in your domain.The ca_scan command includes the following run job arguments:

ca_scan
[-at <hh:mm>]
[-on <mm/dd/yy[yy]>]
[-hold | -runjobnow]
[-description <description string>]

-at *<hh:mm>*

Specify the execution time of the scan job.

Note: All scheduled times for Arcserve Backup jobs are based upon the time zone where the Arcserve Backup server is located. If your agent machine is located in a different time zone than the Arcserve Backup server, you will need to calculate the equivalent local time that you want the job to be run.

-on *<mm/dd/yy[yy]>*

Specify the execution date of the scan job.

-hold

Submit the scan job on hold.

Cannot be used with -runjobnow.

-runjobnow

Submit and execute the scan job immediately.

Cannot be used with -hold.

-description *<description string>*

Add comments to the scan job.

Note: You must use double quotes " " to enclose the string and handle blank spaces.

More information:

ca_scan - Scan Manager Command

ca_scan Command Examples

ca_scan - Scan Options

The ca_scan command allows you to specify various scan options that are applied to the job.

The ca_scan command includes the following scan options:

ca_scan
[Decryption Password List Option]
[Logging Options] (for UNIX and Linux use only)
[Pre/Post Options]
[Exit Code Options]
[Media Options]
[Miscellaneous Scan Options]
[Job Status Options]

More information:

ca_scan - Scan Manager Command

ca_scan - Decryption Password List Options

ca_scan - Logging Options

ca_scan - Pre/Post Options

ca_scan - Exit Code Options

ca_scan - Media Options

ca_scan - Miscellaneous Scan Options

ca_scan - Job Status Options

ca_scan Command Examples

ca_scan - Decryption Password List Options

The ca_scan command includes the following decryption password list options:

ca_scan
[-decryptionpwdlist <password 1> [<password 2>] [<password 3>] ... [<password 8>]

[decryptionpwdlist *<password 1>* [*<password 2>*] [*<password 3>*] ... [*<password 8>*]

Provides a list of decryption passwords to be used if the sessions are encrypted. If a scan job contains multiple sessions with different passwords, Arcserve Backup will not stop for each session and ask for a password. Instead, the specified decryption passwords will be packaged as a combined list and the list will automatically be checked as each encrypted session is scanned.

If the required password is supplied as part of the decryption password list, the job will continue without any further user input. If the required session password is not supplied as part of the decryption password list, you will be prompted to provide one prior to allowing that encrypted session to continue.

A maximum of eight passwords can be included in the decryption password list, with each password separated by a space. Each password can have a maximum of 23 characters and cannot contain any spaces or commas.

More information:

ca_scan - Scan Options

ca_scan Command Examples

ca_scan - Logging Options

The ca_scan command includes the following logging options:

Note: For use on UNIX and Linux platforms only.

ca_scan

[-logfile <filename> [summary | allactivity]]
[-snmp] [-tng] [-email <email address>] [-printer <printer name>]

-logfile *<filename>* [summary | allactivity]

Record activities during the running of the scan job to the specified filename. Specify to record all activity or a summary of the activity.

-snmp

Enable SNMP (Simple Network Management Protocol) alert.

-tng

Enable Unicenter Network and Systems Management (NSM) alert (formerly known as TNG).

-email *<email address>*

Send a copy of the Activity log to the specified email address.

-printer*<printer name>*

Send a copy of the Activity log to the specified printer.

The printer must be set up in the configuration file ARCServe_HOME/-config/caloggerd.cfg

More information:

ca_scan - Scan Options

ca_scan Command Examples

ca_scan - Pre/Post Options

The ca_scan command includes the following pre/post options:

ca_scan

[-preexec <command>]
[-preexectimeout <minutes>]
[-postexec <command>]
[-prepostuser <user name>]
[-prepostpassword <user password>]

-preexec *<command>*

Run the specified command before the job starts. The entire path of the command should be included.

-preexectimeout *<minutes>*

The time to wait, in minutes, before the scan job starts, to allow time for the pre-execute command to finish.

-postexec *<command>*

Run the specified command after the job finishes. The entire path of the command should be included.

Note: To use this option you must also specify the -prepostuser option.

-prepostuser *<user name>*

The name of the user who is submitting this scan job.

-prepostpassword *<user password>*

The password of the user submitting this scan job.

More information:

ca_scan - Scan Options

ca_scan Command Examples

ca_scan - Exit Code Options

The ca_scan command includes the following exit code options:

ca_scan

[-exitcode <exit code>]
[-skip_delay|-skip_job]
[-skip_post]

-exitcode *<exit code>*

Specify the exit code of the pre-execute command.

Used with the -skip_delay, -skip_job, and -skip_post switches.

Note: The skip delay, skip job, and skip post options will only be activated if Arc-serve Backup detects that the returned exit codes meet the selected condition (Equal To, Greater Than, Less Than, or Not Equal to).

-skip_delay

Run the scan job immediately if the specified exit code is received.

-skip_job

Skip the scan job completely if the specified exit code is received.

-skip_post

Skip the post-execute command if the specified exit code is received.

More information:

ca_scan - Scan Options

ca_scan Command Examples

ca_scan - Media Options

The ca_scan command includes the following media options:

ca_scan

[-firsttapetimeout <minutes>]
[-spantapetimeout <minutes>]

-firsttapetimeout *<minutes>*

Specify the time (in minutes) to wait for a usable media to be made available for the scan job. If a usable media is not made available within this specified time period, the job will time out and fail.

Default: 5 minutes

-spantapetimeout *<minutes>*

Specify the time (in minutes) to wait for a usable span media to be made available for the scan job. If a usable media is not loaded within this specified time period, the job will time out and fail.

If the infinite value is specified, the job continues to wait and prompt until a usable media is loaded or the user cancels the job.

Default: Infinite

More information:

ca_scan - Scan Options

ca_scan Command Examples

ca_scan - Miscellaneous Scan Options

The ca_scan command includes the following miscellaneous scan options:

ca_scan

[-list]

UNIX only:

[-savescript *<script name>*]

-list

Displays a list of tapes available for the scan job.

-savescript *<script name>*

Instead of submitting this job to the job queue, the scan job is saved as a script that can be loaded into the job queue later.

More information:

ca_scan - Scan Options

ca_scan Command Examples

ca_scan - Job Status Options

The ca_scan command includes the following global job status options:

ca_scan

-waitForJobStatus <polling interval <secs>>

-waitForJobStatus *<polling interval <secs>>*

> When specified, the ca_scan command will wait until the job is completed, and exit with a return code that indicates the success or fail outcome of the job.

> The <polling interval> value defines how often (in seconds) the ca_scan utility checks the job status with the Queue services. The default polling interval is 60 seconds.

More information:

ca_scan - Scan Options

ca_scan Command Examples

ca_scan - Return Codes

The following codes are returned by the ca_scan command:

Return Codes:

▪ **0** – Command executed successfully.

▪ **-1** – An error occurred while executing a command.

More information:

ca_scan - Scan Manager Command

ca_scan Command Examples

The following are examples of syntax for the ca_scan command:

- Use the following syntax to list groups, with tape names, available on a host server:

  ca_scan -cahost machine1 -list

- Use the following syntax to specify all sessions to scan for a tape:

  ca_scan -tape TAPE1 -allsessions

- Use the following syntax to specify a session to scan for a tape:

  ca_scan -tape Tape1 -session 2

More information:

ca_scan - Scan Manager Command

Chapter 16: ca_vcbpopulatedb - VMware VCB Utility Command

The VMware VCB utility command (ca_vcbpopulatedb) is a data collection tool that lets you populate the Arcserve Backup database with information about the VMware-based VMs in your backup environment. You must execute this utility on the backup proxy system. The utility then retrieves all the information pertaining to all the VMs in the VMware ESX Host systems and the VMware vCenter Server systems and adds it to the database.

The ca_vcbpopulatedb utility populates the Arcserve Backup Database with information such as:

- VCB backup proxy system names
- VMware ESX/ESXi Host names and VMware vCenter Server names
- VM host names
- Name of the volumes contained within the VMs on Windows systems

You can run this utility periodically to verify that the Arcserve Backup database contains up-to-date information about the VMs and volumes in ESX Host systems. If you have the Arcserve Backup server (primary/member) installed on the proxy machine, then you can use generic job scheduler to run this utility periodically.

This section contains the following topics:

ca_vcbpopulatedb - Syntax

The ca_vcbpopulatedb command line syntax is formatted as follows:

ca_vcbpopulatedb

-Primary <PrimaryServerName>
[-vcb <VCBMachineName>]
-esxserver <ESXServerName>
-esxUser <ESXAdmin>
-esxUserPass <ESXAdminPassword>
[-proto <https/http>]
[-VCBMountableVM]
[-DelProxydb]
[-retainVMinDB]
[-silent]
[-debug]
-insertvm <VMname>
-deleteVM <VMname
[-stopAutoPopulate]
-config <config_file_name>

More information:

ca_vcbpopulatedb - VMware VCB Utility Command

Command Line Syntax Characters

ca_vcbpopulatedb - Usage

The ca_vcbpopulatedb command contains arguments and options that are used to define actions to follow when populating VM information into the Arcserve Backup database.

The ca_vcbpopulatedb command includes the following arguments and options:

-Primary <PrimaryServerName>

Specifies the host name of the Primary Arcserve Backup system.

-carootUser <Arcserve caroot User>

Specifies the user name, with caroot privileges, for the Primary Arcserve Backup system.

-carootPass <Arcserve caroot password>

Specifies the password for the root user name.

-vcb <VCBMachineName>

Specifies the name of the VCB Proxy machine.

Note: This is an optional argument. If you omit this argument, the utility assumes that the current machine name will be used as VCB machine name.

-esxserver <ESXServerName>

Indicates the name of the VMware ESX Host system or the VMware vCenter Server system containing the VMs residing on the iSCSI/SAN LUN.

-esxUser <ESXAdmin>

Specifies the name of the VMware ESX Host system user with Administrator privileges.

-esxUserPass <ESXAdminPassword>

Specifies the password for the VMware ESX Host system Admin User.

-proto <https/http>

Indicates the communication protocol between the backup proxy system and the VMware ESX Host system or the VMware vCenter Server system.

Note: This is an optional argument. If you omit this argument, the utility assumes https is to be used as the communication protocol.

-VCBMountableVM

If this switch is specified as a parameter, the utility will populate the database with the running VMs that are residing only on the iSCSI/SAN LUN storage

device. With this switch specified, the utility would skip VMs in the VMware ESX Host system residing on any storage media other than the iSCSI/SAN LUN.

You should run the ca_vcbpopulatedb command line utility with this switch, when you have VMs in VMware ESX Host systems residing on multiple storage media, such as the local disk of ESX Host systems, SAN LUN, NAS/NFS, or iSCSI storage device.

With this switch included, the utility would only populate the Arcserve Backup primary server database with information from the running VMs residing on the iSCSI/SAN LUN storage device.

Notes:

If you run the ca_vcbpopulatedb command line utility with this switch, you must run the utility on VCB proxy system.

If you run this utility with the VCBMountableVM switch, the utility would take longer to run, because it performs a mount and unmount operation of each running VM that is residing on the SAN LUN storage device.

-DelProxydb

Deletes all the VMs available in the database for the given VMware ESX Host system or the VMware vCenter Server system under the given backup proxy system.

-retainVMinDB

Lets you retain data (backup information) for VMs that are not available when you execute this command.

By default, this utility captures information from VMs that are available when you execute this utility. If a VM is not available (for example, the VM is powered off or deleted from the environment), Arcserve Backup deletes the data relating to the VM from the Arcserve Backup database. With this option enabled, Arcserve Backup captures information from VMs that are available, and retains the backup information from VMs that are not available.

-silent

Specifies to prevent the utility from printing messages to the command line console.

-debug

Specifies to direct the utility to write a detailed debug log. The log will be created in the current working directory.

Note: The name of the log file is ca_vcbpopulatedb.log.

-insertVM

Lets you add information about a specific VM that resides in the VM host system to the Arcserve Backup database.

Note: You cannot combine this argument with any other argument when you execute ca_vcbpopulateDB.

-deleteVM

Lets you delete information about a specific VM from the Arcserve Backup database.

Note: You cannot combine this argument with any other argument when you execute ca_vcbpopulateDB.

-stopAutoPopulate

Lets you disable the auto-populate process for the specified backup proxy system.

–config <config_file_name>

Specifies the name of the ca_vcbpopulatedb configuration file.

The ca_vcbpopulatedb utilty uses the information specified in the configuration file to populate the Arcserve Backup database.

This configuration file contains details about Primary Server Machine, Primary User, Primary User's Password, VCB Systems Name, VMware ESX Host Name, and VMware ESX Host system User credentials.

You can have only one entry in the configuration file.

Note: You must create a configuration file to use this utility.

More information:

Create a ca_vcbpopulatedb Configuration File

ca_vcbpopulatedb - VMware VCB Utility Command

ca_vcbpopulatedb - Utility Return Codes

Create a ca_vcbpopulatedb Configuration File

You create a configuration file with details about the Arcserve Backup Primary server machine, the Arcserve Backup Primary user name, and so on. The ca_vcbpopulatedb utility uses the information specified in the configuration file to populate the Arcserve Backup database.

To create a ca_vcbpopulatedb configuration file

1. Open a text editing application such as Notepad. Save the configuration file with a .cfg file extension in the same directory as the ca_vcbpopulatedb utility.

2. Complete the arguments in the following syntax:

   Note: For information about the usage for this command, see ca_vcbpopulatedb Usage.

3. Close and save the configuration file.

ca_vcbpopulatedb - Utility Return Codes

The following codes are returned by the ca_vcbpopulatedb command:

Job Status Return Codes:

- **0** - Job completed successfully

- **1** - Invalid Argument was specified

- **2** - Arcserve Backup domain user authentication failure occurred

- **3** - A VMware ESX Host system user authentication failure occurred

- **4** - A VMware ESX Host system connection failure occurred

- **5** - A database operation failure occurred

- **6** - An XML creation failure occurred

- **7** - Microsoft .NET version 2.0 or later not found in your environment

- **8** - More than one instance of ca_vcbpopulatedb is running.

- **9** - An unknown error has occurred

More information:

ca_vcbpopulatedb - VMware VCB Utility Command

ca_vcbpopulatedb - Usage

ca_vcbpopulatedb - Examples

The following are examples of syntax for the ca_vcbpopulatedb command:

- Use the following command populate the VM details of the VMware ESX Host system having a hostname "ESXServer1" into the Arcserve server "Arcserver1" database under VCB Proxy machine "VCBProxy1" using http protocol with the debug flag set:

  ca_vcbpopulatedb.exe -Primary Arcserver1 -carootUser caroot -carootPass ca123 -vcb VCBProxy1 -esxServer ESXServer1 -esxUser root -esxUserPass rootpasswd -proto http -debug

- Use the following command to remove the all VM details of the VMware ESX Host system having a hostname "ESXServer1" from the Arcserve server "Arcserver1" database available under VCB Proxy machine "VCBProxy1" with the debug flag unset:

  ca_vcbpopulatedb.exe -Primary Arcserver1 -carootUser caroot -carootPass ca123 -vcb VCBProxy1 -esxServer ESXServer1 -esxUser root -esxUserPass rootpasswd -delProxydb

- Use the following command to populate the VM details of the VMware ESX Host system having a hostname "ESXServer1" into the Arcserve server "Arcserver1" database, only the VM mountable inside the VCB proxy machine "VCBProxy1" with the debug flag set:

  ca_vcbpopulatedb.exe -Primary Arcserver1 -carootUser caroot -carootPass ca123 -vcb VCBProxy1 -esxServer ESXServer1 -esxUser root -esxUserPass rootpasswd -vcbMountableVM -debug

- Use the following command to stop populating the Arcserve Backup database automatically.

    - The server name is Myvirtualserver and the server resides in a VMware vCenter Server system:

      ca_vcbpopulatedb.exe -stopAutoPopulate Myvirtualserver

    - The server name is MyEsxserver and the server resides in a VMware ESX Host system:

      ca_vcbpopulatedb.exe -stopAutoPopulate MyEsxserver

More information:

ca_vcbpopulatedb - VMware VCB Utility Command

Chapter 17: ca_msvmpopulatedb - Hyper-V VM Utility Command

The Arcserve Hyper-V Configuration Tool utility command (ca_msvmpopulatedb) is a data collection tool that lets you populate the Arcserve Backup database with the information about the Virtual Machines (VMs) on your Hyper-V systems. You must execute this utility on the Hyper-V host system. The utility then retrieves all the information pertaining to all the VMs in the Hyper-V host system and adds it to the database.

The ca_msvmpopulatedb utility populates the Arcserve Backup Database with information such as:

▪ Hyper-V Host names

▪ VM host names

▪ Name of the volumes contained within the VMs on Windows systems

You should run this utility periodically to ensure that the Arcserve Backup database contains up-to-date information about the VMs and volumes in a Hyper-V host. If you have the Arcserve Backup server (primary/member) installed on the Hyper-V host, then you can use generic job scheduler to run this utility periodically.

This section contains the following topics:

ca_msvmpopulatedb - Syntax

The ca_msvmpopulatedb command line syntax is formatted as follows:

ca_msvmpopulatedb

-Primary <PrimaryServerName>
[-Debug <Debug Level>]
[-retainVMinDB]
[-DelVMinDB]

More information:

ca_msvmpopulatedb - Hyper-V VM Utility Command

ca_msvmpopulatedb - Usage

ca_msvmpopulatedb - Usage

The ca_msvmpopulatedb command contains arguments and options that are used to define actions to follow when populating VM information into the Arcserve Backup database.

The ca_msvmpopulatedb command includes the following arguments and options:

-Primary <PrimaryServerName>

Specifies the host name of the Primary Arcserve Backup system.

-debug

Specifies to direct the utility to write a detailed debug log. The log will be created in the current working directory.

Note: The name of the log file is ca_msvmpopulatedb.log.

Debug Level

Lets you specify the level of details that you require in the debug log (ca_mshvpopulatedb.log). A higher debug level value means more detailed information will be included in the debug log.

Default: 2

Range: 1 to 6

-retainVMinDB

Lets you retain data (backup information) for VMs that are not available when you execute this command.

By default, this utility captures information from VMs that are available when you execute this utility. If a VM is not available (for example, the VM is powered off or deleted from the environment), Arcserve Backup deletes the data relating to the VM from the Arcserve Backup database. With this option enabled, Arcserve Backup captures information from VMs that are available, and retains the backup information from VMs that are not available.

-DelVMinDB

Lets you delete the VMs available in the Arcserve Backup database for the specified Hyper-V server, and populate the latest VM data into the Arcserve Backup database.

More information:

ca_msvmpopulatedb - Hyper-V VM Utility Command

ca_msvmpopulatedb - Syntax

ca_msvmpopulatedb - Utility Return Codes

The following codes are returned by the ca_msvmpopulatedb command:

Job Status Return Codes:

- **0** - Job completed successfully

- **2** - Arcserve Backup domain user authentication failure occurred

- **5** - A database operation failure occurred

- **6** - An XML creation failure occurred

- **8** - More than one instance of ca_msvmpopulatedb is running.

- **9** - An unknown error has occurred

More information:

ca_msvmpopulatedb - Hyper-V VM Utility Command

ca_msvmpopulatedb - Usage

ca_msvmpopulatedb - Examples

The following are examples of syntax for the ca_msvmpopulatedb command:

- Use the following command to add VMs to the Arcserve Backup Primary (or standalone) server "CASrvr1" for the first time:

    ca_msvmpopulatedb -P CASrvr1

- Use the following command to add the VMs to the Arcserve Backup Primary (or standalone) server "CASrvr1" but do not want to remove the existing VMs that may be unreachable or powered-off at this time:

    ca_msvmpopulatedb -P CASrvr1 -retainVMinDB

- Use the following command to delete the VMs registered with the Arcserve Backup Primary (or standalone) server "CASrvr1" for this Hyper-V host:

    ca_msvmpopulatedb -P CASrvr1 -DelVMinDB

More information:

ca_msvmpopulatedb - Hyper-V VM Utility Command

Chapter 18: cabatch - Batch Command

The batch command (cabatch) allows you to submit jobs to a local or remote Arcserve Backup job queue using an external script file, delete jobs from the job queue, and modify the execution times for all of the jobs in the job queue. For the cabatch utility to submit jobs to the Arcserve Backup> job queue, the Backup Manager does not have to be running, but all Arcserve Backup engines must be running.

Note: To submit a job to the Arcserve Backup job queue of a remote server, you must have proper access privileges for that server.

To submit a job using the cabatch utility, you must create and save a job script using the Backup Manager or prepare a text file with a job description using the cabatch Job Information Template. When this template is completed, cabatch will read this job description file and submit the job to the Arcserve Backup job queue for execution. The cabatch Job Information Template (Template.txt) is located in the Arcserve Backup home directory.

The command also provides automation by using the Job Management Option component of Unicenter NSM (formerly known TNG) by using the /J (returns the job return code) and /W (wait for job completion) switches. For more information about how to use this to integrate with Unicenter NSM, see Unicenter NSM - Job Management Option Integration.

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This section contains the following topics:

cabatch - Submit a Job

Use the following syntax to submit a job using a script file:

CABATCH /MODE=Execute|Submit /H=ServerName /S=<path>ScriptName

Example:

CABATCH /H=QANT /S=C:\BACKUP.ASX /W

Return Codes:

0 - The job finished successfully.

1 - The job is incomplete.

2 - The job was cancelled.

3 - The job failed.

4 - The job crashed.

5 - There was a system error.

6 - There was a parameter error.

7 - There was a memory failure. Close any non-critical applications that may be using memory and retry the job.

8 - There was a generic error.

Modes:

Submit

Specifies to run the job immediately. The job will be added to job queue according to the script file, then carunjob will get this job by number from job queue and launch it.

Execute

Specifies to run the job based on the specified schedule time (not immediately). The job will not be added to job queue, and carunjob will launch this job directly through the script file.

Options:

/H [server name]

Specify the name of the server whose job queue you are submitting jobs to. If you enter "*", cabatch determines and uses the local computer name as the Arcserve Backup Domain Server name.

/S [script name]

Specify the name of the binary script or the job description text file prepared with the cabatch Job Information Template (Template.txt).

/RS[Computer Name]

Specifies to replace the source computer name in script with a Computer Name.

Note: If you do not specify a computer name, the host name will be used.

/RD[Computer Name]

Specifies to replace the destination computer name in script with a Computer Name.

Note: If you do not specify a computer name, the host name will be used.

/D [MM/DD/YY]

Specifies the date you want to execute the job.

/T [HH:MM]

Specifies the time you want to execute the job.

/G [device group]

Specifies the device group name.

/TP[media name]

Specifies the media name.

/TID[media id]

Specifies the media ID.

/TSN[media sequence number]

Specifies the media sequence number.

/POST[command]

Runs the specified command after the job finishes. The entire path of the command should be included.

/PRE[command]

Runs the specified command before the job starts. The entire path of the command should be included.

/PREPOSTUSER=user

Specifies the credentials of the user running the pre or post command.

/PREPOSTPWD=password

Specifies the password for the user running the pre or post command.

/SSN[session number]

Specifies the session number for a restore job.

/RSessPW

Specifies to replace the session password in script.

/J

Specifies to use the Arcserve Backup job status as the return code.

/W

Specifies to wait for job completion.

More information:

[cabatch - Submit a Job](#)

[cabatch - Delete a Job](#)

[cabatch - Modify a Job](#)

[cabatch - Examples](#)

cabatch - Delete a Job

Use the following syntax to delete all or the specified jobs from the job queue:

CABATCH /E=AL|BK|RS|CP|CT/H=ServerName

Options

/H [server name]

Specifies the name of the server whose job queue you are deleting jobs from. If you enter "*", cabatch determines and uses the local computer name as the Arcserve Backup Domain Server name.

AL

Specifies to delete all jobs.

BK

Specifies to delete backup jobs.

RS

Specifies to delete restore jobs.

CP

Specifies to delete copy jobs.

CT

Specifies to delete count jobs.

More information:

cabatch - Batch Command

cabatch - Submit a Job

cabatch - Modify a Job

cabatch - Examples

cabatch - Modify a Job

Use the following syntax to modify the execution time for all of the jobs in the job queue:

CABATCH /H=ServerName /MT=nnn

Options

/H [server name]

> Specify the name of the server whose job queue you are modifying jobs from. If you enter "*", cabatch determines and uses the local computer name as the Arcserve Backup Domain Server name.

/MT[nnn]

> Enter the number of minutes to modify the job time.

- For positive numbers, enter only the number.

- For negative numbers, type "-" (minus sign) and then the number. For example, 30 or -30.

More information:

cabatch - Batch Command

cabatch - Submit a Job

cabatch - Delete a Job

cabatch - Examples

cabatch - Examples

The following are examples of syntax for the cabatch command:

- Use the following syntax to submit a job using a script file:

  cabatch /MODE=Execute|Submit /H=ServerName /S=<path>ScriptName

- Use the following syntax to submit a job using a script file with /W switch:

  Note: The cabatch command will not return immediately until completion of the job when you include the /W switch.

  cabatch /MODE=Execute|Submit /H=ServerName /S=<path>ScriptName /W

- Use the following syntax to delete all jobs (AL) from the job queue:

  cabatch /E=AL /H=ServerName

- Use the following syntax to delete backup jobs (BK) from the job queue:

  cabatch /E=BK /H=ServerName

- Use the following syntax to delete restore jobs (RS) from the job queue:

  cabatch /E=RS /H=ServerName

- Use the following syntax to modify the execution time for all jobs in the job queues and launch jobs to execute after 30 minutes:

  cabatch /H=ServerName /MT=30

More information:

cabatch - Batch Command

Chapter 19: careports - Report Writer Command

The report writer command (CAreports) provides access to the Arcserve Backup Report Writer utility dialog and allows you to create customized (Predefined and User-created) reports. You can also access the Report Writer dialog from the Utilities menu (or the Utilities section) in the Arcserve Backup home page.

The CAreports command provides options for running the report in silent mode and sending an alert via the Arcserve Backup Alert Manager. The reports created using Report Writer can be previewed, printed, or scheduled in Report Manager.

To view a description of all CAreports syntax, enter the following command:

CAreports /?

This section contains the following topics:

careports - Syntax

The careports command line syntax is formatted as follows:

careports

[m <machine_name>]
[-r <report_name>]
[-s]
[-o <output_filename>]
[-alert]
[-f <format_type>]
[?]

More information:

careports - Report Writer Command

Command Line Syntax Characters

careports - Options

The careports provides various options for generating reports and sending alerts via the Arcserve Backup Alert Manager.

The careports command includes the following options:

-a

Enables the output of files automatically. Combined with the -o option (output file name), you can create new output files in a specific directory. The output file name follows the report template naming convention. Using the additional -o option, specifies that existing files will not be overwritten.

-s

Generates the report in silent mode (no dialogs or messages boxes).

The -s option works with the -r option (report template) and should be used when the report is scheduled from the "Job Scheduler Wizard" tool.

-r <report_name>

Specifies the name of the report template to be used for the report. If the -r option is not specified, the other options (-s, -o, and -alert) are ignored.

-o <output_filename>

Specifies the output file name where the results that are generated by running the report are saved. If a specified file exists, it is renamed with a .bak extension. For example, c:\temp\report.xml is renamed to: c:\temp\report.bak.xml.

-m <machine_name>

Specifies the name of the computer if you want to generate your report on a remote computer.

-f <format_type>

Specifies the format of the output file:

- XML (*.xml) (default)
- CSV (*.csv) (comma-separated format).

-alert

Sends an alert message when the report is completed. The alert messages should be set from Alert Manager, under "Arcserve" configuration.

-append

Appends a newly created report to an existing file.

Note: Both the newly created report and the existing report files must be in CSV format.

?

Displays the Arcserve Backup query report screen, which allows you to specify the information that you want to include in your report.

More information:

careports - Report Writer Command

careports - Examples

careports - Examples

The following are examples of syntax for the careports command:

- Use the following command to open a report template and create output xml for <machine name> with silent mode:

  careports -s -r <report name> -o <output name> -m <machine name>

- Use the following command to send the output to alert manager (alert):

  careports -s -r <report name> -o <output name> -alert -m <machine name>

- Use the following command to open a report template and create output CSV (default value is XML) for <machine name> with silent mode:

  careports -s -r <report name> -o <output name> -f CSV -m <machine name>

More information:

careports - Report Writer Command

Chapter 20: caadvreports - Advanced Report Generator Command

The advanced report generator command (caadvreports) is a utility that can generate various reports that provide an overview of the current data protection status. The caadvreports utility puts all the log messages in file CAAdvReports.Log located at ARCServe_HOME\logs folder. This file provides detailed information about the actions taken by caadvreports in generating a report. This log file can be used as starting point to debug any problems with reports.

This section contains the following topics:

caadvreports - Syntax

The caavdreports command line syntax is formatted as follows:

caadvreports
-ReportType <report_ID>
-OutFile <output file name>
-StartDate <mm/dd/yyyy> [hh:mm:ss]
-EndDate <mm/dd/yyyy> [hh:mm:ss]
-Server <remote server name>
-JobDesc <string text>
[-XML]|[-CSV]
-Percent <percent value>
-Top <n>
-Serial <serial>
-PastDays <n>
-AutoName
-Alert
-VaultCycle

More information:

caadvreports - Advanced Report Generator Command

Command Line Syntax Characters

caadvreports - Reports

The caadvreports command provides various options for generating advanced reports. The caadvreports command can accept and parse a variety of report parameters; however, not all parameters are required for all the reports. Based on the type of report that is being generated, only the parameters required and supported by that specified report will be used. Parameters that are not needed will be silently ignored.

To run any advanced report, you must specify at least the report type and the path of the file where the generated report will be saved. If one of the required parameters for a particular report is not specified, the utility will fail and the reason for failure will be entered in the log file.

The following report types, along with the corresponding supported filter parameters can be generated using the caadvreports command:

Backup Attempt Success Rate: Summary

This report provides information on what percentage of backup attempts that are successful and also shows percentage of incomplete and failed backup attempts.

Supported Filter Parameters:

-StartDate

-EndDate

-PastDays

-JobDesc (Limit output to only include jobs with matching description)

Backup Attempt Success Rate

This report provides information on what percentage of backup attempts that are successful on a per node basis.

Supported Filter Parameters:

-StartDate

-EndDate

-PastDays

-JobDesc (Limit output to only include jobs with matching description)

-Percent (Limit output to only include nodes with failure percent greater than the specified percentage).

Restore Attempt Success Rate

This report provides information on what percentage of all restore attempts that are successful.

Supported Filter Parameters:

-StartDate

-EndDate

-PastDays

-JobDesc (Limit output to only include jobs with matching description)

Drive Throughput

This report provides information about the average throughput that is being seen on the drives.

Supported Filter Parameters:

-StartDate

-EndDate

-PastDays

-Serial (Limit output to only include drives with serial number matching the filter)

Backup Error

This report shows the number of errors and warnings generated for the backup job for each of the backup paths during the reporting period.

Supported Filter Parameters:

-StartDate

-EndDate

-PastDays

-JobDesc (Limit output to only include jobs with matching description)

Failed Backup Attempt

This report shows the clients with the most failed backup attempts during the reporting period.

Supported Filter Parameters:

-StartDate

-EndDate

-PastDays

-JobDesc (Limit output to only include jobs with matching description)

-Top (Limit output to the top 'n' clients only)

Consecutive Failed Backup Attempt

This report shows the clients with the most consecutive failed backup attempts during the reporting period.

Supported Filter Parameters:

-StartDate

-EndDate

-PastDays

Partial Backups

This report shows the clients with the most number of partial backups.

Supported Filter Parameters:

-StartDate

-EndDate

-PastDays

-JobDesc (Limit output to only include jobs with matching description)

-Top (Limit output to the top 'n' clients only)

Full Backup Duration

This report shows the average backup time, average backup data, and average throughput for full backups of all backup paths during the reporting period.

Supported Filter Parameters:

-StartDate

-EndDate

-PastDays

-JobDesc (Limit output to only include jobs with matching description)

Last Backup Status Report

This report shows the status of last execution of all the backup jobs in the queue. If a job is still active, it shows the current status of the running job. This report only shows the status of the job in the queue at the time the report is generated.

Supported Filters

None

Vaulting Report

This report shows the list of tapes that will move in or out of the vault on the day of reporting. You can use the -VaultCycle command to run the vault cycle before generating the report.

Supported Filters

None

More information:

caadvreports - Advanced Report Generator Command

caadvreports - Options

caadvreports - Examples

caadvreports - Options

The caadvreports command provides various options for generating advanced reports and sending alerts via the Arcserve Backup Alert Manager.

The caadvreports command includes the following options:

-ReportType <n>

Specifies the type of report to be generated. This parameter is required for all the reports.

The value of <n> determines the type of report that will be generated.

The following list provides the value of <n> and the report that it generates.

<n>	Report Name
1	Backup Attempt Success Rate: Summary
2	Backup Attempt Success Rate
3	Restore Attempt Success Rate
4	Drive Throughput
5	Backup Error
6	Failed Backup Attempt
7	Consecutive Failed Backup Attempt
8	Partial Backups
9	Full Backup Duration
10	Last Backup Status Report
11	Vaulting Report

Note: For more information about each report, see caadvreports - Reports.

-OutFile <filename>

Specifies the full path of the file where the generated report will be saved. This is a required parameter for all the reports.

If '-AutoName' is used, this switch is not needed.

-StartDate <mm/dd/yyyy> [hh:mm:ss]

Specifies the start date and time of the reporting duration. The time parameter 'hh:mm:ss' is optional. If the time is not specified, it is assumed to be '00:00:00' (12:00 AM). If time is specified, it should be specified in 24 hour format.

Note: If the "-PastDays <n>" switch is included, then this switch is not needed.

-EndDate <mm/dd/yyyy> [hh:mm:ss]

Specifies the end date and time of the reporting duration. The time parameter 'hh:mm:ss' is optional. If the time is not specified, it is assumed to be '11:59:00' (11:59 PM). If time is specified, it should be specified in 24 hour format.

Note: If the "-PastDays <n>" switch is included, then this switch is not needed.

-Server <remote server>

Specifies the remote server on which the report is to be executed. Typically, reports are executed on the Primary server. This is included if the report is to be executed on a remote Member server.

-JobDesc <string text> [-XML | -CSV]

Specifies the job description string text. This is included by some reports to limit the output to include only certain jobs with job description matching the string text.

-XML

Specifies to generate a report in XML format. Generated XML reports can be used in conjunction with the provided response .xsl file to generate an HTML report.

This is a default option if no other overwriting option is specified and cannot be combined with -CSV parameter.

-CSV

Specifies to generate a report in Comma Separated Value format.

-Percent <percent value>

Specifies the percent value that can be used for filtering the report.

-Top <n>

Specifies to limit the report output to just the top 'n' count.

-Serial <serial>

Specifies to limit the report output to only those drives whose serial number matches the specified serial string pattern. Serial numbers are compared against device serial numbers in the Drive Throughput Report.

-PastDays <n>

Specifies the past number of days for which the report is to be generated starting from the current time. This switch can be used in place of the '-StartDate' and '-EndDate' switches to generate a report for a fixed duration.

For example, to generate a weekly report, the value of 'n' would be set to 7 and this specifies to generate a report for the last seven days.

-AutoName

Specifies that the output report name will be automatically generated. The auto generated file name is created by combining the report name and the execution date and time.

-Alert

Sends an alert message when the report is completed. The alert messages should be set from Alert Manager, under "Arcserve" configuration.

-VaultCycle

Used with the Vaulting Report to auto-run the Vaulting Cycle before generating the report.

Important! If using this switch, do not manually run the Vault Cycle before or after the report on the day on which this report is generated.

More information:

caadvreports - Advanced Report Generator Command

caadvreports - Reports

caadvreports - Examples

caadvreports - Examples

The following are examples of syntax for the caadvreports command:

▪ Use the following command to generate a 'Drive Throughput' report (Report Type 4) for the last seven days and store the result in an automatically generated file name:

CAAdvReports.exe -reporttype 4 -pastdays 7 -autoname

▪ Use the following command to generate a 'Full Backup Duration' report (Report Type 9) for all jobs executed between 1/1/2007 and 3/30/2007 and send the output to a file titled 'full_backup_report.xml':

CAAdvReports.exe -reporttype 9 -startdate 01/01/2007 -enddate 03/30/2007 -out-file full_backup_report.xml

▪ Use the following command to generate a 'Full Backup Duration' report (Report Type 9) for all jobs executed between 1/1/2007 and 3/30/2007 and send the output to a file titled 'full_backup_report.csv' in a 'comma separated value' file. Limit the output to jobs with job description containing 'ACCT':

CAAdvReports.exe -reporttype 9 -startdate 01/01/2007 -enddate 03/30/2007 -out-file full_backup_report.csv -CSV -JobDesc 'ACCT'

More information:

caadvreports - Advanced Report Generator Command

Chapter 21: pfc - Preflight Checklist Utility Command

The preflight checklist utility command (pfc) allows you to run vital checks on the Arcserve Backup server and Agents to detect conditions that may cause backup jobs to fail. This command is intended to run while Arcserve Backup is up and running.

The checks performed by pfc fall into four categories: System Checks, Arcserve Checks, Agent Checks, and Media Checks.

System Checks

These include checking system requirements for the server, available disk space for the database, and RPC (Remote Procedure Calls) service registration.

Arcserve Checks

These include checking the Arcserve system account and its privileges, the status of the Arcserve Backup engines, SAN server connectivity (if the SAN option is installed), and the health of the tape devices attached to the server.

Agent Checks

These include checking the connection and credentials for any client and database agents needed for the job.

Media Checks

These include checking the availability of media in the scratch set (if a media pool is specified for the job), the media expiration dates, and for source and destination conflicts for file system devices.

Every time you use the pfc utility it creates the following a log:

PFC_SERVERNAME_######.LOG

This log includes the same information that appears in the output generated in the Command Prompt windows when you run pfc and is located in the Arcserve Backup LOG directory - ARCserve Home Directory/logs/pfclogs. You can change this directory by using the -logpath option.

This section contains the following topics:

pfc - Syntax

The pfc command line syntax is formatted as follows:

pfc [-cahost <hostname>] [options] [filename(s)]

More information:

Command Line Syntax Characters

pfc - Usage

The pfc commands allow you to set the following checks:

- System Checks

- Arcserve Checks

- Agent Checks

- Media Checks

More information:

pfc - Preflight Checks

pfc - Examples

pfc - Preflight Checks

The pfc system preflight checks include checking system requirements for the server, checking the Arcserve Backup system account, checking the client and database agents needed for the job, and checking the availability of media in the scratch set (if applicable).

The pfc command includes the following options:

pfc [-cahost <hostname>] [options] [filename(s)]

-allchecks
-syschecks
-bchecks
-agentchecks
-mediachecks
-a
-n
-s
-v
-logpath <path>
-alert

-cahost *<hostname>*

Identifies the name of the system hosting the operation.

If you want to execute the operation on a remote system, this switch must be included in the command.

If you want to execute this operation on your local system, this switch is not required and should not be included in the command.

Note: The [-cahost <hostname>] switch is optional. This switch is not needed if you are using these commands locally; however, a hostname is required if you are performing these commands remotely. The host specified by the -cahost switch can be a member server or primary server. However, Arcserve Backup will always add the job to the job queue of the primary server, and the primary server will then dispatch the job to the proper server (primary/member) according to this switch when the job is processed.

Note: If you installed Arcserve Backup using the "Arcserve Manager (Console)" mode, you must include the -cahost switch to execute this command from your local machine. Because this Console installation mode does not actually install all Arcserve Backup capabilities on your local machine, it is mandatory that -cahost be included when submitting this command remotely to the primary or member server containing Arcserve Backup or else the command will fail.

filename(s)

Specifies a job script file name if you want to perform a check on a specific job. For example, 00000005.job. These files are located in the 00000001.qsd directory under the directory where Arcserve Backup was installed.

-allchecks

Performs all checks of the parameters of Arcserve Backup, including system checks, Arcserve checks, agent checks, and media checks. These checks are performed in non-interactive mode on all Ready jobs in the job queue. You cannot specify filenames when you use this switch.

-syschecks

Performs system-related checks, including disk space, RPC (Remote Procedure Calls) communication, system resources, and so on.

-bchecks

Performs process and resource-related checks, including the status of Arcserve Backup daemons, database checks, tape changer checks, and so on.

-agentchecks *<filenames>*

Performs check of the agent resources required by the backup jobs specified. When you use this, you must specify one or more job script file names. These files are located in the 00000001.qsd directory under the directory Arcserve Backup was installed to.

For this command, you would need to specify the job file under $ARCSERVE_ HOME\00000001.qsd directory as the last parameter.

For example, if you want to run an Agent check for a job that has a job number of 3, then there should be a job file "00000003.job" under $ARCSERVE_ HOME\00000001.qsd directory, and the pfc command for this check would be:

    pfc -agentchecks 00000003.job

Note: You can also use the -a switch with this option to run Agent checks for all jobs in the queue.

Note: The Master server credentials cannot be verified by the Preflight Checklist (PFC) utility.

-mediachecks *<filenames>*

Performs media checks. When you use this, you must specify one or more job script file names. These files are located in the 00000001.qsd directory under the directory Arcserve Backup was installed to. For example, pfc -mediachecks job105.

For this command, you would need to specify the job file under $ARCSERVE_ HOME\00000001.qsd directory as the last parameter.

For example, if you want to run a Media check for a job that has a job number of 3, then there should be a job file "00000003.job" under $ARCSERVE_ HOME\00000001.qsd directory, and the pfc command for this check would be:

pfc -mediachecks 00000003.job

Note: You can also use the -a switch with this option to run media checks for all jobs in the queue.

-a

Specifies all Ready jobs in the job queue. You cannot specify filenames when you use this switch.

-n

Runs in non-interactive mode. When you use this, pfc does not stop during execution to prompt for input.

-s

Attempts to start any Arcserve Backup engines that are not running. The -bchecks option must also be used or -s has no affect.

-v

Runs in verbose mode. When you use this option, pfc provides detailed information in its output to the Command Prompt window and log about the checks being performed. This includes information used for debugging, such as the name of the failing function and the error code returned when an API call fails.

-logpath *<path>*

Sets the path for log files. The default path is the Arcserve Backup LOG directory (ARCServe_HOME/logs/pfclogs). You can change this location by specifying a path for the -logpath option.

-alert

If you configured the Alert feature, this command lets you send an alert. For example, if you configured Alert to send email and use the -alert command, the PFC log is sent as an email attachment.

For more information about configuring alerts, see the *Administration Guide*.

More information:

pfc - Examples

pfc - Examples

The following are examples of syntax for the pfc command:

- Use the following syntax to perform all checks, in non-interactive mode, on all READY jobs in the job queue:

  pfc -allchecks

- Use the following syntax to perform system checks in verbose and non-interactive mode:

  pfc -syschecks -v -n

- Use the following syntax to perform Arcserve checks and to start any Arcserve Backup engines that are not running:

  pfc -bchecks -s

- Use the following syntax to perform agent checks for all READY jobs in the queue:

  pfc -agentchecks -a

- Use the following syntax to perform agent checks for job 9:

  pfc -agentchecks 00000009.job

- Use the following syntax to perform media checks for jobs 8 and 9:

  pfc -mediachecks 00000008.job 00000009.job

- Use the following syntax to perform media checks for job 9, display the output on the console, and also log the output in a file in the /tmp directory:

  pfc -mediachecks -logpath /tmp/ 00000009.job

- Use the following syntax to perform agent checks for a job, which is on HOLD:

  pfc -agentchecks 00000009.job

Chapter 22: tapecomp - Tape Compare Utility

The tape compare command (tapecomp) is the command line interface utility that allows you to compare media to media. This utility can be used only with Arcserve Backup generated media and must be used in the Arcserve Backup home directory.

This section contains the following topics:

tapecomp - Syntax

The tapecomp command line syntax is formatted as follows:

tapecomp [options]

-s<SourceGroup>
-d<DestGroup>
-r<Source TapeName>
-t<Dest TapeName>
-n#
-x#

More information:

tapecomp - Tape Compare Utility

Command Line Syntax Characters

tapecomp - Options

The tapecomp utility provides various options for comparing Arcserve Backup media to media.

The tapecomp utility includes the following options:

-s <source group name>

Specifies the source group name where your tape is located.

-d <destination group name>

Specifies the destination group name. This switch must be used in all cases.

-r <source tape name>

Specifies the source tape name of the tape you want to compare.

-t <dest tape name>

Specifies the destination tape name of the tape you want to compare.

-n#

Specifies the beginning source session number.

The default is 1.

-x#

Specifies the beginning target session number.

The default is 1.

Notes:

- This utility supports all Arcserve Backup certified tape drives. The source and target can be different tape drive models.

- A log file is generated for each copy operation.

- The tape compare utility can compare from one particular session to the end or the entire media set.

- The source and target can have multiple media. The utility will ask for the next sequence media when it hits the end of the media.

- Utility progress can be monitored from the Arcserve Backup Device Manager.

- The tape compare utility does not support comparing tapes that were created using multiplexing or encryption.

- The tape compare utility does not support comparing two tapes that have identical names within the same group.

More information:

tapecomp - Tape Compare Utility

tapecomp - Examples

tapecomp - Examples

The following are examples of syntax for the tapecomp command:

- Use the following command to compare all sessions on Tape1 in Source Group 0 to Tape2 in Destination Group 1:

  tapecomp -sGROUP0 -rTAPE1 -dGROUP1 -tTAPE2

- Use the following command to compare all sessions from Session 3 on TAPE1 TEST in Source Group 0 with all sessions from Session 4 on target TAPE2 TEST in Destination Group 1:

  tapecomp -sGROUP0 -r"TAPE1 TEST" -n3 -dGROUP1 -t"TAPE2 TEST" -x4

More information:

tapecomp - Tape Compare Utility

Chapter 23: tapecopy - Tape Copy Tool Command

The tape copy command (tapecopy) is the command line interface to the Tape Copy Tool utility, which allows you to quickly copy data from one media to another. These media do not have to be similar. You can copy entire tapes or sessions. You can do this either by stating the source of what you want to copy, or by stating search criteria against the sessions stored in the Arcserve Backup database.

When tapecopy performs a tape copy function a return exit code is generated to indicate the status of the process.

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This section contains the following topics:

tapecopy - Syntax

The tapecopy command line syntax is formatted as follows:

Tape Copy Job (User Specified Source):

<Base Install Path>/tapecopy -s[source group] -d[destination group] -t[source tape name] {[source options] [destination options]}

Tape Consolidation Job (Database Specified Source):

<Base Install Path>/tapecopy -d[destination group] [query options]{-c[destination tape name] [destination options]}

More information:

tapecopy - Tape Copy Tool Command

Command Line Syntax Characters

tapecopy - Usage

The tapecopy commands allow you to set the following options and arguments:

- database query options
- source arguments
- destination arguments

More information:

tapecopy - Tape Copy Tool Command

tapecopy - Database Query Options

tapecopy - Source Arguments

tapecopy - Destination Arguments

tapecopy - Database Query Options

The database query options let you select source sessions based on specific attributes. When you specify a database option, the database is queried and all of the sessions that meet the search criteria become source sessions for tapecopy. One or more of these switches can be used to specify a complex query.

By default, the tapecopy operation copies all sessions that the query finds to one tape in the destination group. The tapecopy looks for a blank tape in the destination group and formats it with the tape name as mm/dd/yyyy-hh:mm.

The tapecopy command includes the following query options:

tapecopy

[-qType <Backup Session Type>]
[-qMethod <Backup Session Method>]
[-qNode <Backup Session Node>]
[-qOnOrBefore <MM/DD/YYYY> [<hh:mm>]]
[-qOnOrAfter <MM/DD/YYYY> [<hh:mm>]]
[-qMID <Master Job Number>]
[-qJobNo <Job No Query>]
[-qMediaPool <Media Pool Name>]
[-qPreview (View Query Details)]
[-qIgnoreRep (Ignore Replication Flag)]
[-qExclude <Exclude List File Name>]
[-qPastTime <Number of Days>]
[-qCA_RHAType <Type of CA RHA Session>](Used only with -qType CA_RHA)

-qType *<Backup Session Type>*

Queries the Arcserve Backup database to include only selected type of sessions for copy.

You can query multiple session types at the same time, by specifying the session types separated by comma.

For example:

    tapecopy –d PGROUP0 –qType SQL,WindowsNT

Available session types include:

MSNetDrive, UNIX, BABDatabase, OracleLog, DBAGENT, SYBASE, LotusNotes, Informix, TAR, CPIO, UNIXImage, WindowsNT (Includes WinNT/2000/XP), Windows98 (Includes Win95/98/ME), NTSAP, UNIXSAP, ORACLE, ORACLE8, ORACLE9I, NTOracle, UNIXRAW, UNIXSYBASE, UNIXORACLERMAN. WINORACLERMAN, DRTAR, CA_RHA, DBAEXDB, DBAEXDBVSS, DBAEXSIS, SQL, ASDBSQL, SQLDR, ASDBSQLE, SPA2007, and REFS.

-qMethod *<Backup Session Method>*

Queries the Arcserve Backup database to include only those sessions that were backed up using the specified backup method.

Available session methods include:

FULL, DIFF, and INCR.

(Where FULL = full backup, DIFF = differential backup, and INCR = incremental backup

-qNode *<Backup Session Node>*

Queries the Arcserve Backup database to include sessions backed up from the specified node only.

-qOnOrBefore *<MM/DD/YYYY> [<hh:mm>]*

Queries the Arcserve Backup database to include sessions that were backed up on or before the specified date and time. It is optional to specify the time. Date and time should be separated by a space.

-qOnOrAfter *<MM/DD/YYYY> [<hh:mm>]*

Queries the Arcserve Backup database to include sessions that were backed up on or after the specified date and time. It is optional to specify the time. Date and time should be separated by a space.

-qMID *<Master Job Number>*

Queries the Arcserve Backup database to include all sessions subordinate to the Master Job Number.

This option is used for consolidating multistreaming sessions. It queries the Arcserve Backup database for all sessions subordinate to the master job number of a multistreaming job. The Master Job Number represents the job number of the parent multistreaming job.

-qJobNo *<Job No Query>*

Queries the Arcserve Backup database to include all sessions subordinate to the specified job number. Will search for sessions which belong to the specified job number and copy them to the destination media. For rotation jobs, this command will query the database for all sessions related to each job ID for the specified job number and then copy all sessions to the destination media.

This switch can also be used in conjunction with other query switches to further limit the sessions to be copied.

-qMediaPool *<Media Pool Name>*

Queries the Arcserve Backup database to include tapes belonging to the specified Media Pool. It supports searches based on wildcard characters like * and ?.

-qPreview *(View Query Details)*

Puts tapecopy in Preview mode so that tapecopy only displays a list of sessions that satisfy the query criteria. The actual tapecopy operation is not performed.

This option gives a more in-depth view of the query result set. Use this with the database query options so that you do not commit to executing a copy routine. Instead, you will view the query result set in detail.

-qIgnoreRep *(Ignore Replication Flag)*

Used to ignore the replication flag so that sessions that were already copied by tapecopy are included. If you ignore the flag, the previously copied sessions are ignored by tapecopy.

-qExclude *<Exclude List File Name>*

Queries the Arcserve Backup database to exclude the specified list of file host names stored in a file located in the config directory under the Arcserve Backup home directory.

-qPastTime *<Number of Days>*

Queries the Arcserve Backup database to include sessions that were backed up during the last specified number of days. Days are counted in duration of 24 hours starting from the time the tapecopy operation is run. The difference in number of days in each month is taken into consideration.

Cannot be used in conjunction with the -qOnOrBefore or -qOnOrAfter options.

-qCA_RHAType <Type of CA RHA Session>

Note: Used only with -qType CA_RHA.

Queries the Arcserve Backup database to include only the specified type of CA_RHA sessions for copy. Available CA_RHA sessions are FileSystem, MSSQL, and Exchange.

If you do not specify the type of CA_RHA session to be queried, by default all CA_RHA sessions will be included.

More information:

[tapecopy - Tape Copy Tool Command](#)

[tapecopy - Examples](#)

tapecopy - Destination Arguments

The tapecopy command destination arguments allow you to specify where the selected media is copied to. After you have selected the media you want to copy, you can select the destination and destination options for the tapecopy job.

Note: Tapecopy cannot create a target tape which is exactly same as the source tape when the source or target is a deduplication device. The exact same means that three items (tape name, sequence number, and random ID) are the same for the source tape and the target tape. In order to avoid this case, you must use -c or -idr switch to make the destination deduplication device different from the source tape.

The tapecopy command line utility supports the following destination arguments:

tapecopy

[-rd <remote server name>]
[-zd <destination sequence no.>]
[-d <destination group name>]
[-c <destination tape name>]
[-v <vault name>]
[-k (Force Vaulting on Incomplete Copy)]
[-m <Assign Media Pool Name>]
[-max <# of days>]
[-idd <Destination Random ID>]
[-idr (Auto-Generate Random ID)]
[-o (Overwrite)]
[-off (Offline)]
[-ex (Export)]
[-wd <Wait On Destination Tape in Minutes>]
[-g]
[-forceMerge(Turn on Detail Merge)]
[-jid <Job ID>]
[-wormDst]
[-fDstMux]
[-eject <Eject Media>]
[-dIgnoreFSDGroup]
[-dpp <weeks:days:hours:minutes>]
[-mdt <Media Pool Name>]
[-b <use a blank tape>]
[-a <append to media in save set>]

-rd *<remote server name>*

> Specifies the name of the remote destination server to copy to. Use this when you want to send data to a remote host.

> When using the -rd switch, the following limitations apply:

- The –rd switch should not be used when the destination is a remote deduplication device or an FSD.

- The –rd switch should only be used between Arcserve Backup servers.

-zd *<destination sequence no.>*

Specifies the destination sequence number to copy to. This distinguishes between sequence numbers when you use the -c option.

-d *<destination group name>*

Specifies the name of the group to copy to. If you omit this option, any available group is used. Omitting the -d switch allows the Tape Copy program to decide the best available destination group for your tape copy operation.

-c *<destination tape name>*

Specifies the target tape name to copy to. Use this to specify the format name for blank tapes. If the target tape is part of a specified tape key (uniquely identified target tape), use this to specify the name of a tape to search for and append or overwrite to.

-v *<vault name>*

Specifies a vault name for the newly created tape to be added to. You must have MMO configured so that you can specify vaulting tapes from the command line.

-k *(Force Vaulting on Incomplete Copy)*

Used only with the -v option. If you use this, the destination tapes will still be marked as vaulted on an incomplete tapecopy.

-m *<Assign Media Pool Name>*

Assign tape to media pool option. Use this option when you want to assign your newly consolidated tape to a media pool.

This switch helps automate scheduled, unattended tapecopy jobs. When you use this, the tapecopy job searches for a target Save Set tape in the specified media pool to append to. If a Save Set tape does not exist, it searches for a scratch tape to format and use as the target tape. If a save or scratch tape does not exist, it tries to connect to a blank tape and format it as its target tape.

-max <# of days>

This option is used with the -m option and specifies the maximum number of days you are allowed to append to the target Save Set tape in the specified media pool.

If the current number of days since the last format time is greater than the specified maximum number of days, the tapecopy will skip this media as the destination media.

If the end user does not use this option, the default value maximum number of days is 2000 days.

-idd *<Destination Random ID>*

Specifies the random ID of the destination tape.

-idr *(Auto-Generate Random ID)*

Destination random ID option. Use this option to copy to tapes with an auto generated random ID.

-o *(Overwrite)*

Overwrite option. Use this when specifying a target tape key (tape name, random ID, and sequence number). If you use this option, you must also use -c, -zd, and -idd.

-off *(Offline)*

Offline option. Offlines the target tapes at the end of the copy operation. This switch is valid for changers only.

-ex *(Export)*

Exports target tapes at the end of the copy operation. This switch is valid for changers only.

-wd *<Wait On Destination Tape in Minutes>*

Specifies the timeout in minutes for a successful connection to a destination tape.

Default value: 60 minutes

Maximum value: 71582 minutes

-g

When called, will inform you that Tapecopy command will not automatically merge tapes into the database after the tapecopy operation is completed. Instead the Tapecopy command will link the copied session with the source session in the database during the tapecopy operation. If you still want to merge sessions after tapecopy, you can use the -forceMerge switch.

It is not necessary to include this switch in command line if you just want to link the sessions. Tapecopy will link the sessions even if this switch is not present.

-forceMerge

Specifies to the tapecopy command to force running the merge process after the tapecopy operation is completed. Generally, using this switch is not necessary because the Tapecopy command will automatically link the copied session with the source session in the database during the tapecopy operation. However, if for some reason the source session is not in the database (information may have been purged or source tape may have been moved to a different location), this linking will not occur. In these cases, you can use this switch to force the merging of the copied session with the source session.

-jid *<Job ID>*

Specifies the Job ID.

Tapecopy will write its activity log information into the activity log that belongs to the job that is specified by this parameter.

- If you are using this parameter and the job id exists, all the tapecopy activity log information will be included in the activity log for the specified job.

- If you are using this parameter and the job id does not exist, all the tapecopy activity log information will be ignored.

- If you do not use this parameter, all the tapecopy activity log information will be included in a generic log.

-wormDst

Filters destination media such that only WORM capable media are included in the collection of destination media to choose from. This option ensures that you are copying to WORM media.

-fDstMux

Use this if you want source sessions to be copied in a multiplexing (MUX) format to the destination media. If your destination media is blank, it will be formatted as a multiplexing media.

Notes:

- You cannot append a multiplexing session to a non-multiplexing media format.

- Tapecopy does not support MUX-to-MUX copying of encrypted data.

-eject <Eject Media>

The eject option. Use this option to eject the target media.

-dIgnoreFSDGroup

Specifies to ignore or not allow using the FSD group as the target group.

-dpp <weeks:days:hours:minutes>

Specifies a purge policy time for destination sessions.

Arcserve Backup will purge these sessions after this purge policy time expired. This option can only be used when destination tape is a deduplication device.

This option is divided into four time fields: weeks, days, hours and minutes, and should been set to zero if not needed. By default, the purge policy time is four weeks.

- If you included this option, but destination is not a deduplication device, tapecopy will display a prompt to inform you that this option can only be used for a deduplication target and the purge policy you specified will be ignored.

- If you included this option and the destination is a deduplication tape, tapecopy will display a prompt to inform you that the target sessions will be purged after XX weeks, XX days, XX hours, and XX minutes.

- If you have not included this option, but the destination is a deduplication device, tapecopy will display a prompt to inform you that by default, a 4-week purge policy will be used.

-mdt <Media Pool Name>]

Specifies the media pool name for the destination tape.

-b <use a blank tape>

Specifies the use of a blank tape.

-a <append to media in save set>

Appends the tape copy to media in save set.

Notes:

- -a must be used in conjunction with the -m option, which then selects a medium in save set to append.

- If there are no media available in save set, a tape in scratch set gets used.

- If there is no tape available in scratch set also, a blank tape gets used.

- The destination tape gets assigned to the given media pool after the job finishes.

More information:

tapecopy - Tape Copy Tool Command

tapecopy - Examples

tapecopy - Source Arguments

The tapecopy command source arguments allow you to specify the data to be copied. You can use these arguments to identify the group, tape, and sessions to be used in your tape copy operation.

The tapecopy command includes the following source arguments:

tapecopy

[-n <beginning session number to be copied>]
[-ntotal <number of sessions>]
[-rs <Remote Server Name>]
[-entire_s (copy all non-blank in group)]
[-t <source tape name>]
[-zs <source sequence no.>]
[-s <source group name>]
[-ids <source random ID>]
[-ws <wait on source in minutes>]
[-wormSrc]
[-srcPassList [< source password list file name]]
[-purgeSourceSessionsNow]

-n *<beginning session number to be copied>*

Specifies the starting session number to begin copying from on the source tape. This cannot be used with query switches.

-ntotal *<number of sessions>*

Use this with the -n option. Allows you to specify the total number of sessions to copy beginning with the -n value you enter. This cannot be used with query switches.

-rs *<Remote Server Name>*

The remote source server name. Use this when you want to receive data from a remote host.

-entire_s *(copy all non-blank in group)*

Copy group option. Use this to copy all of the tapes in a group to another group. This switch is valid only within a changer.

-t *<source tape name>*

The source tape name. Use this to specify the name of the tape you want to copy. This cannot be used with the query switches.

-zs *<source sequence no.>*

The source sequence number. Use this to distinguish between the sequence numbers when you use the -t option. This cannot be used with query switches.

-s *<source group name>*

The source group name. Use this to specify the source group name where your tape is located. Do not use this with the query switches.

-ids *<source random ID>*

Source random ID option. Use this to copy tapes with a specific random ID.

-ws *<wait on source in minutes>*

Specifies a timeout limit for session availability. The session may be on a tape that is currently being used.

Default value: 60 minutes

Maximum value: 71582 minutes

-srcPassList [< source password list file name]

Specifies to get the password list to decrypt any encrypted source sessions (server side encryption sessions only).

There are two modes to initialize a password list: automatic mode and interactive mode.

The automatic mode allows you to provide a password list file using a command such as "-srcPassList < passwords.txt".

In this mode, all required session passwords will be searched in the specified password list file and the copy process will proceed without any further user input. If you don't specify a password list file, you will be prompted to provide the password in the interactive mode.

For example:

```
Please enter source password [Enter when done]: ****
Please enter source password [Enter when done]: ****
Please enter source password [Enter when done]: <enter>
Received 2 passwords for source.
```

Each password should be included in a separate line in the password list file.

If you specify this option, tapecopy will attempt to find a matching encrypted session password for the source password provided. If it fails find a match, tapecopy will then query the session password from the Arcserve Backup database. If tapecopy still cannot find any matched session password this encrypted session will be skipped from the copy process. In addition, agent side encryption will not be treated as an encrypted session for tapecopy. As a result, this

type of session will be treated as a normal session and tapecopy will not perform a password check.

When all passwords for the sessions to be copied have been saved in the Arcserve Backup database, you do not need to specify this option. All session passwords will then be queried from the Arcserve Backup database using the password management utility. However, if all passwords for the sessions to be copied have not been saved in the Arcserve Backup database, you will need to specify this option to provide session passwords.

Note: Tapecopy can accept a maximum of 8 passwords at the same time, with each password containing a maximum of 24 characters.

-purgeSourceSessionsNow

Purge the copied sessions on the source device immediately to reclaim space on the device. This switch requires you to specify the source group name and the source tape name. The source tape should be a data deduplication device or staging device. This switch can be used in conjunction with the database query options.

More information:

tapecopy - Tape Copy Tool Command

tapecopy - Examples

tapecopy - Examples

The following are examples of syntax for the tapecopy command:

Note: For each tapecopy command, you must include a blank space between the switch and the syntax that follows the switch.

- Use the following command to copy all sessions from nodes named AL2000 before noon, September 25, 2006:

  tapecopy -d GROUP1 -qNode AL2000 -qOnOrBefore (9/25/2006,12:00)

- Use the following command to copy all incremental sessions after noon, September 25, 2006:

  tapecopy -d GROUP1 -qMethod INCR -qOnOrAfter (9/25/2006,12:00)

- Use the following command to append all multistreaming sessions from a given Master Job ID to a tape named "Everything":

  tapecopy -d GROUP1 -qMID 232 -c Everything -idd F56 -zd 1

- Use the following command to copy all sessions from all hosts except those in an Exclude List and specify a timeout of 10 minutes on connecting to source media and two hours on connecting to target media:

  tapecopy -d GROUP1 -qNode * -qExclude AcctExcludes.txt -ws 10 -wd 120

- Use the following command to copy all sessions from nodes named AL2000 in the last 24 hours and add to Media Pool "MyPool."

  Note: Using the -m switch causes the tapecopy job to search for a target save/scratch/blank tape in the specified media pool. If a Save Set tape does not exist, Arcserve Backup searches for a scratch/blank tape to format and use as the target tape:

  tapecopy -d GROUP1 -qNode AL2000 -qPastTime 1 -m "MyPool"

- Use the following command to copy all sessions between noon, September 25, 2006 and September 26, 2006 by its Job Number:

  tapecopy -d GROUP1 -qOnOrAfter (9/25/2006,12:00) -qOnOrBefore " (9/26/2006,12:00)" -qJobNo 21x

- Use the following command to append all session from source tape name "TAPE 1" to target name "TAPE 2":

  tapecopy -s GROUP0 -d GROUP1 -t "TAPE 1" -c "TAPE 2" -idd C86 -zd 1

- Use the following command to copy all session from source tape name "TAPE 1" and format blank target tape name to "TAPE 2":

  tapecopy -s GROUP0 -d GROUP1 -t "TAPE 1" -c "TAPE 2"

- Use the following command to copy from local source tape to remote blank tape:

  tapecopy -s GROUP0 -d GROUP1 -t TAPE1 -rd SERVERNAME

- Use the following command to copy from remote source tape to local blank tape:

  tapecopy -s GROUP0 -d GROUP1 -t TAPE1 -rs SERVERNAME

- Use the following command to copy all sessions from source tape and export the target tape:

  tapecopy -s GROUP0 -d GROUP1 -t TAPE1 -ex

- Use the following command to copy all sessions from source tape and offline the target tape:

  tapecopy -s GROUP0 -d GROUP1 -t TAPE1 -off

- Use this command to copy all sessions starting from session 3 on source tape:

  tapecopy -s GROUP0 -d GROUP1 -t TAPE1 -n 3

- Use the following command to copy all non-blank tapes from source group and export target tapes:

  tapecopy -s GROUP0 -d GROUP1 -entire_s -ex

- Use the following command to copy the 3 sessions after session 6 starting from session 6 on source tape:

  tapecopy -s GROUP0 -d GROUP1 -t TAPE1 -n 6 -ntotal 3

- Use the following command to copy from a source tape to a destination tape when the session has been encrypted on the server side (interactive mode):

  tapecopy -s GROUP0 -d GROUP1 -t TAPE1 -srcPassList

- Use the following command to copy from a source tape to a destination tape when the session has been encrypted on the server side (automatic mode):

  tapecopy -s GROUP0 -d GROUP1 -t TAPE1 -srcPassList < passwords.txt

- Use the following command to copy all sessions that were created during last 1 day to a blank tape in group PGROUP0. During the copy, it will link the source and destination sessions.

  tapecopy -q PastTime 1 -d pgroup0 -g

- Use the following command to copy all sessions that were created during last 1 day to a blank tape in group PGROUP0. After the copy operation is complete, it will submit a merge job to merge all the copied sessions from the target tape into the database.

  tapecopy -q PastTime 1 -d pgroup0 -forceMerge

- Use the following command to copy all sessions created by job number 100 (-qJobNo 100) to a blank tape in group PGROUP0 (-d pgroup0).

  tapecopy –qJobNo 100 –d pgroup0

- Use the following command to copy all sessions created by job number 100 (-qJobNo 100) within last 1 day (-qPastTime 1) to a blank tape in group PRGROUP0 (-d pgroup0).

  tapecopy –qJobNo 100 –qPastTime 1 –d pgroup0

- Use the following command to set a 1 minute purge policy for a deduplication device target session (you need to specify target tapename using -c switch).

  tapecopy -s GROUP0 -d GROUP1 -t TAPE1 -c TAPE2 -dpp 0:0:0:1

- Use the following command to copy from a source tape <src_media> in group <src_group> to append to any tape in save set of the media pool <my_pool> in destination group <dest_group>.

  tapecopy -s <src_group> -t <src_media> -d <dest_grp> -mdt <my_pool>

More information:

tapecopy - Tape Copy Tool Command

Chapter 24: Miscellaneous Utility Commands

This section contains the following topics:

ARCserveCfg.exe - Server Reconfiguration Utility

The server reconfiguration command (ARCserveCfg.exe) is the command line interface utility that allows you to update configurations of the Arcserve Backup server. The utility assures that the server works properly after server name changes or Arcserve Backup system account credential changes are made.

The following prerequisites must be met to use ARCserveCfg.exe:

1. Arcserve Backup r17.

2. Primary server/stand-alone server is installed.

3. SQL Express 2014 is used to host the Arcserve Backup database.

4. Arcserve Backup server is not installed as cluster-aware.

5. The server host name is changed and the server is rebooted, which means the new host name is functioning.

6. The Windows user running this utility, and the Windows user provided through the -username option must have local administrator privileges.

7. If the password of the CAROOT account is not empty or not caroot, provide the correct password.

8. Copy two patch files to the Arcserve Backup server install directory:

    a. ARCserveCfg.exe (Replace the original one.)

    b. Recfgsvr.dll

ARCserveCfg.exe updates the following configurations:

1. Arcserve Backup Domain name. If -arcservedomain is specified, the domain name is updated to the specified one.

2. Arcserve Backup Server name. This utility automatically detects the server name, so there is no need to specify it.

3. Arcserve Backup System Account. The Arcserve Backup system account is updated to the Windows user provided through the -username command line option. This Windows user is also added as equivalence of CAROOT.

4. The password of the CAROOT account remains the same.

    Important! If the password is blank or caroot is used as the CAROOT password, change it to a more secure one.

5. The ODBC system data source name (DSN) is updated so that the Arcserve Backup server can connect to the database correctly.

6. The Arcserve Backup database is updated with the new server/domain name.

7. The old "ASDB Protection" job and "DB Pruning" job are removed and new ones are created using the new server name.

More information:

[ARCserveCfg.exe - Syntax](#)

[ARCserveCfg.exe - Usage](#)

[ARCserveCfg.exe - Examples](#)

[ARCserveCfg.exe - Troubleshooting](#)

[ARCserveCfg - Return Codes](#)

[ARCserveCfg.exe - Known Issues](#)

ARCserveCfg.exe - Syntax

The ARCserveCfg.exe command line syntax is formatted as follows:

ARCserveCfg.exe

-reconfig
[-arcservedomain <NewARCserveDomainName>]
-username <WindowsUserName>
-password <WindowsUserPassword>
[-carootpassword <CarootPassword>]

More information:

ARCserveCfg.exe - Usage

ARCserveCfg.exe - Examples

Command Line Syntax Characters

ARCserveCfg.exe - Usage

The ARCserveCfg.exe command contains options that are used to define actions to follow when updating the configuration of the Arcserve Backup server.

The ARCserveCfg.exe command includes the following options:

-reconfig

Required field. This field indicates a reconfiguration operation of the Arcserve Backup server. If you specify -reconfig by itself, it displays the usage of this utility in a separate console.

[-arcservedomain <NewARCserveDomainName>]

Optional field. This field specifies the new Arcserve Backup domain name. After you run this utility, the current domain name is changed to the specified new Arcserve Backup domain name. If this option is not specified, the domain name remains the same.

-username <WindowsUserName>

Required field. This field is the Arcserve Backup system account name. The user name must be a Microsoft Windows Domain user account or local user account, and must have local administrator privileges. This option is specified in the format Domain\User. If the domain is not specified, the current server name is used as the Windows domain name.

-password <WindowsUserPassword>

Required field. This field specifies the password of the Microsoft Windows user account.

[-carootpassword <CarootPassword>]

Optional field. This field specifies the password of the Arcserve Backup caroot account. If this field is not specified, an empty password or the password caroot is assumed.

More information:

ARCserveCfg.exe - Syntax

ARCserveCfg.exe - Examples

ARCserveCfg.exe - Examples

The following are examples of syntax for the ARCserveCfg.exe command:

- Use the following command to update the Arcserve Backup domain name:

  ARCserveCfg.exe -reconfig -arcservedomain <NewARCserveDomainName> -username <WindowsUserName> -password <WindowsUserPassword> -carootpassword <CarootPassword>

- Use the following command to update the primary server name:

  ARCserveCfg.exe -reconfig -username <WindowsUserName> -password <WindowsUserPassword> [-carootpassword <CarootPassword>]

More information:

ARCserveCfg.exe - Syntax

ARCserveCfg.exe - Usage

ARCserveCfg.exe - Troubleshooting

If there are any errors which block the ARCserveCfg.exe update configuration, a positive number is returned as an error. If there are any conditions which need attention after reconfiguration, a negative number is returned as a warning. If there are no errors or warnings, the return code is 0.

Return Codes	Description
0	Reconfiguration succeeded without any errors or warnings.
>0	Reconfiguration finished with an error. For a list and description of the return codes, see ARCserveCfg.exe - Return Codes.
<0	Reconfiguration finished with a warning. For a list and description of the return codes, see ARCserveCfg.exe - Return Codes.

The following conditions generate a warning but the reconfiguration process continues:

1. If any job exists other than a "DB Pruning" job and a "ASDB Protection" job.

2. If any member server is added to the domain, that the primary server belongs to.

   During the server reconfiguration process, messages are output to a log file named recfgsvr.log. The log is located under the ARCSERVE_HOME\Log directory. The path is usually the following:

   C:\Program Files\CA\ARCserve Backup\LOG\recfgsvr.log"

   Launching ARCserveCfg.exe directly from the command console does not display a return code, because ARCserveCfg.exe is a Windows GUI program. A Windows batch file can be used to get the return code. For example, you can create a batch file with the following content:

   Pushd "C:\Program Files\CA\ARCserve Backup"
   ARCserveCfg.exe –reconfig –arcservedomain mydomain –username administrator –password mypassword –carootpassword mycarootpassword
   Echo %errorlevel%
   Popd

   When you launch this batch file from a command console, you are able to see the return codes from this utility. For a list and description of the return codes, see ARCserveCfg.exe - Return Codes.

More information:

ARCserveCfg - Return Codes

ARCserveCfg.exe - Known Issues

ARCserveCfg - Return Codes

The ARCserveCfg.exe command returns the following codes:

Return Codes	Description
0	Reconfiguration succeeded without any errors or warnings.
1	Cannot load recfgsvr.dll. Verify that the DLL exists under the Arcserve Backup install directory.
2	Cannot locate required procedure address in recfgsvr.dll. Verify that the DLL is not corrupt.
3	Cannot launch this utility while the Arcserve Backup Manager is running. Close the Arcserve Backup Manager and launch the utility again.
4	Another instance is already running. Only one instance of the utility can be running at the same time.
11	The -username option is not specified. This option is a required field and must be provided.
12	Invalid parameters are found in the command line string.
15	The current Windows user does not have local administrator privileges.
16	The Windows user name or password is invalid.
17	The specified Windows user in the -username option does not have local administrator privileges.
18	The Windows user password cannot be empty. Set a secure password for the specified Windows user.
20	The Arcserve Backup Server cluster-aware installation is not supported.
21	The current server is not a stand-alone/ primary server. This utility must be run on a stand-alone/primary server.
22	Using SQL Server as the Arcserve Backup server database is not supported. Only using SQL Express as the Arcserve Backup Backup server database is supported.
30 ~ 45	An error occurs when calling functions exported by another DLL. Record the return code, collect the log file, and contact support.
61 ~ 64	Failed when manipulating the Arcserve Backup registry keys. Record the return code, collect the log file, and contact support.
69	Failed to launch ca_auth.exe. Check if ca_auth.exe exists under the Arcserve Backup install directory.
70	Adding equivalence for provided Windows user failed.
71 ~ 74	Setting the CAROOT password for the new domain failed. Record the return code, collect the log file, and contact support.
75 ~ 77	Failed to update data in the database. Record the return code, collect the log file, and contact support.
80	Failed to update the domain name, the primary server name, or both in

	the configuration file. Record the return code, collect the log file, and contact support.
85 ~ 86	Failed to manipulate the temporary files. Record the return code, collect the log file, and contact support.
87	The CAROOT password specified in the -carootpassword option is invalid.
200	Failed executing cstart.bat /cstop.bat. Verify that the files exist in the Arcserve Backup install directory.
-10	Jobs other than "ASDB Protection" and "DB Pruning" exist in the job queue. These jobs can become invalid after server reconfiguration.
-11 ~ -13	Errors occurred when verifying the SQL database. This error is not a critical problem, and you can still use the Arcserve Backup server as usual. For further information, record the return code, collect the log file, and contact support.
-14	At least one member is attached to the current Arcserve Backup domain. Configure this member server manually after server reconfiguration to add it to the current domain.
-15	No existing "ASDB Protection"/"DB Pruning" job is found in the job queue. You can create these jobs manually using the Server Admin.
-16 ~ -17	Failed to clear previous activity log messages. Check if ca_log.exe exists under the Arcserve Backup install directory. This error is not a critical problem, and you can still use the Arcserve Backup server as usual. For further information, record the return code, collect the log file, and contact support.
-46 ~ 57	An error occurs when calling functions exported by another DLL. For further information, record the return code, collect the log file, and contact support.
-63	The Arcserve Backup database SQL Agent is not detected. Verify that it is installed and configured properly. Without the Arcserve Backup database SQL Agent, you cannot protect the Arcserve Backup database.
-76 ~ -77	An error occurred when verifying the existence of the member server. This error is not a critical problem, and you can still use the Arcserve Backup server as usual. For further information, record the return code, collect the log file, and contact support.

More information:

ARCserveCfg - Troubleshooting

ARCserveCfg.exe - Known Issues

ARCserveCfg.exe - Known Issues

The following known issues exist with the ARCserveCfg.exe utility:

1. The Event Viewer shows errors and warnings from Arcserve Backup. The events are logged after you have reconfigured Windows with the new server name, changed the Administrator credentials, and rebooted the server. During the reboot, the Arcserve Backup services start but fail to duplicate the old system account credentials. Errors are reported in the Event Viewer. Once you log in after rebooting, and ARCserveCfg.exe is invoked, the Arcserve Backup installation is fixed to use the new server name and administrator credentials. However, the Event Viewer entries remain.

2. You may not be able to set the Arcserve Backup system account to an empty password. The reason it could fail is that the Administrative Tools, Local Security Policy, Security Options have restrictions. You can change the policy per your requirements.

3. Arcserve Backup is configured and supported only for users who belong to the Windows Administrators or Backup Operators group.

   Important! You must have these privileges to invoke the Server Reconfiguration utility.

4. After you run this utility, your configuration for the Arcserve Backup database protection job is reset to the default configuration.

   Example:

   If a device is specified and a custom schedule is configured, after you run ARCserveCfg.exe, you will have to reconfigure the settings manually for the Arcserve Backup database protection job.

   More information:

   ARCserveCfg - Troubleshooting

   ARCserveCfg - Return Codes

DumpDB Utility

The DumpDB utility is used to import and export session passwords to and from the Arcserve Backup database. The DumpDB utility dumps only session passwords, it will not export other information about a session. You should run the DumpDB utility on a regular basis so that you can import the session password information back into the database.

Important! If you execute this utility after a database has been purged or pruned, session passwords will not be exported. Therefore, it is important that this utility is run prior to purging or pruning a database.

Syntax

DumpDB.exe -ExportTo <filename> [-from startTime] [-to endTime] [-password <password>]

DumpDB.exe -ImportFrom <filename> [-password <password>]

DumpDB.exe -as [[-domain\]primary -exportTo [filename] [-from startTime] [-to endTime] [-password <password>]]

DumpDB.exe -as [[-domain\]primary -importFrom [filename] [-password <password>]]

-as

> Lists all of the domains in the Arcserve Backup database that are used by the local Arcserve Backup server, and then closes.

Important! The DumpDB -as argument lets you analyze only the Arcserve Backup database associated with the Arcserve Backup server where you execute the utility. The utility not analyze data in any other Arcserve Backup database.

> **-as primary**

> If you specify a primary server name, DumpDB searches the Arcserve Backup database and responds as follows:

> - If DumpDB does not detect the server name in the Arcserve Backup database, DumpDB closes.

> - If DumpDB detects one record of the server name in the Arcserve Backup database, DumpDB completes the execution.

> - If DumpDB detects more than one record of the server name in the Arcserve Backup database, DumpDB warns you and then closes.

> > **Note:** This argument must be used with -exportTo and -importFrom.

> **-as domain\primary**

If you specify a primary server name and a domain name, DumpDB searches the Arcserve Backup database and responds as follows:

- If DumpDB does not detect the server name and domain name in the Arcserve Backup database, DumpDB closes.

- If DumpDB detects one record of the server name and domain name in the Arcserve Backup database, DumpDB completes the execution.

- If DumpDB detects more than one record of the server name and domain name in the Arcserve Backup database, DumpDB warns you and then closes.

   Note: This argument must be used with -exportTo and -importFrom.

-ExportTo

Exports session passwords stored in a database to specified target file.

-password

If include this switch and specify a password during exporting, the output file will be encrypted by this password.

-ImportFrom

Imports session passwords stored in a specified file to a database.

-password

If you included a password during exporting, you will need to input the correct password during importing, otherwise the import operation will fail.

Time format:

The time format for scheduling when to run the DumpDB utility can be specified as a calendar time period or a number of days ago time period.

- To specify calendar date, use the following format:

   YYYYMMDD[hh[mm[ss]]]

   Note: The year, month, and day are required. The hours, minutes, and seconds are optional.

- To specify a number of days ago, use the following format:

   nnnn (0 <= nnnn <= 9999)

   Note: The parameter range for number of days ago is 0-9999.

Examples: Syntax

The following are examples of syntax for the DumpDB utility:

- The example that follows exports session passwords for the previous 100 days:

  DumpDB.exe -exportto "c:\sesspwd.dump.out" -from 100

- The example that follows exports session passwords for all days since January 1, 2008:

  DumpDB.exe -exportto "c:\sesspwd.dump.out" -from 20080101

- The example that follows imports session passwords to the database:

  DumpDB.exe -importfrom "c:\sesspwd.dump.out"

  Note: The imported session passwords can only be accessed by current Arcserve Domain

- The example that follows lists all of the domains in the Arcserve Backup database that are used by the local Arcserve Backup server.

  DumpDB.exe -as

- The example that follows exports session passwords for specified primary:

  DumpDB.exe -as primaryname -exportto "c:\sesspwd.dump.out"

- The example that follows imports session passwords to the database for specified primary:

  DumpDB.exe -as primaryname -importfrom "c:\sesspwd.dump.out"

  Note: The imported session passwords can only be accessed by the Arcserve Backup domain that relates to the specified primary server.

- The example that follows exports session passwords from domain "GREEN" with primary server "APPLE" and imports them into domain "PURPLE" with primary server "GRAPE:"

  DumpDB.exe -as green\apple -exportto "c:\sesspwd.green.out"

  DumpDB.exe -as purple\grape -importfrom "c:\sesspwd.green.out"

- The example that follows exports session passwords from domains "GREEN" with primary server "APPLE" and "RED" with primary server "GRAPE", and imports them into domains "PURPLE" with primary server "PLUM" and "ORANGE" with primary server "MANGO," when domains "GREEN" and "RED" are from of an Arcserve Database that was restored over the Arcserve Database used by domains "PURPLE" and "ORANGE" using the "Preserve Arcserve Domain Memberships" option:

  DumpDB.exe -as green$\apple$ -exportto "c:\sesspwd.green.out"

  DumpDB.exe -as red$\grape$ -exportto "c:\sesspwd2.red.out"

  DumpDB.exe -as purple\plum -importfrom "c:\sesspwd.green.out"

  DumpDB.exe -as orange\mango -importfrom "c:\sesspwd2.red.out"

IsSafe.bat Utility

The IsSafe.bat utility checks the operating system for any Arcserve Backup processes that are active to determine if it is safe to shutdown the system.

- If the utility detects that a Arcserve Backup process is active and it is in the backup stage, it will prompt you that it is not safe to shutdown the operating system.

  System is running backup job now. It is not safe to shut down.

- If the utility detects that a Arcserve Backup process is active and it is in the merge stage, it will prompt you that it is not safe to shutdown the operating system.

  System is running merge job now. It is not safe to shut down.

- If the utility detects that there are no active Arcserve Backup processes, it will prompt you that it is safe to shutdown the operating system.

  It is now safe to shut down your system.

- If the utility detects that the current OS is earlier than Windows XP SP2, it will prompt the following message.

  IsSafe.bat does not support the current operating system version.

The following codes are returned by the IsSafe.bat utility:

Return Codes:

0 - It is now safe to shut down your system

1 - System is running backup job now. It is not safe to shut down.

2 - System is running merge job now. It is not safe to shut down.

3 - IsSafe.bat does not support the current operating system version.

Mergecat Utility

The Merge Catalog utility (mergecat.exe) can be used to manually merge in any .cat files that remain in the Arcserve Backup\temp directory.

During a backup, the database information is written to a .tmp file. At the end of that backup session the .tmp is changed to a .cat file and is written to tape as the last file in that session. In addition, at the end of a backup the mergecat.exe utility is spawned and will merge all the *.cat files into the database regardless of which job they are from.

By running the mergecat utility, Arcserve Backup will take all the .cat files from the Arcserve Backup\catalog.db directory, and merge them into the database.

Note: The mergecat.exe utility is not to be used to manually merge cat files from tape, rather it is to be used to merge .cat files that have been left over in the Arcserve Backup\catalog.db directory.

The mergecat utility is located in the following directory:

C:\Program Files\CA\ARCserve Backup>mergecat.exe

Usage :

MERGECAT.EXE /F:00000000.CAT /D:[0/1]
/F:CATALOG.CAT - Default is to merge all catalogs
/D:1 - Default is to delete catalog file after merging it

When a .cat file is initially written, the Read attribute is disabled for that file. After the .cat files are processed by the mergecat utility, the Read-Only attribute is automatically applied by default. If you need to merge a .cat file into a SQL database with the Read-Only attribute applied, run the following command:

mergecat /F:"<fullpath>.cat" /R

This will merge this catalog file into SQL database even if the Read-Only attribute is applied.

MergeOLF Utility

The MergeOLF utility lets you move licenses from one Arcserve system to another Arcserve system.

With this utility you can install new licenses on an Arcserve system that has existing licenses and merges multiple license files into a single file. This utility displays messages about the status in the console and generates the output in a file you specify. You run the command from a command line.

Syntax:

MERGEOLF <new_olf> [-c <current_olf>] [-o <output_olf>] [-b <backup_olf>] [-d <debug_log>]

-n <new_olf>

Specifies the name of the new OLF file to merge.

-c <current_olf>

Specifies the path and name of the current OLF file to merge.

Default: ca.olf

-o <output_olf>

Specifies the path and name of the new OLF file to create.

Default: ca.olf

-b <backup_olf>

Specifies the path and name of the backup of the current OLF file.

Default: ca.old

-d <debug_log>

Enables debugging and places information in the mergeolf.log file.

Example: Merge New License Into Old License File

The following example merges a new olf file that has been renamed to ca.nol into an existing ca.olf file

MERGEOLF -n ca.nol -c c:\program files\ca\SharedComponents\ca_lic\ca.olf -o c:\program files\ca\SharedComponents\ca_lic\ca.olf -b c:\program files\ca\SharedComponents\ca_lic\ca.old

Chapter 25: Glossary

This section contains the following topics:

angle bracket

Angle brackets (< >) indicate that the enclosed element (parameter, value, or information) is mandatory.

argument

A file name or other data that is provided to a command in order for the command to use it as an input. Arguments are pieces of information that tell a command what to do and where to send the results.

ellipsis

The ellipsis symbol of three periods (...) means "and so on" and indicates that the preceding element (parameter, value, or information) can be repeated several times in a command line.

italics

Italic text indicates information that you must supply with the appropriate value. It is an option or parameter to be replaced with a value.

option

A type of argument that modifies the behavior of the command. An option is a single-letter or full word that modifies the way a command behaves in some pre-determined way.

pipe

The pipe symbol (vertical line) means "or" and indicates a choice within an element.

square bracket

Square brackets ([ ]) indicate that the enclosed element (parameter, value, or information) is optional.

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