

**adaptec**<sup>®</sup>

Command Line Utility  
for Direct Attached Storage  
**User's Guide**

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# Getting Started with the Command Line Utility

# 1

## In this chapter...

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This chapter explains how your Adaptec product supports the use of one of these command line utilities:

- ARCCONF—for Adaptec RAID controllers
- HRCONF —for Adaptec HostRAID products

Each utility allows you to:

- Create and delete logical drives
- Display and modify a limited set of configuration settings
- Copy configurations from one computer to another
- Recover from a failed physical device and rebuild an affected logical drive
- Flashes new firmware and BIOS onto the controller
- Enables the controller to check the removal and connection of any disk drives
- Restores the controller configuration (HRCONF only)
- Automatically update Windows drivers (ARCCONF only)
- Provides access to the status and event logs of a controller (ARCCONF only)
- Isolate problems and determine their causes (ARCCONF only)

## Installing the Command Line Utility

Both command line utilities are provided on the Adaptec Storage Manager CD. The utility (ARCCONF or HRCONF) is automatically installed in the same directory as Adaptec Storage Manager and must remain there.

### Installing on Windows

To install ARCCONF or HRCONF on Windows systems:

- 1 Start the computer.
- 2 After Windows starts, insert the Adaptec Storage Manager CD.
- 3 When the installation program starts, follow the on-screen instructions.

### Installing on Linux

To install ARCCONF or HRCONF on Linux systems:

- 1 Start the computer.
- 2 After Linux starts, insert the Adaptec Storage Manager CD.
- 3 Mount the Adaptec Storage Manager CD:  
Red Hat—`mount /dev/cdrom /mnt/cdrom`  
SuSE—`mount /dev/cdrom /media/cdrom`
- 4 Change to the cdrom directory:  
Red Hat—`cd /mnt/cdrom/linux/manager`  
SuSE—`cd /media/cdrom/linux/manager`
- 5 Extract the RPM package and install it:  
`rpm --install ./StorMan*.rpm`
- 6 Unmount the Adaptec Storage Manager CD:  
Red Hat—`umount /mnt/cdrom`  
SuSE—`umount /media/cdrom`

### Installing on NetWare

To install ARCCONF or HRCONF on NetWare:

You need the latest Support Pack for your operating system so you can run the supported Java Virtual Machine (JVM). You need JVM version 1.3 or later. To check your JVM version, load JVM, type `JAVA -VERSION`.

**Note:** For the latest updates from Novell, visit [www.novell.com](http://www.novell.com).

- 1 Insert the Adaptec Storage Manager CD.

- From the command prompt type `load cdrom`, then press **Enter**. From the command prompt, type:

```
xx_yy_zz:\netware\manager\install
```

where *xx* is the product CD, *yy* is the version number, and *zz* is the release number. For example:

```
adptcd_v2_01
```

The installation program starts.

- Follow the on-screen instructions to complete the installation.

## Installing on OpenServer and UnixWare

To install ARCCONF on OpenServer and UnixWare systems or HRCONF on OpenServer:

- Insert the Adaptec Storage Manager installation CD in the CD drive.

- Mount the Adaptec Storage Manager installation CD:

```
mount -r -F cdfs /dev/cdrom/cdromdevicefile /mnt
```

where *cdromdevicefile* is the device file, for example, `c0b0t010`, for the CD block device. To determine the actual filename, look in the `/dev/cdrom` directory.

- Use `pkgadd` to install Adaptec Storage Manager:

```
pkgadd -d /mnt/unixware/manager/RaidMan.ds (for UnixWare)
```

```
pkgadd -d /mnt/openserv6/manager/RaidMan.ds (for OpenServer 6)
```

- Follow the instructions on the screen to complete the installation.

- Unmount the CD drive:

```
umount /mnt
```

## Installing on Solaris

**Note:** HRCONF is not supported by systems running Solaris.

To install ARCCONF on Solaris systems:

- Insert the Adaptec Storage Manager Installation CD.

The CD mounts automatically. (If it doesn't, manually mount the CD using a command similar to the one shown below. Refer to your operating system documentation for detailed instructions.)

```
mount -F hsfs -o ro/dev/dsk/c1t0d0s2/mnt
```

- Install Adaptec Storage Manager:

```
pkgadd -d/<mount point>/solaris/manager/StorMan.ds
```

- Follow the on-screen instructions to complete the installation.

Eject or unmount the Adaptec Storage Manager Installation CD. Refer to your operating system documentation for detailed instructions.



## Starting the Command Line Utility

To start ARCCONF or HRCONE, enter one of the following commands:

- Windows—`c:\<install_dir*>\<name of utility>.exe`
- Linux—`/usr/<install_dir*>/<name of utility>`
- NetWare—`load <name of utility>`
- UnixWare/OpenServer—`/opt/RaidMan/<name of utility>`
- Solaris—`/usr/StorMan/<name of utility>`

*Install\_dir\** is the directory where the utility is installed and *name of utility* is ARCCONF or HRCONE.

To see a list of available commands, type ARCCONF or HRCONE at the prompt. The utility command functions are detailed in the next chapter, [Using the Command Line Utility](#).

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# Using the Command Line Utility

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# 2

## **In this chapter...**

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This chapter explains how to use the text-based command line interfaces that provides the same functions as Adaptec Storage Manager in environments where a GUI is not available.

## Understanding the Command Line Utility

The command line utility is used interactively or in batch mode. With interactive mode, enter commands at the prompt. In batch mode, create scripts and run the script in the appropriate shell. For example:

Environment	Batch File	Run Script
Windows	.bat	CMD.EXE
Linux/Unix	.sh	sh / bash

In either mode, if your command fails, you immediately see an error message of Command failed. Other script messages that you can get are Command completed successfully, or Command aborted.

Available commands are described on the following pages, in alphabetical order. To access a list of commands, type *<name of utility>* and press **Enter**.

To access the online help for a specific command, type *<name of utility> <command>*, then press **Enter**.

### Identifying Return Codes

With either utility, the return values for each command are the same. The return values are as follows:

```

0x00: SUCCESS
0x01: FAILURE - The requested command failed
0x02: ABORT - The command was aborted because parameters failed validation
0x03: INVALID_ARGUMENTS - The arguments are incorrect. (Displays COMMAND help)
0x04: UNSUPPORTED - The command is unsupported
0x06: INVALID_ADAPTER - The adapter specified does not exist (special case of
INVALID_ARGUMENTS)

```

### Using the Noprompt Parameter

With either utility, the noprompt parameter for all commands are the same. Used mostly for the purpose of scripting setup, this parameter overrides all user confirmations. To use the noprompt feature, type *<command> [noprompt]*, then press **Enter**.

### Using Event Log Files

The Command Line Utility event log shows the results of a command in the form of the following:

- Status – success/failure/aborted/invalid arguments/unsupported/invalid adapter (for details see [Identifying Return Codes](#).)
- Return code – 0x00/0x01/0x02/0x03/0x04/0x06 (for details see [Identifying Return Codes](#).)

Additionally, when using the ROMUPDATE or DRIVERUPDATE commands, the event log displays (when data is available) the old and new version of the firmware or driver being updated.

This feature allows you to save logs documenting all commands. The following is an example of saving a firmware update event log.

```
arccnf romupdate 1 as4805 noprompt eventlog romupdate_1.log errorlog
update_err.log
```

## Using Error Log Files

The error log keeps an inventory of all relevant information from an event failure. The error log file also contains return codes (for details see *Identifying Return Codes*) that will help diagnose why a command failed.

When saving an event log, you can specify the log name and path by using the eventlog optional parameter, type *<name of utility> eventlog and <path>*, then press **Enter**.

This feature allows you to save logs documenting all event failures. The following is an example of saving a driver update error log.

```
arccnf driverupdate 1 c:\drivers noprompt eventlog driverupdate_1.log errorlog
update_err.log
```

## ARCCONF Commands

Perform the following functions from the command line:

ARCCONF COMMANDS		
copyback	getstatus	setalarm
create	getversion	setcache
datascrub	identify	setconfig
delete	key	setname
driverupdate	modify	setstate
getconfig	rescan	snapshot
getlogs	romupdate	task

**Note:** In the online command syntax, *<>* indicates a required parameter and *[]* indicates an optional parameter.

### arccnf copyback

Enables or disables the copyback feature, which attempts to keep drives in the original slot order after rebuilds.

#### Syntax

```
ARCCONF COPYBACK <Controller#> <ON|OFF>
```

#### Parameters

Controller# is the controller number

On enables the copyback feature

Off disables the copyback feature

#### Example

```
ARCCONF COPYBACK 1 ON
```

## arccnf create

Creates a new logical drive. You must provide the channel and device ID of the physical devices. On redundant logical drives, ARCCONF performs autosynchronization.

### Syntax

```
ARCCONF CREATE <Controller#> LOGICALDRIVE [Options] <Size> <RAID#> <CHANNEL# ID#>
[CHANNEL# ID#] ... [noprompt]
ARCCONF CREATE <Controller#> LOGICALDRIVE RVOLUME <LD#> <LD#> [LD#] ... [noprompt]
```

### Parameters

Controller# is the controller number

Logical Drive indicates the logical drive stripe size with the following options:

- **Stripesize <STRIPE>**—Allows the logical drive stripe size to be built. Optional parameters for specifying a stripe size. STRIPE is specified in kilobytes 16, 32, 64, 128, 256, 512 and 1024 are supported. The default is 256KB.
- **Legs <LEG>**—Optional parameters for specifying number of legs. Value is an integer.
- **LEG**—Number of legs for RAID level x0
- **RAID 50/60**—2 - 16 legs, 3 - 16 drives/leg, 48 drives max
- **Name <NAME>**—Optional parameter for specifying the alias name of a logical device that is displayed in the utilities. Value is a string of up to 16 characters.
- **Priority <PRIORITY>**—Initialization Priority for logical drive to be created. Valid options are: HIGH, MED, or LOW.
- **Method <METHOD>**—Initialization method for the logical drive. Valid options include: BUILD, CLEAR, QUICK.
- **Rcache**—The parameter to set the logical drive read cache.
  - RON - read cache on
  - ROFF - reach cache off
- **Wcache**—The parameter to set the logical drive write cache.
  - WT - write-through disabled
  - WB - write-back enabled
  - WBB - write-back enabled (when protected by a battery)

Size indicates the size of the logical drive in megabytes. Use MAX to set size to available space.

RAID# indicates the RAID level for the new logical drive. 0, 1, 1E, 10, 5, 5EE, 50, 6, 60, and volume are supported.

Channel# ID# lists the space-delimited channel number and device number pairs for each device to add to the logical drive.

Rvolume is the RAID level for a RAID volume logical drive.

LD# is the logical drive numbers for two or more logical drives to be concatenated into the RAID volume.

### Example

```
ARCCONF CREATE 1 LOGICALDRIVE STRIPESIZE 64 MAX 0 1 0 1 1 1 2 NOPROMPT
```

## arccconf datascrub

Sets the background consistency check modes of the controller.

### Syntax

```
ARCCONF DATASCUB <Controller#> <on/off/period <DAYS>> [noprompt]
```

### Parameters

Controller# is the controller number

on turns the background consistency check on.

off turns the background consistency check off.

period <DAYS> the number of days to complete a background consistency check.

- period automatically turns on the background consistency check
- DAYS indicates a minimum of 10 days <quick> and a maximum of 365 days <slow>

### Example

```
ARCCONF DATASCUB 1 PERIOD 10
```

## arccconf delete

Deletes a logical drive. All data stored on the logical drive will be lost. Spanned drives cannot be deleted with this function.

### Syntax

```
ARCCONF DELETE <Controller#> LOGICALDRIVE <LogicalDrive#> <LD#> <LD#> [noprompt]
```

```
ARCCONF DELETE <Controller#> LOGICALDRIVE ALL [noprompt]
```

### Parameters

Controller# is the controller number

LogicalDrive# is the number of the logical drive to be deleted

LogicalDrive ALL deletes all logical drives

### Example

```
ARCCONF DELETE 1 LOGICALDRIVE 1 2 3
```

```
ARCCONF DELETE 1 LOGICALDRIVE ALL
```

## arccconf driverupdate

Updates Windows device drivers. When given a directory name, it will attempt to update a driver to the version found in the given directory.

**Note:** This command is available only on Windows systems.

### Syntax

```
ARCCONF DRIVERUPDATE <DirName>
```

### Parameters

Driverupdate <DirName> is the directory path containing the driver that you want to update.

### Example

```
ARCCONF DRIVERUPDATE C:\WINDOWSALL
```

## arccnf getconfig

Lists information about the controllers, logical drives, and physical devices. This information can include (but is not limited to) the following items:

- Controller type
- BIOS, boot block, device driver, and firmware versions
- Logical drive status, RAID level, and size
- Physical device type, device ID, presence of PFA
- Physical device state
- Enclosure information: fan, power supply, and temperature status

### Syntax

```
ARCCONF GETCONFIG <Controller#> [AD/LD[LD#]/PD/AL]
```

### Parameters

Controller# is the controller number

AD/LD/PD/AL options:

- AD—Adapter information only
- LD#—Optionally displays information about the specified logical device.
- PD—Physical device information only
- AL—All information (optional)

### Example

```
ARCCONF GETCONFIG 1 AD
```

## arccnf getlogs

Obtains controller log information.

Provides access to the status and event logs of a controller. You can retrieve three types of logs:

- DEVICE—A log of any device errors the controller has encountered
- DEAD—A log that records any occurrences of defunct devices
- EVENT—A log of special events that may have occurred (e.g., rebuilds, LDMs, etc.)

### Syntax

```
ARCCONF GETLOGS <Controller#> <Type> [clear/tabular]
```

### Parameters

Controller# is the controller number

Type is one of the following types of log to retrieve:

- DEVICE
- DEAD
- EVENT
- CLEAR—Optional, clears the specified controller log

- TABULAR—Displays logs in a table format

**Example**

```
ARCCONF GETLOGS 1 DEVICE
ARCCONF GETLOGS 1 DEVICE TABULAR
```

## arccconf getstatus

The GETSTATUS function displays the status of any background command that is currently running. Including information about the most recent rebuild, synchronization, logical-drive migration, and compaction/expansion. The information includes the type of operation, status, logical drive number, logical drive size, and percentage of the operation completed.

**Note:**

- 1 GETSTATUS reports currently active operations for both ARCCONF commands and commands issued from the Adaptec Storage Manager.
- 2 GETSTATUS reports verify, clear, initialize, and secure erase operations on physical devices.
- 3 GETSTATUS only reports active operations. It does not display information if the operation is completed.

**Syntax**

```
ARCCONF GETSTATUS <Controller#>
```

**Parameters**

Controller# is the controller number

**Example**

```
ARCCONF GETSTATUS 1
```

## arccconf getversion

Lists version information for all controllers or a specific controller's software components, including information about the BIOS, driver, firmware currently running, and firmware that will run after a reboot.

**Note:** The firmware version that will run after a reboot is called the "staged" firmware.

**Syntax**

```
ARCCONF GETVERSION (use this for information on all controllers)
ARCCONF GETVERSION <Controller#> (use this for information on a specific controller)
```

**Parameters**

Controller# is the controller number

**Example**

```
ARCCONF GETVERSION
```



## arccnf identify

Identifies a physical or logical device by blinking its LEDs.

### Syntax

```
ARCCNF IDENTIFY <Controller#> LOGICALDRIVE <LogicalDrive#>
```

```
ARCCNF IDENTIFY <Controller#> DEVICE <Channel# ID#>
```

### Parameters

Controller# is the controller number

LogicalDrive# is the number of the logical drive to be identified

Channel# ID# is the channel and ID number for the device to be identified

### Example

```
ARCCNF IDENTIFY 1 DEVICE 0 0
```

```
ARCCNF IDENTIFY 1 ALL
```

## arccnf key

Loads a feature key onto an Adaptec controller.

### Syntax

```
ARCCNF KEY <Controller#> SET <Key#>
```

### Parameters

Controller# is the controller number

Key# is the key number provided by Adaptec

### Example

```
ARCCNF KEY 1 SET ABCD EFGH IJKL MNOP QRST UVWX
```

## arccnf modify

Morphs a logical device from one raid level to another (RAID Level Migration). Expands a logical device from original to one with larger capacity (Online Capacity Expansion). Can be used to make mirrored sets.

### Syntax

```
MODIFY <Controller#> FROM <LogicalDrive#>
```

```
TO [Options] <Size> <RAID#> <CHANNEL# ID#> [CHANNEL# ID#] [noprompt]
```

### Parameters

Controller# is the controller number

From indicates that the logical drive to be modified will follow

LogicalDrive# is the logical drive number

TO indicates that the modifications will follow

Options:

- **Stripesize**—indicates the stripe size in KB. Options are 16, 32, 64, 128, 256, 512, and 1024. the default is 256KB.
- **init\_priority**—is the priority level of the modification. Options are low, med, and high.
- **Legs**— is the number of subarrays for a RAID level-50 or RAID level 60 array. Possible values are 2-16 legs and 3-16 drives/leg (to 48 drives maximum).

Size is one of the following values:

- MAX indicates that you want to use all available space on the disk
- Desired size in MB

RAID# is the RAID level for the logical drive 0, 1, 5, 5EE, or 10.

**Note:** The CHANNEL# and ID# parameters is the list of devices that will contain the target modification object.

Channel# is the channel number for the device

ID# is the device\_ID (device number) for the device

**Note:** Channel and device\_ID are repeatable parameters.

### Example

```
ARCCONF MODIFY 1 FROM 1 TO 262144 1 0 0 0 1
```

## arccconf rescan

Enables the controller to check for the removal of any disk drives in the ready state and to check for the connection of any new disk drives to the controller. The command returns when the rescan is complete.

### Syntax

```
ARCCONF RESCAN <Controller#>
```

### Parameters

Controller# is the controller number

### Example

```
ARCCONF RESCAN 1
```

## arccconf romupdate

Allows new firmware and BIOS to be flashed to the controller. A reboot is required for the new firmware to take effect.

### Note:

- 1 This function is only supported in Windows and Linux.
- 2 Be sure to copy the \*.UFI update files from the CD and not from the BIOS/Firmware update diskettes.

### Syntax

```
ARCCONF ROMUPDATE <Controller#> <BaseName>
```

**Parameters**

Controller# is the controller number

BaseName is the name of the ROM image basename or the fully qualified name if you have a set of controller ROM images.

**Note:** All UFI files must be in the same directory prior to invoking ARCCONF. If you are copying UFI files from floppy images, be sure to check all images.

**Example**

```
ARCCONF ROMUPDATE 1 AC2200
ARCCONF ROMUPDATE 1 AC220001.UFI
```

**arccconf setalarm**

Sets the state of the controller audible alarm, if present.

**Syntax**

```
ARCCONF SETALARM <Controller#> <on|off|silence|test>
```

**Parameters**

Controller# is the controller number

On enables the alarm

Off disables the alarm

Silence quiets the currently sounding alarm

Test triggers the alarm

**Example**

```
ARCCONF SETALARM 1 TEST
ARCCONF SETALARM 1 SILENCE
```

**arccconf setcache**

Changes a logical drive's cache mode.

**Syntax**

```
ARCCONF SETCACHE <Controller#> LOGICALDRIVE <LogicalDrive#> <cache mode>
[noprompt]
SETCACHE <Controller#> DEVICE <CHANNEL# ID#> <cache mode>
```

**Parameters**

Controller# is the controller number

LogicalDrive# is the number of the logical drive whose cache will be altered

Logical drive cache modes:

- RON - read cache on
- ROFF - read cache off
- WT - write through disabled
- WB - write back enabled
- WBB - write back battery enabled (when protected by a battery)

Channel/ID lists the space-delimited channel number and device number pairs for each device to add to the logical drive.

Physical device cache modes:

- WT - write through disabled
- WB - write back enabled

### Example

```
ARCCONF SETCACHE LOGICALDRIVE 1 RON
ARCCONF SETCACHE DEVICE 0 0 WB
```

## arccnf setconfig

Resets the controller's configuration. Logical drives are deleted, hard disks are reset to the READY state.

### Syntax

```
ARCCONF SETCONFIG <Controller#> DEFAULT [noprompt]
```

### Parameters

Controller# is the controller number

Default restores the controller's default configuration

### Example

```
ARCCONF SETCONFIG 1 DEFAULT
```

## arccnf setname

Renames a logical drive.

### Syntax

```
ARCCONF SETNAME <Controller#> LOGICALDRIVE <LogicalDrive#> <New Name>
```

### Parameters

Controller# is the controller number

LogicalDrive# is the number of the logical drive to be renamed

New Name is the new name of the logical drive

### Example

```
ARCCONF SETNAME 1 LOGICALDRIVE 1 BACKUP_A
```

## arccnf setstate

Changes the state of a physical device from its current state to the designated state (Hot spare).

### Syntax

```
ARCCONF SETSTATE <Controller#> DEVICE <Channel# ID#> <Device#> <State>
[LOGICALDRIVE <LD#>[LD#] ... ]
```

### Parameters

Controller# is the controller number

Channel# is the channel number for the drive

Device# is the device number and ID for the device

LD# parameters are used to create an assigned hot spare

State:

- HSP—Create a hot spare from a ready drive
- RDY—Remove a hot spare designation
- DDD—Force a drive offline

### Example

```
ARCCONF SETSTATE 1 DEVICE 0 0 HSP LOGICALDRIVE 1 2 3
ARCCONF SETSTATE 1 DEVICE 0 0 RDY LOGICALDRIVE 2
```

## arccconf snapshot

Create or manage a logical drive snapshot.

### Syntax

```
ARCCONF SNAPSHOT <Controller#> <COMMAND> ... [noprompt]
```

### Parameters

Controller# is the controller number

Commands:

- map—display logical drives and any snapshot state.
- stop <Logicaldrive#>—Remove the snapshot associated with the given Logical drive.
- backup <source Logicaldrive#> <target Logicaldrive#>—Create a new snapshot, copying the full contents of the source to the target.
- nobackup <source Logicaldrive#> <target Logicaldrive#>—Create a new snapshot, copying only changes to the source to the target.

### Example

```
ARCCONF SNAPSHOT 1 MAP
```

## arccconf task

Performs a task on a logical drive.

### Syntax

```
ARCCONF TASK
TASK START <Controller#> LOGICALDRIVE <LogicalDrive#> <options>[noprompt]
TASK STOP <Controller#> LOGICALDRIVE <LogicalDrive#>
TASK START <Controller#> DEVICE <Channel# ID#> <options>[noprompt]
TASK STOP <Controller#> DEVICE <Channel# ID#>
```

### Parameters

Controller# is the controller number

LogicalDrive# is the number of the logical drive in which the task is to be performed

- Logical drive options:
  - verify\_fix (Verify with fix)—verifies the disk media and repairs the disk if bad data is found
  - verify—verifies the disk media
  - clear—removes all data from the drive

- Physical device options:
  - `verify_fix`—verifies the disk media and repairs the disk if bad data is found
  - `verify`—verifies the disk media
  - `clear`—removes all data from the drive
  - `initialize`—returns a drive to the READY state (erases the metadata)
  - `secureerase`—removes all data from the drive in a secure fashion to prevent any possible recovery of the erased data

### Example

```
ARCCONF TASK START 1 LOGICALDRIVE 1 VERIFY
ARCCONF TASK START 1 DEVICE 0 0 INITIALIZE
```

## HRCONF Commands

Perform the following functions from the command line:

HRCONF Commands		
<code>backup</code>	<code>getstatus</code>	<code>romupdate</code>
<code>create</code>	<code>getversion</code>	<code>setboot</code>
<code>delete</code>	<code>identify</code>	<code>setconfig</code>
<code>driverupdate</code>	<code>rescan</code>	<code>setstate</code>
<code>getconfig</code>	<code>restore</code>	<code>task</code>

### hrconf backup

For large-scale deployments, stores the current controller and disk drive configuration setting to a specific file. Stored files can be used with the `RESTORE` command to restore to another controller or disk drive. To restore, the controller or disk drive must have the same configuration as it did before the backup. For example: the same type of controller, same number and type of disk drives with same IDs and channels.

#### Syntax

```
HRCONF BACKUP <Controller#> <Filename>
```

#### Parameters

`Controller#` is the controller number

`Filename` is the relative or absolute path with filename

#### Example

```
HRCONF BACKUP 1 C:\WINDOWS\HR2200
```

## hrconf create

Creates logical drives. You must provide the channel and device ID of the physical devices. On redundant logical drives, HRCONF performs autosynchronization.

### Syntax

```
HRCONF CREATE <Controller#> LOGICALDRIVE [Options] <Size> <RAID#> <CHANNEL# ID#>
[CHANNEL# ID#] ... [noprompt]
```

### Parameters

Controller# is the controller number

Options indicates the logical drive with the following options:

- **Stripesize**—Optional parameters for specifying a stripe size. STRIPE is specified in kilobytes: 16, 32, and 64 are supported.
- **Name**—Optional parameter for specifying the name of the logical drive to be created.
- **Init\_Priority**—Initialization Priority for logical drive to be created. Valid parameters are either HIGH, MED, or LOW.
- **Init\_Method**—Initialization method for the logical drive. Valid options include: CLEAR, QUICK.

Size indicates the size of the logical drive. MAX is the only size option available

RAID# indicates the RAID level for the logical drive (0, 1, 10 volume)

Channel# is the channel number for the device

Drive# is the device number for the drive

### Example

```
HRCONF CREATE 1 LOGICALDRIVE STRIPESIZE 64 MAX 0 1 0 1 1 1 2
```

## hrconf delete

Deletes a logical drive. All data stored on the logical drive will be lost. Spanned drives cannot be deleted with this function.

### Syntax

```
HRCONF DELETE <Controller#> LOGICALDRIVE <LogicalDrive#> <LD#> <LD#> [noprompt]
HRCONF DELETE <Controller#> LOGICALDRIVE ALL [noprompt]
```

### Parameters

Controller# is the controller number

LogicalDrive# is the number of the logical drive to be deleted

LogicalDrive ALL deletes all logical drives

### Example

```
HRCONF DELETE 1 LOGICALDRIVE 1 2 3
HRCONF DELETE 1 LOGICALDRIVE ALL
```

## hrconf driverupdate

Updates Windows device drivers. When given a directory name, it will attempt to update a driver to the version found in the given directory.

**Note:** This command is available only on Windows systems.

### Syntax

```
HRCONF DRIVERUPDATE <DirName>
```

### Parameters

Driverupdate <DirName> is the directory path containing the driver that you want to update.

### Example

```
HRCONF DRIVERUPDATE C:\WINDOWSALL
```

## hrconf getconfig

Lists information about the controllers, logical drives, and physical devices. This information can include (but is not limited to) the following items:

- Controller type
- Logical drive status, RAID level, and size
- Physical device type, device ID, presence of PFA
- Physical device state

### Syntax

```
HRCONF GETCONFIG <Controller#> [AD/LD[LD#]/PD/AL]
```

### Parameters

Controller# is the controller number

AD/LD/PD/AL options:

- AD—Adapter information only
- LD#—Optionally displays information about the specified logical device.
- PD—Physical device information only
- AL—All information (optional)

### Example

```
HRCONF GETCONFIG 1 AD
```

## hrconf getstatus

The GETSTATUS function displays the status of any background command that is currently running.

### Syntax

```
HRCONF GETSTATUS <Controller#>
```

### Parameters

Controller# is the controller number



**Example**

```
HRCONF GETSTATUS 1
```

**hrconf getversion**

Returns the version information for all controllers or the optionally specified controller.

**Syntax**

```
HRCONF GETVERSION <Controller#>
```

**Parameters**

Controller# prints the version information for the specified controller

**Example**

```
HRCONF GETVERSION
```

**hrconf identify**

Blinks the LEDs on a device(s) connected to a controller.

**Syntax**

```
HRCONF IDENTIFY <Controller#> LOGICALDRIVE <LogicalDrive#>
```

```
HRCONF IDENTIFY <Controller#> DEVICE <CHANNEL# ID#> <ID>
```

**Parameters**

Controller# is the controller number

LogicalDrive# is the number of the logical drive to be identified

Channel# is the channel and ID number for the device

Device# is the device number for the drive

**Example**

```
HRCONF IDENTIFY 1 DEVICE 0 0
```

```
HRCONF IDENTIFY 1 ALL
```

**hrconf rescan**

Enables the controller to check for the removal of any disk drives in the ready state, and to check for the connection of any new disk drives to the controller. The command returns when the rescan is complete.

**Syntax**

```
HRCONF RESCAN <Controller#>
```

**Parameters**

Controller# is the controller number

**Example**

```
HRCONF RESCAN 1
```

## hrconf restore

Restores the controller configuration by importing its configuration settings from a specified file. Deletes the current configuration. The file must have been saved through the BACKUP command from a controller of the same type, same number, and type of physical devices with same channels and device IDs. A reboot is required for the configuration change to take effect.

### Syntax

```
HRCONF RESTORE <Controller#> <Filename> [noprompt]
```

### Parameters

Controller# is the controller number

Filename is the name of the file to read the configuration from

### Example

```
HRCONF RESTORE 1 C:\WINDOWS\HR2200 NOPROMPT
```

## hrconf romupdate

**Note:** This command is only available on systems running Windows or Linux.

Updates the controller or enclosure firmware. The ROM image file must be in the same directory prior to invoking hrconf.

### Syntax

```
HRCONF ROMUPDATE <Controller#>[CONTROLLER] <Filename>
```

### Parameters

Controller# is the controller number

Filename is the relative or absolute path with filename

Channel# is the channel number for the device

Device# is the device number for the drive

### Example

```
HRCONF ROMUPDATE 1 CONTROLLER AS4830.UFI
```

## hrconf setboot

Marks a logical device bootable.

### Syntax

```
HRCONF SETBOOT 1 LOGICALDRIVE 1
```

### Parameters

Controller# is the controller number

LogicalDrive# is the number of the logical drive to mark bootable

### Example

```
HRCONF SETBOOT 1 LOGICALDRIVE 1
```

## hrconf setconfig

Resets the controller's configuration. Logical drives are deleted, hard disks are reset to the READY state.

### Syntax

```
HRCONF SETCONFIG <Controller#> DEFAULT [noprompt]
```

### Parameters

Controller# is the controller number

Default restores the controller's default configuration

### Example

```
HRCONF SETCONFIG 1 DEFAULT
```

## hrconf setstate

Redefines the state of a physical device from its current state to the designated state, or redefines a logical device state to force the logical drive online.

### Syntax

```
HRCONF SETSTATE <Controller#> LOGICAL DRIVE <LogicalDrive#> <State> [noprompt]
```

```
HRCONF SETSTATE <Controller#> DEVICE <CHANNEL# ID#> <State> [noprompt]
```

### Parameters

LogicalDrive# is the logical drive whose state will be altered

Device state options:

- HSP—Create a hot spare from a ready drive
- RDY—Remove a hot spare designation
- RBL—Rebuild drive

Logical drive state options:

- OPTIMAL—Force a logical drive online

### Example

```
HRCONF SETSTATE 1 0 1 HSP
HRCONF SETSTATE 1 0 2 RDY
HRCONF SETSTATE 1 0 2 RBL
HRCONF SETSTATE 1 LOGICALDRIVE 1 OPTIMAL
```

## hrconf task

Performs a task on a logical drive.

### Syntax

```
HRCONF TASK START <Controller#> LOGICALDRIVE <LogicalDrive#> <Options>[noprompt]
```

```
HRCONF TASK STOP <Controller#> LOGICALDRIVE <LogicalDrive#>
```

### Parameters

Controller# is the controller number

LogicalDrive# is the number of the logical drive in which the task is to be performed

Options indicates the logical drive with the following tasks to be started or performed

- verify\_fix (Verify with fix)
- verify
- clear

**Example**

```
HRCONF TASK START 1 LOGICALDRIVE 1 VERIFY NOPROMPT
```

```
HRCONF TASK STOP 1 LOGICALDRIVE 1
```

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